THE FEDERAL RESERVE BOARD.

DECEMBER 31, 1920.

DAVID F. HOUSTON, ex officio,
Secretary of the Treasury, Chairman.
JOHN SKELTON WILLIAMS, ex officio,
Comptroller of the Currency.

W. P. G. HARDING, *Governor.*
EDMUND PLATT, *Vice Governor.*
ADOLPH C. MILLER.
CHARLES S. HAMLIN.
D. C. WILLS.

ANNUAL REPORT OF THE FEDERAL RESERVE BOARD.

FEDERAL RESERVE BOARD,
Washington, February 16, 1921.

SIR: The Federal Reserve Board has the honor to submit its seventh annual report, which relates to operations for the calendar year ended December 31, 1920.

The past year has been essentially a period of reaction. The year immediately preceding was characterized by an unprecedented orgy of extravagance, a mania for speculation, overextended business in nearly all lines and in every section of the country, and general demoralization of the agencies of production and distribution.

Beginning with abnormally large importations of gold in 1915, the course of world events forced upon this country during a period of five years the greatest expansion it has ever known. It was universally realized that there would be sooner or later reaction and readjustments, and those who recalled the effects of readjustment after former periods of great expansion and abnormal activity regarded the future with grave apprehension.

While indications that the country was approaching a readjustment period were not lacking during the closing months of the year 1919, it was not until the spring of 1920 that it became generally recognized that reaction had set in and that the country was passing through the most acute stage of transition from wartime delirium to the more normal conditions of peace. This process of readjustment began almost simultaneously throughout the world, and its effects have been more far-reaching and drastic in other countries where the inflation of bank credit and currency was more pronounced than in the United States. The process necessarily has been painful, but it was inevitable and unavoidable, and in view of world-wide conditions could not have been long deferred in this country by any artificial means or temporary expedients which might have been adopted.

In meeting the strain to which our domestic banking system has been subjected, a strain which always accompanies the economic and financial changes which follow a period of great expansion, no resort was made to credit curtailment or to contraction of the currency. The precautionary steps which were taken during the year did not produce deflation, but they checked the expansion which had been proceeding at a dangerous rate and prevented a larger measure of distress than has actually occurred.

As the year closed there were many indications that business generally was beginning to adjust itself to new conditions and was preparing to proceed on a sounder and saner basis. The most trying and critical stage of readjustment was passed before the end of the year and the situation at its close was intrinsically better than at its beginning. Then it was foreseen that the developments which have occurred were impending and the future was regarded with uneasiness and apprehension. Now it is generally recognized that the crisis has been passed and that the country has regained a more normal state of mind, which is of first importance in working back toward normal conditions; and looking to the future, a spirit of greater confidence prevails.

Because of the universal and sweeping changes which took place during the year and of the rapidity with which they occurred, the year 1920 will be ranked as one of the most eventful in economic history. It does not appear inappropriate, therefore, in making a report of the operations of the Federal Reserve System during the year and in discussing the policies controlling those operations, to review the underlying causes and immediate effects of the reaction which has taken place.

Hitherto periods of rapid readjustment, such as were witnessed during the past year, have invariably been accompanied by severe financial disturbances or money panics. The absence of such developments in the United States during the past year must therefore be regarded as the strongest proof of the efficiency and stability of our present banking system, and of its ability to absorb the shock and avert the disaster which in other times has overtaken the country. In previous periods of abnormal activity, industry and commerce, although dependent upon credit conditions, generally have been more nearly self-sustaining than was the case when the recent wave of expansion was at its crest. At such times no doubt commercial and industrial activities were less affected by those influences which bear directly upon the credit situation. Differences of opinion have always existed among economists as to the extent to which credit modifications have been the cause, and as to the measure in which they are to be regarded as the effect of industrial changes. Relationships between credit and business have always been complex and often justify differences of opinion. During the past year, however, the course of events presents a picture of world-wide change proceeding from profound economic causes in which credit appears as only one of a group of major factors.

It is, however, true that in periods of transition, when marked changes in business conditions are taking place, there is a disposition to shift responsibility for disappointment or misfortune upon the credit system, thus magnifying its true function as a regulator of commerce and business into the rôle of a savior or else a destroyer of industrial prosperity. Such conclusions proceed from a superficial and inadequate view of the general economic situation and its resultant problems. No thorough analysis of the causes of present conditions in the field of banking and finance can be made without a clear understanding of basic facts relating to commerce and industry. With these first surveyed and with the facts regarding extension of credit, both by the member banks and by the Federal Reserve Banks, briefly outlined, it will be possible to obtain a more accurate idea of the influences affecting the general course of business and finance in the United States during the year 1920 and of the effect of these influences.

The developments during the year 1920 all over the world have been along lines of industrial and commercial readjustments. There are several measures or tests which may be applied in order to ascertain the character and scope of these readjustments. Of these, one of the most obvious and familiar is the volume of production. Viewed from the standpoint of the volume of commodities made available for consumption, the year 1920 was one of plenty. As is well known, the outturn of primary wealth—farm products and raw materials in general—has been of more than average volume. According to the figures of the Department of Agriculture, the corn crop of 1920 was the largest ever produced; the production of cotton larger than that of any year since 1914, while that of wheat was surpassed only five times in the history of the country. The production of other staples was almost without exception beyond the average.

While figures approximately accurate are available as to agricultural production, the record of the year with respect to manufactured products is not so clear. Some investigators, however, have reached the conclusion that the output of the mills and factories was probably near the maximum about May 1. Indications are that in distinctive manufacturing and industrial lines there had been, following the cessation of heavy production for war purposes, a decrease in output and a readjustment of its character, which continued for several months following the armistice. During this time the requirements of buyers did not conform to market conditions, but there subsequently developed shortages in various lines, which were followed by a considerable increase in productive activity, while in some lines, such as textiles, a sellers' market eventually developed. This period of greater production reached its peak during the early months of the year, since which time a decline in production has been in evidence, as is shown by the following table:

	December, 1919.	March, 1920.	October, 1920.	December, 1920.
Live stock receipts at 15 western markets (in thousands of head)	6,992	5,072	5,355	4,992
Grain receipts at 17 interior centers (in thousands of bushels)	76,805	67,941	95,955	75,058
Cotton sight receipts (in thousands of bales)	2,219	797	1,467	1,580
Lumber shipments reported by 3 associations (in millions of feet)	633	910	699	515
Anthracite coal production (in thousands of short tons)	8,089	7,857	8,069	8,321
Bituminous coal production (in thousands of short tons)	36,612	46,792	50,744	52,565
Crude petroleum production (in thousands of barrels)	32,508	35,831	39,592	38,961
Pig-iron production (in thousands of long tons)	2,633	3,376	3,293	2,704
Steel-ingot production (in thousands of long tons)	....	3,299	3,016	2,340
Cotton consumption (in thousands of bales)	512	576	400	295
Wool consumption (in thousands of pounds)	55,566	58,345	33,704	....

All industries have not been affected alike, however, the decline having been most marked in leather and textiles, while steel industries have only recently shown that they are affected by the same influences. The decrease in unfilled orders on the books of large iron and steel industries which has been in progress since August indicates not only a relative decline in the activity of these basic industries, but also of other industries dependent upon them for material. How far the actual shrinkage in production has gone in the aggregate can be estimated only, but some light on the situation is given by the Board's index of production which follows.

In order to show the changes in productive activity, there are presented below four tables showing relative figures of the movement of live stock, grain, and cotton during the year 1920; of the production of anthracite and bituminous coal and crude petroleum; and of the output of pig iron and steel ingots; also absolute quantities of cotton and wool consumed.

Movement of agricultural products.

[Monthly average, 1911-1913=100.]

	Live-stock receipts at 15 western markets.	Grain receipts at 17 interior centers.	Cotton sight receipts.
Average for year 1918	127	129	74
Average for year 1919	129	106	84
Average for year 1920	111	97	72
1920.			
January	139	100	126
February	102	94	87
March	110	87	64
April	90	57	44
May	112	72	29
June	110	88	21
July	100	96	29
August	109	115	25
September	114	141	62
October	116	123	117
November	129	98	144
December	105	96	126

Coal and petroleum production.

[Monthly average, 1911-1913=100.]

	Anthracite coal production.	Bituminous coal production.	Crude petroleum production.
Average for year 1918	111	130	155
Average for year 1919	99	103	164
Average for year 1920	100	125	193
1920.			
January	103	131	176
February	91	112	177
March	106	126	187
April	84	102	186
May	108	107	190
June	110	118	193
July	112	123	199
August	108	131	204
September	63	138	196
October	109	137	207
November	101	138	202
December	112	142	203

Iron and steel production.

[Monthly average, 1911-1913=100.]

	Pig-iron production.	Steel-ingot production.
Average for year 1918	138	129
Average for year 1919	110	....
Average for year 1920	131	123
1920.		
January	130	127
February	133	127
March	146	141
April	118	113
May	129	123
June	131	127
July	132	120
August	136	128
September	135	128
October	142	129
November	127	113
December	117	100

Cotton and woolen consumption.

[Pounds.]

	Cotton consumption.	Wool consumption.
Average for year 1918	257,356,000	50,429,835
Average for year 1919	246,646,500	45,257,215
Average for year 1920	243,330,500	....
1920.		
January	295,960,500	63,059,862
February	257,849,500	55,247,652
March	287,894,500	58,344,602
April	283,457,000	57,887,832
May	270,688,500	50,649,381
June	277,577,500	40,679,920
July	262,744,500	32,372,064
August	241,596,500	32,849,956
September	228,823,500	30,928,337
October	199,918,500	33,703,523
November	166,028,500	24,150,141
December	147,425,500	....

Summarizing the facts thus reviewed, it will be seen that after the peak of war production had been reached by speeding up all available energies during the closing months of the war, there was a sharp decline in activity, which continued during the uncertain months following the armistice and well into the year 1919 until the flotation of the Victory loan. A gradual expansion then developed, which culminated in much higher production early in the year 1920, and during this time the inability of the railroads to provide adequate transportation facilities brought about an unusual and serious congestion at initial points. This circumstance was due partly to an unusually severe winter, and partly to the renewed increase of production and a larger volume of goods to be shipped. All the factors of the situation taken together brought about an accumulation of commodities until the late spring and early summer, when, as the result of more favorable weather and better transportation facilities, delayed consignments began to reach the markets in volume, but too late for sales on terms as advantageous as probably would have been obtainable had they reached distributors earlier and in a normal way.

INDUSTRY AND PRICES.

The course of prices during the year 1920 has been extraordinary and the effects far-reaching. About the time when production reached its postarmistice peak—that is, in the early spring—a tendency toward reaction in prices became evident in several countries. Among the first indications of this tendency may be noted the collapse of the silk market in Japan and the public protest against current prices for clothing, which had as one of its manifestations the short-lived movement to wear overalls. These events were followed later by depression in Cuba and other Latin-American countries, due to rapid declines in sugar, coffee, and other staples produced in those countries. There are presented in the table following the index numbers of prices compiled by the Board from American data and obtained from information supplied by foreign correspondents.

Wholesale price indexes.

[Average prices, 1913=100.]

	Nov. 1918.	Mar. 1919.	1920											
			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States:														
Federal Reserve Board index	.....	191	242	242	248	263	264	258	250	234	226	208	190	171
Bureau of Labor Statistics	206	201	248	249	253	265	272	269	262	250	242	225	207	189
United Kingdom, Statist index	229	217	288	306	307	313	305	300	299	298	292	282	263	243
France	358	337	487	522	555	588	550	493	496	501	526	502	460	434
Italy	437	324	504	556	619	679	659	615	613	632	660	662	658	635
Sweden	367	354	319	342	354	354	361	366	363	365	362	346	331	299
Canada	215	205	248	254	258	261	263	258	256	244	241	234	225	214
Japan	210	202	301	313	321	300	271	247	239	235	230	226	221	206
India	.....	.....	218	209	198	200	210	206	209	209	208	206	194	180
Australia[1]	172	169	203	206	209	217	225	233	234	236	230	215	208	197

[1] Prices, July, 1914=100.

During the year the country as a whole experienced a very serious economic dislocation, the ultimate and inevitable outcome being a general suspension of buying which eventually resulted in greatly reducing the demand for commodities, thus making it impossible for producers and manufacturers to dispose of their goods on the market in the same volume as before. Had manufacturing industries been able to continue to export their entire surplus as had been the case during the years of war financing both before and after the armistice, this situation might not, perhaps, have immediately affected the marketing power of these enterprises, although eventually it was certain to do so. However, changes in foreign trade conditions contributed directly to the creation of a surplus which could not be disposed of abroad and which was therefore entirely dependent upon the home market.

On previous occasions of business readjustment or transition it usually has been possible to locate some definite point at which the break in prices and decline in speculation in commodities had taken place. In the present readjustment the beginning undoubtedly must be noted in the Japanese silk market. Almost simultaneously with the collapse of the silk market in Japan there was a radical revision of prices in Germany. The situation in that country had from the beginning of the year been precarious, being characterized by great disparities between domestic and foreign prices of German goods. These disparities taken in conjunction with the unsettled state of foreign exchange led to unwholesome and extensive exportations of German goods, especially to France and England. The conditions were so artificial that attention was speedily directed to them, resulting in radical price revisions and the abnormal activity rapidly settled down to a state of depression. It is difficult to determine exactly how far this condition of business in Germany reacted upon conditions in other countries, but it undoubtedly produced a profound effect. Not only in the Far East, therefore, but also in that country which perhaps felt most keenly the financial and economic consequences of war was a severe shock administered to the growth of postwar inflation and overtrading. This reaction setting in almost simultaneously, both in Europe and in the Orient, came at a time when production during the postarmistice period had probably reached its height and when also prices in most countries were at the peak. It was a situation which made readjustment inevitable—a readjustment which must take effect not merely in prices but in every division of economic life.

As production had been increasing during the summer and fall of 1919 and the spring of 1920, there was at least a tendency in some lines to what may be termed "overproduction" in a relative rather than an absolute sense, as excessive supply was due mainly to reduced consumption. In these circumstances the equilibrium of prices could have been maintained only through an increased or at least sustained buying power, as well as disposition to buy on the part of the public, which, however, was not existent. Consequently, it became evident after the end of the first quarter of the year that the buying or consumptive power was not sufficient in volume to absorb the greater quantities of goods which were being steadily produced and offered to the public. The practical question accordingly arose whether reductions in prices would not be necessary in order to move the current output of manufactured goods. In some lines an effort was made to solve the problem through a voluntary restriction of production, but it soon became evident that such measures were inadequate, and accordingly substantial reductions in prices of some articles which had reached a high level were announced by producers. Striking examples of these tendencies were seen in textiles, automobiles, shoes and leather goods of all kinds, and in a variety of other manufactures.

The decline in wheat and breadstuffs generally has been ascribed by some to the relinquishment of the Government control of wheat prices on June 11, 1920, followed by the reestablishment of open-market trading. The Federal Trade Commission has recently made a report in which economic causes which have led to the decline are clearly set forth. As a matter of fact, the decline has been more marked in many commodities which have never been the objects of price control. In metals, rubber, oils, cotton, and fabrics of all descriptions and throughout a large range of other commodities, the prices of some of which had been fixed, while the others were sold without restrictions, the downward movement of prices has been even more marked than in grain and flour and represents a combination of influences.

In the following table the prices of some of the more important staples are compared at their postarmistice peak with the lower levels established during the downward movement which extended over the last half of the year 1920.

Prices of leading commodities (averages for the month).

	Peak since armistice.		1920							
			May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Wheat, No. 2 red winter, cash, Chicago, bushel.	May, 1920.	$2.98	$2.98	$2.90	$2.81	$2.47	$2.49	$2.20	$2.06	$2.01
Cotton, upland middling, New Orleans, pound.	Apr., 1920.	.41	.40	.41	.40	.35	.29	.21	.18	.15
Wool:										
Ohio fine unwashed delaine, Boston, pound.	Mar., 1920.	1.00	.80	.70	.68	.63	.65	.60	.51	.50
Ohio ¼ blood unwashed, Boston, pound.	Dec., 1918.	.79	.55	.47	.43	.40	.40	.38	.28	.30
Hides:										
Packer, heavy native steers, Chicago, pound.	Oct., 1919.	.48	.36	.36	.30	.28	.29	.26	.22	.20
Calf, selected 7-9 pounds, New York.	Nov., 1919.	10.13	5.75	4.06	3.65	3.25	2.69	2.42	1.85	1.75
Silk, Japanese filature Shinshu, No. 1, 13-15, New York, pound.	Feb., 1920.	16.85	11.35	8.35	7.40	5.60	6.80	6.53	6.50	5.90
Rubber, first Patex crêpe, New York, pound.	Feb., 1919.	.57	.39	.38	.32	.31	.26	.24	.19	.17
Sugar, raw, 96° centrifugal, net cash, New York, pound.	May, 1920.	.21	.21	.20	.18	.13	.11	.08	.07	.05
Pig iron, basic, Mahoning and Shenango Valley furnace, pound.	Sept., 1920.	48.50	43.25	44.00	45.75	48.10	48.50	43.75	36.50	33.00
Copper, electrolitic, New York, pound.	Nov., 1918.	.26	.18	.18	.19	.18	.18	.16	.14	.13
Petroleum, crude mid-continent at wells, barrel.	Mar.-Oct., 1920.	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50

In considering the trend of prices, crop yields of the year should not be overlooked. The final estimate of production of farm products for the year which the Department of Agriculture issued on December 9, 1920, is as follows:

		1914-1918, 5-year average.	1920 production, final estimate.
Corn	bushels	2,760,484,000	3,232,367,000
Winter wheat	do	563,498,000	577,763,000
Spring wheat	do	258,748,000	209,365,000
All wheat	do	822,246,000	787,128,000
Oats	do	1,414,558,000	1,526,055,000
Barley	do	214,819,000	202,024,000
Rye	do	59,933,000	69,318,000
Buckwheat	do	15,305,000	13,789,000
Potatoes	do	382,113,000	430,458,000
Sweet potatoes	do	74,983,000	112,368,000
Flaxseed	do	12,922,000	10,990,000
Rice	do	33,360,000	53,710,000
Tobacco	pounds	1,187,708,000	1,508,064,000
Hay, tame	tons	81,430,000	91,193,000
Hay, wild	do	17,874,000	17,040,000
All hay	do	99,304,000	108,233,000
Cotton	bales	12,424,000	12,987,000
Apples, total crop	bushels	202,698,000	240,442,000
Apples, commercial	barrels	....	36,272,000
Peaches	bushels	47,514,000	43,697,000
Pears	do	12,364,000	17,279,000
Beans, dry, 6 States	do	13,213,000	9,075,000
Grain sorghums, 7 States	do	....	143,939,000
Peanuts	do	....	35,960,000
Sugar beets	tons	6,051,000	8,545,000
Broom corn	do	....	33,900
Sorghum (sirup)	gallons	....	43,876,000
Hops	pounds	....	38,918,000

READJUSTMENT—A WORLD-WIDE PROCESS.

From the data already submitted it is clear that a downward movement of commodity prices had developed in all countries during the spring and summer of 1920 and that this reaction was due to faulty or failing distribution, and this in turn was mainly the result of lessened ability or greater reluctance on the part of wage earners and those with fixed incomes to buy as freely as in the past, together with increased productive capacity, although in some cases goods produced were not of the kind and quality which were most salable. This phase of the situation can be understood better when it is remembered that during the war industry had been thoroughly reorganized and that consumption had, through the application of wholesale governmental requirements, been shifted from its ordinary or normal channels into those of war demands. Owing to changes in the productive situation the course of business activity assumed a direction entirely different from that which normally it would have taken, and as governmental regulations were relaxed or rescinded demand and consumption were gradually relieved of the control exercised through these means. Thus there was unavoidably a more and more serious lack of adjustment between the activities of producers and the demand of consumers as exhibited in the use of their buying power.

"Overproduction" in the sense of badly adjusted production—excess production in some lines as contrasted with others in which production had been insufficient—was consequently characteristic of the industrial situation in the various countries, including the United States, at the beginning of the summer of 1920. These conditions might gradually have righted themselves without very serious effects or without the necessity for drastic readjustment but for the fact that practically all countries were passing through the same change, and they were therefore unable to assist one another by purchasing. At the same time the credit mechanism of the world had already been strained almost to the limit.

The removal during the year 1920 of many of the governmental restrictions upon prices and the movement of commodities also had its effect. On June 11, 1920, Government control of grain prices was abrogated and unrestricted transactions in grain were again permitted. In June the British Government terminated its control of the wool market in Australia and modified its policy of intervention in other directions. Thus the midyear of 1920 was a striking industrial turning point for the reason that at this time important governmental restrictions involving financial control and support of various markets were withdrawn. As these changes in governmental policies were coincident with overstrained credit conditions and with relative overproduction in many lines, a situation was created which initiated readjustment in prices and in business practically everywhere. It is worthy of note that these conditions did not originate in the United States, but that this country was one of the last to feel them acutely, and that so far it has felt them only in a much more moderate degree than has been the case elsewhere.

THE CONTROL AND REGULATION OF CREDIT.

The determination of the policy pursued by the Federal Reserve System in the face of conditions described was necessarily from the outset a matter of profound importance. The development of such conditions had long been foreseen by the Board and its policy was shaped with a view of meeting them, and, as far as possible, of minimizing injurious effects.

Up to the time the United States entered the European war, there was no general appreciation of the ability of the Federal Reserve System to meet the requirements of such a great emergency. The question was whether it or any other system could raise and distribute the enormous loans necessary and could care for the vast public financial operations which were the inevitable concomitants of a great war. It required only a short time, however, to convince even the most dubious of the credit capacity of the Federal Reserve System and to demonstrate the smoothness and efficiency of its operating mechanism. In fact, so readily did the new banking system respond to the demands made upon it during the early months of the war that there were many who were alarmed at its power to expand credit. The system was looked upon by many as an engine of inflation and doubts of its ability to restrain undue expansion at the proper time were frequently expressed. The Federal Reserve Board, however, has always been mindful of the credit and banking conditions which were developing in the United States and has never failed to take account of the consequences of its discount policies. From the outset, it recognized its duty to cooperate unreservedly with the Government to provide funds needed for the war and freely conceded that the great national emergency made it necessary to suspend the application of well-recognized principles of economics and finance which usually govern banking operations in times of peace. War is the most uneconomic of all processes. But, as soon as the armistice put an end to the war, the Board made a new survey of the situation in order to determine what could and should be done to check undue and unnecessary expansion of credit. During the year 1919 this question was under constant consideration and it was hoped that the banks of the country would themselves see the wisdom of working back toward a more normal condition. From time to time the Board issued statements in which its view of the situation was given and banks were warned of the consequences to be expected from a policy of constant overexpansion which could be continued only by resorting to the rediscount facilities of the Federal Reserve Banks. These warnings, however, were only a transitory expedient and were given only momentary attention by many banks. The Board was prepared, as soon as Treasury exigencies permitted, to resort to the well-known method of advancing the rate of discount.

The effects of the first advance of the rate of discount were reviewed in the Board's annual report for the year 1919, but it was only during the year 1920 that the necessity for the development of this policy and the application of sound principles governing banking credit have been most clearly reflected. In the situation which existed ordinary prudence dictated plainly that not only should speculation in corporate stocks and securities be restricted but that further expansion of banking credits made against goods and commodities in storage should be checked. The loans and advances of a Federal Reserve Bank should be as nearly as possible of a self-liquidating character. Continued advances against unsold goods in storage would tend inevitably to involve the banking system in the needless risks and difficulties growing out of general changes in business conditions without improving in any respect the situation as a whole or relieving those obliged to reduce prices or curtail production in order to stimulate the demand necessary to move commodities from producer to consumer. The Board's purpose was to maintain the strength of the Federal Reserve Banks, which are the custodians of the lawful reserves of the member banks. It was not the Board's intention to deny proper accommodation to agriculture, commerce, and industry, for any such limitation would defeat the very object of its policy.

Rates were advanced at all Federal Reserve Banks during the latter part of January, several months before the slowing down in industry took place and several weeks before ground was broken for the new crops. Toward the end of May, in order to discourage applications for rediscounts for nonessential purposes, the Board deemed it expedient to approve an advance in the discount rates of some of the Federal Reserve Banks to 7 per cent for paper of 90 days' maturity. Since the early part of June there have been no changes in discount rates, except the discontinuance of the progressive rate and the coincident establishment of a 7 per cent rate on commercial paper by one of the banks.

The action taken by the Secretary of the Treasury in advancing the rate on Treasury certificates of indebtedness to $5\frac{3}{4}$ per cent for 6 months' maturity and to 6 per cent for 12 months' maturity has placed Treasury borrowings more nearly upon a basis of parity with current market rates and has made it possible to place these obligations in large volume with private investors, thus relieving the banks of a substantial part of the burden formerly carried by them. Much attention has been directed in current discussions of the Federal Reserve System to discount rates and to the changes in the investment market that have occurred during the past year. These changes have often been represented as the outcome of policies of the Federal Reserve Board. So generally does a misunderstanding of the facts appear to exist, that it is deemed proper to outline briefly the situation as it developed. In the table appearing below are given the discount rates of the Federal Reserve Banks as approved by the Board and in effect on December 31, 1920, and December 31, 1919.

Discount rates of each Federal Reserve Bank in effect on December 31, 1920 and 1919.

Federal Reserve Bank.	Paper maturing within 90 days.								Bankers' acceptances maturing within 3 months.		Agricultural and live-stock paper maturing after 90 days but within 6 months.	
	Secured by—				Trade acceptances.		All other.[1]					
	Treasury certificates of indebtedness.		Liberty bonds and Victory notes.									
	1920	1919	1920	1919	1920	1919	1920	1919	1920	1919	1920	1919
Boston	5½	[2] 4½	6	4¾	7	4¾	7	4¾	......	......	7	5
New York	5½	4¾	6	4¾	7	4¾	7	4¾	6	4¾	7	5
Philadelphia	[3] 6	4½	5½	4¾	6	4¾	6	4¾	6	......	6	5
Cleveland	[3] 6	[4] 4½	5¾	4¾	5¾	4½	6	4¾	5¾	4½	6	5¼
Richmond	[3] 6	4½	6	4¾	6	4½	6	4¾	6	......	6	5
Atlanta	[3] 6	4½	5½	4¾	7	4½	7	4¾	6	......	7	5½
Chicago	[3] 6	4½	6	4¾	7	4½	7	4¾	6	......	7	5½
St. Louis	[5] 5½	4½	5½	4¾	6	4½	6	4¾	5½	......	6	5½
Minneapolis	5½	4½	6	[6] 4¾	6½	4½	7	[6] 4¾	6	......	7	5½
Kansas City	[3] 6	4½	6	5	6	5	6	5	5½	......	6	5½
Dallas	[3] 6	4½	5½	5	6	5	6	5	5½	......	6	5¼
San Francisco	[3] 6	4½	6	4¾	6	4¾	6	4¾	6	......	6	5½

[1] Rates on paper secured by War Finance Corporation bonds, established in April, 1919, at 1 per cent in excess of the discount rates on commercial paper of corresponding maturities, were discontinued effective Apr. 1, 1920.

[2] Rate of 4¼ per cent on paper secured by 4¼ per cent certificates.

[3] Discount rate corresponds to interest rate borne by certificates pledged as collateral with minimum of 5 per cent in the case of Philadelphia, Atlanta, Kansas City, and Dallas, and 5½ per cent in the case of Cleveland, Richmond, Chicago, and San Francisco.

[4] Rate of 4¼ per cent on member banks' collateral notes secured by 4¼ per cent certificates.

[5] Rate of 5¼ per cent on paper secured by 5¼ per cent certificates, and 5 per cent on paper secured by 4¾ and 5 per cent certificates.

[6] Rate of 5 per cent for maturities 61–90 days.

It will be seen that advances have been made of from ½ per cent to 2½ per cent, varying with the maturity and character of the paper offered for discount. It has been stated frequently, but erroneously, that the effect of these advances was to reduce the total volume of credit available and to contract the amount of currency in circulation. That these statements are unwarranted will be shown by a glance at the following table, in which the principal items of assets and liabilities of the Federal Reserve Banks are presented.

Principal asset and liability items of the 12 Federal Reserve Banks.

[In millions of dollars.]

	Jan. 30.	Feb. 27.	Mar. 26.	Apr. 30.	May 28.	June 25.
Reserves:						
Total	2,074	2,083	2,057	2,071	2,092	2,109
Gold	2,013	1,967	1,935	1,987	1,953	1,969
Bills discounted:						
Total	2,174	2,454	2,449	2,535	2,519	2,432
Secured by Government war obligations	1,458	1,573	1,441	1,465	1,448	1,278
All other	716	881	1,008	1,070	1,071	1,154
Bills bought in open market	561	531	452	407	419	399
Certificates of indebtedness	276	268	263	267	280	325
Total earning assets	3,039	3,279	3,191	3,236	3,244	3,183
Government deposits	73	134	28	33	36	14
Members' reserve deposits	1,851	1,872	1,867	1,860	1,853	1,832
Net deposits	1,807	1,884	1,773	1,813	1,795	1,723
Federal Reserve notes in circulation	2,851	3,020	3,048	3,075	3,107	3,117
Federal Reserve Bank notes in circulation	251	237	201	178	179	186
Reserve percentage	44.5	42.5	42.7	42.4	42.7	43.6

	July 30.	Aug. 27.	Sept. 24.	Oct. 29.	Nov. 26.	Dec. 30.
Reserves:						
Total	2,129	2,128	2,152	2,168	2,195	2,249
Gold	1,978	1,972	1,990	2,003	2,024	2,059
Bills discounted:						
Total	2,492	2,667	2,704	2,801	2,735	2,719
Secured by Government war obligations	1,241	1,315	1,220	1,204	1,192	1,141
All other	1,251	1,352	1,484	1,597	1,543	1,578
Bills bought in open market	345	322	308	298	248	256
Certificates of indebtedness	299	274	271	269	294	261
Total earning assets	3,162	3,290	3,310	3,396	3,304	3,263
Government deposits	12	44	46	19	16	28
Members' reserve deposits	1,808	1,819	1,801	1,806	1,712	1,749
Net deposits	1,697	1,718	1,658	1,675	1,624	1,604
Federal Reserve notes in circulation	3,120	3,204	3,280	3,351	3,326	3,345
Federal Reserve Bank notes in circulation	192	201	214	215	215	217
Reserve percentage	44.2	43.2	43.6	43.1	44.4	45.4

A study of the foregoing figures will show that, as far as the resources and liabilities of the Federal Reserve Banks are concerned, the effect of the Board's action in authorizing increases in discount rates, even assuming that this action was a direct influence tending to affect the gross volume of transactions, was merely to slow down the immediate tendency toward expansion. From the end of February until they reached the peak for the year on November 5, except for the temporary and usual fluctuations which result from the quarterly income and excess profits tax payments made to the Government, the loans of Federal Reserve Banks have continued substantially at their present level. On December 30, 1920, the loans had declined by $108,000,000 from their high point and Federal Reserve note issues outstanding had declined by $60,000,000, but the percentage of reduction is so slight as to represent only a negligible fraction of the total amount of credits extended.

The member banks of the Federal Reserve System, which have direct dealings with the public, and whose transactions may be regarded as reflecting in some degree changes of policy of the Federal

Reserve Banks, have during the year extended very full lines of credit to their customers. The statistics presented in the following table, which are compiled from figures furnished by the member banks in the larger cities, show the volume of credit furnished by these institutions and the amounts borrowed by them from the Federal Reserve Banks.

[In millions of dollars.]

	Number of banks reporting.	United States securities.	Loans (including rediscounts) and investments (excluding United States securities).	Rediscounts and bills payable with Federal Reserve Banks.	Net demand deposits.
Jan. 30	804	1,845	14,777	1,834	11,481
Feb. 27	807	1,747	14,924	2,143	11,463
Mar. 26	811	1,548	15,271	2,114	11,496
Apr. 30	812	1,681	15,249	2,136	11,464
May 28	814	1,684	15,262	2,060	11,561
June 25	814	1,561	15,371	1,946	11,347
July 30	814	1,503	15,355	1,973	11,401
Aug. 27	820	1,501	15,429	2,128	11,252
Sept. 24	818	1,448	15,692	2,151	11,161
Oct. 29	823	1,365	15,652	2,244	11,172
Nov. 26	824	1,391	15,341	2,174	10,892
Dec. 31	821	1,391	15,359	2,098	10,942

AGRICULTURAL CREDITS.

The impression has prevailed in some quarters that agricultural credits in particular have been greatly curtailed during the past year. On December 14 the Board received a letter from the chairman of the Senate Committee on Agriculture and Forestry requesting information as to the amount of actual agricultural paper rediscounted during the years 1919 and 1920, based on agricultural production and sales of the respective years. Section 13 of the Federal Reserve Act provides that notes, drafts, and bills of exchange drawn or issued for agricultural purposes, or based on live stock, having a maturity of not longer than six months, are eligible for rediscount by a Federal Reserve Bank, the limit of maturity in all other cases being 90 days. The Federal Reserve Banks also rediscount large amounts of agricultural paper which has a maturity of not exceeding 90 days. In response to the inquiry made by the Senate committee the Board called for reports from the Federal Reserve Banks, and the figures which are submitted in the subjoined table, while necessarily based on estimates, show conclusively that instead of there having been curtailment in agricultural credits extended by the Federal Reserve Banks during the year 1920, the volume of such credits was nearly three times as great as the volume so extended during the year 1919. The figures given below do not include any estimate from the Federal Reserve Bank of New York, which has occasion to rediscount only a negligible amount of farmers' paper. It is known, however, that member banks in New York City have made large loans to their correspondent banks throughout the country, and it is reasonable to suppose that part of the proceeds of such loans has been applied by the borrowing banks for agricultural purposes, but, of course, the exact amount can not be stated. The same observation is true with respect to loans made by member banks in Chicago, St. Louis, Minneapolis, Kansas City, New Orleans, San Francisco, and other financial centers throughout the country. Nonmember State banks loaned large sums in the aggregate for agricultural purposes, but as they have no dealings with the Federal Reserve Banks their loans to farmers are not reflected in the figures furnished by the Federal Reserve Banks, although it is a fact that all Federal Reserve Banks have been lending large amounts to member banks which have in turn rediscounted paper for nonmember banks. It should be borne in mind also that the total amount of farmers' notes rediscounted by Federal Reserve Banks gives no indication of the amounts advanced by the Federal Reserve Banks to finance the production and sale of farm products since large amounts advanced to member banks in the agricultural districts on commercial and industrial paper are used by these banks for loans to agricultural interests. Purchases of bankers' acceptances by Federal Reserve Banks are not included in the table, although acceptances play an important part in the movement of crops to ultimate markets.

Estimated amounts of paper rediscounted with Federal Reserve Banks based on production and sales of farm products.

Federal Reserve Bank.	1919	1920	Remarks.
Boston	$2,642,000	$4,979,000	These figures are confined to farm and dairy loans and do not include large amounts advanced on cotton, wool, and similar lines.
New York	(1)	(1)	
Philadelphia	2,971,000	3,580,000	Figures are confined to strictly agricultural paper, omitting the paper of wool dealers, cotton merchants, produce dealers, packers, agricultural implement, and fertilizer concerns.
Cleveland	612,000	[2] 1,753,000	Total agricultural and live-stock paper discounted These figures do not reflect total accommodation granted to agricultural interests, as many members borrow on U. S. securities to afford accommodation to agricultural borrowers.
Richmond	102,000,000	325,000,000	Figures include estimated amount of commercial and industrial paper discounted the proceeds of which were used for agricultural purposes.
Atlanta	91,300,000	[2] 230,000,000	Do.
Chicago	47,263,000	128,408,000	Figures represent amounts of farmers' notes discounted. Actual amounts loaned for production and sale of farm products are much in excess of amounts given, as sales of farm products are largely financed by commercial paper, also large amounts are loaned to banks on commercial paper or on notes secured by U.S. obligations, the proceeds of which are loaned for agricultural purposes either directly or through correspondent banks.
St. Louis	[2] 220,000,000	[2] 665,000,000	In addition a large part of loans on commercial and Government-secured paper was unquestionably for benefit of farmers.

[1] No data. [2] Eleven months.

Estimated amounts of paper rediscounted with Federal Reserve Banks based on production and sales of farm products—Continued.

Federal Reserve Bank.	1919	1920	Remarks.
Minneapolis	$75,000,000	$225,000 000	
Kansas City	123,481,000	229,432,000	
Dallas	23,997,000	44,911,000	Figures do not include member banks' collateral notes the proceeds of which were used for loans to agricultural interests.
San Francisco	35,000,000	122,000,000	Figures include total amounts of paper rediscounted during the two years based upon production and sales of farm products, excluding notes secured by Government obligations. The bank is unable to estimate the amounts of paper rediscounted which represents borrowings on account of production and sales during the preceding year.
Total for 11 banks.	729,266,000	1,980,063,000	

There is also submitted below a table prepared from figures which have been published monthly in the Federal Reserve Bulletin, showing the holdings of each Federal Reserve Bank on the last Friday in each month during the years 1919 and 1920 of paper classed by the Federal Reserve Banks as "Agricultural and live-stock paper." It will be noted that there has been a steady increase in these holdings since the beginning of the year and that this increase has continued after October, 1920, while in 1919 normal reductions from the high September figures are shown during the months of October, November, and December.

Total amount of agricultural and live stock paper combined, held by each Federal Reserve Bank on the last Friday of each month since January, 1919.

[In thousands of dollars.]

Date.	Boston.	New York.	Philadelphia.	Cleveland.	Richmond-	Atlanta.	Chicago.
1919.							
January		158	173	117	2,344	2,229	9,367
February		159	124	75	3,014	2,632	9,346
March	1	191	53	151	3,252	2,699	10,385
April		170	52	152	3,304	2,789	10,264
May		223	78	152	3,143	3,011	2,344
June		305	96	129	3,086	3,471	2,376
July	2	288	266	105	2,826	3,836	1,499
August		159	104	52	3,039	4,836	4,479
September		148	57	36	3,225	5,273	5,835
October	22	217	86	69	1,568	3,068	9,890
November	48	199	72	269	553	1,438	13,144
December	61	286	138	269	449	841	12,783
1920.							
January	46	287	177	190	369	693	11,603
February	29	274	155	162	533	667	12,010
March	36	302	190	186	689	1,171	15,069
April	3	396	196	309	1,317	2,127	21,562
May		514	252	429	2,646	4,390	25,840
June	13	624	281	409	4,581	7,130	27,706
July	[1] 5,091	459	323	588	7,887	13,319	25,812
August	[1] 2,240	224	265	765	9,273	18,051	21,908
September		140	261	806	10,091	18,465	21,060
October		76	272	862	9,392	19,233	33,768
November	119	103	297	777	8,481	18,970	41,430
December [2]		257	388	893	9,251	16,831	52,695

[1] Practically entire amount represents paper held under rediscount for other Federal Reserve Banks.

[2] Figures as of Thursday, December 30.

Total amount of agricultural and live stock paper combined, held by each Federal Reserve Bank on the last Friday of each month since January, 1919—Continued.

[In thousands of dollars.]

Date.	St. Louis.	Minneapolis.	Kansas City.	Dallas.	San Francisco.	Total.
1919.						
January	185	1,870	19,584	15,373	7,601	59,001
February	224	1,276	20,817	17,915	8,335	63,917
March	438	1,059	23,016	18,008	8,120	67,373
April	455	1,371	21,613	18,831	7,880	66,881
May	615	2,836	19,430	18,694	8,465	58,991
June	759	3,336	27,832	18,149	8,717	68,256
July	806	3,332	26,539	15,880	8,225	63,604
August	713	3,228	17,938	14,298	9,055	57,901
September	749	3,111	19,454	15,124	7,193	60,205
October	625	5,327	19,132	10,404	5,067	55,475
November	562	5,867	20,498	5,794	4,101	52,550
December	294	6,855	20,022	4,450	4,620	51,068
1920.						
January	295	9,503	21,878	4,637	7,227	56,905
February	389	12,327	26,091	4,833	9,725	67,195
March	676	10,738	27,746	6,165	11,697	74,665
April	2,559	15,284	35,398	11,587	15,644	106,382
May	3,384	26,348	38,396	16,242	22,250	140,691
June	4,255	30,370	42,697	22,098	27,874	168,038
July	5,818	43,134	36,353	28,552	35,179	202,520
August	5,738	55,815	34,019	29,502	38,478	216,278
September	6,618	61,472	37,858	31,711	35,942	224,424
October	8,063	61,036	46,036	30,331	31,580	240,649
November	5,864	67,831	43,958	28,647	29,122	245,599
December[1]	4,896	53,896	46,840	31,251	29,740	246,938

[1] Figures of Thursday December 30.

CHANGES NOT DUE TO CONTRACTION.

That the changes in business conditions and readjustment of prices have not been brought about by contraction or drastic restrictions is demonstrated by the fact that while the total volume of bank credit in the United States declined but slightly from the first to the last day of the year, the velocity or rate of turnover of credit has slackened materially, as indicated by the reduction during the latter part of the year in the sum total of debits to individual deposit accounts reported to the Board by the principal clearing houses of the country.

The following table shows for each month in 1920 and 1919 the total volume of debits for all reporting centers combined, also for New York City and for all other centers separately:

Bank transactions as shown by debits to individual account, as reported by banks in about 150 of the country's leading clearing-house centers.

[Amounts in millions of dollars.]

	All reporting banks.			New York City.			All other reporting centers.		
	Amount.		Increase (+) or decrease (−), per cent.	Amount.		Increase (+) or decrease (−), per cent.	Amount.		Increase (+) or decrease (−), per cent.
	1920	1919		1920	1919		1920	1919	
January	45,184	34,792	+30.0	23,636	18,119	+30.4	21,548	16,673	+29.2
February	35,706	28,086	+27.1	18,053	14,493	+24.6	17,653	13,593	+29.9
March	43,364	32,014	+35.3	22,285	16,699	+33.5	21,079	15,345	+37.4
April	41,598	32,642	+27.4	21,319	17,324	+23.1	20,279	15,318	+32.4
May	41,375	37,896	+ 9.2	19,859	20,828	− 4.7	21,516	17,068	+26.1
June	39,779	38,194	+ 4.1	19,528	21,072	− 7.3	20,251	17,122	+18.3
July	39,910	40,918	− 2.5	19,063	22,426	−15.0	20,847	18,492	+12.7
August	36,334	37,236	− 2.4	17,371	19,932	−12.8	18,963	17,304	+ 9.6
September	37,195	39,243	− 5.2	17,599	20,789	−15.3	19,596	18,454	+ 6.2
October	40,503	44,525	− 9.0	20,136	24,226	−16.9	20,367	20,299	+ .3
November	39,877	43,483	− 8.3	20,308	23,856	− 6.7	19,569	19,627	− .3
December	41,024	45,493	− 9.8	21,888	24,357	−10.1	19,136	21,136	− 9.5
Total	481,849	454,552	+ 6.0	241,045	244,121	− 1.3	240,804	210,431	+14.4

From 45 billions in January the volume of transactions declined to 36 billions in August and then increased to 41 billions in December. For the first six months of the year the volume of debits was larger in 1920 than in 1919, while for the last six months the figures declined to an increasing extent below the 1919 figures. In New York City the 1920 totals were smaller than the corresponding 1919 totals as early as May, the reduction in the volume of debits being due in part to curtailment of speculation and to the general dullness of the stock exchange, in part also to the organization of a stock-exchange clearing house, whose operation reduced the volume of checks required to effect settlements in stock-exchange transactions. The aggregate volume of debits in New York City for the year was about 3 billions less than for the preceding year, a decline of 1.3 per cent. Outside of New York the total of debits was 30 billions, or 14.4 per cent larger in 1920 than in 1919, monthly totals being larger in 1920 for each month, except November and December, though the excesses were much greater in the earlier than in the later months of the year. The largest monthly excess of these debits is shown for March. Since then a gradual decline may be noted, corresponding to the lessened volume of trade and since June also to the decline in the price level. Debits for October are barely in excess of the 1919 total, those for November are slightly below the corresponding total for the earlier year, while the total for December, 1920, was about 10 per cent below the total for the last month in 1919.

FOREIGN TRADE FINANCING.

Changes in production and prices, however, have only a partial significance, unless considered in their relation to foreign trade. Our trade relations with other countries have been of increasing importance ever since the outbreak of the European war, but at no time have questions relating to our foreign trade been of such vital importance as has been the case since the armistice. During the course of the war our trade with other countries passed through several stages of evolution, the last being the period when our exports to Europe were financed through credits extended by the Government of the United States. This stage necessarily continued long after actual hostilities were concluded by the armistice, for there was still standing on the books of the Treasury a large unused balance of the credits which had been opened in favor of various allied Governments, and pending the return of our troops from abroad their pay and maintenance by the Government sustained export operations. Subsequent to the armistice export trade amounting to about $2,500,000,000 was financed through credits extended by the Treasury Department. These credits were an important factor in the maintenance of our foreign trade during the first half of the year 1919, but it was recognized that methods of financing adopted under the stress of war should not be continued as a permanent peace policy, for the funds necessary to make such credits available must be raised either by taxation or through loans. Thus upon the exhaustion of the Government credits it became necessary for American exporters to find other means of financing their transactions.

Evolution in banking has always grown out of necessities arising from current conditions. For example, a material change was made in the banking system of the United States during the Civil War in order to meet the requirements of that period, and the National Bank Act was the outcome. Many years later the changes in the character of our exports from a preponderance of foodstuffs and raw materials readily sold, to a larger proportion of manufactured articles, which require greater selling effort and greater banking efficiency in order to meet competition successfully, led to the incorporation in the Federal Reserve Act of sections giving to member banks the authority to establish branches in foreign countries and to accept bills of exchange drawn upon them payable at a future time not to exceed six months after sight.

During the World War a new condition developed, and it was found that the usual credits of from 60 to 90 days designed to cover the financing of exports from the United States while goods were in transit, or even for a period of six months, were not sufficiently long to maintain the continuance of trade. The cause of this development was simple. There were no longer seasonal periods in each year during which the excess of imports over exports or exports over imports was continually reversed, so that the resulting trade balance could be readily settled by flow of gold to or from the United

States in connection with the other normal operations which affect foreign exchange, such as tourists' requirements, foreign remittances, freights, sales of securities, etc. On the contrary, a condition existed where exports from European countries failed not only to meet balances in favor of the United States during the period of heavy seasonal exports such as those of wheat and cotton, but where they were far from offsetting favorable balances during any part of the year.

The causes of such a condition were due entirely to the war. Before the armistice, Europe called upon us for material for war purposes and food for its armies and peoples far beyond the ability of its civilian population to supply (this resulted in very heavy imports and lack of exportable commodities with which to pay for them). Since the armistice Europe has needed raw materials in great quantities in order to reestablish her industries, together with an immense amount of imported foodstuffs, while political and economic disturbances have prevented a resumption of normal production. These circumstances have continued the constant and overwhelming balance of European imports over exports that first developed during the war. In order to coordinate American capital and banking facilities in these transactions Congress enacted what is commonly known as the Edge Act. The object of this law is to provide a means by which long-time credits can be extended legitimately wherever necessary in order to complement the ordinary bank financing of our foreign trade. Banks having demand deposits may not safely extend the long-time credits required, but it was felt that they might properly be authorized to participate with merchants, manufacturers, and producers in the formation of other corporations authorized to extend the necessary long-time credits, and national banks have accordingly been authorized to invest not exceeding 10 per cent of their capital and surplus in the capital stock of such corporations. It is believed that, while not jeopardizing the position of the banks, this plan has the distinct advantage of keeping practical bankers in touch with what is in reality a banker's business, and at the same time that it will result in closer cooperation between those handling short-time and long-time credits for exports, thus working toward greater security for all concerned. But the commercial and financial world is confronted with a unique and difficult situation identified in the public mind with the depreciated exchanges of other countries but fundamentally to be explained only by the causes for such depreciation.

In order to find means of correcting these causes it is necessary to study the effect of the deranged foreign exchanges. The outstanding and most disturbing fact lies in the brake put upon the distribution of the world's products, for it is this stagnation of distribution which throws commodities upon markets that can not absorb them, resulting in a rapid fall of prices and consequent enforced unemployment of those engaged in production. Many countries which before the war had been in the habit of shipping their products to European countries are unable to do so to-day, as they can not sell on long-time credit; therefore they naturally turn to the United States, where they can sell for cash. In the course of time such commodities have accumulated here but there is no market for them, and countries which have been sending us their surplus products find that they have at present nothing marketable to send us with which to pay for their imports from us. We find ourselves therefore with a large export trade which is being paid for only in part by a great portion of the world, and this trade is fast approaching a point where it may be cut drastically to the most vital essentials unless the normal credit and buying power of Europe can be restored. This restoration can be accomplished only over an extended period of time if our raw materials go forward in a steady stream against long-time credits. Foodstuffs must be furnished also, and except where shipped by relief organizations they should in the main be paid for promptly as they go into immediate consumption. We are therefore brought face to face with the problems of how we can best extend long-time credits to European countries in order to enable them to reconstruct their industries and how we can extend credit to other countries in order to enable them also to make shipments to Europe which otherwise would be made to the United States and glut our domestic markets.

It is now possible to organize under our laws a form of corporation which has powers designed to meet this situation. By means of corporations organized under the Edge Act, long-time credits may be granted to finance exports not only from the United States, but from foreign countries as well. All of these operations are necessary for the solution of the present world problem. Should we proceed with only our present facilities for foreign trade, we may expect a damming up of our exports, with resultant competition in domestic markets affecting all kinds of commodities and manufactures. The congestion of commodities now existing would continue and the bottom would be reached only after large losses had been sustained and great hardship endured. Even in ordinary times when prices fall after a long rise and the decline is not drastic, the readjustment process is often very difficult. But to-day when goods valued at $1,000,000 a few months ago can be sold for not more than $250,000 to $500,000, the problem becomes a much more serious one. This constant and drastic decline in prices is not due to any lack of world requirement for the things themselves, but to the inability of those needing the things to pay for them in the foreign countries where they are obtainable. There is the need and potential demand for the commodities, but an effective and economic demand is lacking because of absence of immediate purchasing power. For these reasons it is desirable that appropriate means be devised in order to assist the distribution of those commodities which are normally dependent upon foreign markets. It is the opinion of the Board that the opportunity afforded by the Edge Act for the organization, under Federal charter, of companies engaged in international trade and finance offers a practical means of effecting better distribution of goods and commodities in world trade.

SUPERVISION OF CORPORATIONS FORMED UNDER THE EDGE ACT.

Section 25 of the Federal Reserve Act, as amended by the acts of September 7, 1916, and September 17, 1919, authorized a national bank having a capital and surplus of $1,000,000 or more to invest, under certain circumstances, in the stock of corporations chartered or incorporated under the laws of the United States or of any State thereof and principally engaged in international or foreign banking, and authorized any national bank, until January 1, 1921, without regard to the amount of its capital and surplus, to invest under certain circumstances in the stock of one or more corporations incorporated under the laws of the United States or of any State thereof and principally engaged in such phases of international or foreign financial operations as might be necessary to facilitate exports from the United States or any of its dependencies. At that time, however, Congress had not provided any means for the Federal incorporation of foreign banking corporations or other foreign financial corporations in whose stock national banks were authorized to invest. In the enactment of section 25 (*a*) of the Federal Reserve Act, approved December 24, 1919, Congress provided a means for the incorporation of institutions under Federal law for the purpose of engaging in international or foreign banking or other international or foreign financial operations in whose stock national banks, as well as individuals, firms, and other corporations, may invest.

It should be noted that the provisions of section 25 (*a*), which confer upon national banks authority to invest in the stock of corporations organized under that section, are more liberal than the related provisions of section 25 permitting national banks to invest in the stock of corporations organized under State laws. Under the provisions of section 25 a national bank which possesses a capital and surplus of $1,000,000 or more may invest in the stock of international or foreign banking corporations organized under State laws to the extent of 10 per cent of the subscribing bank's capital and surplus, and a national bank, irrespective of the amount of its capital and surplus, may, until January 1, 1921, invest in the stock of corporations organized under State laws and engaged in foreign financial operations (as distinct from foreign banking corporations), provided that its investment is limited to an amount not in excess of 5 per cent of its capital and surplus. On the other hand, the provisions of section 25 (*a*) permit a national bank, irrespective of the amount of its capital stock, to invest to the extent of 10 per cent of its capital and surplus in the stock of corporations organized under the provisions of that section and engaged either in foreign banking operations or in the foreign investment business, provided, only, that the aggregate of all investments made by the national bank under the terms of section 25 and section 25 (*a*) does not exceed 10 per cent of its capital and surplus. So far as investments by national banks are concerned, therefore, a corporation organized under section 25 (*a*) enjoys certain advantages which a corporation organized under the laws of a State does not enjoy.

While, as has been pointed out in the earlier part of this report, corporations organized under section 25 (*a*) may be used as a means of assisting in the reconstruction of Europe at a time when such assistance is most vitally needed, nevertheless, the real purpose of this section is a broader one—that is, to provide for the establishment of a Federal system of international banking or financial corporations operating under Federal supervision with powers sufficiently broad to enable them effectively to compete with similar foreign institutions and to afford to the American exporter and importer at all times a possible means of financing his foreign business. Although it is true that the immediate effect of the operation of corporations under the terms of this section may be greatly to aid in the extension of much-needed credits to Europe, that effect is in reality only one incident to the permanent development of the American export market.

Congress, being mindful of the unusual powers conferred by this section, placed upon the Federal Reserve Board the responsibility of making such regulations and restrictions as may be necessary to insure the conservative and prudent management of corporations chartered under its provisions and to safeguard as far as possible the interests of the public with whom they may do business. The Federal Reserve Board, therefore, while realizing the importance of making its regulations sufficiently liberal to enable corporations operating under them effectively to compete with foreign institutions or State institutions doing a foreign business, has been impelled by the ordinary principles of banking prudence to impose restrictions which it believes will ultimately do much to command the prestige and public confidence, upon which must depend the success of every corporation of this character.

The Federal Reserve Board on March 23, 1920, issued its Regulation K, Series of 1920, governing the organization and operation of corporations under the provisions of section 25 (*a*). This regulation prescribed the formalities necessary for the organization of corporations under this section. Specific provision was made for the transfer of stock of such a corporation to insure compliance with the provisions of the act, and it was expressly provided that the by-laws of the corporation must contain appropriate regulations for the registration of the shares of stock in accordance with the terms of the law and the Board's regulations, and that such by-laws must also provide that the stock certificates shall contain sufficient provisions to put the holder on notice of the terms of the law and the regulations of the Board. Under this regulation agencies may be established in the United States with the Board's approval, but for specific purposes only and not generally to carry on the business of the corporation. Branches may under no circumstances be established in the United States and may be established abroad only with the approval of the Board. The regulation authorized the acceptance of drafts and bills of exchange growing out of transactions involving the importation or exportation of goods, provided, however, that the maturity of such drafts and bills is not in excess of six months, and provided that, except with the approval of the Federal Reserve Board, no corporation may accept drafts or bills of exchange if at the time such drafts or bills are presented for acceptance it has debentures outstanding. The aggregate of any corporation's liabilities outstanding at any one time was restricted to ten times the amount of the corporation's capital and surplus. The regulation further provided that each corporation shall make at least two reports annually to the Board in such form as it may require and that an examination shall be made at least once a year by examiners appointed by the Board. Regulation K of the Board's new regulations, Series of 1920, which supersedes the Board's original Regulation K, issued March 23, 1920, makes only one substantial change. The paragraph entitled "Acceptances" has been amended so as to permit corporations organized under the provisions of section 25 (*a*) to accept, subject to substantially the same conditions as are imposed by law upon member banks, drafts drawn by banks or bankers located in foreign countries or dependencies or insular possessions of the United States, for the purpose of furnishing dollar exchange as required by the usages of trade in those countries, dependencies, or possessions.

It is realized by the Federal Reserve Board that the organization and operation of these corporations involve new principles and new fields of effort, and that experience may demonstrate that the regulations which it has promulgated may be in some respects too restrictive and in other respects too liberal. The Federal Reserve Board, therefore, in order to permit of the development of operations under the terms of this section in the manner contemplated by Congress, has reserved the right to amend its regulations from time to time in such manner as experience and changing conditions may dictate.

Since the passage of the so-called Edge Act, two international financial corporations have been incorporated under the provisions of that act, one with a capital stock of $2,100,000 and the other with a capital stock of $7,000,000. Plans are now well under way for the organization of another corporation with a capital stock of $100,000,000. Requests are being constantly received by the Board for information concerning the organization of corporations under section 25 (*a*) and it is not unlikely that other corporations will be organized within the next year.

STATE FOREIGN BANKING CORPORATIONS.

During the year one American banking corporation, organized under State laws, principally engaged in foreign banking, has entered into the necessary agreement with the Board to enable national banks to purchase its stock under the provisions of section 25 of the Federal Reserve Act. The number of such corporations in operation has thus been increased to 10.

The Equitable Eastern Banking Corporation, of New York, was organized in December, 1920, with a paid-in capital of $2,000,000, and has entered into the usual agreement with the Board for the regulation of its operations. This corporation is controlled by the Equitable Trust Co., of New York City.

The scope of operations of the other American foreign banking corporations doing business under agreement with the Board (listed below in the table) has been extended considerably during the past year. Combined capital and surplus accounts of the head offices of these corporations have increased $9,870,000. The American Foreign Banking Corporation has increased its foreign branches from 9 to 19, the new branches being located at San Pedro Sula, Honduras, Central America; Buenos Aires, Argentine Republic; La Vega, Santo Domingo; San Francisco de Macoris, Santo Domingo; Santo Domingo, Santo Domingo; San Pedro de Macoris, Santo Domingo; Sanchez, Santo Domingo; Santiago, Santo Domingo; Puerta Plata, Santo Domingo; Mexico City, Mexico.

The Mercantile Bank of the Americas has established a branch at Hamburg, the International Banking Corporation has added branches at Barahona, Dominican Republic; Madrid, Spain; Barcelona, Spain;

and the Equitable Eastern Banking Corporation has established a branch at Shanghai, China.

Name of corporation.	Organized under laws of State of—	As of Dec. 31, 1920.				
		Capital and surplus.	Resources (head office).	Subsidiary or affiliated institutions.	Foreign branches.	Domestic branches.
American Foreign Banking Corporation, New York City.	New York....	$6,504,635	$40,606,352	1	16	....
Mercantile Bank of the Americas, New York City.	Connecticut...	10,570,000	87,786,228	12	4	1
Asia Banking Corporation, New York City.	New York....	5,100,000	24,652,299	....	9	....
International Banking Corporation, New York City.	Connecticut...	10,000,000	76,427,505	1	31	1
Park-Union Foreign Banking Corporation, New York City.	New York....	4,621,004	16,297,406	....	4	2
French American Banking Corporation, New York City.	.....do........	2,500,000	17,534,560	....	....	....
Foreign Credit Corporation, New York City.	.....do........	6,629,736	26,894,304	....	....	....
First National Corporation, Boston, Mass.	Massachusetts.	1,950,000	9,443,675	....	....	1
Shawmut Corporation, Boston, Mass.	.....do........	2,500,000	11,334,078	....	....	1
Equitable Eastern Banking Corporation, New York City.	New York....	2,500,000	2,500,000	....	1	....

FOREIGN BRANCHES OF NATIONAL BANKS.

The Federal Reserve Board during the year 1920 authorized the establishment of foreign branches and subbranches of national banks as follows:

National City Bank, New York City: Branch in London, England, February 2; subbranch in same city June 8.

First National Bank, Boston, Mass.: Branch in Rio de Janeiro, Brazil, September 21.

The branches operated by the National City Bank in the cities of Madrid and Barcelona, Spain, were transferred to the International Banking Corporation, of New York City, on September 21.

FOREIGN EXCHANGE DURING 1920.

It should be understood that during the past 18 months our foreign trade has been conducted under peculiar and difficult conditions. The banking systems of the principal European countries which were obliged to bear heavy burdens during the war on account of the enormous drafts made upon them by their Governments found it impossible to conduct their business in a normal way, not only because of the great issues of paper currency which have been emitted, but also because of changes in the credit standing of great numbers of their clientele. The efficient banking machinery which had existed in Europe prior to 1913 has been destroyed in some cases and in others has been crippled. This would in any case have been a serious barrier to resumption of normal trade relations with foreign countries by the United States, but the situation has been further aggravated because of the fact that the standards of value throughout Europe have so extensively and seriously broken down. Consequently foreign exchanges have become unstable and the usual methods of collecting indebtedness abroad are no longer effective. Furthermore, the embargoes upon movements of gold which still prevail in many countries have prevented stabilization of exchanges. It is not, therefore, remarkable that in many cases exporters finding their banks unable or indisposed to extend accommodation which would involve the carrying of large balances in foreign banks should themselves have assumed the financial risks and have continued their transactions by accepting payments in the currencies of the countries to which the goods were shipped or in some cases by accepting credits on the books of the European importers.

In order to point out some of the problems and difficulties which have been attendant upon foreign trade transactions because of the violent fluctuations and the erratic course of foreign exchanges, it seems proper to give a detailed review of these fluctuations and their causes.

During the month of December, 1919, European exchanges showed a downward tendency, sterling falling from $4 a pound to $3.76, francs from 9.90 francs to the dollar to 10.90, guilders from $0.38 each to $0.37⅜, Swiss francs from 5.48 to the dollar to 5.62, lire from 12.34 to the dollar to 13.25, Danish crowns from 20 cents to 19 cents each, Swedish crowns from 22.35 cents to 21½ cents. The rates named last in each case prevailed at the opening of the year 1920 and represented the depreciated exchanges in the New York market, those of the allied nations in particular showing large percentages of depreciation.

Throughout the year 1920 all of these exchanges together with Norwegian crowns and German marks (with certain exceptions which will be mentioned later) followed substantially the same course. In a general way they all continued to fall until about the 1st of March, rising until the first part of April, and, after fluctuations during April and May, returning during the first part of June to practically the same general level which had prevailed during the first part of April. Then followed a marked rise in sterling, French francs, Belgian francs, and Swedish crowns until the high point of the year was reached in these exchanges just before the middle of

July. In the meantime guilders, Norwegian and Danish crowns, marks and lire had all been working a little lower. From the middle of July all of the European exchanges steadily eased off during the rest of the year, except for short rises over occasional periods of a day or a week, until in the early part of November they had all fallen to about the lowest point of the year. Sterling exchange, which was at $3.80 to the pound at the beginning of the year, reached $3.35 in November. It had fallen to $3.19 early in February, but this was a temporary break based upon rumors that England might establish an embargo on the importation of cotton. It recovered sharply to $3.31, after which it dropped again to $3.19¼. Many banks dealing in foreign exchange discontinued at this time making advances on dollar drafts drawn against exports to foreign countries and began taking them for collection only. Announcement some days later that England was planning to export gold to the United States to meet the Anglo-French loan which matured October 15, 1920, caused a sharp rise in sterling which continued to advance until it reached $4.03 a pound in April. During the remainder of the year sterling followed the general tendency.

The arbitrage of the exchanges through London was so free and constant throughout the year 1920 that, except for special conditions which applied to certain local currencies, sterling exchange was closely followed by all the other exchanges. In the case of French and Belgian francs some very marked fluctuations came about in both 1919 and 1920, which were due entirely to speculation based upon the possible outcome of negotiations being held, or expected to be held, between the Allies. During each one of these conferences—or usually in anticipation of them—sterling exchange in Paris and Brussels fell rapidly, which forced up the rates of these exchanges as quoted in dollars. The rumors which were at the bottom of these movements of sterling exchange in France and Belgium were that further loans might be arranged in England for the use of these two countries, particularly of France. British and French newspapers during these periods printed articles thought to be officially inspired, which gave such force to the rumors that very large speculative operations were immediately undertaken in anticipation of the effect that such loans would have. After it developed at each one of these meetings of the Allies that no loans had been effected in England for account of France, sterling exchange in Paris again advanced, with the resultant fall of the price for francs in the United States. As France exports less to Belgium than it imports, the rates for these two exchanges have been affected proportionately the same, with a slight difference in favor of Belgium.

In April the belief was prevalent in the markets that Great Britain would not join with France in any extension of the Anglo-French loan and that France would have to take care of its own obligations. This led to a sharp rise of sterling in both Paris and Brussels and a corresponding fall in the value of French and Belgian francs, which continued throughout the month of April. From that time until the high point of the exchanges was reached in July, the movement of exports from the United States to France and Belgium was proportionately less than during the rest of the year. At the same time importers in France were not placing orders for further imports, and they stopped the purchase of dollars for spot and future delivery. Coincidently it became known that the French Government was taking positive action to meet payment of its part of the Anglo-French loan. French francs advanced from the low point of about 17 francs to the dollar in April to 11.80 francs to the dollar early in July, and Belgian francs from 16.30 to the dollar in April to 11.10 in July. Marks, which opened the year at about 2 cents each, dropped violently during January and reached the low point close to 1 cent in February. About the middle of March and April there were violent fluctuations in marks, but the fall after each rise left the rate a trifle higher than before the rise, until the high point was reached in the latter part of May, when marks sold at 3.04 cents each. The operations which appeared to have brought about this rise were the purchase in the United States, Great Britain, and Holland of German municipal bonds and other securities. As soon as this speculative buying had run its course the German mark began to fall rapidly, until on November 1 the mark was quoted at 1.14 cents.

It is interesting to note that the sharp rise in the value of the mark during the month of May caused serious losses to German manufacturers and for a time stopped their export trade. These manufacturers had purchased raw materials in foreign markets when the foreign exchanges were up and were obliged to take payment for finished products when foreign moneys were down. The low current value of the mark was also making it extremely difficult for manufacturing interests in neutral countries, as it was cheaper for these countries to export raw materials direct to Germany, have them made up into finished goods and reimport them from Germany, paying freight both ways, than to import raw materials direct and to manufacture the goods themselves.

From the middle of July through the remainder of the year, except for minor fluctuations, the steady downward trend of all European currencies was due to the fact that these months covered the period of our exports of cotton and other agricultural products. The immediate turn in the latter part of July was due partly to the crisis in Poland occasioned by the advance of the Russian armies. Early in August, when it appeared that Warsaw might be taken, all of the European exchanges dropped suddenly, but as the Polish armies drove the Russians back, the exchanges recovered part of the loss.

In September labor troubles in Italy began to take a serious turn, and certain manufacturing concerns were taken over by the labor employed therein. Lira exchange then began to fall and continued its downward course from its high point of 15.8 lire to the dollar, which it reached the latter part of June, to the low point for the year in the first part of November, of 30.3 lire to the dollar. While the British coal strike was reflected in the exchanges in October, to a certain extent the general feeling seemed to be that it would be settled and its effect was noticeable only for a few days.

Investments have been made by those who have absorbed foreign exchange, as bills for export have been offered during the year, because they expected to make a profit over a long or short period, and it is only because of purchases of exchange so made that foreign exchanges have been maintained at all. During normal periods when gold, arbitrage, or temporary borrowings can be used to offset temporary exchange balances, fluctuations of exchange between the principal industrial countries of the world which are on a gold basis are generally governed by the gold points—that is, the exporting or importing points. When, however, the balance of trade is constantly one way and the time when a turn may be expected is an indeterminate future, which is made more uncertain because of unlimited inflation, the gold points lose all force. Then the fluctuations of exchange during each day and each period come to depend upon the proportionate simultaneous presentation of export bills and demands to pay for exports, and any other operations which create or require exchange, together with the opinions of those who are looking for investment in any one of the ways previously mentioned because such rates as prevail offer opportunities for possible profit. Extreme fluctuations of the exchanges covering large percentages are certain to occur under such conditions. The support of the exchanges being subject to such sentimental buying, they are more subject to the influence of political or other events which would seem to have an effect upon them than might otherwise be true.

During the year 1920 these elements resulted in percentages of differences between high and low points of the principal European exchanges, which were as follows:

	Per cent.
Sterling	19.8
French francs	38.5
Belgian francs	35.3
Lire	55.8
Swedish crowns	20.7
Norwegian crowns	35.3
Danish crowns	31.7
German marks	65.7

Some of the sharpest fluctuations covering a period of a comparatively few hours, or over a day or so, were, in sterling, a drop of 7.5 per cent in two business days, with a recovery of 2.8 per cent in 24 hours, a total recovery in 10 days during the first half of February, and a sudden drop the first and second of August of 4 per cent, with a recovery of 2.4 per cent in the two succeeding days; in French francs a fall of 10.4 per cent in three days during the first half of April, a rise of 9.4 per cent in three days at the end of May, and a fall of 7.3 per cent in two days just after the middle of July. The sharpest movements in Belgian francs were practically the same.

In Dutch guilders there was a sudden rise the latter part of January of 4 per cent, followed immediately by an approximately equal fall. Italian lire had a perpendicular drop over a few days from the latter part of January to the first few days of February of 19 per cent, a further rapid fall the first part of April over the course of a few days of 22.8 per cent, which was followed by a sudden rise in two days of 21.4 per cent. The latter part of May there was another sharp rise for a few days of 19 per cent. From the first of July until the first week in November there were constant sharp falls, with five sudden temporary recoveries for a day or so of about 4 per cent each.

Marks fell 50.5 per cent between the 1st of January and the 24th, rose sharply over the course of a day or two 26.4 per cent, and immediately dropped to the original low point. At the end of the first week of March, over two days they rose 55 per cent, and lost practically all of the advance in the succeeding four days. Early in April they had again risen 80 per cent, practically all after the second of the month, dropped by the middle of April 19 per cent, went up during the third week in May 46 per cent, and almost immediately fell 25 per cent. The fluctuations during the remainder of the year were in similar large percentages, but always with a downward tendency, until the end of the first week in November.

Attention is called to these percentages in order to show under what tremendous difficulties bankers and exporters and importers had to trade. In order to make it possible for our exporters to sell their goods, bankers were obliged to buy bills on markets which might drop out from under them while they were at telephones making purchases, and while there were occasional sharp rises in their favor, yet on the whole during the year the tendency was downward, and the rates of all the European exchanges the first week in November were far below the prices at which they had ruled at the beginning of the year.

The far eastern exchanges, with the exception of exchange on Japan, showed a constant downward tendency throughout the year. The greatest drop was in Shanghai taels. Hongkong dollars followed next, and rupees also showed a great decline. The depreciation of the Manila peso was not so great; during the latter part of the year it ruled at a discount of from 4 to 8 per cent. The Japanese yen, which opened the year at a premium, fell below par during the first few months of the year, after which it went back to a premium, where it remained throughout the balance of the year, except one day. The premium on the yen the first week of November was, however, very small. The same difficulty in paying for imports from the United States that prevailed in all of the far eastern countries, except Japan, has been met with in Australasia. The Canadian dollar was at a discount throughout the year, and reached its greatest depreciation in November, together with all of the other foreign currencies.

Without having their figures available it would seem, judging from their relations with the United States, that other foreign countries were not able to trade with the European countries even proportionately as well as the United States. This was undoubtedly due to the fact that they could not find buyers to any extent of favorable balances that might have been created. Their trade naturally, therefore, tended more toward the United States than was normal, particularly as Europe could not supply them with their requirements to the same extent as before the war. Having to pay for imports from the United States, they naturally exported more to this country, and again, because they were able to receive in effect payment in cash. This resulted in the import into the United States of commodities in vast quantities, for which we suddenly found we had no market, as their true markets were European countries. With the sudden fall in prices of the things which many of the South American and far eastern countries had to sell, and the development in the United States of stagnant markets at any price, their opportunity to buy further from the United States was sharply cut off.

The world trade of the United States, therefore, is being menaced by the circumstances which have produced demoralization of world exchanges, and until the causes of this demoralization have been removed through the resumption of general distribution of goods among the nations, our foreign trade is going to be extremely difficult to carry on, and we must expect violent fluctuations, which will be entirely at the mercy of political events, relationships between daily offerings of exchange and demand for it, and money markets.

EXCHANGE TRANSACTIONS WITH SOVIET RUSSIA.

As stated in the Board's Annual Report for the year 1919, the President, on June 26, 1919, issued a proclamation which revoked and canceled all previous proclamations prohibiting the exportation of coin, bullion, and currency and controlling transactions in foreign exchanges, and the power and authority for those purposes vested in the Secretary of the Treasury and the Federal Reserve Board, and all orders, rules, and regulations issued or prescribed in connection therewith, except that such proclamations, orders, rules, and regulations were continued in force and effect in so far as they were necessary to enable the Secretary of the Treasury and the Federal Reserve Board effectively to control: (1) All exportations of coin, bullion, and currency to that part of Russia now (then) under the control of the so-called bolshevik government; (2) any and all dealings or exchange transactions in Russian rubles; (3) the transfer of credit or exchange transactions with that part of Russia now (then) under the control of the so-called bolshevik government; (4) any and all transfers of credit or exchange transactions with territories in respect of which such transactions were then permitted only through the American Relief Administration. On June 30, 1919, the Federal Reserve Board announced that remittances to the countries referred to in the fourth exception mentioned above were not thereafter subject to any restrictions. On August 12, 1919, the Federal Reserve Board announced the issue of a general license permitting the exportation from the United States of Russian rubles, provided that notice of exportation be given to the customs division of the Treasury and to the division of foreign exchange of the Federal Reserve Board.

On December 18, 1920, with the approval of the Department of State, all supervision and control of the above-named transactions were suspended, until further notice, in order to give force and effect to the action of that department in removing restrictions in the way of trade and communication with soviet Russia, as announced by the Department of State on July 7, 1920.

RELATIVE POSITION OF AMERICAN BUSINESS AND FINANCE.

Some of the principal factors in the situation which contrast our position with that of foreign countries may be outlined as follows:

(1) The expansion in the total volume of currency has been much less in the United States than in other countries and the increase in the total circulation, while greater than that which has taken place in Spain, Japan, Sweden, the Netherlands, Denmark, and Switzerland, has been far less than in other countries as is shown by the following tables.

Comparative table showing total note circulation, deposits, and gold and silver holdings of the principal banks of issue, at the outbreak of the war, about the time of the armistice, and at latest available dates.

(In thousands of dollars.)

	At outbreak of the war.				
	Total note circulation.	Total deposits.	Note and deposit liabilities combined.	Gold and silver holdings.	Per cent of gold and silver holdings to note and deposit liabilities combined.
ALLIED POWERS.					
Belgium	311,665	20,409	332,074	56,619	17.1
France	1,289,855	256,716	1,546,571	919,968	59.5
Great Britain:					
Bank of England	144,566	326,699	471,265	185,567	39.4
Exchequer	187,253	....	187,253	90,030	48.1
Total	331,819	326,699	658,518	275,597	41.9
Japan [1]	180,411	74,944	255,355	110,521	43.3
Italy:					
Bank of Italy, Bank of Naples, Bank of Sicily	440,718	145,330	586,048	287,825	49.1
Treasury	96,321	....	96,321	22,581	23.4
Total	537,039	145,330	682,369	310,406	45.5
Russia	841,174	592,522	1,433,696	863,371	60.2
Total, including Russia	3,491,963	1,416,620	4,908,583	2,536,482	51.7
Total, excluding Russia	2,650,789	824,098	3,474,887	1,673,111	48.1
United States [2]	1,097,353	....	1,097,353	445,671	40.6
CENTRAL POWERS.					
Austria-Hungary	431,489	59,012	490,501	309,825	63.2
Germany	692,442	299,515	991,957	363,670	36.7
Total	1,123,931	358,527	1,482,458	673,495	45.4
NEUTRAL POWERS.					
Argentina [3]	349,485	....	349,485	313,497	89.7
Denmark	39,525	5,496	45,021	24,410	54.2
Netherlands	124,796	1,904	126,700	68,447	54.0
Norway	32,859	3,859	36,718	14,405	39.2
Spain	373,557	96,931	470,488	248,861	52.9
Sweden	54,367	18,440	72,807	26,154	35.9
Switzerland	51,708	9,777	61,485	38,409	62.5
Total	1,026,297	136,407	1,162,704	734,183	63.1

[1] Includes gold held abroad.

[2] The circulation represents greenbacks and national bank notes. The gold and silver holdings represent gold and silver held by the national banks, 60 per cent of the clearing house certificates, the reserve against greenbacks, and the available gold and silver coin in the Treasury.

[3] Figures for the Caja de Conversion.

Comparative table showing total note circulation, deposits, and gold and silver holdings of the principal banks of issue, at the outbreak of the war, about the time of the armistice, and at latest available dates—Continued.

(In thousands of dollars.)

	About the time of the armistice.				
	Total note circulation.	Total deposits.	Note and deposit liabilities combined.	Gold and silver holdings.	Per cent of gold and silver holdings to note and deposit liabilities combined.
ALLIED POWERS.					
Belgium [4]	904,583	484,234	1,388,817	56,917	4.1
France	5,900,147	620,483	6,520,630	[5] 719,818	11.0
Great Britain:					
Bank of England	316,016	821,037	1,137,053	362,968	31.9
Exchequer	1,429,734	....	1,429,734	138,695	9.7
Total	1,745,750	821,037	2,566,787	501,663	19.5
Japan [1]	412,001	504,175	916,176	339,532	37.1
Italy:					
Bank of Italy, Bank of Naples, Bank of Sicily	2,218,689	374,555	2,593,244	224,285	8.6
Treasury	403,274	....	403,274	31,826	7.9
Total	2,621,963	374,555	2,996,518	256,111	8.5
Russia	....	....	....	....	....
Total, excluding Russia	11,584,444	2,804,484	14,388,928	1,874,041	13.0
United States: [6]	3,675,206	1,665,677	5,340,883	2,305,456	43.2
CENTRAL POWERS.					
Austria-Hungary	[7] 7,210,253	1,446,806	8,657,059	64,598	.8
Germany	[8] 6,524,350	2,454,370	8,978,720	612,564	6.8
Total	13,734,603	3,901,176	17,635,779	677,162	3.8
NEUTRAL POWERS.					
Argentina [3]	490,644	....	490,644	269,628	55.0
Denmark	117,974	22,485	140,459	50,986	36.3
Netherlands	446,218	35,343	481,561	284,840	59.1
Norway	116,905	34,306	151,211	32,691	21.6
Spain	620,630	219,920	840,550	553,350	65.8
Sweden	210,109	37,920	248,029	75,940	30.6
Switzerland	183,886	31,616	215,502	83,993	39.0
Total	2,186,366	381,590	2,567,956	1,351,428	52.6

[1] Includes gold held abroad.
[3] Figures for the Caja de Conversion.
[4] July 10, 1919.
[5] Exclusive of $393,162,000 held abroad.
[6] The circulation represents Federal Reserve notes in actual circulation, Federal Reserve bank notes in actual circulation, national bank notes and greenbacks. Deposits are net deposits of the Federal Reserve Banks. Gold and silver holdings comprise those shown by the Federal Reserve Banks, exclusive of gold with foreign agencies, also the Treasury reserve against greenbacks, and the available gold and silver in the Treasury.
[7] Does not include "scrip" (Kassenscheine.)
[8] Includes notes of the War Loan Banks (Darlehnskassenscheine).

Comparative table showing total note circulation, deposits, and gold and silver holdings of the principal banks of issue, at the outbreak of the war, about the time of the armistice, and at latest available dates—Continued.

(In thousands of dollars.)

	At latest available date.					
	Date.	Total note circulation.	Total deposits.	Note and deposit liabilities combined.	Gold and silver holdings.	Per cent of gold and silver holdings to note and deposit liabilities combined.
ALLIED POWERS.						
Belgium	Dec. 16, 1920	1, 159, 067	220, 973	1, 380, 040	56, 812	4. 1
France	Dec. 23, 1920	7, 226, 762	694, 916	7, 921, 678	[9] 736, 754	9. 3
Great Britain	Dec. 15, 1920					
Bank of England		547, 413	707, 935	1, 255, 348	617, 131	49. 2
Exchequer		1, 747, 930		1, 747, 930	138, 695	7. 9
Total		2, 295, 343	707, 935	3, 003, 278	755, 826	25. 2
Japan [1]	Dec. 11, 1920	558, 481	600, 743	1, 159, 224	586, 882	50. 6
Italy	June 30, 1920					
Bank of Italy, Bank of Naples, Bank of Sicily		3, 438, 670	595, 854	4, 034, 524	222, 381	5. 5
Treasury		489, 641		489, 641	42, 344	8. 6
Total		3, 928, 311	595, 854	4, 524, 165	264, 725	5. 9
Russia						
Total excluding Russia		15, 167, 964	2, 820, 421	17, 988, 385	2, 400, 909	13. 3
United States [6]	Dec. 30, 1920	4, 616, 086	1, 604, 190	6, 220, 276	2, 429, 392	39. 1
CENTRAL POWERS.						
Austria-Hungary	Nov. 23, 1920	[7] 15,278,256	2, 052, 052	17, 330, 308	56, 591	. 3
Germany	Nov. 30, 1920	[8] 18,259,178	4, 130, 371	22, 389, 549	261, 528	1. 2
Tota		33, 537, 434	6, 182, 423	39, 719, 857	318, 119	. 8
NEUTRAL POWERS.						
Argentina [3]	Oct. 15, 1920	579, 089		579, 089	447, 217	77. 2
Denmark	Nov. 30, 1920	148, 799	47, 708	196, 507	61, 692	31. 4
Netherlands	Dec. 6, 1920	434, 588	30, 499	465, 087	263, 900	56. 7
Norway	Oct. 31, 1920	128, 225	29, 077	157, 302	39, 483	25. 1
Spain	Dec. 11, 1920	817, 576	231, 885	1, 049, 461	586, 398	55. 9
Sweden	Oct. 31, 1920	207, 113	50, 149	257, 262	75, 686	29. 4
Switzerland	Dec. 15, 1920	178, 067	26, 216	204, 283	127, 809	62. 6
Total		2, 493, 457	415, 534	2, 908, 991	1, 602, 185	55. 1

[1] Includes gold held abroad.

[3] Figures for the Caja de Conversion.

[6] The circulation represents Federal Reserve notes in actual circulation, Federal Reserve bank notes in actual circulation, national bank notes and greenbacks. Deposits are net deposits of the Federal Reserve Banks. Gold and silver holdings comprise those shown by the Federal Reserve Banks, exclusive of gold with foreign agencies, also the Treasury reserve against greenbacks, and the available gold and silver in the Treasury.

[7] Does not include "scrip" (Kassenscheine.)

[8] Includes notes of the War Loan Banks (Darlehnskassenscheine).

[9] Exclusive of $376,035,000 held abroad.

Comparative table showing total note circulation, deposits, and gold and silver holdings of the principal banks of issue, at the outbreak of the war, about the time of the armistice, and at latest available dates—Continued.

RECAPITULATION.

(In thousands of dollars.)

	Total note circulation.	Total deposits.	Note and deposit liabilities combined.	Gold and silver holdings.	Per cent of gold and silver holdings to note and deposit liabilities combined.
	At outbreak of the war.				
Allied powers:					
Including Russia	3,491,963	1,416,620	4,908,583	2,536,482	51.7
Excluding Russia	2,650,789	824,098	3,474,887	1,673,111	48.1
United States	1,097,353	....	1,097,353	445,671	40.6
Central powers	1,123,931	358,527	1,482,458	673,495	45.4
Neutral powers	1,026,297	136,407	1,162,704	734,183	63.1
Total, including Russia	6,739,544	1,911,554	8,651,098	4,389,831	50.7
Total, excluding Russia	5,898,370	1,319,032	7,217,402	3,526,460	48.9
	About the time of the armistice.				
Allied powers	11,584,444	2,804,484	14,388,928	1,874,041	13.0
United States	3,675,206	1,665,677	5,340,883	2,305,456	43.2
Central powers	13,734,603	3,901,176	17,635,779	677,162	3.8
Neutral powers	2,186,366	381,590	2,567,956	1,351,428	52.6
Total	31,180,619	8,752,927	39,933,546	6,208,087	15.5
	At latest available dates.				
Allied powers	15,167,964	2,820,421	17,988,385	2,400,999	13.3
United States	4,616,086	1,604,190	6,220,276	2,429,392	39.1
Central powers	33,537,434	6,182,423	39,719,857	318,119	.8
Neutral powers	2,493,457	415,534	2,908,991	1,602,185	55.1
Total	55,814,941	11,022,568	66,837,509	6,750,695	10.1

(2) The foreign trade of the United States has been maintained on a higher and more stable level than that of any other country. In the subjoined table figures are given showing the volume of exports during the past two years from five of the principal countries engaged in world trade.

Exports of the United States, United Kingdom, France, Italy, and Japan.

[In millions of dollars at gold parity.]

Date.	United States.[1]	United Kingdom.[1]	France.[2]	Italy.	Japan.
1919.					
January	623	253	67	44	56
February	585	302	68	51	62
March	603	350	93	60	67
April	715	369	82	59	71
May	604	372	98	57	78
June	928	375	110	79	75
July	569	438	....	72	90
August	646	400	....	88	98
September	595	480	134	110	86
October	631	523	139	124	112
November	741	570	134	113	109
December	682	639	....	147	138
1920.					
January	733	528	139	83	88
February	646	636	255	103	87
March	820	616	259	115	98
April	685	679	266	131	109
May	746	664	233	128	96
June	631	664	349	145	91
July	651	756	....	101	77
August	579	624	464	103	87
September	605	637	415	....	77
October	752	625	450	....	67
November	677	645	363	....	52
December	721	532	321	....	43

[1] Including reexports.
[2] French foreign trade figures for 1919, and January through June, 1920, are expressed in 1918 value units. August, September, and October, 1920, figures are calculated at 1919 rates. A change in the methods of calculating the values for July, August, and December, 1919, and for July, 1920, makes them incomparable with other months.

(3) Prices in the United States have been relatively lower than those of other countries and the recent declines have been less drastic. This is demonstrated by the comparative index number table which appears on page 7 of this report. From the foregoing facts, the conclusion is justified that while the year 1920 was a period of commercial upheaval and financial stringency throughout the world and of serious disturbances in many countries, it has been far less distressing in the United States than in any other country. These conclusions are, however, of only secondary significance when the fact is considered that the United States is much stronger in financial resources and much more self-contained than any other country. But, however great the economic strength of the United States may be, it should be remembered that the country's expenditures during the war and the very profound modifications which have occurred in its economic system have had such far-reaching results as to make it imperative that the utmost care be taken to conserve our credit and protect the basis of our prosperity if we are to avoid the extreme conditions which prevail in other countries. Upon the United States in large measure the solvency and financial stability of many other countries depend. This fact greatly increases the responsibility which rests upon the American banking system and calls

for the exercise of sound judgment and the strict observance of sound financial and economic principles. The present is not a time for resorting to empirical remedies which merely deaden unpleasant sensations temporarily and which, instead of restoring the patient to health, undermine his strength and destroy his vitality.

MOVEMENT OF THE PRINCIPAL ASSETS AND LIABILITIES OF ALL FEDERAL RESERVE BANKS DURING THE YEAR 1920.

The holdings of discounted paper by Federal Reserve Banks showed a pronounced upward trend throughout the year 1920. The banks held 2,231 millions on January 2 and 2,719 millions on December 30, an increase of 488 millions for the period. From the relatively large total shown on January 2, when discounts were heavy in connection with annual dividend and interest payments, the banks' holdings of discounted paper receded to 2,080 millions on January 9. Subsequent to that date there is to be noted a succession of increases, with high points on February 27, June 4, September 3, and November 5, and recessions, with low points on March 19, June 18, September 17, November 19, and December 17, all of the low points being reported for Fridays following large operations of the Treasury in redeeming certificates of indebtedness and paying interest on United States bonds of the various issues. The volume of Government securities issued and redeemed through the Federal Reserve Banks during the year, while smaller than during preceding years when the Liberty and Victory loans were floated, was still very considerable, the aggregate of Treasury tax and loan certificates allotted by the Reserve Banks being about 3,851 millions and the total redeemed about 4,960 millions.

While the course of discounts in the Federal Reserve Bank statements has been a series of upward and downward movements, each successive high and low point has been considerably higher than the preceding one. In fact, the September 17 low point is only 55 millions below the high point in the first half of the year, June 4, while the more recent low points on November 19 and December 17 are higher than the level reached at any date previous to August 20. Not only is a general upward movement of discounts shown throughout the year, but the growth has been more rapid during the second half, when the heavy credit demands of the crop-moving season are reflected in larger borrowings by members from the Federal Reserve Banks. Thus, while the increase in discounted bills held by the Reserve Banks between the low point on January 9 and the high point on June 4 amounted to 484 millions, the increase between the low point on June 18 and the high point on November 5 was 531 millions.

Another feature of the discount transactions of the Federal Reserve Banks during the year is the decrease in the proportion of paper secured by Government war obligations. Preferential rates on paper secured by Liberty bonds and Victory notes were abrogated by some Federal Reserve Banks and raised by others to a level more nearly approximating the rate level for ordinary commercial paper. In the case of paper secured by Treasury certificates the rates adopted were in most cases identical with the higher coupon rates fixed by the Government, thus holding out no inducement to the member banks to carry these securities among their own investments and use them as collateral for loans at the Federal Reserve Banks, but rather providing a stimulus to place them in the hands of ultimate investors. The results are seen in the gradual decrease of the amounts of war paper held during the year by the Reserve Banks. From nearly 1,500 millions at the opening of the year the holdings of paper secured by Government war obligations declined to 1,141 millions on December 30. Of the latter total 188 millions, or 16.5 per cent, were secured by Treasury certificates, compared with 462 millions, or over 31 per cent, held at the opening of the year—this decrease corresponding in a general way to the reduction in the amount of certificates held by the member banks. Much smaller reductions are shown in the Reserve Banks' holdings of paper secured by Liberty bonds and Victory notes, the December 30 total, 953 millions, being only 70 millions less than the amount reported at the beginning of the year. On the other hand, holdings of other discounted paper, which at the opening of the year totaled 747 millions, show an almost steady growth, being in excess of 1,500 millions at the end of September, and fluctuating between about 1,500 and 1,600 millions during the last three months of the year. At the end of the year, out of a total of 2,719 millions of discounted bills, about 42 per cent was composed of paper secured by United States war obligations, against 67 per cent of a total of 2,231 millions held on the first Friday of the year.

Acceptance holdings of the Federal Reserve Banks show an almost uninterrupted reduction for the period under review. From a total of 575 millions at the beginning of the year, a decline to 256 millions on December 30 is reported, the decrease of 319 millions being due largely to the increased demand for acceptances by savings banks, trust companies, and by corporate and individual investors.

Fluctuations in Federal Reserve Bank holdings of Treasury certificates of indebtedness during the year are mainly the result of the issue and redemption by the Government from time to time of temporary certificates in anticipation of the actual collection of income tax checks and the withdrawal of funds from depositary institutions. The highest Friday night figures for the year are shown for March 19 (410 millions) and September 17 (393 millions), both these days immediately following dates on which installments of income and excess profits taxes were due. Exclusive of these temporary certificates and of certificates bought under repurchase agreements, the Federal Reserve Banks' holdings of Treasury certificates consist chiefly of certificates deposited as security for Federal Reserve Bank notes outstanding.

Total earning assets of the Federal Reserve Banks, which were 3,182 millions on January 2, and 2,984 millions on January 9, increased to 3,422 millions on October 15, and on December 30 were 3,263 millions.

Government balances with Federal Reserve Banks were considerably smaller than during the previous year, partly because of a smaller volume of Government expenditures but also because of the development of a better system of handling Government funds. The daily average of Government deposits during 1920 was 36 millions, compared with 99 millions the year before. The lowest amount of Government deposits is shown for August 10, when the total was only 7 millions, while on September 17, subsequent to the payment of the September 15 installment of income and excess profits taxes, the highest figure of the year—135 millions—was reached. Member banks' reserve deposits fluctuated within comparatively narrow limits, the largest total—1,944 millions—being held on January 16 and the lowest—1,712 millions—on November 26. Other deposits, including foreign Government credits, declined from 116 millions on January 2 to 22 millions on December 30, mainly as the result of withdrawals by the Argentine Government of deposits made during the war. Net deposits held by the Federal Reserve Banks showed a general downward tendency for the year, the total on December 30—1,604 millions—being 280 millions below the maximum amount held on February 27. Reductions in reserve deposits of Federal Reserve Banks correspond to reductions in deposit liabilities of member banks, especially during the latter portion of the year. The larger borrowings from Reserve Banks in recent months have led to increased Federal Reserve note circulation rather than to increased deposit liabilities of the Reserve Banks.

Federal Reserve note circulation, after the usual contraction at the beginning of the year, when a return flow of notes used during the holiday season occurs, shows an almost uninterrupted expansion. The minimum amount of 2,844 millions appears on the statement for

January 23 and the maximum of 3,405 millions on December 23. The amount outstanding on December 30 marks a reduction of 60 millions from the high point on December 23, but an expansion of 345 millions from January 2. The circulation of Federal Reserve Bank notes declined from 259 millions on January 2 to 177 millions on May 14, but since that date an increase to 217 millions on December 30 is noted.

Movement of principal assets and liabilities of all Federal Reserve Banks, by weeks, during 1920.

[Amounts in thousands of dollars.]

Date.	Resources.						Liabilities.			
	1	2	3	4	5	6	7	8	9	10
	Discounted paper.									
	Secured by Government war obligations.	Otherwise secured and unsecured.	Total.	Per cent (1÷3).	Bills bought in open market.	Total cash reserves.	Net deposits.	Federal Reserve notes in actual circulation.	Ratio of cash reserves to net deposit and Federal Reserve note liabilities combined.	Federal Reserve Bank notes in circulation, net liability.
Jan. 2	1,484,262	746,925	2,231,187	66.5	574,631	2,121,272	1,851,133	2,998,992	43.7	258,561
9	1,352,035	727,670	2,079,755	65.0	574,722	2,102,099	1,715,892	2,914,368	45.4	259,099
16	1,351,454	748,611	2,100,065	64.4	575,675	2,104,281	1,819,061	2,849,879	45.1	258,482
23	1,386,348	767,110	2,153,458	64.4	575,789	2,087,896	1,817,843	2,844,227	44.8	251,843
30	1,457,892	716,465	2,174,357	67.0	561,313	2,073,933	1,806,496	2,850,944	44.5	250,530
Feb. 6	1,451,557	751,982	2,203,539	65.9	554,750	2,054,656	1,765,524	2,891,775	44.1	248,780
13	1,469,562	823,873	2,293,435	64.1	542,600	2,052,513	1,787,245	2,959,087	43.2	245,810
20	1,525,203	833,321	2,358,524	64.7	531,703	2,035,440	1,785,797	2,977,124	42.7	240,858
27	1,572,980	880,531	2,453,511	64.1	531,367	2,083,215	1,884,576	3,019,984	42.5	237,131
Mar. 5	1,520,494	888,194	2,408,688	63.1	513,854	2,064,630	1,792,393	3,030,010	42.6	229,167
12	1,515,959	907,487	2,423,446	62.6	504,172	2,056,730	1,798,110	3,039,750	42.5	220,733
19	1,353,509	854,172	2,207,681	61.3	463,232	2,060,326	1,688,032	3,047,133	43.5	211,132
26	1,441,015	1,008,215	2,449,230	58.8	451,879	2,057,155	1,772,904	3,048,039	42.7	201,392
Apr. 2	1,400,664	999,849	2,400,513	58.3	424,041	2,080,428	1,774,269	3,077,323	42.9	196,594
9	1,410,069	957,469	2,367,538	59.6	422,241	2,087,306	1,742,139	3,080,217	43.3	190,157
16	1,430,888	980,303	2,411,191	59.3	416,784	2,087,731	1,752,675	3,073,693	43.3	186,501
23	1,448,804	1,029,378	2,478,182	58.5	404,672	2,083,568	1,773,587	3,068,307	43.0	180,631
30	1,465,320	1,069,751	2,535,071	57.8	407,247	2,070,765	1,812,732	3,074,555	42.4	177,881
May 7	1,444,175	1,060,447	2,504,622	57.7	409,834	2,076,087	1,774,297	3,092,344	42.7	177,972
14	1,508,164	1,043,186	2,551,290	59.1	413,292	2,078,393	1,830,355	3,083,284	42.2	176,805
21	1,446,723	1,053,663	2,500,386	57.9	417,368	2,079,538	1,784,379	3,085,202	42.7	177,371
28	1,447,962	1,071,469	2,519,431	57.5	418,000	2,092,496	1,794,440	3,107,021	42.7	179,185
June 4	1,433,415	1,130,843	2,564,258	55.9	410,088	2,098,940	1,807,175	3,127,291	42.5	181,252
11	1,440,931	1,082,019	2,522,950	57.1	403,896	2,102,591	1,779,133	3,112,205	43.0	182,382
18	1,231,841	1,064,296	2,296,137	53.6	398,591	2,100,900	1,617,603	3,104,810	44.5	183,904
25	1,277,980	1,153,814	2,431,794	52.6	399,185	2,108,605	1,722,223	3,116,718	43.6	185,604

1920

July 2	1,294,892	1,250,302	2,545,194	50.9	390,085	2,109,501	1,755,996	3,168,814	42.8	189,232
9	1,296,350	1,265,243	2,561,593	50.6	372,591	2,108,193	1,707,869	3,180,948	43.1	190,287
16	1,256,258	1,233,890	2,490,148	50.4	356,471	2,119,047	1,686,941	3,135,893	43.9	189,375
23	1,247,371	1,222,536	2,469,907	50.5	353,543	2,134,012	1,685,644	3,118,205	44.4	190,067
30	1,241,017	1,250,613	2,491,630	49.8	345,305	2,128,640	1,697,245	3,120,138	44.2	192,168
Aug. 6	1,285,398	1,264,435	2,549,833	50.4	339,390	2,131,744	1,698,480	3,141,861	44.0	194,834
13	1,296,981	1,292,025	2,589,006	50.1	320,618	2,132,885	1,692,450	3,169,181	43.9	196,912
20	1,301,609	1,320,820	2,622,429	49.6	320,597	2,121,837	1,702,316	3,174,725	43.5	198,563
27	1,314,830	1,352,297	2,667,127	49.3	321,965	2,127,827	1,717,867	3,203,637	43.2	200,793
Sept. 3	1,332,892	1,412,035	2,744,927	48.6	313,501	2,117,957	1,735,088	3,243,270	42.5	205,423
10	1,299,123	1,376,076	2,675,199	48.6	316,982	2,131,247	1,679,417	3,295,185	42.8	209,073
17	1,202,593	1,306,610	2,509,203	47.9	321,605	2,133,145	1,578,287	3,289,681	43.8	212,219
24	1,220,423	1,484,041	2,704,464	45.1	307,624	2,151,594	1,658,464	3,279,996	43.6	214,180
Oct. 1	1,183,017	1,526,584	2,709,601	43.7	301,510	2,165,195	1,645,836	3,304,690	43.7	213,412
8	1,217,098	1,578,573	2,795,671	43.5	305,690	2,158,268	1,710,176	3,322,123	42.9	213,154
15	1,192,810	1,581,060	2,773,870	43.0	319,520	2,154,911	1,694,130	3,353,271	42.7	213,533
22	1,199,139	1,550,143	2,749,282	43.6	300,666	2,157,270	1,624,646	3.356,199	43.3	213,838
29	1,203,905	1,597,392	2,801,297	43.0	298,375	2,168,038	1,674,553	3,351,303	43.1	214,961
Nov. 5	1,215,101	1,611,724	2,826,825	43.0	299,769	2,169,729	1,694,923	3,354,180	43.0	214,533
12	1,180,977	1,603,773	2,784,750	42.4	287,854	2,180,011	1,674,764	3,328,985	43.6	215,080
19	1,158,907	1,514,467	2,673,374	43.3	275,227	2,180,228	1,632,740	3,307,435	44.1	213,881
26	1,192,425	1,542,975	2,735,400	43.6	247,703	2,195,310	1,623,641	3,325,538	44.4	214,610
Dec. 3	1,160,685	1,616,116	2,776,801	41.8	243,055	2,198,195	1,667,258	3,312,039	44.1	214,939
10	1,169,244	1,547,595	2,716,839	43.0	244,690	2,212,407	1,662,301	3,311,842	44.5	214,523
17	1,158,974	1,437,775	2,596,749	44.6	234,609	2,222,468	1,542,594	3,344,332	45.5	217,434
23	1,177,263	1,554,428	2,731,691	43.1	241,167	2,236,754	1,549,348	3,404,931	45.1	218,832
30	1,141,036	1,578,098	2,719,134	42.0	255,702	2,249,163	1,604,190	3,344,686	45.4	216,960

MOVEMENT OF RESERVES AND RESERVE RATIO.

During the early part of the year the Federal Reserve Banks lost gold, largely through export to South America and the Orient, and on March 26 total gold holdings were 1,935 millions, a reduction of 128 millions from January 2. Since that time, chiefly as the result of gold shipments from England in anticipation of the maturity of the Anglo-French bonds on October 15, there has been an increase in gold reserves, the total of 2,059 millions on December 30 being only 4 millions below the total of 2,063 millions shown at the beginning of the year. During the year the amount of gold held with foreign agencies was reduced from 131 to 3 millions. All of the gold received in payment for food supplies sold to Germany, which was placed in custody with the Bank of England during the fall of 1919, has been withdrawn and brought to this country. As this gold was counted as part of the banks' reserves, its transfer from London to this country has had no effect on their reserve position. The 3.3 millions of gold now held abroad is in custody of the Bank of France, pending shipment. Total cash reserves show an increase of 128 millions, or from 2,121 millions on January 2, to 2,249 millions on December 30, a larger gain in other cash reserves arising chiefly from deposits of silver dollars by the Treasury being partially offset by the loss of 4 millions of gold.

The reserve ratio of the Federal Reserve Banks, as a consequence of the changes detailed above, is somewhat higher at the end of the year than at its beginning, the percentages being 45.4 on December 30, as compared with 43.7 on January 2. A rise of 1.7 points for the week ending January 9, due partly to the return flow of Federal Reserve notes following the Christmas holidays, was followed by a slow but steady decline, with some fluctuations, to 42.2 per cent on May 14. A sharp rise brought the ratio up to 44.5 on June 18, the Friday following large redemptions of tax certificates by the Treasury. Since June 18 the reserve ratio has fluctuated within lower ranges, falling as low as 42.5 per cent on September 3, but rising to 45.5 per cent on December 17, due mainly to gains in gold and reduction in net deposits.

Eight of the Federal Reserve Banks at times during the year showed slight temporary deficiencies in their reserve against deposits, and by direction of the Board paid to the United States Treasurer as a penalty, under provisions of paragraph (c) of section 11 of the Federal Reserve Act, total amounts as follows:

Boston	$238.56
New York	23,301.10
Atlanta	181.08
Chicago	147.15
Minneapolis	78.48

Kansas City	$95.91
Dallas	74.33
San Francisco	547.44
Total	24,664.05

It may be of interest to note that at the Bank of England the ratio of reserves to note and deposit liability combined, if calculated on a basis similar to our own, has been maintained during the year on a level approximately the same as that of the Federal Reserve Banks, though the English ratio is subject to wider and more rapid fluctuations caused chiefly by Government operations in selling Treasury bills and obtaining ways and means advances, on the one hand, and by redemptions of these short-term obligations, on the other. In general, the ratio of the Bank of England, if figured on our basis, has fluctuated during the year between 40 and 50 per cent. On December 29 it stood at 39.7 per cent, comparable with a ratio of 45.4 per cent, shown on December 30 for the Federal Reserve Banks.

INTERBANK PURCHASES OF ACCEPTANCES AND REDISCOUNT OPERATIONS.

During the past year, as in 1919, the rediscounting between Federal Reserve Banks of discounted paper and sales of purchased bills, in order that Federal Reserve Banks having low reserves might extend further accommodations to their member banks and still maintain their minimum reserve requirements, has been continuous. In the early months of the year these operations were occasioned by the need of funds in the eastern Federal Reserve districts for the purpose of financing industrial activities and purchasing raw materials, as well as to aid the fiscal operations of the Government; and, from early spring throughout the balance of the year, by the demands in the western and southern agricultural districts for funds and credits to be used in financing the growing, harvesting and marketing of crops, and in feeding and marketing live stock.

The volume of these transactions, which increased steadily during the year, reached the peak in October when the Federal Reserve Banks of New York, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, and Dallas had under rediscount, including bankers' acceptances sold, with the Federal Reserve Banks of Boston, Philadelphia, Cleveland, and San Francisco, a total of $267,378,000.

From early spring throughout the remainder of the year the demand for funds in the eastern industrial centers abated, resulting in continued reduction in the demands by member banks for accommodations at Federal Reserve Banks. In consequence, since early in May no eastern Federal Reserve Bank, other than that of New York as noted below, has been a borrower from other Reserve Banks. Member banks in New York City have experienced heavy withdrawals of funds by their interior and southern correspondents in the agricultural sections, with the result that it has been necessary for New York member banks to rediscount heavily with their Federal Reserve Bank. These withdrawals, evidenced by almost continuous losses through the gold settlement fund, have caused the Federal Reserve Bank of New York to rediscount with other Federal Reserve Banks from time to time since July in substantial amounts.

All of the Federal Reserve Banks, with the exception of those of Cleveland and Richmond, have both extended accommodation to and received accommodation from other Federal Reserve Banks during the year. While the Federal Reserve Bank of Cleveland has discounted continuously for several of the other Federal Reserve Banks, the Federal Reserve Bank of Richmond has been a continuous borrower from other Federal Reserve Banks except for a short period in February and March.

The same spontaneous spirit of cooperation between the Federal Reserve Banks in entering into these transactions, referred to in the last annual report of the Board, has continued throughout the year, and it has been unnecessary, therefore, for the Federal Reserve Board, in any case, to exercise its statutory power to require such operations. The same efficient methods of consummating these transactions, with the employment of the leased telegraph-wire system and the settlement of all payments through the gold-settlement fund without any physical transfer of gold, described more completely in the last annual report of the Board, have been continued.

In the following table is shown the amount of inter-Federal Reserve Bank accommodation and the actual and adjusted reserve percentages of each Federal Reserve Bank as of December 26, 1919, and December 30, 1920:

[Amounts in thousands of dollars.]

Federal Reserve Bank.	Bills rediscounted with or sold to other Federal Reserve Banks.		Bills discounted for or purchased from other Federal Reserve Banks.		Ratio of total reserves to combined net deposit and Federal Reserve note liabilities.			
					Actual.		Adjusted.[1]	
	Dec. 26, 1919.	Dec. 30, 1920.	Dec. 26, 1919.	Dec. 30, 1920.	Dec. 26, 1919.	Dec. 30, 1920.	Dec. 26, 1919.	Dec. 30, 1920.
					Per cent.	*Per cent.*	*Per cent.*	*Per cent.*
Boston	69,899			16,575	44.0	55.3	24.3	59.5
New York	58,201	6,917			40.0	40.0	36.2	39.5
Philadelphia	27,615			17,109	40.8	54.2	32.7	58.7
Cleveland			12,265	81,573	46.3	59.1	49.4	75.9
Richmond		10,000	5,080		40.9	45.4	43.5	40.3
Atlanta		33,659	5,065		52.8	40.7	55.2	24.8
Chicago			60,090		50.6	40.4	58.8	40.4
St. Louis			29,022		46.5	44.5	60.5	44.5
Minneapolis		14,801			39.4	39.8	39.4	27.7
Kansas City	13,000	29,086	9,805		43.1	41.4	41.3	25.2
Dallas		27,711	32,123		49.4	41.8	77.0	17.5
San Francisco			15,265	6,917	54.9	49.3	59.3	51.1
Total	168,715	122,174	168,715	122,174	44.8	45.4	44.8	45.4

[1] Adjusted percentages are calculated after increasing or reducing reserves held by the amount of accommodation extended to or received from other Federal Reserve Banks.

As has been stated elsewhere in this report, there has been a continuous growth and development in the acceptance market in New York, which is the principal acceptance market of the country, and the Federal Reserve Bank of New York, in support of this market, has been a daily purchaser of bills.

Under an agreement approved by the Federal Reserve Board, for the purpose of distributing the load in connection with the development and support of the open market in New York, the Federal Reserve Banks of Cleveland, Chicago, and San Francisco have participated daily in the open-market purchases of the Federal Reserve Bank of New York. The Federal Reserve Bank of San Francisco also purchased additional bills from the Federal Reserve Bank of New York from time to time as it had surplus funds available for investment.

In order to maintain the open market for bankers' acceptances it has been necessary for the Federal Reserve Bank of New York, as already stated, to make daily purchases of bankers' acceptances, and, very often, to make heavy purchases at times when its own reserves were at their minimum legal limits. Accordingly, at such times, other Federal Reserve Banks having surplus funds, with the approval of the Federal Reserve Board, have made large purchases of bankers' acceptances from the New York Reserve Bank. In cases where Federal Reserve Banks have of their own initiative purchased acceptances from other Federal Reserve Banks with the approval of the Board the indorsement of the selling bank usually has not been given, but where the Board has requested a Reserve Bank to rediscount bankers' acceptances for another, the selling bank has been required to indorse the bills sold.

The total open-market purchases of acceptances by the Federal Reserve Bank of New York amounted to $2,429,982,000, of which $732,652,000 were immediately allotted to other Federal Reserve Banks in the amounts indicated in the table below.

Rediscount operations between Federal Reserve Banks including bills purchased from other Federal Reserve Banks during the year have amounted to $3,672,792,000, as compared with $2,658,254,000 during the year 1919, and $660,638,000 during the year 1918. Adding to these transactions the bills purchased and allotted to other Federal Reserve Banks by the Federal Reserve Bank of New York, the total interdistrict movement of bills during the year aggregated $4,405,444,000, as compared with $3,397,753,000 for 1919, and $835,498,000 for 1918. The figures in detail appear in the following table:

Interdistrict movement of discounted and purchased paper between Federal Reserve Banks during the period from Jan. 1 to Dec. 31, 1920.

[In thousands of dollars.]

	Inter-Reserve Bank rediscounts and sales of—				Acceptances purchased in open market for account of other Federal Reserve Banks.		Net interdistrict movement of discounted and purchased paper.	
	Discounted paper.		Purchased paper.					
	Rediscounted by—	Discounted for—	Sold by—	Purchased by—	By—	For account of—	Excess movement from—	Excess movement to—
Federal Reserve Bank of—								
Boston	....	969,884	20,846	30,673	....	6,569	....	986,280
New York	375,000	479,581	147,215	11,067	732,652	....	764,219	....
Philadelphia	371,600	144,579	....	35,149	....	....	191,872	....
Cleveland	....	1,406,172	50	72,710	....	242,000	....	1,120,832
Richmond	700,000	....	....	....	....	325	699,675	....
Atlanta	307,997	52,000	....	5,087	....	400	250,510	....
Chicago	255,000	168,590	28,178	5,090	....	217,642	....	108,054
St. Louis	309,499	13,000	6,000	....	....	250	302,249	....
Minneapolis	293,500	40,029	....	....	....	375	253,096	....
Kansas City	411,636	20,000	....	5,049	....	450	386,137	....
Dallas	436,013	143,000	....	....	....	500	292,513	....
San Francisco	....	23,500	10,258	47,722	....	264,141	....	325,105
Total	3,460,245	3,460,245	212,547	212,547	732,652	732,652	3,140,271	3,140,271

DEVELOPMENT OF THE ACCEPTANCE MARKET.

Appreciable progress has been made during the past year in the development and broadening of the market for bankers' acceptances. While the Federal Reserve Banks have continued to be the greatest influences in this market, the higher rates commanded by credit throughout the world have resulted in a substantial broadening of the market for prime dollar acceptances. As commercial and Reserve Bank rates have advanced, bankers' acceptances have been offered on a relatively higher basis and this fact, coupled with the better understanding of their liquidity and desirability as secondary reserves, has gradually added to the list of those who are accustomed to invest surplus or idle funds in this form of security. While in former years only a comparatively small number of the larger and better-informed banks made a practice of buying acceptances, the bill dealers now have as their customers many corporations, firms, and individuals, in addition to an increased number of banks, large and small. Several State legislatures have amended banking laws by specifying bankers' acceptances as eligible investments for savings banks, thus opening a new channel for the distribution of acceptances. During a greater part of the year dealers have reported an improved demand, especially for bills accepted by the best-known banks, and have offered such bills unindorsed at a discount rate of from 6 to $6\frac{3}{8}$ per cent for various maturities. While the market has been characterized by a more rapid turnover than formerly, the Federal Reserve Banks in some of the larger centers have found it essential to lend active support to the market and have continued the practice of carrying for dealers a part of their holdings for 15-day periods under a repurchase agreement, pending distribution. The purchases of bankers' acceptances by all the Federal Reserve Banks were larger during 1920 by approximately $300,000,000 than in 1919. This increase is not excessive or remarkable, however, when consideration is given to the large volume of business transacted which called for acceptance credits by banks and bankers. The principal market into which bankers' acceptances flow from the entire country is New York and it follows, therefore, that the Federal Reserve Bank of New York must bear the brunt of the burden of sustaining and developing the market. This bank during 1920 purchased bankers' acceptances for its own account and for the account of other Federal Reserve Banks in value about $479,084,000 greater than in 1919, this increase for the New York bank being largely offset by decreases in amounts of open-market purchases by other Federal Reserve Banks within their own districts. The pressure upon the Federal Reserve Bank of New York, caused by these purchases, has been relieved and distribution of bills effected by sales to member banks and by allotments to other Federal Reserve Banks. The development of the acceptance market in New York has been aided also by the special acceptance service offered to its member banks by the Federal Reserve Bank of New York. The bank purchases for its member banks indorsed bills of the kinds and maturities which it is accustomed to purchase for its own account, carries them in custody, sells them when desired and collects them at maturity. This service is rendered without charge and has made it easy for any member bank to keep excess funds employed constantly and profitably through continued or occasional investments in prime bills. During the year the Federal Reserve Banks of New York, Philadelphia, Cleveland, Chicago, and San Francisco purchased acceptances in a larger amount than in 1919, while the Federal Reserve Banks of Boston, Richmond, Atlanta, St. Louis, Minneapolis, Kansas City, and Dallas purchased smaller amounts than in the preceding year.

Although decreases are noted in the volume of purchases made by the Federal Reserve Banks of Boston and Richmond, these two institutions have accomplished good results in popularizing acceptances as investments for their member banks. The result of these influences combined has been apparent in the increase during the year by over 100 per cent in the number of bill buyers in the Boston Reserve Bank district. The Federal Reserve Bank of Richmond continued the practice of buying unindorsed bills direct from the acceptors at commercial paper rates, feeling that this policy is warranted as it keeps the bank well informed as to the methods used in giving acceptance credits by its member banks. This bank also purchases acceptances for member banks, the names of the acceptors being specified by the bank for whose account purchase is made. It is believed that the reduced volume of bills offered this bank during the past year is the result of efforts which have been made to induce member banks to sell their acceptances to dealers rather than to the Federal Reserve Bank.

As a rule, member banks of the South, Southwest, and some portions of the West have used their acceptance powers to a limited extent only, and the Federal Reserve Banks of Atlanta, St. Louis, Minneapolis, Kansas City, Dallas, and San Francisco report that acceptances are being bought almost exclusively by banks in the larger centers.

The Federal Reserve Bank of Philadelphia purchased approximately $27,183,000 more of bills in 1920 than in 1919, and has succeeded during recent months in developing a broader market for bills in its district. Reports from the Federal Reserve Banks of Cleveland and Chicago indicate that their markets have been enlarged during the past year, mainly through the efforts of their member bank relations departments. In Chicago the volume of sales and distribution, according to dealers' reports, is showing steady increase, comparative sales in the Chicago district made month by month during 1919 and 1920 showing an increase of over 100 per cent in volume of sales and of 150 per cent in the number of purchasers.

When consideration is given to the important part played by bankers' acceptances in the movement of farm products and manufactured goods to market, the Board feels that the efforts being made to broaden the bill market will meet with general approval.

Below are shown the amounts of acceptances bought in the open market by, or for the account of, each Federal Reserve Bank during the past four years:

Bills bought in open market.

[Amounts in thousands of dollars.]

Federal Reserve Bank.	1917	1918	1919	1920
Boston	86,481	194,153	360,784	304,445
New York	445,307	945,493	1,211,399	1,697,330
Philadelphia	70,710	77,686	14,049	41,232
Cleveland	51,007	122,800	261,750	294,602
Richmond	54,759	70,766	52,977	51,712
Atlanta	25,388	45,477	51,661	39,576
Chicago	61,142	122,787	292,012	345,021
St. Louis	22,788	26,096	87,503	36,029
Minneapolis	16,397	13,903	108,714	18,060
Kansas City	17,561	14,691	26,086	17,173
Dallas	9,743	25,024	12,415	8,348
San Francisco	48,018	150,653	345,827	364,845
Total	909,301	1,809,539	2,825,177	3,218,364

CANCELLATIONS.

To some extent throughout the entire year 1920, but with an increasing degree of importance during the latter part of the year, the matter of cancellation of contracts has assumed a sinister significance in American foreign trade. The practice is one which has affected both the commercial and banking aspects of the situation. Cancellations have been numerous in important exporting lines, while the action of some American importers in cancelling orders for textiles which they had placed in England caused so much inconvenience and aroused such criticism as to lead to an appeal in November last by organized textile trades of the United Kingdom to the United States Chamber of Commerce. Certain phases of the practices which have developed within the past few weeks especially have raised at least two serious questions:

1. How far have cancellations resulted in leaving considerable quantities of American goods without actual buyers in the countries to which the goods have been shipped? and

2. How far have cancellations affected the status of drafts drawn against letters of credit issued by American bankers?

The facts relating to cancellations have been reviewed in a report filed with the Chamber of Commerce of the State of New York on December 3, reading as follows:

The wave of cancellations of buying orders and repudiations of contracts of sale by buyers which at present is sweeping the world and is menacing also the United States, has called forth a great concern in business and banking circles. The dangers of the situation have been called to the attention of your committee on finance and currency, and a request made that an investigation into the situation be made. Accordingly, data were collected from large trade associations, covering the United States in various lines of business, upon the volume and character of cancellations and their comparison with previous years.

The result of this investigation, which has been printed in the November issue of the Chamber's Bulletin, showed that, in many lines, cancellations were of a very important and menacing volume.

It seems obvious that loose business methods which enable purchasers to reject goods when prices decline and to insist upon prompt shipments according to contract when prices are rising, will cause a perilous business derangement at every downward turn. The uncertainty created by the sway of such vicious practices extends far beyond the two parties immediately affected. It spreads like a contagious disease and ultimately undermines and menaces the safety of all branches of production, trade, and finance of the country; for our whole economic structure rests upon a contractual basis and upon a clear recognition of the sanctity of business obligations. Steps should be taken to remedy this evil. The discipline of a written contract enforceable at law should be more generally applied, together with a nation-wide vigorous condemnation of those indulging in such objectionable business practices.

Your committee, therefore, offers the following resolutions:

Resolved, That the Chamber of Commerce of the State of New York deprecates the present tendency among many buyers of goods to cancel their orders or repudiate their contracts; and be it further

Resolved, That an effort should be made on the part of the business community to incorporate into written contracts a frank stipulation respecting cancellations, in order that business may be established on a clear and definite contractual basis, and that the possibilities of misunderstanding and disagreement may be lessened and an element of dangerous uncertainty be removed; and be it further

Resolved, That the chamber of commerce urge upon the business and banking communities that buyers who disregard their written agreements shall be considered as being lacking in business morality and as undeserving of confidence, and that business and banking leave no doubt that attempts willfully to violate contracts shall be frowned upon as violating the code of business ethics on which rests the entire structure of American industry, commerce, and trade.

Exact figures as to the probable scope of the cancellation evil can not be secured at this time, but it may be stated that the practice has become so common as to affect seriously the ability of American exporters to collect against their shipments to foreign ports. The most acute aspects of the situation are seen in those countries which have found it practically impossible to ship their goods at profitable rates to the United States or which have had so unfavorable a domestic credit position that they have felt it necessary to establish moratoria—with or without legal sanction. This situation has affected particularly our trade with South America and the Orient. At some ports a large volume of American goods has accumulated which consignees have declined to receive. For such shipments, therefore, there is available neither dollar exchange nor local bank credit. Reports from Brazil, Argentina, Paraguay, and Cuba emphasize this aspect of the situation and show that important exportations have brought no returns, the goods being practically thrown back upon the hands of shippers who have been obliged to finance themselves as best they might at their own banks. One result of this condition has been a certain amount of mortality among exporting houses, while others have been obliged to lean more heavily upon the banks than they would otherwise have found it necessary to do.

While such conditions are of grave consequence from the banking standpoint at a time when world finance and trade conditions are seriously disturbed, and when the maintenance of the export trade is so vital, the resultant situation has peculiar significance to the banks because of the influence it exerts upon acceptance conditions.

It will be remembered that prior to the enactment of the Federal Reserve Act, American banks in foreign transactions had always relied mainly upon credits furnished by British banks and stated in terms of sterling. As the result of the growth of the number of accepting banks under the Federal Reserve Act and the effort to convert our foreign credit as far as possible into terms of dollars there has devolved upon our institutions a new responsibility in connection with financing of foreign trade. This was recognized from the first as one of the advantages of a revision of the banking system. American banks have not only been encouraged to enter the acceptance field, but the argument has frequently been made that they ought to do so in order that the financing of American business might not rest so largely in the hands of foreigners. Owing to the great changes brought about by the war it has also been asserted that the adoption of this method of financing was really necessary in order to meet the emergencies which the contest had created. In undertaking such financing American bankers have in many instances issued letters of credit covering importations into the United States. The terms and conditions of the credits thus opened have, of course, varied considerably, since there is no uniform practice among the banks of the country with respect to the wording of documents used in their foreign trade operations. The letters of credit which have been issued are in many cases, however, irrevocable, and provide for the acceptance of drafts drawn on time or the payment of drafts drawn at sight, with such conditions and requirements regarding the character of the documents to be attached as are usual in the movement of consignments in international trade.

The sudden fall of prices which has occurred in many lines has, however, caused many importations to show very material decreases in value between the time of their shipment from the foreign port and their arrival in the United States or between the time they were contracted for under agreements that letters of credit be furnished and their arrival. In some instances the presentation of drafts with the documents attached to the banks which had issued the letters of credit obviously meant that these banks were asked to make payments against the goods covered by the invoice, which, as already explained, may have fallen seriously below their value at the time they were shipped or contracted for. Many of these credits had been opened by large banks at seaports at the request not of their own depositors but of interior banks. As these institutions usually operated no foreign-exchange departments of their own it was customary for them to ask some correspondent bank, located at a port of entry, to issue letters of credit for account of their own customers. The question, consequently, arose in the minds of many bankers whether the engagements undertaken in letters of credit could be avoided, and this idea has had a color of justice in those cases where goods and documents forwarded by exporters in foreign countries did not technically comply with the conditions set forth in the terms of the letters of credit. At the solicitation of their country correspondents some bankers have declined to accept drafts drawn under letters of credit already outstanding, while in other cases, importers themselves, desirous of avoiding loss or feeling that some breach of contract had occurred, have obtained injunctions against the banks which had issued the letters of credit directing the banks not to pay out funds under the terms of such letters. Several injunction cases of this kind are now pending in the Federal courts. Twenty-four injunctions were vacated on December 15 in the Supreme Court of the State of New York.

This situation is most unfortunate and is reflecting very seriously upon American bankers' acceptances. It makes plain that many American bankers, including, of course, their legal advisers, are not well informed as to the obligations assumed when irrevocable or confirmed letters of credit are issued.

In the financing of an importation there are several possible combinations of parties at interest. Although a shipment is made direct by the exporter in a foreign country to the importer in the United States, the seller does not usually rely upon the unsupported credit of the foreign buyer and generally requires a bank guaranty. The importer, therefore, calls upon his bank to lend its credit to the transaction and thus the exporter is given the right to draw upon a banking institution instead of a commercial house. But even this added responsibility does not always satisfy the exporter, who may prefer funds in his own country, and, in this event, the American bank requests a correspondent foreign bank to notify the exporter that it will negotiate his drafts. He may, therefore, sell his bills of exchange either to the notifier or to his own local bank. Hence, a letter of credit may involve such different parties as the importer, credit issuer, notifier, negotiator, any indorser of the completed drafts, and lastly the exporter.

The legal relations between these parties have been quite definitely settled by certain British and Colonial cases rendered during the last half century, when Great Britain was extending her trade all over the world. The decisions in these cases involving commercial letters of credit established the following principles:

(1) A letter of credit is not a negotiable instrument.

(2) It does not create a trust fund in favor of the beneficiary.

(3) An issuer of a letter of credit may not dishonor drafts presented by a negotiating bank under a clean, irrevocable letter of credit if all the terms of the credit are fulfilled.

(4) An issuer may dishonor bills drawn in violation of the conditions specified in a documentary letter of credit.

(5) The negotiator is not liable for the genuineness either of goods or documents.

(6) The issuer is responsible to the party requesting the credit for the observance of the conditions by the beneficiary.

The further principle is established also by the British cases and confirmed by two decisions recently made by New York courts:

> (7) The contract between the issuer and the beneficiary is entirely independent of the contract of sale between the buyer and seller, and the issuer can not, because of the seller's breach of the contract of sale, refuse to honor drafts which comply with the terms of the letter of credit.

Only recently have American courts had occasion to pass upon cases relating to commercial letters of credit where the issues involved have been fully presented. Upon principle, however, and judging from the few decisions which have been rendered by our courts within the last year, there appears to be no reasonable doubt that the practices which have evolved under British law will be found to govern in our own transactions. Such a development will be necessary if American credits are to command the respect abroad necessary to compete with those given by foreign banks which engage in financing international trade. Otherwise buyers of bills in foreign countries would decline to purchase drafts on American bankers.

The Federal Reserve Bulletin for February, 1921, will contain fuller discussion of the legal relations between the parties to commercial letters of credit as established by the cases which have been cited by the British courts, and will contain also a review of the leading British cases upon this subject and of the few important decisions which have recently been rendered by American courts.

CHANGES IN DISCOUNT RATES DURING 1920.

During the latter part of 1919 the Federal Reserve Banks had, with the approval of the Federal Reserve Board, abolished preferential rates formerly obtaining on paper secured by Liberty bonds and Victory notes and in January, 1920, shortly after the Treasury raised its rate on certificates to $4\frac{3}{4}$ per cent, the Board approved a like increase in the rate of discount on paper secured by certificates of indebtedness as well as, in the case of most of the banks, on trade acceptances offered for discount. Thus for a time the rates on commercial paper proper and on paper secured by all classes of Government war obligations were practically on a parity. Toward the end of January, however, the rate on paper secured by Liberty bonds and Victory notes was advanced to $5\frac{1}{2}$ per cent and the rates on all classes of commercial paper, including trade acceptances and agricultural and live-stock paper, to 6 per cent. A preferential rate of 5 per cent was established on bankers' acceptances, to apply, however, only where the acceptances were offered to the Federal Reserve Bank for rediscount by a bank other than the accepting institution.

Eight of the Reserve Banks advanced this rate to 5½ per cent in April and May, while five banks, including two of those which had advanced the rates in April and May, raised it to 6 per cent in June and July. Rates on commercial paper and on agricultural and live-stock paper were advanced in June to 7 per cent by four banks, and the trade acceptance rate to the same level by three of the same banks, the fourth bank advancing it to 6½ per cent. Rates on paper secured by Treasury certificates of indebtedness have been raised frequently during the year in keeping with the Board's policy to have such rates correspond with the rates borne by the certificates themselves, thus enabling the banks to carry the certificates without loss pending their distribution to customers, but offering them no inducement through a spread in rates to retain the certificates as an investment instead of passing them on to the public.

Following the amendment of section 14 of the Federal Reserve Act, approved April 13, 1920, permitting the Federal Reserve Banks, with the approval of the Board, to establish graduated rates of discount, the banks located at Kansas City, Dallas, St. Louis, and Atlanta established progressive rates of discount, effective April 19, May 21, May 26, and May 31, respectively. The progressive rates are assessed against amounts discounted for member banks in excess of their "basic" or "normal" lines, the latter being determined by the Federal Reserve Bank uniformly for each member bank in the district. In the case of the Atlanta, St. Louis, and Kansas City banks the basic line adopted was 2½ times a sum equal to 65 per cent of the reserve balance maintained or required to be maintained by the member bank, plus its paid-in subscription to the capital stock of the Federal Reserve Bank, while in the case of the Dallas bank the basic line was fixed at an amount equal to the combined capital and surplus of each member bank. Under the progressive rate plan, discounts granted in excess of the basic lines are subject to one-half per cent progressive rate, in addition to the normal rate, for each 25 per cent by which the amount of accommodation extended to the bank exceeds its basic line, although certain exemptions in the case of paper secured by Government obligations are allowed.

In order that the discount policy of the banks might not adversely affect the market prices of Government securities, or work a hardship on those still carrying a large part of the Liberty bonds representing original subscriptions, none of the four banks applied the progressive rates to paper secured by United States Government war obligations. Since the progressive rates apply only to excess borrowings—that is, to borrowings in excess of the normal or basic line—a bank obtaining accommodation to the extent of twice its basic line would be subject to a maximum penalty of 2 per cent. This 2 per cent, however, would apply only to the last increment of

25 per cent of the basic line, so that the average penalty calculated on its entire borrowings would be about 0.625 per cent. Likewise not until a bank has borrowed an amount equal to 2½ times its basic line will the average excess of the charge over the basic rate amount to 1 per cent on its total borrowings, thereby imposing a surcharge equal to the difference between the normal 6 per cent rate prevailing at those banks which have adopted the graduated rates, and the uniform 7 per cent rate adopted at about the same time by four other Federal Reserve Banks.

In the case of the Kansas City bank, superrates are applied to excess borrowings at the time the loan is granted to the member bank, while in the case of the other Federal Reserve Banks the progressive rate is applied only to the average borrowings in excess of the basic line over a fixed period.

Only in isolated cases, especially where a bank has allowed its reserve balance with the Federal Reserve Bank to fall materially below legal requirements, thus reducing substantially its basic line, have excessively high graduated rates been applied, the usual surcharge ranging generally from ½ to 2½ per cent.

While beneficial results have been obtained through the application of progressive discount rates, it is not expected that their application will prove a more efficient means of credit control than is the flat 7 per cent rate on commercial paper adopted by some of the Federal Reserve Banks, at least not until such time as it is deemed advisable to withdraw the exemption on loans secured by Government war obligations, or until the volume of such paper presented for rediscount at the Federal Reserve Banks is materially reduced.

It may be noted here that the Atlanta bank on November 1, with the approval of the Federal Reserve Board, discontinued the application of graduated or progressive rates, and adopted the 7 per cent rate on all paper other than that secured by Government war obligations and on discounted bankers' acceptances.

The following table shows the amount of discount earned by the Federal Reserve Banks through the application of progressive rates during each month in 1920:

	Atlanta.	St. Louis.	Kansas City.	Dallas.
April			$4,711	
May		$1,427	29,710	$476
June	$5,831	21,174	27,516	3,193
July	19,488	13,174	41,296	6,837
August	33,911	30,551	37,721	9,809
September	35,113	31,044	41,980	13,407
October	65,666	38,296	69,267	16,295
November	36,419	98,571	72,627	12,510
December		156,940	61,944	13,962
Total	196,428	391,177	386,772	76,489

Discount rates obtaining on January 1, 1920, at the Federal Reserve Banks on the several classes of paper, and the changes made during the year 1920, are shown in the following tables:

Commercial and industrial paper maturing within 90 days.

Federal Reserve Bank.	In effect Jan. 1, 1920.	Changes effective.									
		Jan. 3.	Jan. 12.	Jan. 23.	Jan. 24.	Jan. 26.	Jan. 28.	Feb. 2.	June 1.	June 4.	Nov. 1
Boston	4¾			6						7	
New York	4¾			6					7		
Philadelphia	4¾			6							
Cleveland	4¾		5				6				
Richmond	4¾			6							
Atlanta	4¾					6					7
Chicago	4¾				6				7		
St. Louis	4¾				6						
Minneapolis	[1] 4¾					6			7		
Kansas City	5	5½		6							
Dallas	5							6			
San Francisco	4¾							6			

[1] Rate of 5 per cent for maturities 61 to 90 days.

Agricultural and live-stock paper maturing after 90 days but within 6 months.

Federal Reserve Bank.	In effect Jan. 1, 1920.	Changes effective.									
		Jan. 3.	Jan. 12.	Jan. 23.	Jan. 24.	Jan. 26.	Jan. 28.	Feb. 2.	June 1.	June 4.	Nov. 1
Boston	5			6						7	
New York	5			6					7		
Philadelphia	5			6							
Cleveland	5¼		5½				6				
Richmond	5			6							
Atlanta	5½					6					7
Chicago	5½				6				7		
St. Louis	5½				6						
Minneapolis	5½					6			7		
Kansas City	5½	6									
Dallas	5¼							6			
San Francisco	5½							6			

Paper secured by Liberty bonds and Victory notes—maturing within 90 days.

Federal Reserve Bank.	In effect Jan. 1, 1920.	Changes effective.													
		Jan. 3.	Jan. 12.	Jan. 23.	Jan. 24.	Jan. 26.	Jan. 28.	Feb. 2.	May 1.	May 3.	May 13.	June 1.	June 4.	June 7.	Sept. 28.
Boston	4¾			5½									6		
New York	4¾			5½								6			
Philadelphia	4¾			5½											
Cleveland	4¾		5				5½				5¾				
Richmond	4¾			5½								6			
Atlanta	4¾					5½									
Chicago	4¾				5½				6						
St. Louis	4¾				5½										
Minneapolis	[1] 4¾					5½			6						
Kansas City	5	5½													6
Dallas	5							5½							
San Francisco	4¾							5½		5¾				6	

[1] Rate of 5 per cent for maturities 61 to 90 days.

Paper secured by United States Treasury certificates of indebtedness—maturing within 90 days.

Federal Reserve Bank.	In effect Jan. 1, 1920.	Changes effective.											
		Jan. 2.	Jan. 3.	Jan. 5.	Jan. 6.	Jan. 10.	Jan. 12.	Jan. 24.	Jan. 26.	Feb. 2.	Feb. 26.	Feb. 27.	Feb. 28.
Boston	[1] 4¼-4½		4¾									5	
New York	4¾										5		
Philadelphia	4½	4¾									5		
Cleveland	[2] 4½						4¾						
Richmond	4½			4¾							5		
Atlanta	4½				4¾						5		
Chicago	4½					4¾							5
St. Louis	4½							4¾					
Minneapolis	4½	[3] 4¾							4¾				
Kansas City	4½		4¾								5		
Dallas	4½									4¾	5		
San Francisco	4½						4¾						

Federal Reserve Bank.	Changes effective.												
	Mar. 1.	Mar. 4.	Mar. 19.	Apr. 20.	Apr. 21.	Apr. 22.	Apr. 23.	Apr. 26.	May 1.	May 17.	May 20.	May 21.	May 27.
Boston													
New York													
Philadelphia						[1] 5-5¼						[1] 5-5½	
Cleveland	5							[1] 5-5¼		[1] 5-5½			
Richmond				[1] 5-5¼									[1] 5-5½
Atlanta					[1] 5-5¼							[1] 5-5½	
Chicago				[1] 5-5¼						[1] 5-5½			
St. Louis		5					[1] 5-5¼				[1] 5-5½		
Minneapolis						[1] 5-5¼							
Kansas City													
Dallas													
San Francisco			5						5¼				

Federal Reserve Bank.	Changes effective.												
	June 1.	June 4.	June 7.	June 10.	June 18.	July 1.	July 2.	July 3.	July 10.	July 12.	July 13.	July 19.	Oct. 1.
Boston		5½											
New York	5½												
Philadelphia						[1] 5-6							
Cleveland					5½								[1] 5½-6
Richmond	5½											[1] 5½-6	
Atlanta							[1] 5-6						
Chicago	5½								[1] 5½-6				
St. Louis													
Minneapolis	5½												
Kansas City								[1] 5-6					
Dallas				[1] 5-5½							[1] 5-6		
San Francisco			5½							[1] 5½-6			

[1] Discount rate corresponds to interest rate borne by certificates pledged as collateral with maximum and minimum limits shown.

[2] Rate of 4¼ per cent on member banks' collateral notes secured by certificates bearing interest at 4¼ per cent.

[3] Rate of 5 per cent for maturities 61 to 90 days.

Bankers' acceptances, discounted for member banks, maturing within three months.

Federal Reserve Bank.	In effect Jan. 1, 1920.	Changes effective.																		
		Jan. 12.	Jan. 23.	Jan. 24.	Jan. 26.	Jan. 27.	Feb. 2.	Mar. 1.	Apr. 1.	Apr. 5.	Apr. 8.	Apr. 12.	Apr. 22.	May 15.	June 1.	June 4.	July 12.	Oct. 1.	Oct. 20.	Nov. 1.
Boston	(1)	....	5	....	....	....	....	....	....	....	....	....	....	....	....	(1)	....	....	....	....
New York	4¾	....	5	....	....	....	....	....	....	....	....	....	....	....	6	....	....	....	....	....
Philadelphia	(1)	....	5	....	....	....	....	....	....	....	5½	....	....	....	....	....	....	....	6	....
Cleveland	4½	5	....	....	....	....	....	....	....	....	....	....	5½	....	....	....	....	5¾	....	....
Richmond	(1)	....	5	....	....	....	....	....	....	....	....	....	....	....	6	....	....	....	....	....
Atlanta	(1)	....	....	....	5	....	....	....	5½	....	....	....	....	....	....	....	....	....	....	6
Chicago	(1)	....	....	....	....	5	....	5¼	5½	....	....	....	....	....	6	....	....	....	....	....
St. Louis	(1)	....	....	5	....	....	....	....	....	....	....	....	....	5½	....	....	....	....	....	....
Minneapolis	(1)	....	....	....	5	....	....	....	....	....	....	....	....	....	6	....	....	....	....	....
Kansas City	(1)	....	5	....	....	....	....	....	5½	....	....	....	....	....	....	....	....	....	....	....
Dallas	(1)	....	....	....	....	....	5	....	....	5½	....	....	....	....	....	....	....	....	....	....
San Francisco	(1)	....	....	....	....	....	5	....	....	....	....	5½	....	....	....	....	6	....	....	....

[1] No special rate. Bankers' acceptances presented for discount subject to regular commercial paper rate.

NOTE.—The rates established during 1920 on bankers' acceptances presented for discount applied only to such bills as had been accepted and sold to banks other than the accepting bank or to other holders, and which were offered to the Federal Reserve Bank for rediscount by some bank other than the accepting bank. Acceptances presented for rediscount by the accepting bank were subject to the regular commercial paper rate.

Trade acceptances discounted for member banks, maturing within 90 days.

Federal Reserve Bank.	In effect Jan. 1, 1920.	Changes effective.														
		Jan. 3.	Jan. 5.	Jan. 6.	Jan. 10.	Jan. 12.	Jan. 23.	Jan. 24.	Jan. 26.	Jan. 27.	Jan. 28.	Feb. 2.	Apr. 20.	June 1.	June 4.	Nov. 1.
Boston	4¾	....	....	....	....	....	6	....	....	....	....	....	....	....	7	....
New York	4¾	....	....	....	....	....	6	....	....	....	....	....	....	7	....	....
Philadelphia	4¾	....	....	....	....	....	6	....	....	....	....	....	....	....	....	....
Cleveland	4½	....	....	....	....	5	....	....	....	....	6	....	5¾	....	....	....
Richmond	4½	....	4¾	....	....	....	6	....	....	....	....	....	....	....	....	....
Atlanta	4½	....	....	4¾	....	....	....	....	6	....	....	....	....	....	....	7
Chicago	4½	....	....	....	4¾	....	....	6	....	....	....	....	....	7	....	....
St. Louis	4½	....	....	....	....	....	....	5	....	6	....	....	....	....	....	....
Minneapolis	4½	....	....	....	....	....	....	....	5½	....	....	....	....	6½	....	....
Kansas City	5	5½	....	....	....	....	6	....	....	....	....	....	....	....	....	....
Dallas	5	....	....	....	....	....	....	....	....	....	....	6	....	....	....	....
San Francisco	4¾	....	....	....	....	....	....	....	....	....	....	6	....	....	....	....

Minimum rates on acceptances bought in open market, maturing within three months.

Federal Reserve Bank.	In effect Jan. 1, 1920.	Changes effective.							
		Jan. 23.	Jan. 24.	Jan. 26.	Jan. 28.	Feb. 2.	Feb. 6.	June 1	Oct. 1.
Boston	4	5¼	....	....	....	....	5	....	....
New York	4	5¼	....	....	....	....	5	....	....
Philadelphia	4	5¼	....	....	....	....	5	....	....
Cleveland	4	....	....	....	5½	....	5	....	5½
Richmond	4	5¼	....	....	....	....	5	6	....
Atlanta	4	....	....	5¼	....	....	5	....	....
Chicago	4	....	5¼	....	....	....	5	....	....
St. Louis	4	....	5¼	....	....	....	5	....	....
Minneapolis	4	....	....	5¼	....	....	5	....	....
Kansas City	4	5¼	....	....	....	....	5	....	....
Dallas	4	....	....	....	....	5¼	5	....	....
San Francisco	4	....	....	....	....	5¼	5	....	....

NOTE.—On Feb. 26, 1920, the Board ruled that thereafter, when acceptances were purchased from the accepting institution, the rate charged was to be not less than the discount rate on commercial paper effective at that time.

Paper secured by War Finance Corporation bonds.

Discount rates on paper secured by War Finance Corporation bonds, established during 1919 at 1 per cent in excess of rates on commercial paper of corresponding maturities, were discontinued on April 1, 1920, all outstanding War Finance Corporation bonds having matured on that date.

Graduated discount rates.

(Authorized by Apr. 13, 1920, amendment to Sec. 14 of the Federal Reserve Act.)

Established by Federal Reserve Bank of—	Date established.	Date discontinued.
Atlanta	May 31, 1920	Nov. 1, 1920
St. Louis	May 26, 1920	
Kansas City	Apr. 19, 1920	
Dallas	May 21, 1920	

CHECK CLEARING AND COLLECTION.

Substantial progress has been made during the year in the development of the Federal Reserve check clearing and collection system. During the year 11 States—Virginia, West Virginia, Kentucky, North Carolina, Arkansas, Arizona, Wisconsin, Minnesota, South Dakota, Washington, and Oregon—have been added to the number of States in which all banks are on the par lists of the Federal Reserve Banks. On January 1, 1920, checks on all but 3,996 of the 29,557 banks in the United States could be collected at par through the Federal Reserve Banks. On January 1, 1921, checks on all but 1,755 of the 30,523 banks in the United States could be thus collected. These 1,755 banks are all located in the following seven States of the Southeast: Tennessee, South Carolina, Louisiana, Mississippi, Alabama, Georgia, and Florida. Consequently, every bank in 9 of the 12 Federal Reserve districts is on the par lists, the three districts in which there remain any nonpar banks being those of Richmond, Atlanta, and St. Louis.

This development in the check clearing and collection system has been accomplished in the face of continuous opposition on the part of some member and nonmember banks. It is evident that as the merits of par collection are becoming more widely known fewer banks are participating in the opposition, but the banks which continue to oppose par collection are well organized and their opposition appears to be as vigorous as ever.

In order to present clearly the issue involved in the controversy over par collection, it is necessary to review the history of the development of the check-collection system under the Federal Reserve Act. That history is given at some length in the letter of the Governor of the Federal Reserve Board, dated January 26, 1920, to the President of the Senate in response to Senate resolution No. 284 of January 19, 1920. This letter was printed as Senate Document No. 184.

The provisions of the Federal Reserve Act which relate to check clearing and collection were last amended by the act of June 21, 1917. Section 16 provides that the Federal Reserve Board may act as a clearing house for the Federal Reserve Banks and may require those banks to act as clearing houses for their member banks. Section 13 as amended by the so-called "Hardwick amendment" of June 21, 1917, provides that Federal Reserve Banks may receive on deposit "checks and drafts payable upon presentation," the checks which those banks are authorized to receive on deposit not being limited, as they were prior to the amendment, to checks on "solvent member banks." The proviso at the end of the first paragraph of section 13 reads:

That nothing in this or any other section of this act shall be construed as prohibiting a member or nonmember bank from making reasonable charges, to be determined and regulated by the Federal Reserve Board, but in no case to exceed 10 cents per $100 or fraction thereof, based on the total of checks and drafts presented at any one time, for collection or payment of checks and drafts and remission therefor by exchange or otherwise; *but no such charges shall be made against the Federal Reserve Banks.*

As construed by the Attorney General, and as recently held by the United States Circuit Court of Appeals, Fifth Circuit, these provisions prohibit the Federal Reserve Banks from paying exchange charges to member or nonmember banks.

It is apparent that if Federal Reserve Banks in their capacities as clearing houses are to render full service to their member banks, they must clear checks drawn on all banks including those nonmember banks, now few in number, which decline to remit at par. Consequently, the Board has approved the action of the Federal Reserve Banks not only in soliciting nonmember banks to agree to remit at par but also in collecting by presentation at the counter checks drawn on nonmember banks which decline to remit at par.

Opposition on the part of the banks against par collection has taken various concrete forms. Since Federal Reserve Banks can not pay exchange charges, when nonmember banks refuse to remit at par the Federal Reserve Banks have no choice, if they are to collect the checks drawn on those nonmember banks, but to make presentation of such checks at the counters through selected agents. These agents may be employees of the Federal Reserve Banks or may be banks, express companies, or any other suitable agents located in the same town. The employees and agents of the Federal Reserve Banks have encountered various obstacles in making presentation of checks, such as the tender of payment in a manner calculated to take as much time as possible, or the refusal of payment in reliance on the inability of the agent to find a notary public willing to make protest. The Board has been advised of one instance where a duly appointed agent has within a few days after appointment given notice to the Federal Reserve Bank that he would no longer act as agent for fear of injury to his business.

Other banks, including some member banks, have resorted to the device of stamping legends on their blank checks to the effect that the check is not valid if presentation is made through the Federal Reserve Banks.

On January 22, 1920, a number of nonmember banks filed a petition in the Superior Court of Fulton County, Ga., for an injunction restraining the Federal Reserve Bank of Atlanta from collecting checks drawn on the plaintiff banks in any manner other than through the mails. The suit was transferred to the United States District Court for the Northern District of Georgia, which dismissed the complaint upon the merits. The decision of the district court was affirmed by the United States Circuit Court of Appeals for the Fifth Circuit on November 19, 1920, and the case has now been appealed to the Supreme Court of the United States. The restraining order, obtained by the plaintiff banks at the commencement of the suit, has been continued pending the appeals to the Circuit Court of Appeals and the Supreme Court of the United States; and this accounts in large part for the fact that no material progress has been made by the Federal Reserve Bank of Atlanta in adding to the number of banks whose checks it can collect at par.

The legislatures of five States, namely, Mississippi, Louisiana, South Dakota, Georgia, and Alabama, have enacted laws for the express purpose of preventing the Federal Reserve Banks from collecting, at par, checks drawn on the banks located in those States. The Mississippi law purports to require all banks within the State, including national banks, member banks, and nonmember banks, to make charges "for collecting and remitting" cash items which "are presented to the payer bank for payment through or by any bank, banker, trust company, Federal Reserve Bank, post office, express company, or any collection agency, or by any other agency whatsoever." The laws of the four other States are not mandatory, but merely purport to give to all banks within the respective State the right to make similar charges. The laws of Mississippi, Louisiana, South Dakota, and Alabama prohibit any officer of the respective State from protesting any check for nonpayment, when such nonpayment is on account of the refusal of any such agency to pay exchange, and the laws of Mississippi, Louisiana, and South Dakota further provide in terms that "there shall be no right of action, either at law or in equity, against any bank in this State for a refusal to pay such cash item, when such refusal is based alone on the ground of the nonpayment of such exchange." The Federal Reserve Board has taken the position that these laws are clearly unconstitutional in so far as they purport to require national banks, and State banks which have joined the Federal Reserve System, to make exchange charges against Federal Reserve Banks.

The Board has obtained no opinion as to the constitutionality of the laws in so far as they purport to affect nonmember State banks, believing that this is a question which can be settled only by the courts. Prior to the enactment of the South Dakota and Louisiana laws, all banks in South Dakota, and in that part of Louisiana which is located in the Eleventh Federal Reserve District, had been placed upon the Federal Reserve Bank par lists, and the Federal Reserve Banks of Minneapolis and Dallas have since the enactment of those laws continued to receive for collection at par all checks drawn on those banks.

In February the Board's attention was called to certain charges made by State bankers in Nebraska that employees of the Omaha branch of the Federal Reserve Bank of Kansas City had acted in an unseemly manner and had used oppressive methods in the presentation of checks on nonmember banks. The Board held hearings on February 24, 25, and May 5 to inquire into these alleged acts and methods, at which hearings the Federal Reserve Bank officials and employees involved were examined under oath and denied the charges in every particular. The hearings were attended by a delegation of Congressmen from Nebraska, and the State bankers making the charges and their witnesses were also invited to be present. For the convenience of the latter the Board offered to have a committee of its members hold a hearing in Nebraska. No witnesses on behalf of the State bankers were produced, however, and the only evidence submitted in support of the charges consisted of a series of affidavits. In no instance, in the Board's opinion, was any specific charge of improper conduct on the part of an employee of the Omaha branch substantiated.

In view of all the circumstances, and at the request of some of the opponents of par collection, the Board concluded to present the facts to Congress for such action as that body might care to take. In accordance with this determination the Board on May 5, 1920, addressed a letter to the chairman of the Banking and Currency Committee of the House of Representatives. In this letter the Board called attention to the persistent opposition to par collection and to the obstacles which the Federal Reserve Banks were encountering, and suggested that the committee might deem it advisable to consider whether the par collection of checks should continue to be a function of Federal Reserve Banks, with a view to recommending a further amendment to the law which would either remove the obstacles standing in the way of par collection at the present time or permit both member and nonmember banks to make exchange charges against the Federal Reserve Banks, such charges, of course, to be reimbursed to the Federal Reserve Banks by the banks sending the checks for collection.

The Board is thoroughly convinced of the advantages of a universal system for the par collection of checks, and it brought the matter to the attention of Congress, not because of any doubt on its part as to the effect of the law, but because the issue involved the propriety of the legislation itself. The Board has frequently had occasion to point out that in their origin exchange charges were justified on account of the necessity for, and the high cost of, actually transporting currency, but that under existing conditions those charges can be justified upon no scientific or economic principle, since the payment of checks at places other than where the drawee banks are located involves little expense and that is borne by the Federal Reserve Banks. Even the banks which decline to remit at par to the Federal Reserve Banks receive the benefits of the Federal Reserve check-clearing facilities by having the checks which they receive collected through a correspondent bank which is a member of the Federal Reserve System although they contribute nothing to the strength of the system. To the extent that the practice of charging exchange is continued under the operation of the Federal Reserve System, it is an anachronism which permits the charging banks to impose a charge upon commerce and industry after they have ceased to perform the service which in former times justified the imposition of such a charge. In this connection the following is quoted from a letter dated April 1, 1920, addressed by the Board to a United States Senator:

Since the establishment of the Federal Reserve Banks the cost of transferring balances from one section of the country to another has been almost entirely eliminated. Each Federal Reserve Bank carries a portion of its gold reserve in a gold settlement fund which is kept in the Treasury at Washington, and there is a daily telegraphic clearing conducted by the Federal Reserve Board for all 12 banks and for their branches. The amount of gold in the fund is practically a stable quantity, but its ownership varies from day to day according to the debits and credits to the different banks. Transfers are made by the Federal Reserve Banks for member banks, and also for nonmember banks through the medium of member banks, by telegraph without any charge whatever to the member bank or its client, all costs being borne by the Federal Reserve Banks. Thus a bank in Wisconsin or California, Maine or Texas, can secure an instantaneous transfer to any one of the 12 Federal Reserve cities or to the 20 cities where there are branch Federal Reserve Banks without any expense whatsoever, and the sum total of these transfers is settled daily through the gold settlement fund above referred to. The Federal Reserve Banks pay all costs of transporting currency to or from their member banks as well as transportation charges on currency sent them by nonmember banks in payment of checks.

The total volume of transactions through the gold settlement fund in the year 1919 was approximately $74,000,000,000, and the total cost, including the expense of the leased wires, was about $250,000. This cost was borne by the Federal Reserve Banks and does not represent any expense whatever to the member banks or their customers. Thus it will be seen that the basic cost of making domestic exchange in the year 1919 was 0.3 of a cent for each $1,000 transferred. A charge of 10 cents per $100 on the amount cleared through the gold settlement fund would have involved an expense of $1 for each $1,000 transferred, or about $74,000,000 for the entire amount.

The intradistrict clearings made by the Federal Reserve Banks, eliminating duplications, amounted to about $135.000,000,000, and the total expense of these transfers was borne by the Federal Reserve Banks. Had the Federal Reserve Banks been obliged to pay for these transfers at the rate of 10 cents per $100, it will be seen that the total expense would have been $135,000,000, which amount is far in excess of the total earnings of the Federal Reserve Banks and therefore could not have been absorbed by them. If not absorbed, the charge would have had to have been transferred to the depositors of the checks, so it will be seen that a charge of 10 cents per $100 upon the business handled by the Federal Reserve Banks would have involved last year a cost to the commerce and industry of this country of at least $135,000,000.

The Federal Reserve Board believes that the present terms of the Federal Reserve Act impose upon it the duty of developing and maintaining the Federal Reserve par collection system, while the opponents of par collection vigorously urge the contrary view. The opinion of the United States Circuit Court of Appeals, previously referred to, decisively upholds the Board's point of view, and, Congress having taken no action in the matter of further legislation on the subject, the Board will, of course, regard as binding upon all parties the final interpretation of section 13 of the Federal Reserve Act by the Supreme Court of the United States. Consequently, unless that court reverses the decision of the United States Circuit Court of Appeals, the Board will assume that Congress desires the Federal Reserve Board and the Federal Reserve Banks to continue, as heretofore, to develop and perfect the Federal Reserve par collection system.

Until the United States Supreme Court renders its decision in the appeal now pending before it, the opinion of the United States Circuit Court of Appeals must, of course, be regarded as conclusive as to the construction of the law. The following extract from that opinion sustains in every respect the position which the Board has always taken that its duty under the law as it now stands is to develop and perfect the Federal Reserve par collection system.

The principle that one must so use his property as not to unnecessarily and maliciously injure his neighbor, even though his act is otherwise lawful, is also invoked. Conceding that the accumulating of checks, and their presentation, when accumulated, with the intent to embarrass and injure the drawee bank, might constitute an actionable wrong and one that might be prevented by injunction, we do not think the amended bill presents any such case. There is no specific charge in the bill of any threat to present the checks in any accumulated or oppressive manner, on which a court of equity would be justified in acting. Nor does the bill charge the appellee bank with acting from a merely malicious motive, if that is material. It does aver that the purpose of the appellee was to compel the appellants to accept the lesser of two evils and to remit at par for checks drawn upon it. If this charge was borne out by the exhibits, which it is not, it would not constitute legal duress, on which a legal complaint could be predicated. The exhibits show that the adoption of a system of universal par clearance was advocated in good faith by the appellee bank as a proper banking policy, and as well by Congress and the Federal Reserve Board. The adoption of appropriate means of the appellee bank to accomplish this end can not with any propriety be attributed to malice on its part against appellants and other banks in like condition. Nor does the adoption of the method of presenting checks over the counters of the drawee bank imply an attempt to coerce them into becoming member or depositing banks. The Federal Reserve Bank was interested to supply a universal clearance at par for its member and depositing banks. It could accomplish this only by accepting from its member and depositing banks all checks tendered it by them upon whatever banks drawn. If drawn upon a nonmember and nondepositing bank, which refused to remit at par, it was disabled under the statute from handling such checks through the method of transmission of the checks and remittance of the proceeds through the mails. It could only collect such checks by presentation in person to the drawee bank. It is therefore, reasonable to suppose that its declared purpose of making such presentations was in furtherance of its policy of furnishing complete clearing facilities to its member banks, and was not for the purpose of injuring or destroying the drawee banks, or of coercing them into becoming member or depositing banks with it. It constituted an essential step without which universal par clearance was not possible of accomplishment.

In the following table are given the number and amount of checks and drafts handled by the Federal Reserve Banks during monthly periods in 1920:

Items handled by all Federal Reserve Banks combined.

[Exclusive of duplications on account of items being handled by more than one Federal Reserve Bank or Branch.]

Month ending—	Total items handled.		Items drawn on banks in district of reporting F. R. bank or branch.		Items drawn on United States Treasurer.		Items forwarded direct to members and nonmembers in other F. R. districts.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.
		Thousand dollars.		*Thousand dollars.*		*Thousand dollars.*		*Thousand dollars.*
Jan. 15, 1920	33,208,287	14,044,656	31,212,530	13,298,384	1,990,362	743,821	5,395	2,451
Feb. 15, 1920	30,867,486	12,519,612	29,165,181	11,958,671	1,697,090	558,926	5,215	2,015
Mar. 15, 1920	33,568,251	13,156,260	31,996,561	12,645,019	1,565,995	509,415	5,695	1,826
Apr. 15, 1920	38,406,451	14,451,902	36,207,429	13,567,468	2,192,547	882,565	6,475	1,869
May 15, 1920	37,176,038	12,820,472	34,480,874	12,339,093	2,689,238	479,638	5,926	1,741
June 15, 1920	36,459,470	12,843,671	34,487,372	12,331,819	1,965,436	509,831	6,662	2,021
July 15, 1920	37,553,352	13,618,865	35,127,057	12,689,571	2,418,982	927,221	7,313	2,073
Aug. 15, 1920	37,052,060	12,303,370	35,045,843	11,918,337	1,999,664	383,068	6,553	1,965
Sept. 15, 1920	38,541,139	12,880,327	36,541,102	12,313,878	1,992,827	564,334	7,210	2,115
Oct. 15, 1920	40,674,502	13,677,098	38,156,780	13,247,060	2,510,644	427,398	7,078	2,640
Nov. 15, 1920	41,399,208	13,090,293	38,402,450	12,673,791	2,989,658	414,296	7,100	2,206
Dec. 15, 1920	41,764,941	12,093,079	39,082,305	11,604,936	2,675,292	486,043	7,344	2,100
Total	446,671,185	157,499,605	419,905,484	150,588,027	26,687,735	6,386,556	77,966	25,022
Monthly average	37,222,598	13,124,967	34,992,124	12,549,002	2,223,978	573,880	6,497	2,085

GOLD SETTLEMENT FUND.

The volume of transactions through the gold settlement fund has shown a continued and steady increase during the year, occasioned, in part, by the increased use of the check clearing and collection facilities of the Federal Reserve Banks by member banks, and, in part, by the increased volume of inter-Federal Reserve Bank rediscounts. During the past year, as during the previous three years, the gold settlement fund operations have been affected to a large extent by the fiscal operations of the Treasury. Large amounts of transfers have continued to be made on account of transactions incident to the collection and distribution of funds from the sale of Treasury certificates of indebtedness, and the payment and distribution of funds on account of income and excess profits taxes.

The only important change during the past year in the method of operation of the gold settlement fund, which has been explained fully in previous reports, was the arrangement made effective March 1, whereby each Federal Reserve Bank and direct settling branch began telegraphing the Board the gross amount collected for the account of each other Federal Reserve Bank and direct settling branch before the final closing of the books for the day. Under the new arrangement the settlement is now effected by the Board the same day, telegrams are dispatched to each bank and direct settling branch so as to reach them in advance of the opening for business the following morning, when the necessary entries are made and their books finally closed for the preceding day. Under the original plan, settlements were made each morning of the credits wired to the Board as of the previous day. The new plan has resulted in the elimination of inter-Federal Reserve Bank "float" which had previously been carried by some Reserve Banks for other Reserve Banks on account of payments received by the correspondent Federal Reserve Bank one day in advance of payment through the gold settlement fund.

On April 10 the Board authorized payments through the gold settlement fund by Federal Reserve Banks to the Treasurer of the United States for account of member national banks for credit to their 5 per cent redemption fund against national bank notes to be made in any amount, instead of in even dollars which had previously been the rule. This resulted immediately in a substantial increase in the number and volume of such transactions, which have been further increased since the discontinuance of the subtreasuries with which the bulk of such deposits had previously been made.

The Los Angeles branch of the Federal Reserve Bank of San Francisco and the Detroit branch of the Federal Reserve Bank of Chicago were authorized, effective January 2 and February 2, respectively, to settle direct with other Federal Reserve Banks and direct settling branches through the gold settlement fund under arrangements described in previous reports, whereby branches of Federal Reserve Banks were authorized to settle direct with other Federal Reserve Banks and direct settling branches through the gold settlement fund in order to facilitate the development of branch bank service and to simplify interoffice accounting.

Combined clearings and transfers through the fund during the year aggregated $92,625,805,000, as compared with $73,984,252,000 in 1919, $50,251,592,000 in 1918, $27,154,704,000 in 1917, $5,533,966,000 in 1916, and $1,052,649,000 in 1915, making a grand total of $250,602,968,000 since the operation of the fund was begun on May 20, 1915. A comparison of the amounts of the average weekly settlements shows clearly the growth of the volume of transactions.

Average weekly volume of clearings and transfers.

1920	$1, 793, 584, 000
1919	1, 422, 774, 000
1918	1, 015, 399, 500
1917	522, 206, 000
1916	106, 422, 000
1915	31, 898, 000

For the week October 15–21 the record figure of $2,271,555,831.55 for combined clearings and transfers was established. Extraordinary transactions of that week affecting the gold settlement fund operations include transfers of funds in connection with payments covering the sale and redemption of Treasury certificates on October 15, transfers incident to the payment of interest on approximately $6,000,000,000 Liberty loan issues due October 15, and transfers incident to the redemption of Anglo-French bonds maturing on October 15, 1920.

When it is considered that these enormous transfers of gold credits were made almost instantaneously by means of the leased telegraph wire system without the physical movement of a dollar of gold, it will be seen that the gold settlement fund operations have been of incalculable value to the Government, the banks, and the public.

The total expense of operation, including the entire cost of the leased wires and salaries of accountants, was approximately $370,000.

This represents the basic cost of effecting the domestic exchanges between the several Federal Reserve districts. A charge of 10 cents per $100, if generally imposed, would have involved an expense to the Treasury and the commerce of the country of $92,625,000.

FISCAL AGENCY OPERATIONS.

During the past year the duties of the Federal Reserve Banks as fiscal agents of the United States, as described in previous reports, have been enlarged as the result of an act of Congress approved May 29, 1920, which provided for the discontinuance of the nine subtreasuries located in the cities of Boston, New York, Philadelphia, Cincinnati, Baltimore, New Orleans, Chicago, St. Louis, and San Francisco on or before July 1, 1921, and authorized the Secretary of the Treasury to transfer any or all of their duties to the Treasurer of the United States, the mints, assay offices, or Federal Reserve Banks.

The intent of the act of August 6, 1846, under which the subtreasuries were established as a part of the independent Treasury system, was that the Government finances should be entirely separated from the banks of the country. Government moneys were no longer deposited in the banks, but in the Treasury or subtreasuries. The necessity for the continuance of the subtreasuries, however, became less obvious as the relations between the Government and the banks of the country became closer. Due to the establishment of the national banking system in 1863 and the then unprecedented fiscal operations of the Treasury incident to the Civil War, the independence of the separate Treasury system began to relax and national banks became depositaries of public moneys and fiscal agents of the Government. This change in the relationship between the Government and the banks developed in the intervening years and culminated with the passage of the Federal Reserve Act in 1913, which authorized the Federal Reserve Banks to act as depositaries and fiscal agents of the United States. With the establishment of the Federal Reserve System and the growth in the fiscal agency operations of the Federal Reserve Banks for the Government, especially during the past four years in connection with the financing of the war, the necessity for the continuance of the subtreasuries has finally disappeared.

Under regulations prescribed by the Secretary of the Treasury all of the functions and duties heretofore performed by the subtreasuries, which are enumerated below, will devolve upon the Federal Reserve Banks, with the exception of the last named, which will be performed for the present only by the Treasurer of the United States, the mints, and assay offices, and the issue of gold order certificates on gold deposits, which will be performed for the present only by the Treasurer of the United States.

The receipt of gold coin and standard silver dollars for exchange.

The receipt of United States notes, Treasury notes, gold and silver certificates, and subsidiary and minor silver coins for redemption.

The exchange of various forms and issues of money.

The cancellation and shipment to Washington of currency unfit for circulation and the laundering of soiled currency which permits of this process.

The receipt from United States depositary banks of their surplus deposits of internal revenue, customs, money order, postal, and other Government funds.

The receipt of deposits of postal savings funds, post-office funds, money-order funds, deposits on account of the 5 per cent fund for the redemption of national bank notes, deposits of interest on public deposits, and deposits of funds by Government disbursing officers.

The payment of United States coupons.

The payment of checks and warrants drawn against the Treasurer of the United States.

The receipt of funds for transfer to other points through Federal Reserve Banks or branches located therein.

The keeping in custody of reserve and trust funds consisting of gold coin and bullion and standard silver dollars securing gold and silver certificates respectively and held as reserve against United States notes.

Under instructions of the Secretary of the Treasury the subtreasuries at Boston, Chicago, New York, and San Francisco were discontinued on October 25, November 3, December 6, and December 20, respectively, and the functions described above (except the last named) will be performed hereafter by the Federal Reserve Banks in those cities.

Special separate instructions were issued by the Secretary of the Treasury on August 30, under the provisions of the act of May 29, 1920, authorizing all Federal Reserve Banks immediately to make exchanges, replacements, and redemptions of United States paper currency, which operations had previously been performed by subtreasuries, and up to December 31 the following Federal Reserve Banks and branches have undertaken these functions on dates as specified:

Boston	Oct. 1
New York	Nov. 1
Buffalo branch	Nov. 22
Philadelphia	Nov. 18
Chicago	Nov. 1
Detroit branch	Nov. 13
St. Louis	Nov. 1
Little Rock	Dec. 23
Louisville	Dec. 23
Memphis	Dec. 23
Minneapolis	Dec. 1
Kansas City	Nov. 1
San Francisco	Dec. 21

Also, the Secretary, on October 19, under the provisions of the act of May 29, 1920, authorized all Federal Reserve Banks to make exchanges and redemptions of United States coin, which functions were previously performed by the subtreasuries, and up to December 31 the following Federal Reserve Banks have undertaken these operations on dates as specified:

Boston	Oct. 26
Chicago	Nov. 4
New York	Dec. 7
San Francisco	Dec. 21

It is expected that all the subtreasuries will be discontinued shortly after January 1, 1921, and that all Federal Reserve Banks will make replacements, exchanges, and redemptions of United States paper currency and coin.

The closing of the subtreasuries and the assumption of their duties and functions by Federal Reserve Banks is being effected without interruption to business and without interference with the financial operations of the Government, and it is believed that the change will result in a considerable advantage to the banks and the general public.

In addition to the assumption of the above-described fiscal agency functions the Federal Reserve Banks have continued to act as fiscal agents of the Government during the past year in handling all details incident to the sale, allotment, distribution, and redemption of Treasury certificates of indebtedness among member and nonmember banks in their respective districts, including the collection of funds received from the sale of the certificates and the depositing of funds with depositary banks and withdrawing same as required by the Treasury. Federal Reserve Banks have also made denominational exchanges and exchanges of temporary for permanent Liberty bonds, received collections on account of income and excess profits taxes, redeemed coupons covering interest payments on Government bond, Victory note, and certificate issues, and have handled the sale and exchange of thrift stamps and other Government savings securities.

As fiscal agents of the Treasury the Federal Reserve Banks have placed $1,231,837,000 of Treasury loan certificates of indebtedness and $2,619,534,500 of tax certificates during 1920, and have also handled all details incident to the redemption of $4,960,000,000 of Treasury certificates. They have also paid for the Treasury $87,357,000, covering 584,600 interest coupons on outstanding certificates.

The following table shows the amount of allotments of Treasury certificates during the calendar year 1920 by issues and Federal Reserve districts:

Allotments of Treasury certificates issued during 1920 in anticipation of tax payments.

Federal Reserve Bank.	In anticipation of tax payments during 1920.		In anticipation of tax payments during 1921.								Total.
	Series T D.	Series T M 4.	Series T M.	Series T J.	Series T M 2.	Series T M 3.	Series T S.	Series T M 4.	Series T J 2.	Series T D.	
Boston	$52,782,500	$17,695,500	$10,202,000	$18,475,000	$3,786,500	$5,424,000	$21,329,500	$10,059,000	$10,455,000	$35,035,000	$185,244,000
New York	324,189,000	107,732,500	59,982,000	93,629,500	34,583,000	60,233,500	181,370,500	40,566,500	93,616,000	173,291,000	1,169,193,500
Philadelphia	48,300,000	10,416,000	5,131,500	23,200,000	4,508,000	6,138,500	26,936,000	13,822,500	6,681,500	38,466,500	183,600,500
Cleveland	46,119,500	28,043,500	17,420,500	25,132,500	6,164,500	9,831,000	29,205,000	14,393,000	28,550,000	39,700,000	244,559,500
Richmond	11,858,000	7,093,500	5,981,500	7,064,000	2,195,000	1,884,000	9,138,500	4,204,000	3,849,500	14,044,500	67,312,500
Atlanta	14,600,500	9,276,000	2,582,500	4,498,000	1,726,000	1,092,500	4,537,500	2,227,500	2,570,500	3,757,000	46,868,000
Chicago	77,484,500	50,110,500	21,926,000	27,433,000	8,177,000	9,330,500	24,459,500	15,234,000	16,522,000	37,645,000	288,322,000
St. Louis	23,234,000	9,421,500	6,806,000	9,793,500	2,300,000	1,046,500	9,900,500	4,621,000	6,153,000	14,703,500	87,979,500
Minneapolis	15,515,000	8,969,500	3,257,500	2,278,500	1,032,500	1,864,500	3,986,500	2,050,000	2,600,000	6,625,000	48,179,000
Kansas City	13,036,500	16,000,000	7,235,500	11,412,500	2,210,500	1,686,500	9,313,500	4,744,500	3,499,500	11,303,500	80,442,500
Dallas	8,506,500	14,868,500	4,719,500	4,000,500	495,000	1,945,000	2,692,500	3,008,500	1,426,000	3,606,500	45,268,500
San Francisco	38,400,000	25,250,000	16,063,000	15,600,000	7,100,000	6,150,000	19,100,000	9,322,000	12,200,000	23,380,000	172,565,000
Total	674,026,000	304,877,000	161,307,500	242,517,000	74,278,000	106,626,500	341,969,500	124,252,500	188,123,000	401,557,500	2,619,534,500
Rate of interest	4¾ per cent.	4½ per cent.	4¾ per cent.	6 per cent.	5¾ per cent.	5¾ per cent.	6 per cent.	5¾ per cent.	5¾ per cent.	6 per cent.	....
Date issued	Jan. 2, 1920	Feb. 2, 1920	Mar. 15, 1920	June 15, 1920	July 15, 1920	Sept. 15, 1920	Sept. 15, 1920	Oct. 15, 1920	Dec. 15, 1920	Dec. 15, 1920	....
Maturity date	Dec. 15, 1920	Mar. 15, 1920	Mar. 15, 1921	June 15, 1921	Mar. 15, 1921	Mar. 15, 1921	Sept. 15, 1921	Mar. 15, 1921	June 15, 1921	Dec. 15, 1921	....

Allotments of Treasury loan certificates during 1920.

Federal Reserve Bank.	Maturing in 1920.				Maturing in 1921.				Total.
	Series E.	Series F.	Series G.	Series H.	Series A.	Series B.	Series C.	Series D.	
Boston	$11,253,500	$6,615,500	$15,496,500	$8,718,000	$12,470,000	$8,852,000	$14,042,000	$18,851,000	$96,298,500
New York	104,682,000	33,039,500	94,127,500	37,239,000	81,370,500	55,808,500	57,704,500	83,515,500	547,487,000
Philadelphia	13,500,000	3,744,000	9,756,000	7,248,000	5,300,000	9,742,000	12,426,000	19,006,500	80,722,500
Cleveland	13,348,500	5,500,000	7,100,000	10,814,000	14,624,000	7,990,000	15,057,500	31,350,000	105,784,000
Richmond	3,127,000	1,650,000	4,693,000	2,965,500	2,382,000	1,550,000	5,567,000	7,106,500	29,041,000
Atlanta	4,101,000	2,271,000	5,123,000	2,063,000	2,981,500	1,485,000	4,262,500	2,363,500	24,650,500
Chicago	18,359,000	6,313,500	11,086,000	14,080,000	25,132,000	10,044,500	20,250,500	27,264,500	132,530,000
St. Louis	4,277,500	3,135,500	4,115,500	4,237,000	5,625,000	3,702,500	6,285,500	9,576,500	40,955,000
Minneapolis	6,265,000	3,979,500	2,413,500	1,341,000	2,214,500	721,500	2,093,000	4,875,000	23,903,000
Kansas City	5,929,000	1,948,000	3,451,000	4,309,000	5,187,500	5,795,000	6,000,000	7,118,000	39,737,500
Dallas	4,986,000	3,092,000	1,836,000	2,014,500	2,567,000	1,192,500	2,544,000	3,492,000	21,724,000
San Francisco	9,841,000	6,214,500	11,435,500	7,836,000	16,750,000	7,900,000	11,422,000	17,605,000	89,004,000
Total	199,669,500	77,503,000	170,633,500	102,865,000	176,604,000	114,783,500	157,654,500	232,124,000	1,231,837,000
Rate of interest	4¾ per cent.	5 per cent.	5¼ per cent.	5½ per cent.	5¾ per cent.	5¾ per cent.	6 per cent.	5¾ per cent.	
Date issued	Apr. 1, 1920	Apr. 15, 1920	Apr. 15, 1920	May 17, 1920	June 15, 1920	July 15, 1920	Aug. 16, 1920	Nov. 15, 1920	
Maturity date	July 1, 1920	July 15, 1920	Oct. 15, 1920	Nov. 15, 1920	Jan. 3, 1921	Jan. 15, 1921	Aug. 16, 1921	May 16, 1921	

During the year, as fiscal agents of the Treasury, the Federal Reserve Banks redeemed 110,366,000 of interest coupons on Liberty and Victory loan bond issues aggregating $623,843,000.

With the exception of the first Liberty 3½ per cent permanent bonds and the Victory loan 3¾ and 4¾ per cent notes, all Government coupon war bonds, amounting to a total of $13,538,515,900 were issued in temporary form, each bond having four coupons attached covering semiannual interest payments for two years. This policy was adopted mainly to get the bonds more quickly into the hands of subscribers, since the work of preparing permanent bonds with all interest coupons attached required a great deal of time; also to avoid waste in effecting subsequent conversions and exchanges.

Under regulations issued by the Secretary of the Treasury in December, 1919, the Federal Reserve Banks were authorized to make exchanges of permanent bonds, when ready, for temporary bonds, and to make special arrangements with any incorporated bank or trust company to receive advance deliveries of permanent bonds upon pledging collateral security with the Federal Reserve Banks. During 1920 the Federal Reserve Banks made exchanges of 27,913,000 of temporary bonds, aggregating $6,745,085,000, and also made 13,009,000 exchanges and conversions of permanent Liberty bonds and Victory notes, aggregating $1,986,297,000.

The Federal Reserve Banks also continued the sale of Government savings securities through their savings divisions with the view of encouraging the people of the country to save and invest in Government securities, and of developing a secondary market for the war loan issues of the Government. War savings securities issued during the year 1920 by the Treasury, through the Federal Reserve Banks, included, as in 1919, thrift stamps, war savings stamps, and Treasury savings certificates. Government savings associations have been organized in various industries and in schools throughout the country to encourage saving.

During 1920 the following number and amount of the various classes of war savings securities were sold by Federal Reserve Banks:

	Number.	Amount (maturity value).
Treasury savings certificates	35,683	$7,146,700
War savings certificate stamps	599,817	2,999,805
Thrift stamps	1,762,593	440,649

The Federal Reserve Banks, as fiscal agents and depositaries of the Treasury, received during 1920 deposits of over 90 per cent of the $6,435,000,000 paid to the Government on account of income and excess profits taxes and other ordinary receipts. Treasury balances carried with the Federal Reserve Banks have been subject to wide fluctuations owing to the seasonal character of the collections made for the Government. The maximum, minimum, and daily average balances of the Government with all Federal Reserve Banks during the past year have been as follows:

Government deposits held by Federal Reserve Banks during 1920.

[In thousands of dollars.]

Month.	Maximum.	Minimum.	Daily average.	Month.	Maximum.	Minimum.	Daily average.
January	91,195	16,831	46,678	August	58,414	7,479	32,032
February	133,913	9,445	49,749	September	135,178	27,833	57,341
March	108,251	14,323	56,752	October	60,560	8,358	25,946
April	42,810	8,777	22,219	November	53,397	11,896	21,062
May	76,699	18,303	31,257	December	67,254	17,860	38,661
June	77,477	10,754	34,066				
July	29,358	7,921	14,801	Year	135,178	7,479	35,829

On December 31 there was a total of 8,609 special bank depositaries for Government funds which had been designated by the Secretary of the Treasury, through the Federal Reserve Banks. The average daily Government balances with these depositaries during 1920 was $191,618,000, and as security for these deposits the Federal Reserve Banks approved and held collateral of an average face value, based on end of month figures, of approximately $508,576,000.

CHANGES IN CONDITION OF MEMBER BANKS IN LEADING CITIES DURING 1920.

During 1920 the Board continued the publication of weekly figures of principal assets and liabilities of member banks in about 100 of the larger cities. The representative character of these reports is proved by a comparison of certain common items shown in the condition reports on call dates of all member banks and in the consolidated weekly statements on the same or nearest dates of "reporting" member banks. Thus on June 30, 1920, the "reporting" banks are shown to have held over one-half of all Government securities owned by all member banks, about 70 per cent of their total loans and investments (exclusive of fixed investments), about 70 per cent of their total net demand deposits, and about 45 per cent of their time deposits. On the same date "reporting" member banks show about the same amount of net demand deposits as all national banks and larger borrowings from and larger reserve balances with the Federal Reserve Banks. Practically the same proportions are found on earlier call dates. It is evident therefore that the following review of the development during 1920 of the "reporting" member banks may be taken as a fair indication of general banking development in the country during the past year. Owing to the increase in membership in the selected cities the number of reporting banks has grown from 798 on January 2 to 821 on the last Friday of the year and this increase in the number of institutions affects somewhat the comparability of the figures in the appended table, though not enough to invalidate any general conclusions that may be drawn from an analysis of the data.

One of the salient features of banking development during the past year is the large and practically continuous reduction in the total of Government war obligations held, also of the loans supported by these obligations carried by the reporting banks. Since January 2, the first Friday in the year, the total holdings of United States bonds other than circulation bonds, Victory notes, and Treasury certificates, as well as paper secured by such obligations, declined from 3,026.6 to 2,033.4 millions, or from 18.1 to 12.1 per cent of the banks' total loans and investments. This considerable decrease is due in the first place to the practically continuous reduction in the amount of Treasury certificates held among the investments of reporting member banks. Reduction of the amount of Treasury certificates outstanding, the fixing of higher interest rates on these securities, and changes in discount rates of the Reserve Banks, discussed in another part of the report, are the main factors responsible for the gradual decrease in the holdings of certificates by the reporting banks from 857 millions on January 2 to less than 500 millions by the middle of March. Subsequent issues of tax and loan certificates caused substantial increases in bank holdings, and until the latter part of June the amount held by the reporting banks and largely used by them as collateral for loans at the Federal Reserve Banks was in excess of the low figure shown. On June 25 the total had again declined below the 500-million mark, by September 24 it fell below 400 millions, and by the end of October below 300 millions. About the close of the year total certificate holdings are shown as 271.6 millions, a decline of 585.8 millions since the beginning of the year.

As compared with the large reductions in certificates, the amount of United States bonds held by the reporting institutions shows a small increase from 636.4 to 643.9 millions. These totals are exclusive of the amounts of circulation bonds (held largely on deposit with the Treasury to secure national-bank note circulation) which continued practically constant at about 269 millions. Victory note holdings during the first three months of the year show a decline from 238 to slightly below 200 millions, the decrease representing apparenty to a large extent the amount of securities acquired by customers on the part-payment plan. Since then but little change in the holdings is seen, the amount reported about the close of the year, 209.1 millions, being 18.9 millions larger than the low figure for the year shown on October 8. Loans secured by Government obligations—by far the larger part secured by Liberty bonds and Victory notes—which stood at 1,294.4 millions at the beginning of the year declined steadily to about 1 billion about the middle of the year. A further reduction, though not so large, took place since the end of June, the total at the close of the year, 908.9 millions, showing a decline of 385.5 millions for the year.

In connection with the shrinkage in the volume of stock-exchange operations in the New York market, loans secured by stocks and bonds show a practically continuous decline from 3,390.6 millions to less than 3 billions about the middle of August. Since then a slight rise in this item is noted, especially during October, when street loans carried by the fiscal agents of the British and French Governments were called preparatory to the redemption on October 15 of the outstanding bonds of the loan of 1915, and reporting member banks in New York and Boston assumed the greater part of these loans. At the close of the year these loans stood at 3,175.9 millions, or 177.6 millions above the low point reported about the middle of August. All other loans and investments, composed largely of commercial loans and discounts, show a practically unchecked upward trend until October 8, when the peak for the year, 11,773.6 millions, was reached, an increase of 1,764.4 millions since the beginning of the year. Since then the banks report net liquidation under this head of over 500 millions, the end-of-year total of 11,274.3 millions differing but little from the total reported six months earlier.

Total loans and investments of the reporting banks follow a practically parallel course, reaching a high of 17,284 millions on October 15, a total almost 600 millions in excess of the corresponding January 2 figure. Since then considerable liquidation may be noted, reducing the end-of-year total to nearly the January level. While but little change is seen in the total volume of the banks' earning assets, there has been an almost steady growth of other loans and investments at the expense of the less liquid investments in Government war securities and of loans secured by such obligations. Thus at the opening of the year about 60 per cent of the total loans and investments consisted of "other loans and investments," i. e., largely commercial loans and discounts, and slightly over 18 per cent of United States war securities and loans secured by such obligations, while at the close of the year the respective proportions were about 67, and slightly over 12 per cent. The figures of total loans and investments uniformly include amounts rediscounted with the Federal Reserve Banks. A comparison of these figures with the amounts of total borrowings by the reporting banks at the Federal Reserve Banks indicates therefore the approximate extent to which the loan burden of the member banks was shifted to the Reserve Banks. In January the "ratio of accommodation" stood at 11.2 per cent. By the end of February, in consequence of largely increased borrowings from the

Reserve Banks, the ratio had gone up to 12.8 per cent. On November 5, when the peak of borrowings from the Reserve Banks is shown, viz, 2,278.4 millions, the ratio of accommodation stood at 13.4 per cent, while on December 31, notwithstanding the substantially smaller loans and investments, the ratio works out at slightly above 12.5 per cent. On the whole the member banks, during the more recent months, have come to lean more heavily upon the Reserve Banks, notwithstanding the substantial liquidation of their own loans to customers and of their investments in Government and corporate securities. In keeping with the changes in their own loans and investments the member banks show a gradual reduction in the amount of paper secured by Government war obligations, including Treasury certificates, so-called war paper, pledged with the Federal Reserve Banks and a more than corresponding increase in borrowings on commercial paper proper. On January 2 out of a total of 1,870.5 millions of loans from the Federal Reserve Banks, loans secured by Government war obligations constituted nearly 65 per cent, while at the close of the year, out of total loans at the Federal Reserve Banks of 2,098.1 millions, the proportion of "war paper" was about 42 per cent.

Government deposits at the reporting banks show wide fluctuations, in connection with the fiscal operations of the Treasury, mainly the flotation of the several series of loan and tax certificates, the high points after the early part of the year coinciding with or following the dates of the quarterly tax installments and the payment by credit to Government account for Treasury certificates allotted to the banks.

Other demand deposits (net), largely because of the substantial withdrawals of balances by the country banks from their central reserve and reserve city correspondents, show a decided downward movement, especially during the latter part of the year. On December 31 the demand deposits of reporting banks aggregated 10,941.8 millions, or 653.7 millions less than on the first Friday of the year.

Time deposits, on the other hand, continued their upward course with but few and unimportant recessions, reaching a high point of 2,852.3 millions at the close of the year, or about 519 millions higher than on the first Friday in January.

Reserve balances of the reporting banks with the Federal Reserve Banks, on the whole, followed a parallel course with demand deposits, declining during the year from 1,444.3 to 1,357.6 millions. Cash in vault after the first two weeks in January continued below 400 millions, or at less than 4 per cent of the net demand deposits, fluctuating within a maximum of 394 millions on July 9 and a minimum of 347.2 millions on the first Friday in February.

Principal resources and liabilities of member banks in leading cities, by weeks, during 1920.

[Amounts in thousands of dollars.]

Date	Number of reporting banks.	United States securities.				Loans[1] and investments, exclusive of U. S. securities.				Reserve balances with Federal Reserve Bank.	Cash in vault.	Deposits.			Accommodation at Federal Reserve Banks.		
		Total.	Bonds.	Victory notes.	Certificates of indebtedness.	Total.	Loans secured by United States war obligations.	Loans secured by stocks and bonds other than United States bonds.	All other.			Net demand on which reserve is computed.	Time.	Government.	Total.	Paper secured by United States war obligations.	Paper otherwise secured and unsecured.
Jan. 2...	798	2,000,983	905,243	238,385	857,355	14,694,235	1,294,409	3,390,646	10,009,180	1,444,285	431,436	11,595,451	2,333,783	629,201	1,870,500	1,209,877	660,623
9...	802	2,036,353	905,030	236,674	894,649	14,692,944	1,274,424	3,378,586	10,039,934	1,406,535	410,707	11,535,788	2,409,728	633,745	1,729,312	1,088,715	640,597
16...	803	1,934,316	892,074	226,391	815,851	14,783,939	1,274,507	3,370,053	10,139,379	1,473,974	377,307	11,726,214	2,466,279	423,121	1,757,376	1,095,489	661,887
23...	804	1,875,834	882,180	222,167	771,487	14,798,570	1,267,850	3,352,829	10,177,891	1,424,790	372,811	11,539,933	2,477,547	343,710	1,824,069	1,139,552	684,517
30...	804	1,844,650	869,426	216,731	758,493	14,776,928	1,226,679	3,325,222	10,225,027	1,406,496	357,509	11,481,050	2,471,569	308,823	1,834,180	1,197,366	636,814
Feb. 6...	804	1,810,590	866,878	212,644	731,068	14,797,975	1,196,200	3,301,979	10,299,796	1,417,159	347,218	11,482,867	2,494,912	205,168	1,894,745	1,225,998	668,747
13...	804	1,771,705	863,416	212,394	695,895	14,882,689	1,178,844	3,232,398	10,471,447	1,398,371	383,279	11,557,091	2,500,862	156,814	1,982,914	1,242,491	740,423
20...	806	1,764,078	866,997	211,064	686,017	14,810,721	1,163,364	3,178,040	10,469,317	1,399,334	369,959	11,423,157	2,514,725	59,387	2,057,396	1,301,329	756,067
27...	807	1,747,161	865,507	208,823	672,831	14,924,151	1,167,675	3,185,281	10,571,195	1,408,792	370,431	11,463,252	2,524,393	42,097	2,142,857	1,341,450	801,407
Mar. 5...	808	1,711,610	864,475	205,925	641,210	15,029,342	1,188,602	3,174,210	10,666,530	1,404,038	373,899	11,553,616	2,557,180	39,078	2,094,129	1,284,141	809,988
12...	809	1,695,562	860,094	204,458	631,010	15,214,634	1,166,415	3,184,987	10,863,232	1,436,601	368,749	11,716,721	2,565,076	39,175	2,106,254	1,277,996	828,258
19...	809	1,560,431	861,481	201,612	497,338	15,220,994	1,162,465	3,175,231	10,883,298	1,390,213	368,911	11,635,029	2,574,140	104,451	1,899,093	1,132,294	766,799
26...	811	1,548,036	860,181	200,212	487,643	15,271,234	1,160,141	3,193,212	10,917,881	1,413,918	359,854	11,495,549	2,584,959	54,176	2,114,273	1,202,123	912,150
Apr. 2...	811	1,605,890	861,096	203,988	540,806	15,309,103	1,154,228	3,158,943	10,995,932	1,436,756	360,002	11,600,788	2,586,610	120,939	2,048,219	1,144,808	903,411
9...	812	1,613,361	860,258	201,368	551,735	15,259,184	1,137,188	3,142,455	10,979,541	1,397,590	374,064	11,559,204	2,598,756	125,188	2,008,874	1,164,706	844,168
16...	811	1,748,357	863,124	203,325	681,908	15,295,679	1,129,259	3,179,452	10,986,968	1,437,118	370,467	11,683,551	2,608,587	189,849	2,053,404	1,190,299	863,105
23...	811	1,693,529	855,178	207,879	630,472	15,217,587	1,100,814	3,147,591	10,969,182	1,413,648	367,831	11,424,857	2,621,640	170,822	2,100,532	1,194,560	905,972
30...	812	1,680,646	868,280	204,003	608,363	15,249,689	1,089,871	3,170,316	10,989,502	1,415,145	355,372	11,463,745	2,619,027	150,136	2,136,347	1,206,765	929,582
May 7...	810	1,673,828	874,924	203,247	595,657	15,219,965	1,077,164	3,139,528	11,003,273	1,373,730	373,651	11,390,817	2,637,736	144,761	2,091,558	1,177,480	914,078
14...	814	1,675,457	873,212	203,932	598,313	15,308,359	1,090,554	3,104,178	11,113,627	1,423,402	371,216	11,563,867	2,655,286	59,200	2,127,673	1,235,868	891,805
21...	814	1,712,304	873,932	203,102	635,270	15,226,949	1,056,016	3,123,514	11,047,419	1,394,550	368,332	11,506,283	2,643,342	115,113	2,059,213	1,166,875	892,338
28...	814	1,684,364	871,723	203,455	609,186	15,261,748	1,061,590	3,115,454	11,084,704	1,415,397	362,749	11,561,381	2,645,705	75,599	2,060,138	1,159,436	900,702
June 4...	812	1,680,154	873,414	203,299	603,441	15,246,036	1,043,804	3,111,038	11,091,194	1,419,343	384,894	11,536,371	2,667,977	52,582	2,091,833	1,149,077	942,756
11...	813	1,658,312	874,136	202,987	581,189	15,267,965	1,039,981	3,095,502	11,132,482	1,428,233	373,541	11,597,508	2,670,708	52,021	2,053,653	1,155,702	897,951
18...	814	1,587,992	876,867	200,472	510,653	15,332,911	1,025,945	3,113,141	11,193,825	1,368,251	366,091	11,514,285	2,684,497	267,613	1,833,270	956,335	876,935
25...	814	1,560,929	879,115	198,690	483,124	15,371,519	1,026,011	3,107,025	11,238,483	1,393,709	358,060	11,347,041	2,691,880	262,861	1,945,977	996,347	949,630

July 2...	814	1,497,540	878,711	198,875	419,954	15,388,414	1,022,917	3,119,466	11,246,031	1,445,713	358,252	11,487,857	2,700,371	107,790	2,056,430	1,020,463	1,035,967
9...	814	1,474,146	878,733	196,462	398,951	15,387,359	1,011,771	3,079,793	11,295,795	1,402,700	394,048	11,462,965	2,698,969	44,104	2,051,187	1,010,632	1,040,555
16...	814	1,544,080	876,344	194,931	472,805	15,349,070	999,799	3,046,794	11,302,477	1,421,906	367,853	11,553,677	2,698,479	121,561	1,989,863	984,077	1,005,786
23...	814	1,530,183	873,818	194,266	462,099	15,346,562	981,184	3,059,798	11,305,580	1,388,021	360,887	11,426,887	2,715,438	142,276	1,953,430	971,935	981,495
30...	814	1,503,039	875,398	193,683	433,958	15,354,477	980,942	3,060,319	11,313,216	1,368,659	354,749	11,401,052	2,705,852	115,287	1,973,034	965,675	1,007,359
Aug. 6...	815	1,468,361	882,539	184,597	401,225	15,339,290	973,159	3,011,063	11,355,068	1,374,806	360,179	11,313,530	2,721,624	74,146	2,021,641	1,002,815	1,018,826
13...	818	1,460,488	875,610	191,234	393,644	15,367,790	964,008	2,998,313	11,405,469	1,392,231	354,506	11,382,363	2,727,482	66,733	2,050,014	1,018,138	1,031,876
20...	818	1,508,559	875,297	189,809	443,453	15,373,339	959,409	3,006,445	11,407,485	1,362,501	352,058	11,246,938	2,723,828	145,274	2,086,496	1,024,585	1,061,911
27...	820	1,501,482	875,385	196,326	429,771	15,428,936	966,288	3,037,144	11,425,504	1,372,075	357,872	11,252,428	2,745,231	123,878	2,128,399	1,041,055	1,087,344
Sept. 3...	819	1,487,839	872,846	192,943	422,050	15,440,132	957,380	3,044,846	11,437,906	1,394,957	340,505	11,242,044	2,767,782	61,755	2,201,943	1,048,817	1,153,126
10...	818	1,418,525	878,859	189,282	350,384	15,504,996	958,861	3,048,133	11,498,002	1,389,478	375,094	11,359,551	2,771,208	30,054	2,142,252	1,025,652	1,116,600
17...	818	1,485,989	878,958	191,171	415,860	15,571,385	955,843	3,040,073	11,575,469	1,390,096	369,711	11,381,204	2,780,662	331,376	1,972,160	937,428	1,034,732
24...	818	1,447,757	872,865	191,472	383,420	15,692,489	950,324	3,055,942	11,686,223	1,361,800	358,383	11,160,537	2,786,811	315,364	2,150,910	949,265	1,201,645
Oct. 1...	820	1,388,932	872,459	190,769	325,704	15,755,454	949,015	3,100,173	11,706,266	1,343,551	351,157	11,230,074	2,793,861	275,037	2,165,449	914,309	1,251,140
8...	822	1,386,963	878,874	190,240	317,849	15,801,641	936,934	3,091,151	11,773,556	1,384,680	376,470	11,212,230	2,796,176	247,136	2,249,962	946,067	1,303,895
15...	822	1,429,897	876,726	191,418	361,753	15,854,099	923,722	3,162,257	11,768,120	1,422,082	381,114	11,472,924	2,808,303	188,401	2,248,970	927,824	1,321,146
22...	823	1,385,238	877,872	193,494	313,872	15,717,622	914,407	3,105,903	11,697,312	1,333,215	377,491	11,240,588	2,814,559	151,849	2,203,696	929,567	1,274,129
29...	823	1,364,616	876,237	193,386	294,993	15,652,800	911,548	3,141,976	11,599,276	1,365,222	366,997	11,172,001	2,805,247	80,731	2,244,262	929,344	1,314,918
Nov. 5...	823	1,358,134	879,284	193,627	285,223	15,577,202	911,168	3,087,514	11,578,520	1,335,235	387,411	11,094,304	2,816,595	45,412	2,278,435	941,978	1,336,457
12...	825	1,353,310	880,039	195,217	278,054	15,478,362	908,702	3,049,018	11,520,642	1,369,928	383,538	11,121,945	2,809,940	29,525	2,228,275	905,353	1,322,922
19...	824	1,425,347	884,449	195,496	345,402	15,368,227	893,912	3,044,011	11,430,304	1,343,951	378,224	10,992,273	2,786,045	173,216	2,119,254	883,838	1,235,416
26...	824	1,391,420	884,160	194,081	313,179	15,340,592	905,677	3,054,789	11,380,126	1,286,946	388,105	10,892,122	2,811,123	87,799	2,174,026	913,910	1,260,116
Dec. 3...	823	1,355,458	883,034	196,279	276,145	15,274,727	900,878	3,050,082	11,323,767	1,332,081	375,887	10,837,478	2,822,240	17,503	2,209,839	876,929	1,382,910
10...	823	1,337,615	886,469	197,569	253,577	15,243,930	896,565	3,064,266	11,283,099	1,330,267	376,196	10,865,582	2,809,474	17,298	2,144,165	882,815	1,261,350
17...	824	1,462,844	891,505	197,853	373,486	15,340,382	901,217	3,103,600	11,335,565	1,297,231	381,191	10,814,454	2,790,197	399,968	2,031,979	887,769	1,144,210
24...	824	1,416,388	903,474	202,093	310,821	15,275,764	888,648	3,126,572	11,260,544	1,333,808	356,110	10,653,558	2,788,649	344,013	2,174,323	899,004	1,275,319
31...	821	1,391,368	910,690	209,079	271,599	15,359,120	908,908	3,175,906	11,274,306	1,357,669	354,535	10,941,847	2,852,257	262,264	2,098,053	878,260	1,219,793

[1] Including rediscounts with Federal Reserve Banks.

STATE BANK MEMBERSHIP.

On December 31, 1920, there were 1,487 State bank and trust company members of the Federal Reserve System, with aggregate capital and surplus of $1,033,894,000 and aggregate resources of $10,370,253,000, as compared with 1,181 State bank and trust company members on December 31, 1919, with aggregate capital and surplus of $891,201,000 and aggregate resources of $9,913,707,000. In the following table are shown, by Federal Reserve districts, the number of State bank and trust company members, their capital and surplus, and total resources on December 31, 1919, and on December 31, 1920:

[Amounts in thousands of dollars.]

Federal Reserve district.	Dec. 31, 1919.			Dec. 31, 1920.[1]		
	Number.	Capital and surplus.	Total resources.	Number.	Capital and surplus.	Total resources.
Boston	36	64,385	719,918	39	72,575	779,598
New York	122	320,123	4,283,636	134	357,276	4,150,695
Philadelphia	38	70,455	370,462	46	72,367	388,931
Cleveland	97	101,871	803,439	110	128,832	1,042,935
Richmond	46	19,285	166,007	56	23,761	169,404
Atlanta	64	35,553	389,854	84	40,860	360,730
Chicago	326	157,046	1,751,177	358	176,231	1,850,931
St. Louis	68	44,354	409,086	91	48,359	402,598
Minneapolis	86	10,455	107,139	121	13,271	128,287
Kansas City	47	8,353	119,953	63	12,057	128,337
Dallas	114	10,391	97,103	187	20,054	142,135
San Francisco	137	48,930	695,933	198	68,251	825,672
Total	1,181	891,201	9,913,707	1,487	1,033,894	10,370,253

[1] Figures for Dec. 31, 1920, partly estimated.

The subjoined tabular statement shows a comparison between the number, capital and surplus, and total resources of member banks; member banks, and nonmember banks eligible for membership; and all banks in the United States, exclusive of mutual savings and private banks. Figures are as of June 30, 1920, the latest date on which figures are available for comparative purposes.

[Amounts in thousands of dollars.]

	Number.	Per cent of total.	Capital and surplus.		Aggregate resources.	
			Amount.	Per cent of total.	Amount.	Per cent of total.
1. Member banks:						
National	8,025	85.4	2,209,277	69.1	22,187,459	68.9
State banks and trust companies	1,374	14.6	988,196	30.9	10,006,842	31.1
Total	9,399	100.0	3,197,473	100.0	32,194,301	100.0
2. Member banks, and nonmember banks eligible for membership:						
Member banks	9,399	51.3	3,197,473	73.9	32,194,301	77.5
Eligible nonmember banks	8,910	48.7	1,128,554	26.1	9,342,860	22.5
Total	18,309	100.0	4,326,027	100.0	41,537,161	100.0
3. All banks in the United States, exclusive of mutual savings and private banks:						
Member banks	9,399	32.7	3,197,473	67.3	32,194,301	69.9
Nonmember banks	19,316	67.3	1,553,313	32.7	13,829,370	30.0
Total	28,715	100.0	4,750,786	100.0	46,023,671	100.0

The number of State banks and trust companies, members, and nonmembers eligible for membership, classified according to (*a*) institutions with combined capital and surplus of $1,000,000 and over, and (*b*) institutions with combined capital and surplus of less than $1,000,000, as of June 30, 1920, are shown in the following statements:

[Amounts in thousands of dollars.]

(*a*) BANKS AND TRUST COMPANIES WITH COMBINED CAPITAL AND SURPLUS OF $1,000,000 AND OVER.

Federal Reserve district.	Members.			Nonmembers.		
	Number.	Capital and surplus.	Total resources.	Number.	Capital and surplus.	Total resources.
Boston	14	57,300	613,132	10	19,800	162,069
New York	53	333,208	3,854,147	24	72,432	582,269
Philadelphia	12	62,048	309,805	29	63,396	287,685
Cleveland	18	88,409	656,880	19	41,740	259,269
Richmond	10	15,645	109,711	17	39,450	189,043
Atlanta	13	29.650	277,907	2	2,050	41,051
Chicago	31	128.550	1,306,960	10	23,235	171,416
St. Louis	12	33,350	261,808	3	8,300	57,433
Minneapolis				3	4,400	16,360
Kansas City	2	3,000	57,985	1	1,250	1,463
Dallas	2	2,100	10,203	1	1,140	9,339
San Francisco	15	40,966	585,809	15	24,243	278,467
Total:						
June 30, 1920	182	794,226	8,044,347	134	301,436	2,055,864
June 30, 1919	142	634,436	6,827,182	136	318,548	2,271,880

(*b*) BANKS AND TRUST COMPANIES WITH COMBINED CAPITAL AND SURPLUS OF LESS THAN $1,000,000.

Federal Reserve district.	Members: Number.	Members: Capital and surplus.	Members: Total resources.	Nonmembers: Number.	Nonmembers: Capital and surplus.	Nonmembers: Total resources.
Boston	22	11,650	130,258	169	39,084	405,065
New York	79	20,416	262,420	244	48,033	510,395
Philadelphia	28	9,049	70,048	385	79,864	606,484
Cleveland	91	19,993	194,507	578	77,484	646,210
Richmond	43	6,714	53,974	625	65,255	515,634
Atlanta	59	10,276	83,699	734	54,213	453,118
Chicago	308	46,544	536,622	2,101	171,888	1,710,200
St. Louis	74	14,291	135,098	1,017	71,704	552,169
Minneapolis	107	12,112	117,383	767	45,732	480,209
Kansas City	54	6,533	65,029	1,047	67,535	550,230
Dallas	158	14,330	105,330	487	34,539	227,720
San Francisco	169	22,062	208,127	622	71,787	629,562
Total:						
June 30, 1920	1,192	193,970	1,962,495	8,776	827,118	7,286,996
June 30, 1919	900	158,475	1,625,400	8,024	755,817	6,275,743

The total number, capital and surplus, and resources of State banks and trust companies, both members, and nonmember institutions reported as eligible for membership on the basis of capital requirements; also ratios of number, capital and surplus, and resources of State bank and trust company members to total number, capital and surplus, and resources of all State banks and trust companies other than those not eligible for membership on the basis of capital requirements, as of June 30, 1920, are set forth in the following table:

[Amounts in thousands of dollars.]

Federal Reserve district.	Number of banks.			Capital and surplus.			Total resources.		
	1. Member, and nonmember eligible banks.	2. Members.	3. Per cent (2÷1).	4. Member, and nonmember eligible banks.	5. Member banks.	6. Per cent (5÷4).	7. Member, and nonmember eligible banks.	8. Member banks.	9. Per cent (8÷7).
Boston	215	36	16.7	127,834	68,950	53.9	1,310,524	743,390	56.7
New York	400	132	33.0	474,089	353,624	74.6	5,209,231	4,116,567	79.0
Philadelphia	454	40	8.8	214,357	71,097	33.2	1,274,022	379,853	29.8
Cleveland	706	109	15.4	227,626	108,402	47.6	1,756,866	851,387	48.5
Richmond	695	53	7.6	127,064	22,359	17.6	868,362	163,685	18.9
Atlanta	808	72	8.9	96,189	39,926	41.5	855,775	361,606	42.3
Chicago	2,450	339	13.8	370,217	175,094	47.3	3,725,198	1,843,582	49.5
St. Louis	1,106	86	7.8	127,645	47,641	37.3	1,006,508	396,906	39.4
Minneapolis	877	107	12.2	62,244	12,112	19.5	613,952	117,383	19.1
Kansas City	1,104	56	5.1	78,318	9,533	12.2	674,707	123,014	18.2
Dallas	648	160	24.7	52,109	16,430	31.5	352,592	115,533	32.8
San Francisco	821	184	22.4	159,058	63,028	39.1	1,701,965	793,936	46.6
Total:									
June 30, 19.	10,284	1,374	13.4	2,116,750	988,196	46.7	19,349,702	10,006,842	51.7
June 30, 19.	9,202	1,042	11.3	1,867,276	792,911	42.4	17,000,205	8,452,582	49.7

In the table which follows are shown the total resources as of June 30, 1920, and June 30, 1919, of (1) all member banks, both National and State institutions; (2) nonmember banks and trust companies reported as eligible for membership in the Federal Reserve System; (3) all banks in the United States, exclusive of mutual savings and private banks, and (4) the ratio of total resources of all member banks to total resources of nonmember banks reported eligible for membership, and the ratio of total resources of all member banks to total resources of all banks in the United States, exclusive of mutual savings and private banks. It will be noted that the resources of State banks and trust companies which are members of the system are greater by $664,000,000 than those of nonmember banks reported as eligible for membership, a reversal of the situation on June 30, 1919, when the resources of State bank and trust company members were $95,000,000 less than those of nonmember banks reported as eligible for membership.

	Total resources.	
	June 30, 1920.	June 30, 1919.
(1) Member banks:		
National	$22,187,459,000	$20,791,147,000
State banks and trust companies	10,006,842,000	8,452,582,000
Total	32,194,301,000	29,243,729,000
(2) Nonmember State banks and trust companies reported as eligible for membership in the Federal Reserve System	9,342,860,000	8,547,623,000
(3) All banks in the United States, exclusive of mutual savings and private banks:		
National	22,187,459,000	20,791,147,000
State banks and trust companies	23,836,212,000	20,942,856,000
Total	46,023,671,000	41,734,003,000
(4) Ratio of total resources of all member banks to total resources of nonmember banks reported eligible for membership (per cent)	344.6	342.1
Ratio of total resources of member banks to total resources of all banks in the United States, exclusive of mutual savings and private banks (per cent)	70.0	70.1

EARNINGS AND OPERATING EXPENSES OF FEDERAL RESERVE BANKS.

In meeting the credit demands of their customers during the year member banks have found it necessary to ask for an increasing amount of rediscount accommodation at the Federal Reserve Banks (taking proceeds to a large extent in the form of Federal Reserve notes), and this fact, together with the higher discount rates approved by the Federal Reserve Board during the early part of the year as a part of its protective credit policy, has resulted in increasing the gross earnings of all Federal Reserve Banks combined from 102 millions in 1919 to 181 millions in 1920. Over 82 per cent of these earnings came from paper discounted for member banks, the average daily holdings of which aggregated 2,530 millions during 1920, as compared with 1,908 millions during 1919.

The Board takes this opportunity again to point out that the Federal Reserve Banks are not operated primarily for profit and that the large earnings are the result of abnormal demands on their credit resources growing out of postwar conditions. Now that prices have declined from the high level reached in 1919, it may be expected that credit requirements, both for reserve balances at the Federal Reserve Banks and for Federal Reserve notes, will, after conditions have become stabilized, be less heavy.

Operating expenses of the Federal Reserve Banks have continued to advance during the year, chiefly because of the increased volume of business transacted, especially by the discount and clearing and collection departments. The number of bills discounted increased from 587,000 in 1919 to over 1,000,000 in 1920, and the number of checks collected for the account of member and clearing nonmember banks from 305,159,000 in 1919 to 446,671,000 in 1920.

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Besides adding to the number of their officers and employees in order to transact the increased volume of business, the banks have enlarged materially the staffs of their examination departments in order to enable them to participate in the examinations made by State authorities of State bank and trust company members, and to make independent examinations where necessary. The following table shows the number of officers and employees of each Federal Reserve Bank at the close of the years 1919 and 1920:

Federal Reserve Bank.	Number of officers and employees.	
	Dec. 31, 1919.	Dec. 31, 1920.
Boston	755	776
New York	2,962	2,936
Philadelphia	647	842
Cleveland	626	969
Richmond	401	667
Atlanta	386	446
Chicago	1,199	1,731
St. Louis	541	851
Minneapolis	287	459
Kansas City	583	863
Dallas	505	613
San Francisco	567	1,132
Total	9,459	12,285

Because of the trend of living expenses, and in order to meet the competition of banks and corporations, moderate increases in salaries have been approved for both officers and employees of the Reserve Banks. In no case, however, are the salaries paid bank officers as high as those paid officers of corresponding rank in the larger commercial banks. Average salaries paid by each Federal Reserve Bank to officers and employees as of December 31, 1920, are as follows:

Federal Reserve Bank.	Average salary of officers.	Average salary of employees.
Boston	$9,269	$1,271
New York	11,275	1,460
Philadelphia	10,182	1,259
Cleveland	7,738	1,360
Richmond	7,014	1,189
Atlanta	5,426	1,149
Chicago	6,304	1,310
St. Louis	6,486	1,209
Minneapolis	7,240	1,262
Kansas City	5,158	1,209
Dallas	5,895	1,271
San Francisco	5,581	1,366

As the result of the large increase in the net earnings available for dividends, surplus, and franchise taxes, all but three of the Federal Reserve Banks have accumulated surplus accounts in excess of 100 per cent of their subscribed capital stock as authorized by the amendment of March 3, 1919, to section 7 of the Federal Reserve

Act, which provides that after dividend requirements have been fully met the net earnings of each bank shall be paid to the United States as a franchise tax, except that the whole of such net earnings shall be paid into a surplus fund until it shall amount to 100 per cent of the subscribed capital stock of such bank and that thereafter 10 per cent of such earnings shall be paid into the surplus. In the table given below are shown the normal surplus, the supersurplus, or the surplus created by carrying to surplus account 10 per cent of the net earnings available after the normal surplus equals 100 per cent of subscribed capital, and the percentage relationship between the total surplus and the subscribed capital stock of each Federal Reserve Bank on January 1, 1921.

[Amounts in thousands of dollars.]

Federal Reserve Bank.	Surplus, Jan. 1, 1921.			Subscribed capital, Jan. 1, 1921.	Ratio of surplus to subscribed capital, Jan. 1, 1921.
	Normal surplus.	Super-surplus.	Total.		
					Per cent.
Boston	15,436	275	15,711	15,436	101.8
New York	52,745	[1] 3,669	56,414	52,745	107.0
Philadelphia	16,970	40	17,010	16,970	100.2
Cleveland	20,305		20,305	21,406	94.9
Richmond	10,538	23	10,561	10,538	100.2
Atlanta	8,106	237	8,343	8,106	102.9
Chicago	27,825	1,155	28,980	27,825	104.2
St. Louis	8,346		8,346	8,730	95.6
Minneapolis	6,922	58	6,980	6,922	100.8
Kansas City	8,910	249	9,159	8,910	102.8
Dallas	6,033		6,033	8,197	73.6
San Francisco	13,853	341	14,194	13,853	102.5
Total	195,989	6,047	202,036	199,638	101.2

[1] After deduction of $1,000,000 charged to supersurplus account and credited to general reserve account after closing of books on Dec. 31, 1920.

The Board has ruled that any contingent reserves which a Federal Reserve Bank may desire to set up must be deducted from its supersurplus and not from current earnings.

Besides increasing their surplus accounts to over 100 per cent of their subscribed capital, nine of the Federal Reserve Banks paid franchise taxes to the United States aggregating $60,725,000.

At the end of 1919 the available net earnings of the New York Federal Reserve Bank were sufficient to enable it to increase its surplus to $45,082,000, or $300,000 in excess of 100 per cent of its subscribed capital stock, and normally the bank would have carried only 10 per cent of its net earnings at the close of 1920 to surplus. Owing, however, to the increase in the capital stock and surplus of existing member banks and to the admission to membership of eligible State banks and trust companies, the subscribed capital stock of the New York bank shows an increase of $7,964,000 for the year 1920. Therefore, the bank was authorized to transfer an equivalent amount to its normal surplus account out of its net earnings for 1920. Of the balance of its net earnings 10 per cent was transferred to supersurplus account and 90 per cent paid to the United States Government as a franchise tax.

The table below shows the gross and net earnings of each Federal Reserve Bank for the year 1920, the dividends paid, the amounts transferred to surplus account, and the amounts paid to the United States Government as franchise taxes.

[Amounts in thousands of dollars.]

Federal Reserve Bank.	Gross earnings.	Current net earnings.	Net debits to current net earnings.	Net earnings available for dividends, surplus, and franchise tax.	Dividend payments.	Transferred to surplus account.	Franchise tax paid to U. S. Government.
Boston	12,273	10,235	[1] 38	10,273	447	7,352	2,474
New York	60,525	53,526	398	53,128	1,477	12,333	39,318
Philadelphia	11,849	9,671	606	9,065	497	8,204	364
Cleveland	14,459	11,988	168	11,820	604	11,216	....
Richmond	6,903	5,387	149	5,238	293	4,740	205
Atlanta	7,476	6,091	81	6,010	225	3,648	2,137
Chicago	30,303	25,850	[1] 26	25,876	793	14,689	10,394
St. Louis	7,180	5,256	380	4,876	254	4,622	....
Minneapolis	5,307	4,292	161	4,131	196	3,411	524
Kansas City	7,410	5,552	11	5,541	258	3,043	2,240
Dallas	4,905	3,355	127	3,228	225	3,003	....
San Francisco	12,707	10,204	95	10,109	385	6,655	3,069
Total	181,297	151,407	2,112	149,295	5,654	82,916	60,725

[1] Credit.

CHANGES IN RATES OF EARNINGS DURING 1920.

During the year the rates of earnings on discounted bills, which account for over 82 per cent of the total annual gross earnings of the Federal Reserve Banks, show a steady advance from 4.71 in January to 6.42 in December. Upward revision of discount rates on all classes of paper in January and the further advances by four of the Federal Reserve Banks of the rates on commercial paper in June, together with the adoption during April and May of graduated or progressive rates by four Federal Reserve Banks, account for the more striking increases in the rates of earnings on discounted bills shown during those months. Another factor which had a noticeable effect throughout the year is the gradually decreasing proportion of advances against Treasury certificates, on which as a rule the banks charge lower rates, due both to a steady decrease in the actual amount of such paper and to the more than proportionate increase in the volume of paper rediscounted at the higher ordinary rates. The operation of this factor is more apparent during the second half of the year, during which the rates on all other classes of discounts continued without change, and account chiefly for the gradual rise in the rate of earnings on all discounts from 6.12 per cent in July to 6.42 in December. For the entire year the average rate of earnings from discounted paper is given as 5.88 per cent, compared with 4.23 per cent for the calendar year 1919 and 4.24 per cent for the war year of 1918.

Average rates of earnings on acceptances bought in open market during the first half of the year increased in about the same proportion as the rates on discounted paper. Since July the average monthly rates on acceptances have shown a slight downward tendency, apparently in connection with the increasing investment demand for this class of paper by country banks, savings banks, and industrial corporations.

Monthly changes in the rates earned on United States securities are much more moderate, depending to a large extent upon the average amount of special 2 per cent certificates held during each month by the Federal Reserve Banks. These holdings were particularly large and prolonged during March and April, when the lowest monthly rates of earnings are shown and were sufficiently large to depress the average rate in July. The higher rates in September and December are due to the substantial amounts of tax certificates acquired early in the month by the Federal Reserve Bank of New York from New York City members and carried to maturity by the Federal Reserve Banks. Temporary purchases of certificates and other Government securities from nonmember banks under repurchase agreements have likewise had an uplifting effect upon the average rates of earnings on United States Government securities.

On the whole, monthly rates of earnings on all classes of earning assets were higher and steadier during the second part of the year than during the first part. The average rate received by the Federal Reserve Banks on all classes of earning assets during the year under review was 5.50 per cent, compared with 4.04 per cent in 1919 and 4.12 per cent in 1918.

Annual rates of earnings from each class of earning assets, by months, during 1920.

	All classes.	Bills discounted.	Bills bought in open market.	United States securities.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*
January	4.46	4.71	4.79	2.18
February	4.88	5.20	5.06	2.18
March	5.12	5.49	5.47	2.10
April	5.23	5.58	5.70	2.10
May	5.36	5.66	5.77	2.22
June	5.51	5.89	5.98	2.24
July	5.72	6.12	6.07	2.15
August	5.81	6.19	6.07	2.22
September	5.81	6.22	6.06	2.27
October	5.94	6.34	6.07	2.20
November	5.98	6.41	6.03	2.17
December	5.98	6.42	6.05	2.43
Average for year	5.50	5.88	5.66	2.21

BRANCHES OF FEDERAL RESERVE BANKS AND THEIR OPERATIONS.

On December 31, 1920, there were 22 branches of Federal Reserve Banks in actual operation, those at Los Angeles, Calif., and Oklahoma City, Okla, authorized by the Federal Reserve Board during 1919 to be established by the Federal Reserve Banks of San Francisco and Kansas City, having been opened for business on January 2 and August 2, 1920, respectively. It is expected that the Helena (Mont.) branch of the Federal Reserve Bank of Minneapolis, also authorized during 1919, will be opened for business February 1, 1921. No new branches were authorized by the Board during the year, nor are any applications for the establishment of branches now pending.

Experience gained in the operation of the branches has led to their development along two main lines: The branches located at Cincinnati, Pittsburgh, Birmingham, Jacksonville, Nashville, and Oklahoma City confine their operations largely to clearing and collection of checks, and to supplying currency, both paper and coin, to member banks in branch territories; while the remaining 16 branches render practically the same services to member banks in the branch territories as the parent banks render to member banks in other parts of the districts.

While the first-mentioned branches do not engage in discount operations, they receive and transmit to the parent bank applications of their member banks for discounts and advances, and when necessary arrange by telegraph for immediate credit for such paper on the books of the head office. Branches in the second group carry the reserve balances of member banks on their own books, and, with the exception of the Buffalo branch, which carries the reserve balances of Buffalo City members only, participate in the daily clearing through the gold settlement fund maintained by the Federal Reserve Board at Washington. These branches telegraph the Federal Reserve Board each day the gross amount of items collected for the account of each other Federal Reserve Bank and direct-settling branch. After the settlement has been made by the Board, the branches are notified of the amounts credited to them by each other Federal Reserve Bank and direct-settling branch. As the branches do not, however, maintain separate balances in the gold settlement fund, the net debit or credit of each branch is settled through the balance maintained by the parent bank.

The following table shows the volume of business handled by each branch and by the Savannah agency during the year 1920:

Operations of Federal Reserve Branch Banks during the calendar year 1920.

	Items handled.[1]		Currency (coin and paper).		Volume of paper discounted and bought.	Average daily bill holdings.	Member banks' reserve balances Dec. 31, 1920.
	Number.	Amount.	Received.	Paid out.			
	Thousand items.	*Thousand dollars.*	*Thousand dollars.*	*Thousand dollars.*	*Thousand dollars.*	*Thousand dollars.*	*Thousand dollars.*
Buffalo	7,980	2,657,913	151,723	172,495	[2] 560,767	....	[2] 18,725
Cincinnati	11,085	3,330,662	98,791	86,516	....	....	....
Pittsburgh	14,183	5,952,400	307,117	365,214	....	....	....
Baltimore	12,344	4,810,793	89,861	132,668	924,665	....	19,219
Birmingham	2,807	1,139,355	47,891	36,691	....	....	....
Jacksonville	2,507	606,091	45,480	33,856	....	....	....
Nashville	3,471	897,591	27,449	21,862	....	....	....
New Orleans	2,793	1,215,294	93,909	76,224	709,825	42,104	15,735
Detroit	6,337	2,902,206	295,753	335,215	1,618,206	63,955	33,057
Little Rock	3,957	698,233	27,431	24,540	151,485	9,293	3,585
Louisville	5,320	1,278,526	64,686	51,934	436,511	16,430	9,796
Memphis	2,852	722,128	61,204	54,802	264,346	17,805	5,828
Denver	6,373	1,580,919	33,219	24,199	232,616	11,833	13,886
Oklahoma City [3]	4,537	908,230	[4] 1,597	[4] 692	....	....	....
Omaha	7,976	1,702,921	23,547	29,654	382,598	33,182	14,088
El Paso	2,629	509,737	28,806	19,929	72,963	6,819	4,100
Houston	5,566	1,382,258	34,250	34,928	260,786	15,062	11,266
Los Angeles [5]	8,016	1,716,810	80,703	89,089	186,215	14,186	29,203
Portland	2,947	748,856	30,429	31,233	214,395	8,939	13,972
Salt Lake City	5,469	1,258,938	13,696	17,210	479,719	34,363	8,334
Seattle	3,724	1,011,875	50,384	43,459	217,624	6,458	12,281
Spokane	2,562	528,951	8,782	13,677	123,957	10,201	5,461
Total	125,435	37,560,687	1,616,708	1,696,087	6,836,678	290,630	218,536
Savannah agency	....	....	11,663	9,388	....	....	....

[1] From Dec. 16, 1919, to Dec. 15, 1920, except that in the case of Oklahoma City and Los Angeles, the period covered dates from opening of branch.
[2] Buffalo city banks only.
[3] Opened for business Aug. 2, 1920.
[4] For the month of December, 1920.
[5] Opened for business Jan. 2, 1920.

BUILDING OPERATIONS.

In most of the Federal Reserve Banks the question of securing adequate and permanent quarters has assumed a larger importance during the past year. Additional activities and a greatly increased volume of work has in some banks produced a congestion which has created great discomfort and necessitated the scattering of departments into several buildings. Working conditions have developed which impair efficiency and are not without hazard to the proper custody and handling of money and securities.

Early in the year the Federal Reserve Board determined that building operations on the part of the banks should be deferred as long as possible in order not to divert the labor and material which was then so urgently needed for business structures and homes. At the close of business on December 31, 1920, the real estate and building account of each Federal Reserve Bank stood upon its books as follows:

Boston	$2,699,623
New York	4,092,497
Philadelphia	500,000
Cleveland	1,519,662
Richmond	1,277,388
Atlanta	541,273
Chicago	2,350,916
St. Louis	541,414
Minneapolis	590,000
Kansas City	1,041,326
Dallas	1,638,536
San Francisco	253,004
Total	17,045,639

In 1919 it became evident to the Board that the quarters occupied by the Federal Reserve Bank of Boston were strikingly inadequate and the bank was authorized to proceed with the construction of a new building upon land previously acquired. The work of tearing down old buildings on the property was finished May 21, 1920, and excavations began on May 29, 1920. The end of 1920 finds the new building entirely inclosed, with progress being made toward finishing the interior. Delays have been encountered in procuring steel and limestone, but it is expected that the building will be finished and ready for occupancy by the end of 1921.

Actual construction has not begun upon the proposed new building for the Federal Reserve Bank of New York, although land has been acquired, the architects have been selected, and preliminary plans have been given careful attention by the officers and directors of the bank. During the year 1920, the Board approved the purchase of additional land by the Federal Reserve Bank of New York, and the erection thereon of a fireproof storage building for the safekeeping of the bank's files of correspondence and records. This storage building will also provide working space for a number of the bank's employees pending completion of the bank building proper. The building occupied by the Buffalo branch of the Federal Reserve Bank of New York is leased.

The Federal Reserve Bank of Philadelphia owns the building which it occupies and which it purchased prior to the current year. The bank also rents additional space for storage purposes. The building has been remodeled to fit it for bank purposes, and a new and adequate vault is now under construction. It is expected that this vault will be ready for use early in 1921.

The Federal Reserve Bank of Cleveland has purchased suitable ground but has not begun actual construction. Architects, however, have been selected and tentative plans and drawings have been submitted to the Federal Reserve Board and approved. The proposed building is carefully planned, with a view to practical utility. Demolition of old buildings preliminary to new construction will probably begin early in 1921. The Pittsburgh branch of the Federal Reserve Bank of Cleveland occupies a building which, during the past year, has been purchased by the bank. Necessary modifications in this building have been authorized, including a provision for additional vault space. The Cincinnati branch of the Federal Reserve Bank of Cleveland occupies leased quarters, but the bank was authorized in October to purchase certain property for the permanent quarters of the branch.

The new building of the Federal Reserve Bank of Richmond was authorized in May, 1919, and the work of construction began shortly afterwards. Many delays have been occasioned by inability to secure material, and the building is yet far from finished. In order to provide for additional space, the need for which was not foreseen at the time the building was planned, it has been necessary during the past year to provide an additional story on the original building, and to acquire additional ground for the erection of an annex. The bank, during 1920, also purchased property in Baltimore, upon which it is intended to erect a permanent home for the Baltimore branch.

The Federal Reserve Bank of Atlanta is occupying permanent quarters, including the annex authorized in 1919 and completed in 1920; and no further additions or alterations have been found necessary, except that some additional equipment for the vault has been authorized. The branches at Birmingham, Nashville, Jacksonville, and New Orleans are occupying leased quarters. A bank building was purchased in 1919 for the New Orleans branch, but under the terms of the deed possession has not yet been given by the former owners.

The Federal Reserve Bank of Chicago, during 1920, razed the buildings upon the ground previously acquired, secured the Federal Reserve Board's approval of all plans and contracts, and commenced actual building operations on November 1, 1920. It is estimated that the total cost of the new building, including vaults, will be approximately $7,500,000. The contract calls for completion on April 1, 1922. The bank leases the quarters occupied by its Detroit branch.

The Federal Reserve Bank of St. Louis occupies leased quarters, and while it has purchased a site for a permanent home it has submitted to the Board no definite plans, and immediate operations are not contemplated. The bank leases quarters for its Memphis and

Little Rock branches, and owns the building in Louisville occupied by the Louisville branch. A lot has been acquired for the Little Rock branch, upon which a new building will be erected in 1921.

The Federal Reserve Bank of Minneapolis in 1919 purchased a site for a permanent building and selected an architect. Construction, however, has been deferred, and no plans have been submitted for approval. It is the intention of this bank to proceed with the foundation work in 1921, and to finish the building in 1922. The Helena branch of the Federal Reserve Bank of Minneapolis will occupy a building purchased by the bank in 1919 and which is being remodeled for bank purposes.

The Federal Reserve Bank of Kansas City acquired a building site in 1918. On April 16, 1920, a contract was let to construct a building having 16 working floors and basement, burglar-proof vaults, etc., for the sum of $3,604,000. Construction was begun June 1, 1920. Excavations, foundation walls, and piers have been finished, and the erection of the steel has been commenced. Serious delays have been experienced in the matter of transportation of steel, but much of the material necessary to complete the building is now on the ground. The contract calls for the building completed for occupancy on October 1, 1921.

The Denver and Oklahoma City branches of the Federal Reserve Bank of Kansas City are housed in rented quarters, but the Omaha branch occupies a building purchased by the bank during 1920 at a cost of $165,000.

The new building of the Federal Reserve Bank of Dallas is near completion, and should be available for occupancy by some of the departments of the bank early in 1921. Upon the approval of the Federal Reserve Board, contracts were let June 17, 1919, and the work of construction was begun July 5, 1919. It is estimated that the total cost of the building and vaults complete will be approximately $1,575,000. The Federal Reserve Bank of Dallas has recently constructed a new building for its El Paso branch at a total cost of $150,000. The Houston branch is occupying leased quarters, but the bank was authorized by the Board, on October 15, 1920, to purchase a lot in Houston at a cost not to exceed $67,500. This lot was subsequently purchased for $65,000, but plans for a new building have not yet been prepared.

The Federal Reserve Bank of San Francisco was authorized by the Board on August 17, 1920, to begin immediately the construction of a new building upon land previously acquired. The estimated cost of this building is $2,376,000, exclusive of commission of architect and superintendent of building construction, which together will be 9 per cent. Old structures which stood upon the site for the new building have for the most part been razed, and during the latter part of 1920 the erection of the new building was begun. All branches of the Federal Reserve Bank of San Francisco occupy leased quarters.

AMENDMENTS TO THE FEDERAL RESERVE ACT.

During the past year the Federal Reserve Act has been amended but once. Certain laws, however, have been passed and others amended relating to the Federal Reserve System and to the operation of national banks, which in effect modify the provisions of the Federal Reserve Act. These laws will be taken up in order.

By act approved April 13, 1920, section 14 of the Federal Reserve Act was amended so as to authorize Federal Reserve Banks, subject to the approval, review, and determination of the Federal Reserve Board to establish discount rates graduated or progressed on the basis of the amount of the advances and discount accommodations extended by the Federal Reserve Bank to the borrowing bank. The purpose of this amendment was to check excessive borrowing from Federal Reserve Banks by any one member bank by making it possible for the Federal Reserve Banks to charge higher rates against a member bank which is overborrowing than against one which limits its borrowings to a reasonable amount. Pursuant to this amendment the Federal Reserve Banks of Atlanta, St. Louis, Kansas City, and Dallas have established graduated discount rates which have been approved by the Board. These rates were subsequently discontinued by the Atlanta bank.

Section 5182 of the Revised Statutes was amended by an act approved January 13, 1920, so as to authorize the issue of national bank notes attested by the written or engraved signatures of the president or vice president and the cashier of the national bank issuing such notes, and to provide that such signatures may be attached either before or after the receipt of such notes by the association. In view of the fact that under section 18 of the Federal Reserve Act, Federal Reserve Banks are authorized to issue Federal Reserve Bank notes under the same terms and conditions that national banks may issue notes, this amendment relates to the Federal Reserve Banks as well as to national banks. Much inconvenience and expense incident to the issue of bank notes will be avoided by reason of the provision in this amendment permitting the signatures of the officers signing such notes to be engraved on the notes before they are delivered to the issuing bank.

Section 210(*d*) of the Transportation Act of 1920, approved February 28, 1920, provides in part that the Interstate Commerce Commission or the Secretary of the Treasury may call upon the Federal Reserve Board for advice and assistance with respect to any loan or application for any loan made by the United States to any railroad under the authority of section 210 of the act. As mentioned on pages 166 and 167 of the annual report of the Secretary of the Treasury for the fiscal year 1920, the Federal Reserve Board has been called upon by the Secretary of the Treasury for such advice and assistance, and for this purpose created a committee known as the Railway Loan Advisory Committee to the Federal Reserve Board. This committee has been, since its organization on April 1, 1920, actively engaged in assisting the Secretary of the Treasury in the performance of the duties imposed upon him by the Transportation Act of 1920.

By the act approved May 26, 1920, the so-called Kern amendment to section 8 of the Clayton Anti-trust Act, relating to interlocking directorates, was amended so as to authorize the Federal Reserve Board to grant permits to private bankers to serve not more than two banks, banking associations, or trust companies organized under the laws of the United States or any State of the United States when those banks are not in substantial competition with the applying banker or with each other. Prior to this amendment the Board had no authority, under the terms of the Kern amendment, to grant permits to private bankers to serve banks when they were prohibited from serving such banks by the terms of the Clayton Act, although the Board did have such power with respect to directors, officers, and employees of member banks.

The appropriation act approved May 29, 1920, in certain sections thereof, provides for the discontinuance of the subtreasuries of the United States from and after July 1, 1921, or at such earlier date or dates as the Secretary of the Treasury may deem advisable, and authorizes the Secretary of the Treasury in his discretion to transfer any and all of the duties and functions of the assistant treasurers or the subtreasuries to the Treasurer of the United States, or the mints or assay offices, or to utilize any of the Federal Reserve Banks acting as depositaries or fiscal agents of the United States for the purpose of performing any or all of these duties and functions. The Secretary of the Treasury is further authorized to assign any and all of the rooms, vaults, equipment and safes or space in the buildings used by the subtreasuries to any Federal Reserve Bank acting as fiscal agent of the United States. As stated on page 73, the subtreasuries at Boston, Chicago, New York, and San Francisco have already been discontinued and their functions taken over by the Federal Reserve Bank located in the respective city, and it is planned to close the remaining subtreasuries and transfer their functions to the Federal Reserve Banks as rapidly as possible.

The Board has no further amendments to suggest to Congress at this time. It desires, however, to express its opposition to any legislation which would impair the ability of the Federal Reserve Banks to exercise the proper control over their credit transactions as well as to legislation tending to remove the wise limitations now imposed by the Federal Reserve Act upon the character of paper eligible for discount. The Board would point out that the power of the Federal Reserve System to expand credits in amounts sufficient to meet great emergencies has been demonstrated repeatedly during the past five years, and it is not believed that any greater latitude is necessary or desirable.

LAW DIVISION.

There has been no substantial change during the past year in the work of the Law Division, and a reference to pages 56–58 of the last annual report of the Board will show the general character of that work and the scope of the duties of the Law Division. It is not necessary to add anything to what was said in that report as to the work of the Law Division under the subheadings State laws, Membership of State banks and trust companies, Clayton Antitrust Act, and Opinions and rulings, except to state that during the past year the Board has approved, after examination and report by the Law Division, 360 applications made by State banking institutions for membership, and has received and considered, after similar examination and report, 259 applications filed with it under the provisions of the so-called Kern amendment to section 8 of the Clayton Antitrust Act relating to interlocking bank directorates. Certain special features of the work of the Law Division during the past year are, however, of sufficient importance to be mentioned in this report.

Regulations.—The Board's regulations which have been issued from time to time in the past were recently added to, revised, and reissued in a new series, series of 1920. A revision of the earlier regulations was necessary in order to bring the regulations up to date and to incorporate in them the amendments to the law and rulings of the Board made since the last series of the regulations, series of 1917, was issued. New regulations were added covering the organization and operation of corporations under the provisions of section 25(*a*) of the Federal Reserve Act, which section was added by the amendment approved December 24, 1919, and is commonly known as the Edge Act, and covering interlocking bank directorates under the Clayton Act as amended. In connection with the preparation of the new series, the Law Division has been called upon to draft the new regulations and to revise the earlier ones and to render advice and assistance covering the legal aspects of the matters involved.

Trust powers of national banks.—During the past year 272 national banks have been granted permits under the terms of section 11 (k) of the Federal Reserve Act, of which 247 were original applications and 25 were supplementary applications. Recently the legal effect of this section as amended has been clarified and the Board's interpretation thereof confirmed by a number of decisions rendered by the courts of various States. It will be recalled that the Supreme Court of the United States, in an opinion [1] rendered June 11, 1917, upheld the constitutionality of section 11(*k*) as originally enacted. By the act of September 26, 1918, the section was amended so as to permit national banks to compete for trust business with State banks and trust companies upon more equal terms. Since that amendment the State courts of New York,[2] Connecticut,[3] and Wisconsin [4] have rendered decisions substantially to the effect that it is now beyond the constitutional power of a State to withhold from national banks located within its borders the authority to exercise trust powers when competing State institutions are permitted to exercise those powers, irrespective of whether the discrimination attempted to be made by the State against the national banks takes the form of an express statutory prohibition or is to be implied from the mere absence of permissive legislation. The opinions in these cases have all been published in the Bulletin.

Edge Act.—Throughout the year the Law Division has been called upon frequently to prepare opinions with reference to the interpretation of sections 25 and 25(*a*) of the Federal Reserve Act, which sections deal with foreign financial corporations and the rights of national banks to invest in the stock thereof, and to advise as to the requirements of the law in connection with the organization of corporations under the terms of section 25 (*a*), the so-called Edge Act. Recently the Board has received numerous applications by national banks for permission to invest in the stock of the two international financial corporations which have been in process of organization under that act, and these applications have all been referred to the Law Division before being acted upon by the Board.

Summary of amendments.—The Law Division during the year compiled a summary of the various acts amending the Federal Reserve Act, including those laws which specifically amend the text of that act and those which amend it in substance without effecting a change of text.

[1] First National Bank of Bay City *v.* Fellows, Attorney General, and others, 244 U. S., 416.
[2] In the matter of Mollineaux, 179 New York Supplement, 90.
[3] In re Hamilton, 110 Atl., 54.
[4] In re Stanchfield, 178 N. W., 310.

FEDERAL ADVISORY COUNCIL.

The Federal Advisory Council held its four statutory meetings in Washington during 1920 on the following dates: February 17, May 17, September 20, and November 15. No other meetings of the council were held during the year.

CONFERENCES HELD BY THE BOARD.

The Federal Reserve Board conferred with the Federal Advisory Council on the occasion of each of its meetings, and while the council was in session in Washington on May 18 a joint conference was held with members of the council and the Class A directors of the Federal Reserve Banks for the purpose of discussing the credit situation as it then existed.

On April 7 the Board held a conference with the governors of the Federal Reserve Banks, and on October 15 a joint conference was held with the Federal Reserve agents and the governors of the Federal Reserve Banks. At these conferences matters relating to the operations of the Federal Reserve System were discussed.

BOARD'S ORGANIZATION, STAFF, AND EXPENDITURES.

There have been numerous changes in the Board's organization and staff during the past year.

On February 2, Hon. David F. Houston, previously Secretary of Agriculture, took the oath of office as Secretary of the Treasury, succeeding Hon. Carter Glass, and thereby became ex-officio member and chairman of the Federal Reserve Board.

The resignation of Albert Strauss, vice governor of the Board. was accepted by the President March 15. Mr. Strauss had been a member of the Board since September 18, 1919, and vice governor of the Board throughout his period of office. Mr. Strauss resigned to reenter private business.

Hon. Edmund Platt, chairman of the House Banking and Currency Committee, was appointed by the President to fill the unexpired term of Mr. Strauss, and took office on June 8. At the time of his nomination Mr. Platt was a Member of Congress, having represented the twenty-sixth New York district since 1913. Throughout the term of his service in Congress Mr. Platt was a member of the Committee on Banking and Currency, and served as chairman from March 4, 1919, to the date of his resignation.

In May, Edward L. Smead was appointed chief of the Board's Division of Reports and Statistics, succeeding M. Jacobson, who previously held the dual title of statistician and chief, Division of Reports and Statistics. Mr. Smead was appointed to the Board's staff on April 19, 1915.

On June 30 George L. Harrison, general counsel of the Board, resigned to become deputy governor of the Federal Reserve Bank of New York, and Walter S. Logan, assistant counsel, was appointed general counsel.

The President, on July 23, redesignated W. P. G. Harding as Governor of the Federal Reserve Board for the period ending August 10, 1922, and Edmund Platt was designated as vice governor of the Board for the period July 23, 1920, to August 10, 1922.

The term of office of Henry A. Moehlenpah, who was appointed on September 5 and took office on November 10, 1919, to fill the unexpired term of Frederic A. Delano, expired August 9, 1920. The President, on September 29, during a recess of the Senate, appointed David C. Wills, since 1914 chairman of the board of directors and Federal reserve agent of the Federal Reserve Bank of Cleveland, a member of the Board to serve until the end of the next session of the Senate.

William W. Paddock, chief of Division of Examination, resigned on September 30 to become deputy governor of the Federal Reserve Bank of Boston, and effective October 6 James F. Herson, chief Federal reserve examiner, was appointed chief of the Division of Examination in addition to his other duties.

On October 16 Robert G. Emerson, assistant secretary, was appointed assistant to the governor, and Walter L. Eddy was appointed assistant secretary.

William W. Hoxton, executive secretary, was appointed secretary of the Board November 1, upon the resignation of Webb T. Chapman, who had been secretary of the Board since September 1, 1919, and who had been connected with the Board since its organization in 1914.

The total cost of conducting the work of the Board during the year 1920, including salaries of members and expense of printing and circulating the Federal Reserve Bulletin, was $712,043.63. Two assessments were levied against the Federal Reserve Banks during the year, aggregating $700,766.52, or approximately 296 thousandths of 1 per cent of their average paid-in capital and surplus for the year.

Further details relative to the operation of the Federal Reserve Board and the annual reports of Federal reserve agents appear as exhibits in the Appendix.

By direction of the Federal Reserve Board:

W. P. G. Harding,
Governor.

The Speaker of the House of Representatives.

ANNUAL REPORT OF THE FEDERAL RESERVE BOARD.

Washington, February 20, 1922.

SIR: In compliance with the requirements of section 10 of the Federal Reserve Act, the Federal Reserve Board submits herewith its eighth annual report, which covers operations for the calendar year ended December 31, 1921.

In its last annual report the Board commented upon the fact that the year 1920 had been essentially a period of reaction. The course of world events throughout a period of five years preceding had brought about in the United States the most notable advance in prices and the greatest expansion of business ever known. It was realized all the while, however, that there would be, sooner or later, reaction and readjustment. These came during the year 1920, worldwide in scope and irresistible in force, and made that year memorable as one of the most eventful in economic history.

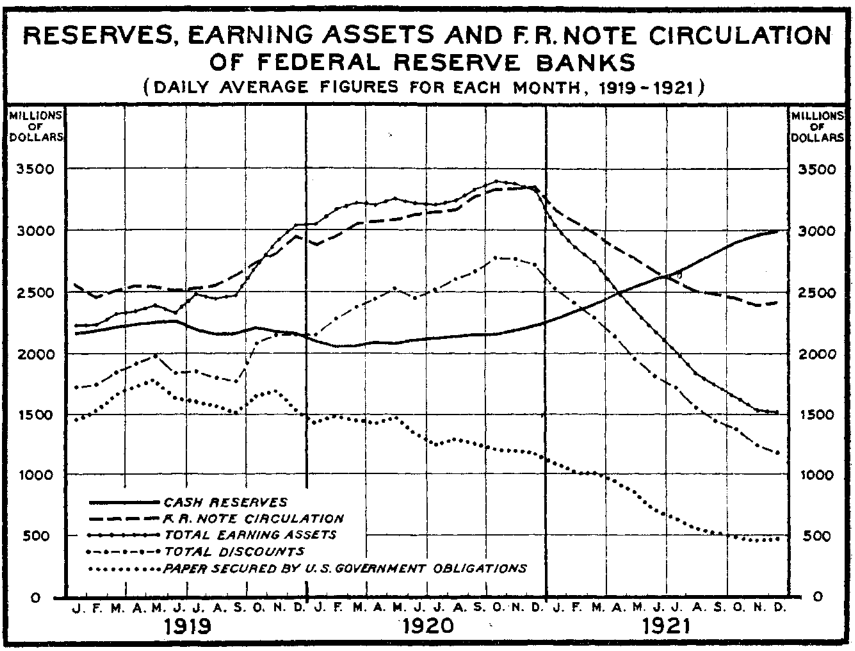
The sequence of economic events culminating in the disastrous crisis of 1920 and the functioning of the Federal Reserve System in this trying emergency have been the subjects of an extensive study by the Joint Congressional Commission of Agricultural Inquiry. The report of the commission will doubtless shed much light upon the unprecedented conditions with which the credit and banking organization of the country, and more particularly the Federal Reserve System, has had to deal. Up to the end of the year the commission had not made its final report, but some of the credit problems considered by it were discussed in a public address made in December last by the chairman of the commission and this address is included in this report as Appendix A.

CHANGES IN CONDITION OF FEDERAL RESERVE BANKS.

The great economic reaction was not, however, reflected immediately in the operations of the Federal Reserve System, for while the fall in commodity prices, which began in the case of silk in March, 1920, had extended in a spectacular degree to practically all commodities by October, the expansion of the loans of the Federal Reserve Banks continued until early in November and of Federal Reserve note issues until December 23, 1920, when the total amount in circulation increased to $3,404,000,000, a record high mark.

During the year 1921, there was, until early in December, an almost continuous decline in the loans and other earning assets of the Federal Reserve Banks and in Federal Reserve notes in circulation, while at the same time there was a steady and practically continuous increase in the gold reserves of the banks.

In order to present a clearer view of the changes which have taken place in the position of the Federal Reserve Banks, there is appended a chart which shows the note circulation, cash reserves and the movement of the earning assets of all Federal Reserve Banks for the years 1919, 1920, and 1921. This chart shows at a glance the effect upon the Federal Reserve Banks of the great expansion in business and prices which took place during the year 1919, of the reaction which occurred in 1920, and of the depression and steady liquidation which has marked the year 1921.



RESERVES, EARNING ASSETS, AND FEDERAL RESERVE NOTE CIRCULATION.

[Daily average figures for each month 1919-1921; in thousands of dollars.]

	Cash reserves.	Federal Reserve note circulation.	Paper secured by United States Government obligations.	Total discounts.	Total earning assets.
1919.					
January	2,164.167	2,540,642	1,463,130	1,734,655	2,213,511
February	2,183,641	2,462,941	1,529,693	1,763,226	2,225,686
March	2,202,368	2,503,350	1,673,760	1,861,532	2,318,422
April	2,224,948	2,547,535	1,725,153	1,919,461	2,341,724
May	2,246,087	2,534,112	1,797,295	1,973,926	2,391,774
June	2,248,265	2,500,969	1,630,557	1,842,112	2,323,992
July	2,176,779	2,523,960	1,613,294	1,867,920	2,478,863
August	2,146,003	2,544,357	1,579,765	1,801,887	2,442,627
September	2,157,932	2,627,295	1,519,082	1,777,334	2,471,515
October	2,207,386	2,738,394	1,662,083	2,073,416	2,709,330
November	2,185,149	2,812,247	1,695,473	2,145,631	2,907,803
December	2,149,653	2,955,476	1,525,251	2,157,021	3,034,224

RESERVES, EARNING ASSETS, AND FEDERAL RESERVE NOTE CIRCULATION—Contd.

[Daily average figures for each month 1919–1921; in thousands of dollars.]

	Cash reserves.	Federal Reserve note circulation.	Paper secured by United States Government obligations.	Total discounts.	Total earning assets.
1920.					
January	2,098,498	2,887,846	1,427,011	2,142,788	3,043,952
February	2,053,422	2,946,863	1,486,723	2,298,917	3,153,994
March	2,058,293	3,040,440	1,455,981	2,386,537	3,211,936
April	2,084,077	3,071,754	1,435,582	2,440,376	3,191,945
May	2,078,822	3,089,737	1,473,800	2,537,551	3,255,859
June	2,102,985	3,113,949	1,342,606	2,461,022	3,209,650
July	2,118,899	3,143,465	1,264,848	2,519,044	3,200,973
August	2,127,305	3,165,222	1,297,880	2,605,113	3,233,862
September	2,139,280	3,275,535	1,255,498	2,677,052	3,329,481
October	2,162,178	3,336,768	1,205,915	2,782,055	3,390,089
November	2,182,795	3,327,632	1,191,305	2,776,457	3,375,395
December	2,221,573	3,342,520	1,169,492	2,730,360	3,313,502
1921.					
January	2,287,274	3,177,656	1,077,266	2,536,105	3,034,655
February	2,343,537	3,068,578	1,011,039	2,408,792	2,869,233
March	2,403,470	2,979,486	1,001,626	2,301,628	2,735,784
April	2,485,079	2,870,672	941,237	2,139,982	2,527,253
May	2,541,647	2,787,379	844,416	1,966,646	2,353,794
June	2,605,779	2,682,560	699,689	1,817,749	2,175,175
July	2,655,179	2,604,750	624,823	1,725,162	2,012,699
August	2,740,388	2,512,348	558,152	1,554,702	1,841,596
September	2,836,396	2,493,910	513,262	1,445,690	1,740,474
October	2,905,727	2,456,121	485,330	1,376,914	1,640,740
November	2,964,419	2,402,442	461,705	1,232,576	1,520,283
December	2,994,982	2,416,096	476,161	1,185,432	1,517,194

COMPARISON OF CHANGES IN CONDITION OF MEMBER BANKS AND FEDERAL RESERVE BANKS.

There is also submitted another chart, covering the same period, which shows the loans and investments of member banks in the principal cities of the country, the bill holdings and gold reserves of the Federal Reserve Banks, and the volume of business as indicated by debits to individual accounts of reporting banks (all expressed as index numbers with the average for the year 1919 as the base).

The curve showing the volume of business, as indicated by bank debits, reflects the business expansion which took place in the second half of the year 1919 and the liquidation which began in the early part of 1920 and continued until the middle of 1921. It will be noticed that the reduction in the loan accounts of the reporting member banks during the first half of 1921 offsets approximately the expansion of their loan accounts in the last half of the year 1919. It will be observed, however, that during the year 1920 the curve of credit of the member banks, as indicated by their loans, is altogether different from the curve showing the volume of business, as indicated by debits to individual accounts. The decline in prices and the falling off in business, which took place during the year 1920, is not at all reflected in the loan accounts of the member banks. There was no reduction in their loans until late in the year.

On the other hand, the banks were extending their credit lines until the peak of the crop-moving season had been passed. Agriculture was in distress and commerce and industry generally were in the midst of the crisis of readjustment and urgently needed assistance in effecting the transition from the period of expansion through the period of liquidation. That assistance was extended by the member banks and by the Federal Reserve Banks, as both credit curves clearly show, and in this way liquidation of business was moderated and the rout, which would have been inevitable but for the steadying influence of the credit machinery of the Federal Reserve System, was held within the limits of an orderly retreat.

In comparing the member bank credit curve with that of the Federal Reserve Banks, it is clear that, while both curves are influenced by the same changes in the business situation, their response is by no means the same. The chart shows that the reserve bank curve moves much more rapidly and sharply than the member bank curve, which appears flat by comparison with the reserve bank curve and gives a less lively impression of business and credit developments and of the changes which were in process.

The relative flatness of the member bank credit curve during the year 1920, as compared with the reserve bank curve, is due to several circumstances. The volume of member bank loans is far greater than their rediscounts, which constitute the greater part of the bill holdings of the Federal Reserve Banks. Because the base figure is much smaller for Federal Reserve Banks than for member banks, the same change in absolute amounts results in a much larger change in percentage and consequently in a much sharper movement in the reserve bank curve than in the member bank curve.

In addition to the difference in the base figure, there are other influences tending to make the member bank curve relatively flat. The larger proportion of the loans of member banks at any time represents loans incident to the ordinary volume and requirements of business and thus exercises, even in times of marked changes in the business situation, a steadying influence on the member bank curve. The situation of the reserve banks is different. Their loan account does not reflect the normal volume of credit in use, for under normal conditions their rediscount transactions are not large. It is not the absolute amount of credit in use but the ebb and flow of credit which affects the loan account of the Federal Reserve Banks. A Federal Reserve Bank plays little part in the ordinary credit business of the country. It does not deal with borrowers directly. It can not lend directly to the customers of member banks, nor does it, in fact, take the initiative in making loans to a member bank for the purpose of enabling the member bank to distribute the funds so secured to its customers. A Federal Reserve

Bank lends to a member bank against transactions already made, for the purpose of enabling the member bank to restore its reserve to the legal requirement, after the reserve has been impaired or is about to be impaired, because of increased loans and deposits. The relations of the business man, be he farmer, merchant, or manufacturer, are with his member bank, and the member bank in turn deals with the reserve bank only as occasion may require. A Federal Reserve loan is not the first but the second line of credit. The expansion and contraction of the reserve bank loan account are once removed from the expansion and contraction of the volume of business, as reflected in commercial bank loans. Normally, the Federal Reserve System is called into activity when the supply of ordinary credit facilities is inadequate. It supplements, temporarily, the resources of its members. It is the extent of the deficiency in the lending power of the member banks, as measured by their ability to meet credit requirements, that is reflected in the upward or downward movement of the Federal Reserve loan account. When business is speeding up beyond their normal credit capacity, commercial banks must resort to the Federal Reserve Banks for accommodation. When business is receding and liquidating in a period of economic reaction, slackening of credit requirements will result in a marked reduction of borrowings from Federal Reserve Banks. Therefore, the reserve bank curve reflects the fluctuations in the volume of credit required, rather than the actual total volume of credit in use.

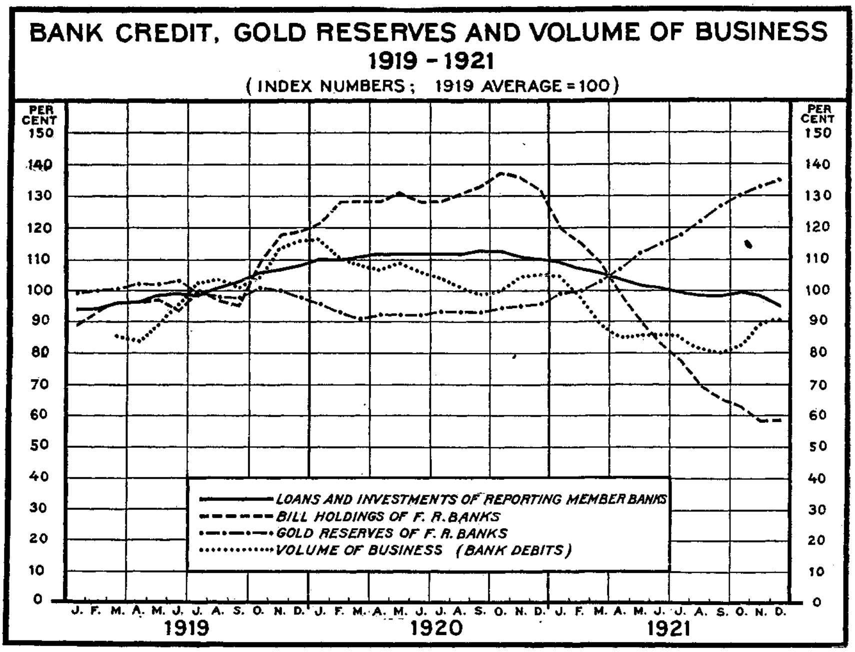
On a relative basis the reserve bank curve has a tendency to magnify what is going on in times either of rapid expansion or of acute liquidation. In other words, it gives an exaggerated or heightened impression of these movements.

There are still other circumstances of a temporary nature tending to reduce the range of fluctuations in the member bank loan curve as compared with the reserve bank credit curve. It will be recalled that the loan and investment account of banks throughout the country was greatly expanded during 1918 by heavy investments in Liberty bonds and certificates of indebtedness as well as by accommodations to subscribers to Government war loan issues. During 1919 and 1920 the process was reversed. There was constant liquidation of bank holdings of Government securities and of loans secured by these obligations. Reporting member banks' holdings of Government securities dropped from $3,267,147,000 on May 2, 1919, to $2,000,983,000 on January 2, 1920, and to $1,312,186,000 on January 7, 1921. On December 28, 1921, however, the reporting banks held $1,469,323,000 of Government securities, or $157,137,000 more than at the beginning of the year, the increase corresponding to the banks' holdings of United States Treasury notes which were first issued on June 15,

1921. Member banks' loans secured by Government obligations, which amounted to $1,020,384,000 on December 26, 1919, had declined to $908,908,000 on December 31, 1920, and to $512,520,000 on December 28, 1921. The liquidation in the loan and investment account of the member banks from these sources has, therefore, been very considerable, although it does not appear to be reflected in the movement of the member bank curve of credit in 1920. That curve was ascending in spite of liquidation from these sources, but it is reasonable to assume that but for this liquidation it would have ascended much more, for it appears that the credit released by the liquidation of war loan securities and paper was used to expand the agricultural, commercial, and industrial loan accounts of the banks.

During the winter of 1920–21, there appeared an influence of an opposite character, namely, the so-called "frozen credit," by which term is meant credit which has been carried beyond the time when the transactions which gave rise to the credit should normally have liquidated themselves. Large volumes of goods produced in 1920 were carried by producers for lack of satisfactory markets. Prices were falling, markets were collapsing, and there was congestion of goods at points of primary production and distribution. In many cases, the owners of these goods had to be carried along. There is no means of approximating the amount of these so-called "frozen credits," but there is reason to believe that a year ago they constituted an alarmingly large proportion of the total loans and discounts carried by the commercial banks of the country and that in some sections, at least, they still constitute a very substantial part of the total. Because of these unliquid loans, the member bank loan curve indicates a more gradual and moderate liquidation. It was this retarded or orderly liquidation which kept the curve from descending as swiftly as would have been the case had the liquidation been influenced merely by the volume of current business transactions.

The sharp and prolonged decline in the reserve bank curve of credit throughout the year 1921, and the liquidation which it reflects, can not be understood without reference to the great amount of gold which during the past 12 months has come into the country and into the Federal Reserve Banks. The gold holdings of the Federal Reserve System increased from $2,059,333,000 on December 30, 1920, to $2,869,600,000 on December 28, 1921, while their bill holdings declined from $2,974,836,000 on December 30, 1920, to $1,294,073,000 on December 28, 1921. (The increase in gold reserves is partially offset by a decrease of $67,230,000 in reserves other than gold, i. e., silver and legal-tender notes.) Thus, it appears that about 44 per cent of the liquidation of the loan account of the Federal Reserve System may be attributed to its increased gold holdings. The influence of gold in Federal Reserve Bank liquidation is even greater in the case of the Federal Reserve Bank of New York, which has been the chief recipient of the imported gold. The bill holdings of that bank fell from $1,014,141,000 on December 30, 1920, to $260,370,000 on December 28, 1921. Its gold holdings for the same period show an increase from $466,267,000 on December 30, 1920, to $1,069,499,000 on December 28, 1921. After making allowance for the decrease of $99,360,000 in the bank's holdings of silver and legal-tender notes, it is found that the gold factor accounts for over 66 per cent of the liquidation in the loan account of the Federal Reserve Bank of New York.



Much of the gold which has come into the United States from abroad during the past year has been in liquidation of foreign indebtedness, while the balance has been employed in the creation of dollar exchange for future use. The greater part of this gold has been turned over by member banks to the Federal Reserve Banks in liquidation of their own indebtedness. Thus, the pronounced and continuous downward trend of the reserve bank loan curve during the past year is shown to be due largely to foreign liquidation.

The volume of business curve shows considerable steadiness after the first quarter of 1921 and the member bank curve of credit after the second quarter, but the Federal Reserve Bank credit curve continued its downward course in 1921, without abatement until the middle of November, in quick and close response to the continuous upward course of the curve of gold reserves. It should, therefore, not be overlooked that as an indicator of the degree and rapidity of domestic liquidation the reserve bank credit curve is misleading, owing to the offsetting influence of the gold factor.

The figures to which reference is made in this discussion appear below.

BANKING DEVELOPMENTS, 1919–1921.

[Averages based on weekly figures. Amounts in millions of dollars.]

	All Federal Reserve Banks.			Federal Reserve Bank of New York.		
	Bill holdings.	Gold reserves.	Federal Reserve note circulation.	Bill holdings.	Gold reserves.	Federal Reserve note circulation.
1919.						
January	1,992	2,100	2,534	757	611	676
February	2,084	2,119	2,465	804	593	665
March	2,147	2,138	2,506	780	677	709
April	2,138	2,156	2,547	751	740	738
May	2,168	2,177	2,532	795	721	743
June	2,089	2,177	2,500	721	765	736
July	2,241	2,112	2,527	852	632	749
August	2,174	2,079	2,543	789	602	748
September	2,136	2,086	2,627	718	605	753
October	2,436	2,136	2,742	883	587	756
November	2,633	2,116	2,821	923	607	761
December	2,661	2,089	2,959	921	587	796
1920.						
January	2,720	2,037	2,892	963	557	775
February	2,867	1,979	2,962	1,018	535	810
March	2,856	1,936	3,041	997	498	834
April	2,853	1,950	3,075	949	552	838
May	2,934	1,943	3,092	981	555	848
June	2,857	1,964	3,115	968	538	857
July	2,875	1,975	3,145	985	518	860
August	2,933	1,974	3,172	1,006	483	854
September	2,973	1,975	3,277	956	490	862
October	3,071	1,998	3,338	1,014	477	872
November	3,033	2,011	3,329	1,013	474	876
December	2,952	2,043	3,344	1,005	459	871
1921.						
January	2,692	2,092	3,159	938	415	805
February	2,570	2,127	3,054	922	413	793
March	2,444	2,192	2,986	826	500	791
April	2,241	2,283	2,871	676	650	764
May	2,039	2,370	2,784	608	682	723
June	1,865	2,439	2,682	479	822	690
July	1,735	2,503	2,594	432	846	657
August	1,566	2,598	2,506	396	862	638
September	1,471	2,694	2,485	315	966	638
October	1,415	2,755	2,452	298	1,001	634
November	1,296	2,825	2,397	248	1,044	636
December	1,288	2,865	2,415	271	1,045	655

Banking Developments, 1919–1921—Continued.

[Averages based on weekly figures. Amounts in millions of dollars.]

	Reporting member banks.			
	Loans and investments.[1]	Net demand deposits.	Accommodation at Federal Reserve Banks.	Ratio of Federal Reserve accommodation to total loans and investments (per cent).
1919.				
January	14,178	10,048	1,306	9
February	14,257	9,908	1,400	10
March	14,578	10,115	1,449	10
April	14,559	10,135	1,443	10
May	14,886	10,439	1,497	10
June	14,969	10,393	1,361	9
July	14,813	10,604	1,454	10
August	15,204	10,800	1,395	9
September	15,577	10,984	1,383	9
October	15,961	11,140	1,660	10
November	16,143	11,330	1,765	11
December	16,337	11,244	1,739	11
1920.				
January	16,670	11,576	1,803	11
February	16,630	11,482	2,019	12
March	16,813	11,600	2,053	12
April	16,935	11,546	2,069	12
May	16,941	11,506	2,085	12
June	16,926	11,499	1,981	12
July	16,876	11,466	2,005	12
August	16,862	11,299	2,072	12
September	17,012	11,286	2,117	12
October	17,147	11,266	2,222	13
November	16,827	11,027	2,200	13
December	16,692	10,823	2,132	13
1921.				
January	16,402	10,816	1,947	12
February	16,131	10,583	1,878	12
March	16,021	10,404	1,792	11
April	15,733	10,201	1,601	10
May	15,466	10,194	1,421	9
June	15,319	10,182	1,267	8
July	15,020	10,037	1,167	8
August	14,876	9,921	996	7
September	14,857	9,953	906	6
October	14,897	10,107	854	6
November	14,792	10,210	723	5
December	14,797	10,242	697	5

[1] Including rediscounts with Federal Reserve Banks.

INDEX NUMBERS OF BANKING AND BUSINESS DEVELOPMENTS: 1919–1921.

[Average for 1919=100.]

	All Federal Reserve Banks.			Federal Reserve Bank of New York.		
	Bill holdings.	Gold reserves.	Federal Reserve note circulation.	Bill holdings.	Gold reserves.	Federal Reserve note circulation.
1919.						
January	89	99	97	94	95	92
February	93	100	95	100	92	90
March	96	101	96	97	105	96
April	96	102	98	93	115	100
May	97	102	97	98	112	101
June	93	103	96	89	119	100
July	100	99	97	106	98	102
August	97	98	98	98	94	102
September	95	98	101	89	94	102
October	109	101	105	109	91	103
November	118	100	108	114	94	104
December	119	98	113	114	91	108
1920.						
January	122	96	111	119	87	105
February	128	93	114	126	83	110
March	128	91	117	123	77	113
April	128	92	118	117	86	114
May	131	92	119	122	86	115
June	128	92	119	120	84	116
July	128	93	121	122	81	117
August	131	93	122	125	75	116
September	133	93	126	118	76	117
October	137	94	128	126	74	119
November	136	95	128	125	74	119
December	132	96	128	124	71	118
1921.						
January	120	99	121	116	65	109
February	115	100	117	114	64	108
March	109	103	115	102	78	108
April	100	107	110	84	101	104
May	91	112	107	75	106	98
June	83	115	103	59	128	94
July	78	118	100	53	132	89
August	70	122	96	49	134	87
September	66	127	95	39	150	87
October	63	130	94	37	156	86
November	58	133	92	31	162	86
December	58	135	93	34	163	89

INDEX NUMBERS OF BANKING AND BUSINESS DEVELOPMENTS: 1919-1921—Contd.

[Average for 1919=100.]

	Reporting member banks.			Volume of business.[2]	Wholesale price index.[3]	Volume of manufactures.[4]
	Loans and investments.[1]	Net demand deposits.	Accommodation at Federal Reserve Banks.			
1919.						
January	94	95	88	....	95.8	101.6
February	94	94	94	....	92.9	86.7
March	96	95	98	85.6	94.8	92.6
April	96	96	97	83.3	95.8	93.7
May	98	99	101	88.7	97.6	95.7
June	99	98	92	95.1	97.6	95.9
July	98	100	98	102.5	103.3	101.9
August	101	102	94	103.4	106.6	107.2
September	103	104	93	101.2	103.8	103.8
October	106	105	112	104.6	105.2	104.4
November	107	107	119	113.5	108.5	102.2
December	108	106	117	116.4	112.3	102.1
1920.						
January	110	109	121	116.7	117.0	115.9
February	110	108	136	111.0	117.5	104.6
March	111	109	138	108.4	119.3	118.0
April	112	109	139	107.1	125.0	108.8
May	112	109	140	108.6	128.3	111.8
June	112	109	133	106.9	126.9	109.6
July	112	108	135	103.6	123.6	102.3
August	112	107	139	101.2	117.9	104.9
September	113	107	142	98.4	114.2	101.4
October	113	106	150	100.3	106.1	101.2
November	111	104	148	104.3	97.6	88.9
December	110	102	143	104.6	89.2	77.9
1921.						
January	109	102	131	104.7	83.5	78.3
February	107	100	126	98.2	78.8	75.0
March	106	98	121	90.1	76.4	80.6
April	104	96	108	85.0	72.6	75.8
May	102	96	96	85.9	71.2	79.3
June	101	96	85	85.9	69.8	75.9
July	99	95	79	85.2	69.8	68.5
August	98	94	67	81.6	71.7	81.5
September	98	94	61	80.2	71.7	81.0
October	99	95	57	82.3	70.8	90.6
November	98	96	49	88.9	70.3	....
December	95	97	47	90.5	70.3	....

[1] Including rediscounts with Federal Reserve Banks.
[2] As measured by debits to individual accounts, 3 months' moving averages.
[3] United States Bureau of Labor Statistics.
[4] Harvard Committee on Economic Research.

CHANGES IN PRINCIPAL ASSETS AND LIABILITIES OF FEDERAL RESERVE BANKS DURING 1921.

On December 28, 1921, the earning assets of all Federal Reserve Banks combined amounted to $1,535,851,000, as compared with $3,263,027,000 on December 30, 1920, a reduction of $1,727,176,000, or 53 per cent, and a reduction of $1,886,125,000, or 55 per cent, from the high point reached on October 15, 1920.

This reduction in loans during the year was accompanied by a steady increase of gold reserves and an almost continuous reduction in Federal Reserve note circulation. Between January 7 and December 28, 1921, the dates of the first and last reports of the year, discounted bills held by all Federal Reserve Banks declined from $2,607,349,000 to $1,179,833,000, a decrease of 55 per cent. Of this decrease $617,343,000 represents a reduction in bills secured by Government obligations and $810,173,000 in other discounts. This reduction in loans continued despite the fact that the Federal Reserve Banks, beginning in April, made substantial and some of them repeated reductions in discount rates.

With the discontinuance early in the year of preferential rates on paper secured by Government obligations, there was no longer the same incentive for member banks to offer to Federal Reserve Banks paper secured by Government obligations in preference to other eligible paper. Furthermore, the volume of Government securities outstanding was decreasing and easier conditions in the money market resulted in a larger proportion of the successive issues of Treasury certificates being taken for investment purposes. Of the total volume of paper under rediscount for member banks on December 28, only 41 per cent was paper secured by Government obligations, although the larger proportion of the direct borrowings of member banks, by means of notes maturing within 15 days, was secured by Treasury certificates or United States bonds. Notes fully secured by these obligations require no revenue stamps.

Federal Reserve Bank holdings of bills purchased in open market declined steadily from $234,759,000 on January 7 to $19,424,000 on July 27. This decline reflected both the reduction in the volume of bankers' acceptances based upon foreign trade transactions, and the larger demand from commercial and savings banks, as well as from corporate and individual investors. Since the 1st of August open-market purchases of bills have shown a tendency to increase, although the total held has at no time exceeded $126,525,000.

Negligible changes are shown in Federal Reserve Bank holdings of United States bonds and notes up to June 1. The increase in investments of this class since that time is due chiefly to purchases of new Treasury notes and Victory notes by some of the Federal Reserve Banks.

The special one-year certificates held on deposit with the Treasury to secure Federal Reserve Bank note circulation, under the terms of the so-called Pittman Act, show no change during the first two months of the year. Since then there has been a gradual reduction, largely in connection with the retirement of Federal Reserve Bank notes, which have been replaced by the Treasury by silver certificates issued against newly coined standard silver dollars. The amount of these certificates of indebtedness held for the Federal Reserve Banks on December 28, 1921, was $119,500,000 against $259,375,000 on December 30, 1920. The variations during the year in the holdings of other Treasury certificates were due in part to temporary advances made by the banks to the Treasury, pending the collection of funds from depositary institutions.

The gold reserves held by all Federal Reserve Banks on December 30, 1920, were $2,059,333,000. There were large and constant increases until December 21, and the total gold reserves held by the banks on December 28, 1921, amounted to $2,869,600,000. During the same period other cash reserves, which include legal-tender notes, silver, and silver certificates, declined from $189,830,000 to $122,600,000. The increase in the gold reserve of $810,267,000 represents for the greater part gold imported from abroad. The following table shows in detail exports and imports of gold during the year 1921, from which it will be seen that net imports amounted to about 80 per cent of the increase in the holdings of gold by the Federal Reserve Banks.

GOLD IMPORTS INTO AND EXPORTS FROM THE UNITED STATES DURING 1921, DISTRIBUTED BY COUNTRIES.

	Imports.	Exports.
Austria	$9,000	
Belgium	3,760,711	
Denmark	5,431,500	
Finland	600	
France	190,688,144	
Germany	19,926,761	
Greece	720,748	
Italy	217,043	
Malta	615,935	
Netherlands	19,893,019	
Norway	1,534,985	
Poland and Danzig	400	
Portugal	23,040	
Russia in Europe	85,000	
Spain	3,319,281	$25,200
Sweden	66,355,925	2,643,013
Switzerland	572,957	3,123
Turkey in Europe	785,223	
United Kingdom—England	202,091,349	
Total Europe	516,031,621	2,671,336
Bermuda	103,290	
Canada	36,856,110	2,913,783
Costa Rica	876,976	
Guatemala	565,038	
Honduras	203,690	
Nicaragua	893,602	
Panama	3,200,839	
Salvador	799,675	
Mexico	5,588,737	7,090,419
Cuba	363,730	250,844
British West Indies	665,204	
Virgin Islands of the United States	150,000	
Dominican Republic	26,509	
Dutch West Indies	5,772,830	
Total North America	56,066,230	10,255,046
Argentina	1,066,471	
Bolivia	9,786	
Brazil	116,186	24,300
Chile	447,633	
Colombia	11,941,685	
Ecuador	644,518	9,740
British Guiana	149,484	
Dutch Guiana	78,643	
Peru	1,613,621	
Uruguay	6,815,363	
Venezuela	1,353,846	
Total South America	24,237,236	34,040

GOLD IMPORTS INTO AND EXPORTS FROM THE UNITED STATES DURING 1921, DISTRIBUTED BY COUNTRIES—Continued.

	Imports.	Exports.
China	$17,912,687	
Chosen	4,860	
British India	32,009,553	$1,179,000
Straits Settlements		70,000
Dutch East Indies	1,316,545	60,000
French East Indies	6,013,842	
Greece in Asia	1,350,587	
Hongkong	5,660,825	9,621,655
Japan	2,208,234	
Palestine and Syria	886,092	
Turkey in Asia	1,448,793	
Total Asia	68,812,018	10,930,655
Australia	14,013,947	
New Zealand	2,956,314	
Tahiti		300
Philippine Islands	1,399,808	
Abyssinia	21,965	
British West Africa	13,250	
British South Africa	51,823	
Egypt	6,874,924	
Portuguese Africa	788,312	
Total, all countries	691,267,448	23,891,377

Federal Reserve note circulation decreased rapidly and almost continuously throughout the year 1921, and the decline was not arrested even by the seasonal demands which usually result in a larger circulation during September, October, and November. Not until the demand for currency in connection with the Christmas holiday trade began to be felt did the volume of Federal Reserve notes in circulation show any substantial increase. From a low point ($2,366,006,000) on November 30 to December 21 Federal Reserve note circulation increased by $81,554,000, but the total volume in circulation on December 28 ($2,443,497,000) was $961,434,000 below the maximum amount recorded on December 23, 1920, and $901,189,000 below the amount shown on December 30, 1920.

Government deposits with the Federal Reserve Banks fluctuated between a maximum of $123,212,000 on March 23 and a minimum of $5,617,000 on January 12, the average for the year being $45,320,000, as compared with $36,000,000 in 1920 and $99,000,000 in 1919.

Member banks' reserve deposits reflect closely the movement of customers' deposits with the member banks and show a rapid decline during the first three months of the year, when the member banks' deposits were falling off in a marked degree. Since April the deposits carried by the member banks and their reserve deposits with the Federal Reserve Banks have remained fairly constant, notwithstanding continued liquidation of member bank loans.

Federal Reserve Bank note circulation outstanding declined from $216,641,000 on December 31, 1920, to $83,690,000 on December 31, 1921. This decline parallels a somewhat larger reduction in the amount of one-year certificates through redemption by the Treasury. It should be noted that the amount of this circulation on which Federal Reserve Banks are liable, and which appears in the condition statements of these banks, represents the total amount of Federal Reserve Bank notes issued by the banks, less the amount for which they have turned over to the Treasury lawful money in reduction of liability. The amount of Federal Reserve Bank notes actually in circulation does not, therefore, correspond closely to this liability, as redemption of the notes by the Treasury does not necessarily take place when the Federal Reserve Banks' liability on them ceases.

During the year the paid-in capital of the Federal Reserve Banks increased from $99,821,000 to $103,165,000, this increase being due in part to the increase in the capital and surplus of banks already members, and to a smaller extent to the acquisition of new members.

The surplus of the banks, which stood at $202,036,000 on December 31, 1920, amounted to $215,523,000 on December 31, 1921. The Federal Reserve Bank of Dallas is the only one which does not show a surplus fund in excess of 100 per cent of its subscribed capital.

A chart showing the movement during the past two years of the principal resources and liabilities of the Federal Reserve Banks appears on page 2.

The table given below shows the condition of all Federal Reserve Banks combined as of the last day of each month during 1921:

Resources and Liabilities of all Federal Reserve Banks Combined.

[In thousands of dollars.]

Date.	Cash reserves.							
	Gold.						Legal-tender notes, silver, etc.	Total.
	Gold and gold certificates.	Gold settlement fund, Federal Reserve Board.	Gold with foreign agencies.	Gold with Federal Reserve agents.	Gold redemption fund.	Total.		
Dec. 31, 1920	261,900	357,278	3,300	1,277,875	162,433	2,062,786	190,914	2,253,700
Jan. 31, 1921	201,832	463,177	3,300	1,264,753	170,598	2,103,660	216,095	2,319,755
Feb. 28, 1921	220,694	541,674		1,222,071	163,646	2,148,085	215,390	2,363,475
Mar. 31, 1921	298,337	503,380		1,270,930	148,922	2,221,569	215,172	2,436,741
Apr. 30, 1921	353,191	492,336		1,311,794	165,362	2,322,683	182,929	2,505,612
May 31, 1921	280,186	501,844		1,470,729	155,299	2,408,058	163,521	2,571,579
June 30, 1921	327,276	404,352		1,600,328	135,703	2,467,659	159,835	2,627,494
July 31, 1921	395,590	433,698		1,611,689	102,062	2,543,039	153,993	2,697,032
Aug. 31, 1921	413,900	428,075		1,694,523	104,563	2,641,061	146,859	2,787,920
Sept. 30, 1921	442,877	414,141		1,755,796	115,558	2,728,372	150,959	2,879,331
Oct. 31, 1921	450,957	501,629		1,708,409	130,277	2,791,272	143,688	2,934,960
Nov. 30, 1921	488,967	465,236		1,779,605	115,639	2,849,447	139,695	2,989,142
Dec. 31, 1921	374,728	522,451		1,872,670	105,146	2,874,995	135,257	3,010,252

Date.	Earning assets.								
	Bills discounted.			Bills bought in open market.	United States securities.			Municipal warrants.	Total.
						Certificates of indebtedness.			
	Secured by United States Government obligations.	All other.	Total.		Bonds and notes.	One-year (Pittman Act).	All other.		
Dec. 31, 1920	1,154,483	1,532,910	2,687,393	260,406	26,384	259,375	1,270		3,234,828
Jan. 31, 1921	1,040,367	1,416,750	2,457,117	163,700	25,866	259,375	1,909		2,907,967
Feb. 28, 1921	997,965	1,391,545	2,389,510	169,421	25,868	254,375	2,564		2,841,738
Mar. 31, 1921	971,100	1,262,006	2,233,106	119,340	25,740	247,375	3,817		2,629,378
Apr. 30, 1921	937,652	1,138,916	2,076,568	109,763	25,710	239,375	2,010		2,453,426
May 31, 1921	787,244	1,120,669	1,907,913	75,457	32,938	226,875	6,668		2,249,851
June 30, 1921	637,590	1,113,760	1,751,350	40,223	34,520	215,875	8,789		2,050,757

July 31, 1921	577,774	1,063,838	1,641,612	17,977	34,011	209,375	979	....	1,903,954
Aug. 31, 1921	545,176	946,759	1,491,935	35,320	34,008	193,875	2,350	....	1,757,488
Sept. 30, 1921	496,844	916,169	1,413,013	45,042	36,088	172,375	19,367	....	1,685,885
Oct. 31, 1921	462,436	850,591	1,313,027	86,110	36,583	146,375	9,563	10	1,591,668
Nov. 30, 1921	476,360	705,941	1,182,301	72,954	32,253	126,000	46,291	67	1,459,866
Dec. 31, 1921	485,233	659,113	1,144,346	145,263	50,036	113,000	70,492	379	1,523,516

Date.	Bank premises.	Five per cent redemption fund against Federal Reserve Bank notes.	Gold abroad, in custody or in transit.	Uncollected items.	All other resources.	Total resources and liabilities.	Capital paid in.	Surplus.	Reserved for Government franchise tax.
Dec. 31, 1920	17,045	12,588	....	728,173	7,771	6,254,105	99,821	202,036	....
Jan. 31, 1921	18,232	12,296	....	524,726	7,480	5,790,456	100,107	202,036	....
Feb. 28, 1921	19,488	12,264	3,300	544,271	8,498	5,793,034	100,890	202,036	....
Mar. 31, 1921	20,590	11,840	....	546,408	9,936	5,654,893	101,129	202,036	....
Apr. 30, 1921	21,894	11,171	....	487,655	11,290	5,491,048	101,559	202,036	....
May 31, 1921	23,497	10,328	....	440,827	13,816	5,309,898	102,204	202,036	35,271
June 30, 1921	24,852	10,111	....	528,000	14,377	5,255,591	102,182	213,824	40,751
July 31, 1921	25,880	9,702	....	462,249	16,422	5,115,239	102,326	213,824	45,503
Aug. 31, 1921	27,509	9,539	....	455,897	17,470	5,055,823	103,050	213,824	48,061
Sept. 30, 1921	29,476	9,004	....	508,257	16,216	5,128,169	103,043	213,824	51,654
Oct. 31, 1921	31,289	7,999	....	459,569	16,689	5,042,174	103,027	213,824	53,938
Nov. 30, 1921	33,241	7,941	....	534,872	19,334	5,044,396	103,104	213,824	55,119
Dec. 31, 1921	35,258	7,805	....	556,072	18,206	5,151,109	103,165	215,523	....

Date.	Deposits.				Note circulation.		Deferred availability items.	All other liabilities.
	Government.	Member bank reserve account.	All other.	Total.	Federal Reserve notes.	Federal Reserve Bank notes—net liability.		
Dec. 31, 1920	57,415	1,780,678	23,405	1,861,498	3,336,281	216,641	518,534	19,294
Jan. 31, 1921	28,627	1,721,895	25,932	1,776,454	3,083,155	200,159	399,625	28,920
Feb. 28, 1921	50,828	1,705,253	26,541	1,782,622	3,048,554	187,633	432,347	38,952
Mar. 31, 1921	91,617	1,658,625	34,152	1,784,394	2,904,948	169,885	442,481	50,020
Apr. 30, 1921	31,664	1,666,509	34,041	1,732,214	2,844,011	154,944	397,621	58,663
May 31, 1921	39,080	1,601,634	29,910	1,670,624	2,751,869	143,706	373,025	31,163
June 30, 1921	43,446	1,603,845	27,926	1,675,217	2,648,086	132,568	426,493	16,470
July 31, 1921	32,680	1,625,123	25,245	1,683,048	2,549,626	125,046	378,142	17,724
Aug. 31, 1921	46,809	1,618,901	25,044	1,690,754	2,481,466	109,864	389,362	19,442
Sept. 30, 1921	98,540	1,581,032	25,235	1,704,807	2,482,427	100,378	450,893	21,143
Oct. 31, 1921	43,086	1,658,627	31,185	1,732,898	2,421,426	85,515	408,333	23,213
Nov. 30, 1921	45,913	1,670,362	26,555	1,742,830	2,366,006	75,862	462,795	24,856
Dec. 31, 1921	95,951	1,753,217	26,914	1,876,082	2,409,392	83,690	447,614	15,643

CHANGES IN CONDITION OF MEMBER BANKS IN LEADING CITIES DURING 1921.

Liquidation of member bank loans and investments, which began about the middle of October, 1920, continued throughout the year under review, though it proceeded at a slower rate during the second half of the year, and during the last four months came nearly to a halt. This liquidation was accompanied by a corresponding reduction of borrowings from Federal Reserve Banks, as the member banks utilized the funds released through the repayment of loans by customers to reduce the volume of rediscounts and collateral notes with the reserve banks. On January 7 the ratio of reserve bank accommodation to total loans and investments of member banks was 12.4 per cent; at the end of the year (December 28) it was 4.7 per cent. Demand deposits declined during the first eight or nine months of the year, though not as rapidly as loans, but during the last quarter deposits showed an upward trend. As a consequence the difference between the volume of loans and of deposits narrowed decidedly during the year, deposits being 83 per cent of loans on January 7 and slightly more than 90 per cent on December 28. This narrowing of the gap between loans and deposits may be ascribed to a relaxation in the demand for Federal Reserve notes and to the gradual liquidation of "frozen" loans, the proceeds of which had long since been withdrawn from the banks.

The Board's weekly statements of condition of over 800 member banks in leading cities have now become one of the standard indicators of changes in the banking and general business situation. These banks include the largest institutions of the country, as may be seen from the fact that on April 28 the aggregate paid-in capital and surplus of the 821 reporting banks stood at $2,165,000,000, only about $131,000,000 less than the combined paid-in capital and surplus of all national banks, and constituted about 64 per cent of the paid-in capital and surplus of all the 9,698 member banks. On June 30, 1921, as well as on the same date in 1920, the reporting banks held about 70 per cent of the net demand deposits and an even larger proportion of the Government deposits of all member banks, about 45 per cent of their time deposits, over one-half of their investments in Government securities, and over 63 per cent of their total loans and investments (exclusive of fixed investments). The reduction from 829 to 806 for the year in the number of reporting institutions is almost entirely the result of bank mergers. Amounts of the leading items shown for each week are, therefore, on a fairly comparable basis and reflect the ebb and flow of bank credit in the urban centers.

Loans and discounts of reporting banks show a reduction of about 15 per cent, from $13,219,000,000 on January 7 to $11,220,000,000 on December 28. Of this reduction of almost $2,000,000,000 nearly one-half was reported by the member banks in New York City.

Little change is shown in the member bank holdings of paper secured by corporate obligations, though for the early part of the year this class of loans shows a larger percentage of reduction than other classes of loans. By the middle of April these loans had declined below $3,000,000,000 from $3,127,000,000 on January 7. During the following months they increased slightly, but show another decline during the late summer, the total on September 7 of $2,921,000,000 marking the low level for the year. Since then, with the gradual enhancement in values of corporate securities, the banks have increased their advances on these securities to a moderate extent, though the total on December 28 of $3,165,000,000 is slightly above the aggregate on January 7.

Loans secured by Government obligations, by far the larger part secured by Liberty bonds and Victory notes, which stood at $868,000,000 on the first Friday of the year, decreased by about $200,000,000 during the first half of the year. A further reduction, though not so large, continued during the later months, the total on December 28, $513,000,000, showing a decline of $355,000,000 since the first Friday of the year. All other loans and discounts, composed largely of commercial loans proper, followed a similar course, the larger part of the decrease, viz, from $9,224,000,000 on January 7 to $8,167,000,000, taking place during the first six months of the year. At the close of the year the total stood at $7,542,000,000, or $1,682,000,000 below the total shown in the first weekly statement in the year.

As against a reduction during the year in the amount of Government paper (i. e., paper secured by Government obligations) from $868,000,000 to $513,000,000, the reporting banks show a moderate increase in their holdings of Government securities. United States bond holdings were fairly steady until the latter part of October, after which time the member banks reported substantial investments in Liberty bonds. On December 28 total holdings were $950,000,000, an increase of $71,000,000 over the January 7 total. It should be noted that the totals shown in the subjoined table are inclusive of about $270,000,000 of prewar bonds held largely on deposit with the Treasury to secure national bank circulation. Victory note holdings, which at the opening of the year totaled about $206,000,000, show a gradual decline to $171,000,000 at the close of the year. Treasury certificate holdings, because of the great demand by corporate and individual investors, likewise show a downward course, interrupted temporarily by increases following the dates of issue of loan and tax certificates. From $228,000,000 on January 7, certificate holdings increased to a maximum for the year of $339,000,000 on March 18, following the allotment on March 15 of about $482,000,000 of tax certificates. The low point for the year, $94,000,000, was shown on October 26, and at the end of the year these holdings totaled $223,000,000, a decline of $5,000,000 since the beginning of the year. Holdings of three-year Treasury notes, issued in the middle of June and September, declined from $152,000,000 on June 15 to $48,000,000 on September 7. Two weeks later, following the September 15 allotment of $391,000,000 of these notes, the banks reported a maximum total of $165,000,000, while about the close of the year these holdings stood at $126,000,000. Relatively small changes are shown in the holdings of other securities, largely corporate stocks and bonds, a total of slightly over $2,000,000,000 being maintained during most of the year. Moderate temporary increases early in June and about the middle of October are due probably to temporary investments in newly issued foreign and domestic securities.

Total loans and investments (exclusive of fixed investments) show a practically continuous decline to June 15, the increase on that date being only temporary in character and due to increase in Treasury notes and certificates shown for the reporting banks on that date. Smaller increases on August 3, September 21, and November 2 are due to similar causes. On the whole the liquidation of earning assets was much less pronounced during the second part of the year than during the earlier part.

The reduction in member bank loans and investments was reflected in liquidation of their borrowings from the Federal Reserve Banks. This liquidation, in view of the elimination of the preferential rates on Government paper, affected equally borrowings secured by Government obligations and rediscounts not so secured. By the middle of August total borrowings of the reporting banks from the reserve banks had declined from $2,278,000,000, the peak figure of November 5, 1920, and $2,050,000,000 at the beginning of the year, to less than $1,000,000,000, and since then there has been a further decrease to $698,000,000 at the close of the year. Total borrowings by reporting member banks from the Federal Reserve Banks, including rediscounted customers' paper and member banks' own collateral notes, constituted on the first Friday of the year 12.4 per cent of the reporting member banks' total loans and investments. On August 17 this percentage had decreased to 6.6 per cent, and by the end of the year to 4.7 per cent. It is apparent, therefore, that the member banks passed on to their reserve banks a large proportion of the funds received from their customers in payment of maturing loans and that at the end of the year only a comparatively small portion of the member banks' loan burden was carried by the reserve banks. The proportion so carried was, however, considerably greater than the average percentage of borrowed money to total loans before the Federal Reserve System was established, which in the case of national banks never exceeded 1.5 per cent, except in the fall of 1914, when it reached 2.6 per cent.

Government deposits at the reporting banks show considerable fluctuations in connection with the fiscal operations of the Treasury. Loan and tax certificates allotted were paid for in the customary manner by credit to Government account on the books of the subscribing banks, and the high points in this account accordingly followed the dates of the tax and loan certificate issues. Other demand deposits (net) show a substantial decline during the earlier part of the year in connection with the general loan liquidation and the considerable withdrawals of balances by the country banks from their reserve city correspondents during that period. During the summer a further reduction of demand deposits took place, the total of $9,938,000,000 on August 17 showing a decrease of $1,000,000,000 from the total of January 7. On December 28 the total stood at $10,174,000,000, or $764,000,000 less than on the first Friday of the year. Time deposits show some growth during the latter part of the year. At the close of the year these deposits stood at $2,998,000,000, or $89,000,000 in excess of the total shown for the first Friday of the year.

Reserve balances of the reporting banks, in keeping with the decrease in deposit liabilities, show a decline for the year from $1,357,000,000 to $1,267,000,000. Cash in vault shows a decrease from $389,000,000 at the beginning of the year to about $300,000,000 three months later; during the subsequent months the total was somewhat larger, constituting between 3 and 3.5 per cent of the reporting banks' net demand deposits.

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Principal Resources and Liabilities of About 800 Reporting Member Banks in Leading Cities.

[Amounts in millions of dollars.]

Week ending—	Loans and discounts, and investments.												Reserve with Federal Reserve Banks.	Cash in vault.	Deposits.			Accommodation at Federal Reserve Banks.		
	Total.	Loans and discounts.[1]				Investments.														
		Total.	Secured by U. S. Government obligations.	Secured by other bonds and stocks.	All other.	Total.	United States securities.					Other bonds, stocks, and securities.			Net demand.	Time.	Government.	Total.	Secured by U. S. Government obligations.	Otherwise secured and unsecured.
							Total.	Bonds.	Victory notes.	Treasury notes.	Certificates of indebtedness.									
Jan. 7	16,561	13,219	868	3,127	9,224	3,342	1,313	879	206	....	228	2,029	1,357	389	10,938	2,909	119	2,050	843	1,207
14	16,397	13,054	834	3,084	9,136	3,343	1,293	870	201	....	222	2,050	1,317	360	10,928	2,933	78	1,894	766	1,128
21	16,396	13,003	827	3,097	9,079	3,393	1,353	872	204	....	277	2,040	1,334	345	10,754	2,918	210	1,934	800	1,134
28	16,254	12,908	811	3,064	9,033	3,346	1,314	867	205	....	242	2,032	1,311	337	10,643	2,919	146	1,908	792	1,116
Feb. 4	16,224	12,905	809	3,075	9,021	3,319	1,295	875	198	....	222	2,024	1,320	333	10,653	2,924	102	1,900	773	1,127
11	16,110	12,819	795	3,058	8,966	3,291	1,277	866	203	....	208	2,014	1,309	314	10,631	2,918	61	1,873	770	1,103
18	16,089	12,742	781	3,051	8,910	3,347	1,311	866	199	....	246	2,036	1,294	324	10,553	2,907	142	1,847	756	1,091
25	16,099	12,761	776	3,069	8,916	3,338	1,303	873	195	....	235	2,035	1,297	327	10,495	2,909	122	1,891	770	1,121
Mar. 4	16,052	12,759	786	3,069	8,904	3,293	1,268	866	194	....	208	2,025	1,279	328	10,518	2,920	91	1,832	748	1,084
11	15,975	12,672	770	3,047	8,855	3,303	1,260	866	192	....	202	2,043	1,302	330	10,535	2,910	41	1,854	764	1,090
18	16,076	12,622	761	3,033	8,828	3,454	1,397	866	192	....	339	2,057	1,252	321	10,376	2,926	348	1,719	769	950
25	15,983	12,591	760	3,027	8,804	3,392	1,343	875	193	....	275	2,049	1,260	315	10,186	2,932	329	1,764	772	992
Apr. 1	15,902	12,551	756	3,046	8,749	3,351	1,292	871	190	....	231	2,059	1,263	300	10,271	2,925	326	1,685	709	976
8	15,777	12,457	752	3,002	8,703	3,320	1,281	872	191	....	218	2,039	1,252	317	10,204	2,923	304	1,631	697	934
15	15,756	12,357	740	2,974	8,643	3,399	1,352	875	191	....	286	2,047	1,270	308	10,263	2,924	329	1,581	694	887
22	15,629	12,281	738	2,973	8,570	3,348	1,300	870	191	....	239	2,048	1,240	313	10,127	2,938	254	1,583	707	876
27	15,603	12,248	739	2,984	8,525	3,355	1,290	870	192	....	228	2,065	1,245	330	10,138	2,938	251	1,523	677	846
May 4	15,582	12,253	744	3,004	8,505	3,329	1,262	867	189	....	206	2,067	1,261	327	10,214	2,941	210	1,533	656	877
11	15,489	12,195	736	2,994	8,465	3,294	1,258	872	189	....	197	2,036	1,258	340	10,252	2,947	168	1,506	686	820
18	15,447	12,097	715	3,018	8,364	3,350	1,295	871	188	....	236	2,055	1,254	326	10,156	3,045	248	1,314	544	770
25	15,345	12,028	707	3,020	8,301	3,317	1,261	870	188	....	203	2,056	1,252	326	10,153	3,053	139	1,329	560	769
June 1	15,298	11,997	716	3,037	8,244	3,301	1,233	863	186	....	184	2,068	1,258	318	10,276	2,936	74	1,385	539	846
8	15,189	11,888	677	3,017	8,194	3;301	1,212	859	185	....	168	2,089	1,281	337	10,213	2,931	26	1,358	516	842
15	15,429	11,889	669	3,026	8,194	3,540	1,463	868	178	152	265	2,077	1,443	318	10,384	2,943	411	1,168	433	735
22	15,348	11,874	673	2,993	8,208	3,474	1,404	864	175	128	237	2,070	1,255	319	9,989	2,919	462	1,208	429	779
29	15,331	11,884	672	3,003	8,209	3,447	1,373	865	172	115	221	2,074	1,241	327	10,046	2,933	387	1,215	413	802

1921

July 6	15,194	11,819	647	3,005	8,167	3,375	1,315	866	172	94	183	2,060	1,251	341	10,030	2,921	325	1,250	443	807
13	15,049	11,736	638	2,986	8,112	3,313	1,268	862	170	81	155	2,045	1,247	337	10,086	2,903	278	1,154	396	758
20	14,950	11,677	635	3,004	8,038	3,273	1,225	866	167	70	122	2,048	1,227	319	10,029	2,905	124	1,151	395	756
27	14,889	11,660	638	2,975	8,047	3,229	1,190	867	166	58	99	2,039	1,238	316	10,002	2,905	95	1,113	375	738
Aug. 3	15,049	11,671	615	2,979	8,077	3,378	1,354	863	165	63	263	2,024	1,219	305	9,915	2,897	390	1,079	348	731
10	14,947	11,591	615	2,955	8,021	3,356	1,333	868	166	59	240	2,023	1,200	310	9,895	2,899	381	997	352	645
17	14,842	11,539	620	2,939	7,980	3,303	1,283	868	165	57	193	2,020	1,216	299	9,938	2,900	242	979	350	629
24	14,782	11,496	629	2,927	7,940	3,286	1,257	868	166	52	171	2,029	1,210	301	9,894	2,905	197	967	337	630
31	14,759	11,491	609	2,923	7,959	3,268	1,244	870	165	51	158	2,024	1,218	290	9,968	2,925	167	956	336	620
Sept. 7	14,726	11,482	605	2,921	7,956	3,244	1,221	870	162	48	141	2,023	1,236	308	9,982	2,914	140	979	333	646
14	14,801	11,563	599	2,966	7,998	3,238	1,225	868	163	53	141	2,013	1,229	310	10,131	2,917	130	908	296	612
21	14,943	11,544	593	2,979	7,972	3,399	1,402	870	166	165	201	1,997	1,189	301	9,833	2,916	549	861	290	571
28	14,957	11,573	577	2,997	7,999	3,384	1,362	878	166	149	169	2,022	1,242	305	9,866	2,925	547	875	280	595
Oct. 5	15,027	11,615	591	3,019	8,005	3,412	1,347	882	163	139	163	2,065	1,216	301	9,926	2,956	532	880	291	589
11-12	15,001	11,602	584	3,034	7,984	3,399	1,336	879	161	138	158	2,063	1,244	310	10,062	2,942	481	900	304	596
19	14,831	11,477	572	3,032	7,873	3,354	1,261	880	156	118	107	2,093	1,255	305	10,248	2,961	140	829	262	567
26	14,729	11,422	565	3,041	7,816	3,307	1,253	886	161	112	94	2,054	1,269	301	10,192	2,966	81	807	264	543
Nov. 2	14,849	11,393	546	3,070	7,782	3,451	1,398	899	166	117	216	2,053	1,248	290	10,180	2,988	258	767	258	509
9	14,810	11,387	539	3,069	7,779	3,423	1,364	899	164	124	177	2,059	1,239	309	10,175	2,983	264	752	262	490
16	14,786	11,354	540	3,059	7,755	3,432	1,358	906	163	121	168	2,074	1,269	303	10,236	3,003	214	702	239	463
23	14,752	11,310	527	3,077	7,706	3,442	1,374	912	162	122	178	2,068	1,268	307	10,191	3,009	163	709	269	440
30	14,765	11,335	522	3,114	7,699	3,430	1,379	911	156	123	189	2,051	1,268	296	10,270	2,998	128	683	276	407
Dec. 7	14,759	11,313	508	3,097	7,708	3,446	1,389	930	161	123	175	2,057	1,242	315	10,208	2,990	115	683	263	420
14	14,786	11,303	509	3,155	7,639	3,483	1,404	941	170	122	171	2,079	1,246	329	10,339	2,980	115	664	263	401
21	14,862	11,289	516	3,165	7,608	3,573	1,484	946	173	125	240	2,089	1,308	341	10,248	2,967	292	743	312	431
28	14,780	11,220	513	3,165	7,542	3,560	1,470	950	171	126	223	2,090	1,267	340	10,174	2,998	257	698	293	405

[1] Including rediscounts with Federal Reserve Banks.

BANK DEBITS TO INDIVIDUAL ACCOUNTS.

Volume of business, as measured by bank debits to individual accounts, in 1921 was about 17 per cent less than in 1920 and 12 per cent less than in 1919. These decreases compare with recessions in the wholesale price level of 37 per cent between 1920 and 1921 and 28 per cent between 1919 and 1921. The smaller declines in the volume of business than in wholesale prices may be due in part to the fact that retail prices have receded from the peak level much less than wholesale prices, since debits to individual accounts result from retail as well as from wholesale transactions. But in part the difference reflects an increase in business activity during the last four months of the year 1921.

The statement below shows the volume of debits for each month of 1919, 1920, and 1921 for all reporting centers, for New York City, and for all other centers. Index numbers based on figures for corresponding periods in 1919 as 100 are also given.

Debits to Individual Accounts as Reported by Banks in 141 of the Country's Leading Clearing House Centers.

SUMMARY BY MONTHS DURING 1919, 1920, AND 1921.

[In thousands of dollars.]

	All reporting centers.				
	1919	1920	1921	Index, corresponding month in 1919=100. 1920	Index, corresponding month in 1919=100. 1921
January	34,438,286	44,727,408	37,560,002	130	109
February	27,884,150	35,281,239	29,357,695	127	105
March	31,724,629	42,835,300	33,486,648	135	106
April	32,269,932	41,056,553	31,812,024	127	99
May	36,554,735	38,694,519	32,109,798	106	88
June	38,675,563	39,777,946	33,172,200	103	86
July	40,489,894	39,298,795	31,088,539	97	77
August	37,458,128	35,783,452	29,719,041	96	79
September	38,089,029	36,861,477	31,226,647	97	82
October	43,880,753	40,207,186	33,852,717	92	77
November	41,968,685	39,165,046	32.997,184	94	79
December	45,916,261	42,399,554	37,541,699	92	82
Total	449,350,045	476,088,475	393,924,194	106	88

Debits to Individual Accounts as Reported by Banks in 141 of the Country's Leading Clearing House Centers—Continued.

SUMMARY BY MONTHS DURING 1919, 1920, AND 1921.

[In thousands of dollars.]

	New York City.				
	1919	1920	1921	Index, corresponding month in 1919=100.	
				1920	1921
January	18,118,628	23,636,058	20,032,528	130	111
February	14,616,795	18,053,546	15,129,775	124	104
March	16,698,459	22,285,024	17,353,179	133	104
April	17,323,393	21,319,573	16,348,754	123	94
May	20,330,058	19,581,047	17,170,760	96	84
June	21,570,135	19,806,128	17,754,821	92	82
July	22,426,574	19,063,103	16,339,685	85	73
August	20,275,651	17,370,880	15,186,093	86	75
September	20,446,280	17,599,597	16,102,523	86	79
October	24,226,386	20,137,084	17,610,321	83	73
November	23,351,121	20,170,642	17,492,224	86	75
December	24,859,994	22,407,837	20,574,899	90	83
Total	244,243,474	241,430,519	207,095,562	99	85

	All other reporting centers.				
	1919	1920	1921	Index, corresponding month in 1919=100.	
				1920	1921
January	16,319,658	21,091,350	17,527,474	129	107
February	13,267,355	17,227,693	14,227,920	130	107
March	15,026,170	20,550,276	16,133,469	137	107
April	14,946,539	19,736,980	15,463,270	132	103
May	16,224,677	19,113,472	14,939,038	118	92
June	17,105,428	19,971,818	15,417,379	117	90
July	18,063,320	20,235,692	14,748,854	112	82
August	17,182,477	18,412,572	14,532,948	107	85
September	17,642,749	19,261,880	15,123,124	109	86
October	19,654,367	20,070,102	16,242,396	102	83
November	18,617,564	19,094,404	15,504,960	103	83
December	21,056,267	19,991,717	16,966,800	95	81
Total	205,106,571	234,757,956	186,827,632	114	91

A comparison of the figures month by month shows that the trend of the volume of business in 1921 was downward until July and began to rise after that month. It appears that this general trend is in accordance with seasonal conditions, as a similar trend is shown in 1919 and 1920. An analysis of the index numbers shows that for the first three months of the year the volume of business was larger than during the corresponding period in 1919, but in 1919 a rapid expansion occurred during the latter part of the year and the 1921 figures are lower than those for 1919 for every month beginning with May, the difference amounting to 23 per cent in July and October, and to 18 per cent in December. As compared with 1920, the past year's figures are smaller for each month, but there is a noticeable narrowing of the difference, reflecting the expanding volume of business toward the end of the year.

The movement in the volume of business from month to month in New York City and outside was closely parallel. Throughout the year 1921 considerably more than one-half of the total volume of bank debits for all reporting centers was shown for New York City. The same was true in 1919, but not in 1920 when the volume of debits was about equally divided between New York City and outside centers. The decline in the volume of business in New York City in 1920 reflected in part the fall in security values, the dullness of the exchange market, and the establishment of a stock exchange clearing house which reduced the number of checks drawn in settlement of stock and bond purchases. The increase shown for debits in New York during the latter part of 1921, on the other hand, is due in part to the greater activity of security markets and to advances in security values.

The Board's statistics of volume of business are based on reports of debits to individual accounts of banks in about 150 leading clearing house centers. These figures are now generally recognized as the best available single measure of changes in the volume of business, reflecting the combined effects of changes in the physical output, in rapidity of turnover, and in price level. Statistics of bank debits for all reporting centers for each month in 1919, 1920 and 1921 are shown in the appendix.

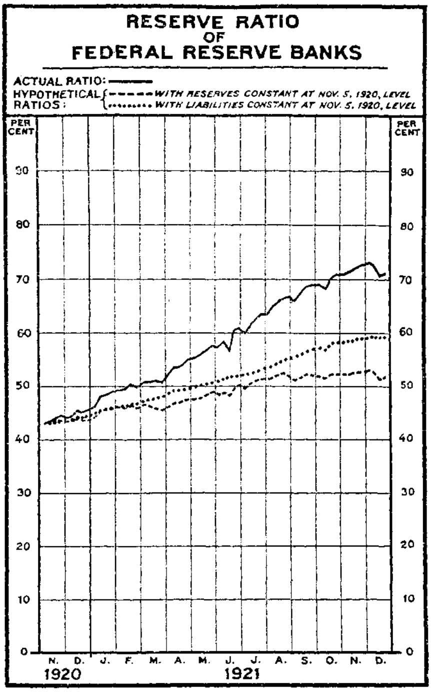
RESERVE RATIO.

There were continuous advances, with but few exceptions, in the reserve ratio of the Federal Reserve Banks during the year 1921. By reference to the first column of percentages in the table on page 29 and to the solid line in the chart on page 28, a clear idea may be obtained of the trend of the ratio for the year. The table gives and the chart relates to figures beginning with November 5, 1920, the date on which the reserve banks' combined liabilities on deposits and notes reached their peak. This date may be regarded as the turning point between the period of post war expansion, extending from the middle of 1919 to November, 1920, and the period of liquidation which began at that time and continued to the end of the year 1921. The few occasions on which the reserve ratio shows a decline during the year can be explained by temporary influences. The most pronounced decline, for instance, is shown on June 15 and it was caused by a large temporary increase in deposits in connection with the redemption of Treasury certificates and the collection of income and excess-profits tax payments.

Reference is made to the fact that the method of computing the reserve ratio was changed beginning with the statement of March 18. Prior to that date "net deposits" were used in calculating the ratio, while beginning with that date "total deposits" were taken. According to the earlier practice, "net deposits" were ascertained by taking the sum of Government deposits, member banks' reserve deposits, other deposits, and deferred availability items and subtracting from the total the asset item, "uncollected items and other deductions from gross deposits," composed chiefly of clearing-house exchanges, transit items, Federal Reserve notes of other Federal Reserve Banks, unassorted currency, and domestic transfers. After the change, total deposits included Government, member bank, and other deposits, without reference to deferred availability or uncollected items. This change in itself would have resulted in a reduction of the reserve ratio by more than 1 per cent, but a reduction in liabilities and an increase in reserves for the week more than offset the effect of the change, so that a slight advance in the reserve ratio was recorded on March 18 and no break in its upward movement is shown at that time.

During the period from November 5, 1920, to December 28, 1921, the reserve ratio advanced by 28 per cent—from 43 to 71 per cent. During the same period the cash reserves increased by $822,471,000, or 38 per cent, while combined note and deposit liabilities declined by $841,082,000, or 17 per cent. According to the Board's calculation, 19 per cent of the gain in the reserve ratio was due to the increase in reserves and 9 per cent to the decline in liabilities.

As stated above, cash reserves increased by $822,471,000 during the period. This increase was a consequence of the addition of $867,-927,000 to the gold reserves, offset in part by a decrease of $45,456,000 in other reserve money, i. e., silver and legal tenders. On the liability side, the important change is in Federal Reserve note circulation, which declined by $910,683,000, or 27 per cent, while aggregate liabilities on deposits changed but little, being $69,601,000 larger at the end than at the beginning of the period. A comparison of the movement in reserves and notes for the period with the changes in bill holdings shows that the increase in gold reserves plus the decrease in note circulation accounts for the greater part of the liquidation of Federal Reserve Bank credit during the period. The increase of gold reserves of the Federal Reserve Banks represents in the main liquidation of bank credit due to the payment by foreign interests of obligations contracted in this country. Most of this gold has found its way into the Federal Reserve Banks. The reduction in note circulation, on the other hand, may be taken as a rough measure of the liquidation of domestic obligations. Since the changes in the two items reflect different phases of banking developments during the year, it is interesting to calculate what the movement in the reserve ratio would have been had the reserves remained at the level of November 5, 1920, that is, had no additional gold come into the Federal Reserve banks, and, on the other hand, what the ratio would have been had liabilities remained at the level of November 5. The resulting percentages are shown in the second and third percentage columns in the table and in the broken and dotted lines, respectively, in the chart. The broken line indicates what the ratio would have been had liabilities followed the course they actually did during the year, with the reserves remaining unchanged at the November 5, 1920, level. In other words, it shows to what extent the gain in the reserve ratio was due entirely to reduction of liabilities. For the entire period the gain in the reserve ratio attributable to the liquidation factor alone was from 43 to 51.6 per cent. The dotted line, on the other hand, shows how the reserve ratio would have moved as a result of additions to reserves alone with liabilities unchanged at the peak level. The figures and curve indicate that in these circumstances the gain in the ratio would have been from 43 to 59.3 per cent.



It appears, therefore, that additions to gold reserves, which, as explained above, represent in the main liquidation of foreign obligations, were a more important factor in the gain in the reserve ratio than was the reduction of liabilities, which reflects mainly the liquidation of credit used in domestic commerce and industry.

RESERVE RATIOS.

[Per cent.]

Date.	As reported.	Hypothetical. With reserves constant at Nov. 5, 1920, level.	Hypothetical. With liabilities constant at Nov. 5, 1920, level.
1920.			
Nov. 5	43.0	43.0	43.0
12	43.6	43.4	43.2
19	44.1	43.9	43.2
26	44.4	43.8	43.5
Dec. 3	44.1	43.6	43.5
10	44.5	43.6	43.8
17	45.5	44.4	44.0
23	45.1	43.8	44.3
30	45.4	43.8	44.5
1921.			
Jan. 7	46.4	44.2	45.1
14	48.1	45.6	45.3
21	48.5	45.7	45.6
28	49.0	45.8	45.9
Feb. 4	49.3	46.0	46.1
11	49.6	46.0	46.4
18	50.3	46.3	46.6
25	49.9	45.9	46.7
Mar. 4	50.8	46.4	47.1
11	50.9	46.1	47.5
18	51.0	45.8	47.8
25	50.8	45.5	48.0
Apr. 1	52.4	46.2	48.7
8	53.5	46.8	49.2
15	53.7	46.9	49.2
22	54.1	47.1	49.4
27	55.0	47.6	49.6
May 4	55.3	47.6	49.9
11	55.9	47.8	50.3
18	56.8	48.4	50.5
25	57.6	48.9	50.7
June 1	57.4	48.5	50.9
8	58.3	48.8	51.3
15	56.8	47.1	51.8
22	60.4	50.0	51.9
29	60.8	50.2	52.0
July 6	60.0	49.5	52.1
13	61.6	50.5	52.4
20	62.5	51.0	52.7
27	63.4	51.3	53.2
Aug. 3	63.7	51.2	53.6
10	65.0	51.9	53.9
17	65.8	52.0	54.4
24	66.5	52.2	54.8
31	66.8	52.0	55.2
Sept. 7	66.2	51.2	55.5
14	67.5	51.7	56.1
21	68.7	52.1	56.7
28	69.0	52.0	57.0
Oct. 5	69.0	51.9	57.1
11	68.5	51.6	57.0
19	70.3	52.2	57.9
26	70.8	52.3	58.2
Nov. 2	71.0	52.3	58.3
9	71.4	52.3	58.6
16	71.8	52.5	58.8
23	72.3	52.7	59.0
30	72.7	52.8	59.2
Dec. 7	73.1	53.0	59.2
14	72.6	52.5	59.4
21	70.7	51.3	59.3
28	71.1	51.6	59.3

CHANGES IN DISCOUNT RATES DURING 1921.

Control over discount rates, as exercised by the Federal Reserve Banks and the Federal Reserve Board, is an important and far-reaching power which must always be used with care and discretion.

The principle is well established that the discount rates of a central bank should be slightly in excess of market rates. This is a time-honored policy, for example, of the Bank of England, and yet there are certain essential differences between the operations of a bank of the type of the Bank of England and those of the Federal Reserve Banks which must be taken into consideration.

The official discount rates of the Bank of England are minimum rates and relate only to bills of exchange. Federal Reserve Bank rates, on the other hand, with the exception of rates established for the purchase of acceptances in the open market, are fixed and uniform, and, since the so-called "progressive" rates have been abrogated, are applicable to all offerings of a member bank within a Federal Reserve district, regardless of the proportion of the member bank's rediscounts to its reserve deposits.

While it is theoretically desirable that Federal Reserve Bank rates should be equal to or slightly in advance of current market rates, it has always been exceedingly difficult to determine just what current market rates are. Even in the largest money centers of the country rates vary greatly according to the character of the transaction. In New York City, for example, there are large dealings in call loans which are usually secured by stock exchange collateral, in bankers' acceptances, commercial paper offered by note brokers, in Treasury certificates, and in the various issues of Government war obligations. In some other money centers throughout the country the same factors enter into the money market, with the exception, perhaps, of call loans, and it is customary everywhere for banks to extend to good customers lines of credit at rates more or less constant, and which are based upon the average deposit balance carried by the customer.

Most of the Federal Reserve districts are made up of several States or parts of States which have varying usury laws, so that the legal and contract rates in all parts of a Federal Reserve district are by no means uniform. During all the post-war period there has never been a time when the discount rate of a Federal Reserve Bank, even the average rate in those districts where the progressive rates were effective, exceeded the current rate, if that rate be measured by rates charged on ordinary bank loans or by the rates for commercial paper in the open market. There were many instances where member banks could legally charge their customers

10 to 12 per cent and could rediscount with the Federal Reserve Bank at from 6 to 7 per cent. It seems, therefore, impracticable to establish a Federal Reserve Bank rate which will preclude the possibility of a member bank rediscounting at a profit and no attempt has ever been made to establish a rate based on this principle.

Data of interest in connection with the present relationship between rates of discount charged by Federal Reserve Banks and by member banks are brought out in the following table which gives the maximum, minimum, and average rates of interest or discount charged customers by member banks on paper rediscounted with each Federal Reserve Bank during December, 1921, together with the rates of discount charged thereon by Federal Reserve Banks:

Federal Reserve district.	Rates charged by member banks (per cent).			Rates charged by Federal Reserve Banks (per cent).	Margin between average rates charged by member banks and rates charged by Federal Reserve Banks.
	Maximum.	Minimum.	Average.		
Boston	10.0	4.50	6.31	4.50	1.81
New York	8.0	4.25	6.00	4.50	1.50
Philadelphia	7.0	5.00	5.97	4.50	1.47
Cleveland	8.0	4.25	6.27	5.00	1.27
Richmond	10.0	4.00	6.60	[1] 5.13	1.47
Atlanta	12.0	5.50	7.34	[2] 5.28	2.06
Chicago	10.0	5.00	6.60	5.00	1.60
St. Louis	10.0	5.25	6.69	5.00	1.69
Minneapolis	12.0	5.50	7.65	5.50	2.15
Kansas City	12.0	5.50	7.87	5.00	2.87
Dallas	10.0	6.00	7.09	5.50	1.59
San Francisco	12.0	4.125	6.37	5.00	1.37
All districts	12.0	4.00	6.27	[3] 4.91	1.36

[1] Average rate. Discount rate was reduced from 5½ to 5 per cent on Dec. 10.
[2] Average rate. Discount rate was reduced from 5½ to 5 per cent on Dec. 19.
[3] Average rate.

The rates shown in the above table are admittedly subject to certain limitations, due to the fact that they do not take into account any paper discounted by nonmember banks or paper discounted by member banks which was not subsequently rediscounted with the Federal Reserve Banks. It is apparent, however, that the figures furnish a fair basis of comparison between rates charged by Federal Reserve Banks and by member banks. Rates charged by member banks to their customers on paper rediscounted with the Federal Reserve Banks during December, 1921, ranged from a minimum of 4 per cent to a maximum of 12 per cent, as will be seen from the following table, which shows the number and amount of customers' bills and notes rediscounted with the Federal Reserve Banks during December, 1921, distributed according to rates of discount or interest charged by member banks:

Rate (per cent).	Number of pieces.	Per cent of total.	Amount.	Per cent of total.
4	1	....	$1,250	....
4⅛	4	....	25,000	....
4¼	13	0.01	185,000	0.01
4⅜	12	.01	300,000	.02
4½	56	.06	767,026	.05
4⅝	13	.01	435,000	.03
5	183	.19	10,490,960	.72
5¼	23	.02	470,000	.03
5½	1,072	1.09	198,124,285	13.52
5⅔	1	....	25,000	....
5¾	423	.43	36,264,500	2.48
6	18,970	19.30	760,528,897	51.89
6¼	697	.71	9,694,902	.66
6½	4,616	4.70	176,814,383	12.06
6¾	135	.14	3,329,500	.23
7	17,362	17.66	145,889,704	9.95
7¼	10	.01	30,260	....
7½	1,243	1.26	17,771,249	1.21
8	31,153	31.70	79,037,682	5.39
8½	107	.11	393,668	.03
9	1,020	1.04	2,365,962	.16
9¼	1	....	4,000	....
9½	3	....	7,860	....
10	20,697	21.06	22,578,891	1.54
11	15	.02	23,478	....
12	458	.47	281,322	.02
Total	98,288	100.00	1,465,839,779	100.00
Member bank rate not given	2,538	....	20,451,776	....
Total customers' paper discounted	100,826	....	1,486,291,555	....

It is noteworthy in this connection that on 19 per cent of the number of pieces and 52 per cent of the amount of paper discounted, member banks charged a rate of 6 per cent; that on nearly 18 per cent of the number of pieces and 10 per cent of the amount they charged a rate of 7 per cent; that on 31 per cent of the number of pieces and 5 per cent of the amount they charged 8 per cent, and on 21 per cent of the number of pieces and less than 2 per cent of the amount member banks charged their customers a rate of 10 per cent. Stating the case in another way, it is seen on the whole that as the average size of bills discounted decreases the rate charged increases; for example, the average size of notes discounted at a rate of 6 per cent was slightly over $40,000, whereas the average size of notes discounted at 10 per cent was slightly over $1,000.

It became necessary during the year 1920 for the Federal Reserve Banks to establish and for the Federal Reserve Board to approve a relatively high scale of discount rates, for it was evident that a continuance of the war-time policy of abnormally low rates would result in disaster to the public, the member banks and the Federal Reserve Banks alike. The law imposes no limit upon the amount that a member bank may rediscount with its Federal Reserve Bank and the maintenance of a 4 per cent Federal Reserve Bank rate in the face of an 8 per cent money market was manifestly impossible.

The beginning of the year 1921 found five of the Federal Reserve Banks with rediscount rates of 7 per cent, and the remaining seven banks with a 6 per cent rate, these rates being applicable to eligible paper of all maturities, issued or drawn for agricultural, industrial, or commercial purposes or based on live stock. A preferential rate prevailed at all the banks on paper secured by obligations of the United States Government. The Federal Reserve Banks of St. Louis, Kansas City, and Dallas were still applying the graduated or progressive discount rates authorized by section 14 of the Federal Reserve Act, as amended by the Act of April 13, 1920. The discount rate on trade acceptances indorsed by member banks was, with two exceptions, the same as that applicable to other forms of commercial paper, the Federal Reserve Banks of Cleveland and Minneapolis maintaining preferential rates of one-fourth and one-half per cent, respectively; while indorsed bankers' acceptances offered by member banks other than the acceptors were being discounted by eight of the Federal Reserve Banks at rates ranging from one-fourth to 1 per cent less than the prevailing rate on commercial paper.

Rates on paper secured by Treasury certificates of indebtedness, which were in all cases lower than those charged on commercial paper, were governed largely by the rate of interest borne by the certificates pledged as collateral.

At the beginning of the year the Federal Reserve Banks of Philadelphia, Atlanta, St. Louis, and Dallas each had a rate of $5\frac{1}{2}$ per cent on paper secured by Liberty bonds and Victory notes, while $5\frac{3}{4}$ per cent was being charged by Cleveland and 6 per cent by the remaining seven banks on paper secured in this way.

Changes during the year have brought about not only a material reduction in the discount rates at all Federal Reserve Banks, but have also resulted in the discontinuance of the differentials formerly applicable to certain classes of paper, so that at the present time one rate obtains at each Federal Reserve Bank for all eligible paper, irrespective of its character or maturity. The most noteworthy changes during the year 1921 were reductions in the rates applicable to commercial, industrial, agricultural, and live-stock paper, the changes in which are shown in the following table.

Federal Reserve Bank.	In effect Jan. 1.	Reductions.									
		February.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Boston	7		6			$5\frac{1}{2}$		5		$4\frac{1}{2}$	
New York	7			$6\frac{1}{2}$	6	$5\frac{1}{2}$		5		$4\frac{1}{2}$	
Philadelphia	6					$5\frac{1}{2}$			5	$4\frac{1}{2}$	
Cleveland	6						$5\frac{1}{2}$			5	
Richmond	6									$5\frac{1}{2}$	5
Atlanta	7			6						$5\frac{1}{2}$	5
Chicago	7			$6\frac{1}{2}$		6				5	
St. Louis	6									5	
Minneapolis	7			$6\frac{1}{2}$					6	$5\frac{1}{2}$	
Kansas City	6									5	
Dallas	6	[1] 7		$6\frac{1}{2}$	6					$5\frac{1}{2}$	
San Francisco	6					$5\frac{1}{2}$				5	

[1] Increase.

Following a thorough discussion of credit conditions in each Federal Reserve district at the conference between the Federal Reserve Board and the chairmen and governors of Federal Reserve Banks held in Washington during the last week in October, the board of directors of each Federal Reserve Bank recommended and the Federal Reserve Board approved a further and general reduction in the discount rates on all classes of paper, which became effective at the several Federal Reserve Banks between November 2 and November 7.

At the end of the year the Federal Reserve Banks of Boston, New York, and Philadelphia had a discount rate of 4½ per cent, the Federal Reserve Banks of Minneapolis and Dallas had discount rates of 5½ per cent, and all the other Federal Reserve Banks—a discount rate of 5 per cent, as compared with rates of 6 to 7 per cent at the beginning of the year.

Discount rates on paper secured by Treasury certificates of indebtedness were raised by some of the banks in the early part of the year. This resulted, in some instances, in putting these rates on the same level as those on paper secured by Liberty bonds and Victory notes, while in other cases the higher rates eliminated partially or entirely the differential between rates on this class of paper and on eligible agricultural, commercial, industrial, and live-stock paper. All differentials in rates between paper secured by Government obligations and agricultural and commercial paper were gradually abolished, however, as successive reductions were made in the basic rates applicable to agricultural and commercial paper.

The graduated or progressive rates, which were discussed in detail in the annual report of the Federal Reserve Board for 1920, are no longer in effect. As stated in that report, four banks, Atlanta, St. Louis, Kansas City, and Dallas, put these rates into effect in April and May, 1920, and one of them, Atlanta, abolished the progressive rate in November of the same year, at the same time establishing a flat 7 per cent rate on commercial, industrial, agricultural, and live-stock paper. Under the rule in effect on January 1, 1921, the borrowings of member banks in excess of their basic lines (determined in the manner explained in the annual report for 1920) at the Federal Reserve Banks of St. Louis, Kansas City, and Dallas, were subject to an increase of one-half of 1 per cent above the normal discount rate for each 25 per cent by which the amount of accommodation extended the member bank exceeded its basic line.

The Federal Reserve Bank of Dallas abolished the graduated discount rates on February 15, 1921, and at the same time established a flat rate of 7 per cent on agricultural and commercial paper, while the other two banks first modified their progressive rate scales and subsequently discontinued them.

In lieu of the rates of progression in effect on January 1, the Federal Reserve Bank of St. Louis on May 21, 1921, established a maximum progressive rate of 7 per cent; i. e., the new plan provided that thereafter borrowings up to the basic line would be charged the normal 6 per cent rate, but that average borrowings in excess of the basic line, which were subject to the progressive rate, would be charged an additional 1 per cent, or 7 per cent, regardless of the amount of excess borrowings. The graduated discount rate plan was discontinued altogether by this bank on June 23.

The Federal Reserve Bank of Kansas City, on January 29, 1921, amended its progressive-rate plan by establishing a maximum rate of 12 per cent; i. e., it provided that in no case would more than 6 per cent in addition to the normal rate of 6 per cent be charged on excess borrowings. In other respects the rate of progression remained unchanged at one-half of 1 per cent for each 25 per cent by which the amount of accommodation extended to the member bank exceeded its basic line. On July 1 the Federal Reserve Bank of Kansas City established a maximum rate chargeable of 8 per cent, and at the same time changed the rate of progression to 1 per cent, so that borrowings up to the basic line were taken at the normal rate of 6 per cent, excess borrowings up to 100 per cent of the basic line were subject to a superrate of 1 per cent, and all additional borrowings to a superrate of 2 per cent. The graduated discount rate plan was abolished entirely by this bank, effective August 1. Both the Federal Reserve Banks of Atlanta and Kansas City rebated all discount charged member banks under the progressive-rate plan at rates in excess of 12 per cent.

A substantial decline in the volume of bankers' acceptances outstanding, together with an increased demand on the part of member and nonmember banks, saving institutions, and industrial corporations for such acceptances for investment purposes, has brought about a material decline in open-market acceptance rates during the year. In consequence the minimum authorized rates on acceptances purchased in the open market by Federal Reserve Banks were lowered during the year to 4 per cent at nearly all the banks.

In the table given below there are shown the average rate charged on rediscounted bills during the years 1920 and 1921 by each Federal Reserve Bank and the average rate at which acceptances were purchased in the open market.

Federal Reserve Bank.	Bills discounted.		Acceptances purchased.	
	1921	1920	1921	1920
Boston	5.88	6.03	5.39	5.98
New York	6.06	5.97	5.40	5.81
Philadelphia	5.44	5.44	5.35	5.89
Cleveland	5.72	5.66	5.81	5.83
Richmond	5.91	5.78	5.93	5.93
Atlanta	6.05	5.97	6.10	5.85
Chicago	6.29	6.32	5.51	5.93
St. Louis	5.90	5.98	5.47	5.68
Minneapolis	6.38	6.40	6.08	5.50
Kansas City	6.14	6.65	6.46	6.27
Dallas	6.01	5.78	6.08	5.97
San Francisco	5.78	5.82	5.49	5.79
All banks	6.01	6.02	5.49	5.85

Discount rates obtaining on January 1, 1921, at the Federal Reserve Banks on the several classes of paper, and the changes made during the year 1921, are shown in the following tables:

COMMERCIAL PAPER MATURING WITHIN 90 DAYS, AND AGRICULTURAL AND LIVE-STOCK PAPER MATURING WITHIN 6 MONTHS.

Federal Reserve Bank.	In effect Jan. 1, 1921.	Changes effective—																				
		Feb. 15.	Apr. 15.	May 5.	May 6.	May 7.	May 10.	May 16.	June 16.	June 25.	July 21.	July 25.	July 30.	Aug. 8.	Sept. 22.	Sept. 23.	Oct. 5.	Nov. 2.	Nov. 3.	Nov. 4.	Nov. 7.	Dec. 10.	Dec. 19.
Boston	7		6								5½					5				4½			
New York	7			6½					6		5½				5				4½				
Philadelphia	6										5½						5		4½				
Cleveland	6													5½							5		
Richmond	6																		5½			5	
Atlanta	7				6													5½					5
Chicago	7					6½							6						5				
St. Louis	6																		5				
Minneapolis	7						6½										6				5½		
Kansas City	6																	5					
Dallas	6	7						6½		6										5½			
San Francisco	6											5½						5					

PAPER SECURED BY UNITED STATES TREASURY NOTES [1] AND CERTIFICATES OF INDEBTEDNESS MATURING WITHIN 90 DAYS.

Federal Reserve Bank.	In effect Jan. 1, 1921.	Changes effective—																							
		Jan. 22.	Jan. 24.	Jan. 31.	Feb. 1.	Feb. 3.	Feb. 5.	Feb. 8.	Feb. 10.	Feb. 15.	Apr. 15.	May 10.	June 16.	July 1.	July 21.	July 25.	Aug. 8.	Sept. 22	Sept. 23.	Oct. 5.	Nov. 2.	Nov. 3.	Nov. 4.	Nov. 7.	Dec. 10.	Dec. 19.
Boston	5½										6				5½				5				4½			
New York	5½						6								5½			5				4½				
Philadelphia	[2] 5–6					[2]5½–6							6		5½					5		4½				
Cleveland	[2] 5½–6								6								5½							5		
Richmond	[2] 5½–6				6																	5½			5	
Atlanta	[2] 5–6							6													5½					5
Chicago	[2] 5½–6			6																		5				
St. Louis	[2] 5–5½	6																				5				
Minneapolis	5½											6												5½		
Kansas City	[2] 5–6													6							5					
Dallas	[2] 5–6									6													5½			
San Francisco	[2] 5½–6		6													5½					5					

[1] First issued as of June 15, 1921.

[2] Discount rate corresponds to interest rate borne by certificates pledged as collateral within limits shown.

Paper Securgd by Liberty Bonds and Victory Notes Maturing Within 90 Days.

Federal Reserve Bank.	In effect Jan. 1, 1921.	Changes effective—															
		Feb. 10.	Feb. 15.	May 6.	May 21.	July 21.	July 25.	Aug. 8.	Sept. 22.	Sept. 23.	Oct. 5.	Nov. 2.	Nov. 3.	Nov. 4.	Nov. 7.	Dec. 10.	Dec. 19.
Boston	6					5½				5				4½			
New York	6					5½			5				4½				
Philadelphia	5½										5		4½				
Cleveland	5¾	6						5½							5		
Richmond	6												5½			5	
Atlanta	5½			6								5½					5
Chicago	6												5				
St. Louis	5½				6								5				
Minneapolis	6														5½		
Kansas City	6											5					
Dallas	5½		6											5½			
San Francisco	6						5½					5					

Trade Acceptances Maturing Within 90 Days.

Federal Reserve Bank.	In effect Jan. 1, 1921.	Changes effective—																					
		Feb. 10.	Feb. 15.	Apr. 15.	May 5.	May 6.	May 7.	May 16.	June 16.	June 25.	July 21.	July 25.	July 30.	Aug. 8.	Sept. 22.	Sept. 23.	Oct. 5.	Nov. 2.	Nov. 3.	Nov. 4.	Nov. 7.	Dec. 10.	Dec. 19.
Boston	7			6							5½					5				4½			
New York	7				6½				6		5½				5				4½				
Philadelphia	6										5½						5		4½				
Cleveland	5¾	6												5½							5		
Richmond	6																		5½			5	
Atlanta	7					6												5½					5
Chicago	7						6½						6						5				
St. Louis	6																		5				
Minneapolis	6½																6				5½		
Kansas City	6																	5					
Dallas	6		7					6½		6										5½			
San Francisco	6											5½						5					

Bankers' Acceptances Discounted for Member Banks Maturing Within Three Months.

Federal Reserve Bank.	In effect Jan. 1, 1921.	Changes effective— Feb. 10.	Feb. 15.	May 16.	June 25.	July 1.	July 21.	July 25.	Aug. 8.	Sept. 22.	Oct. 5.	Nov. 2.	Nov. 3.	Nov. 4.	Nov. 7.	Dec. 10.	Dec. 19.
Boston	(1)																
New York	6						5½			5			4½				
Philadelphia	6						5½				5		4½				
Cleveland	5¾	6							5½						5		
Richmond	6												5½			5	
Atlanta	6											5½					5
Chicago	6												5				
St. Louis	5½												5				
Minneapolis	6														5½		
Kansas City	5½					6						5					
Dallas	5½		7	6½	6									5½			
San Francisco	6							5½				5					

[1] No special rate.

NOTE.—Rates apply only to acceptances offered for rediscount by a bank other than the acceptor, the commercial paper rate being applicable to acceptances rediscounted by the acceptor.

Open Market Rates—Minimum Authorized Rate on Bankers' and Trade Acceptances Bought in Open Market.

Federal Reserve Bank.	In effect Jan. 1, 1921.	Changes effective— Feb. 15.	Sept. 23.	Sept. 26.	Oct. 4.	Oct. 6.	Oct. 7.	Oct. 11.	Oct. 13.	Oct. 26.	Nov. 3.	Dec. 19.
Boston	5						4					
New York	5		4									
Philadelphia	5				4							
Cleveland	5½			5				4½		4		
Richmond	6											[2] 4–5
Atlanta	5										[1] 4½	[2] 4–5
Chicago	5							4				
St. Louis	5					4						
Minneapolis	5											
Kansas City	5											
Dallas	5	6										
San Francisco	5								4			

[1] Applies only to bankers' acceptances indorsed by member banks; minimum rate on other bills is the same as commercial paper rate.
[2] Minimum, 4 per cent; maximum, 5 per cent.

NOTE.—Acceptances purchased from the acceptor are taken at a rate not less than the discount rate on commercial paper.

Graduated Discount Rates.

[Section 14 as amended April 13, 1920.]

January 1, 1921—in effect at—	January 29.	February 15.	May 21.	June 23.	July 1.	August 1.
St. Louis			Flat progressive rate of 7 per cent established, i. e., 1 per cent above normal rate of 6 per cent on the entire amount of average excess borrowings subject to the progressive rate.	Discontinued		
Kansas City	Maximum rate of 12 per cent established, i. e., 6 per cent in addition to normal rate of 6 per cent. Rate of progression unchanged at one-half of 1 per cent for each 25 per cent by which the amount of accommodation extended to the member bank exceeded its basic line.				Maximum rate of 8 per cent established and rate of progression changed so that excess borrowings up to 100 per cent of basic line were subject to a superrate of 1 per cent and additional borrowings to a superrate of 2 per cent.	Discontinued.
Dallas		Discontinued				

NOTE.—On Jan. 1, 1921, borrowings of member banks in excess of basic line, at the Federal Reserve Banks of St. Louis, Kansas City, and Dallas, were subject to a one-half per cent increase above the normal discount rate for each 25 per cent by which the amount of accommodation extended exceeded the basic line.

CHANGES IN RATES OF EARNINGS DURING 1921.

The easing of discount and open market rates during 1921, in consequence of continuous liquidation throughout the year, is reflected in the rates of earnings of Federal Reserve Banks which show a gradual but continuous decline, beginning with the month of February. For the year as a whole the average rate of earnings on all classes of earning assets was 5.61 per cent, compared with 5.50 per cent during 1920. The average rate on discounted bills, from which over 89 per cent of the earnings of the Federal Reserve Banks were derived, showed a slight recession to 6.30 per cent in January, 1921, from 6.42 per cent in December, 1920, the highest average rate of earnings on this class of paper ever reported for the Federal Reserve System as a whole. This was followed by a partial recovery to 6.37 per cent in February in consequence of advances made by some of the Federal Reserve Banks in their discount rates on paper secured by United States Government obligations. From this high point for the year, there was a gradual but steady decline in the rates of earnings on discounted bills, the rate for the month of December being 5.11 per cent.

Earnings on acceptances bought in the open market followed in general the same course, though at a somewhat lower level, the average rate of earnings in December being 4.50 per cent, compared with 6.14 per cent for January. Rates of earnings on United States securities reflect primarily the low rate, 2 per cent, borne by the so-called "Pittman Act certificates" held by the Federal Reserve Banks on deposit with the United States Treasurer as security for Federal Reserve Bank notes outstanding. The volume of these certificates has steadily decreased during the year, because of the Treasury's policy to redeem them as Federal Reserve Bank notes are retired and replaced by silver certificates.

Variations in the rate of earnings on United States securities are due to purchases of temporary 4 per cent certificates of indebtedness issued by the Treasury Department, usually at tax paying periods, and to purchases of Treasury certificates under repurchase agreements.

The average rates of earnings on each class of earning assests by months during 1921 are shown in the following table:

	All classes.	Bills discounted.	Bills bought in open market.	United States securities.	Municipal warrants.
January	5.88	6.30	6.14	2.13	....
February	5.92	6.37	5.99	2.11	....
March	5.90	6.36	6.01	2.24	....
April	5.85	6.32	5.97	2.15	....
May	5.79	6.29	5.98	2.49	....
June	5.67	6.20	5.97	2.40	....
July	5.60	6.09	5.96	2.31	....
August	5.42	5.91	5.36	2.33	....
September	5.35	5.85	5.33	2.49	....
October	5.25	5.69	5.04	2.38	6.00
November	4.99	5.39	4.91	2.68	5.08
December	4.74	5.11	4.50	2.92	5.44
Average for year	5.61	6.07	5.70	2.37	5.27

REDISCOUNTS BETWEEN FEDERAL RESERVE BANKS.

Reserve ratios of Federal Reserve Banks, considered separately, are closely related to the rediscount transactions between Federal Reserve Banks. A Federal Reserve Bank will seek rediscount accommodations from other reserve banks at times when its own reserve is insufficient, without declining to a point below the legal minimum, to supply the credit demands of its member banks. Reserve ratios on the basis of reserves actually owned by a bank are known as "actual" reserve ratios, while reserve ratios on the basis of reserves before interbank borrowing or lending are referred to as "adjusted" ratios. It is the adjusted ratio, therefore, that is an index of the reserve position of a Federal Reserve Bank from the standpoint of its ability to make rediscounts for other reserve banks or its need to apply for accommodation to other reserve banks.

Two tables are presented below, one showing the actual and adjusted reserve ratios of each Federal Reserve Bank at the end of each month during 1920 and 1921 and the other showing for each Federal Reserve Bank the net amount of accommodation received from or extended to other reserve banks. During the year 1920 interdistrict rediscounting assumed large proportions, the amount at the end of October being $260,440,000. During the year 1921 credit requirements throughout the country were less urgent and banks were better able to meet local demands out of their own resources. The maximum amount of Federal Reserve Bank rediscounts at the end of any month subsequent to the high mark of $91,365,000 on January 31 was $68,304,000 at the end of August. Since that time interbank borrowings decreased rapidly and from December 15 to the end of the year no Federal Reserve Bank was rediscounting with others.

The Federal Reserve Banks which have received the largest amount of accommodation from other Federal Reserve Banks during the past two years are those at Richmond, Atlanta, St. Louis, and Dallas, whose districts were affected by the decline in the price of cotton, and the Federal Reserve Banks of Chicago, Minneapolis, and Kansas City, which felt the effect of the decline in the price of grains, wool, and other agricultural products.

The chart in the appendix of the complete report shows the actual and adjusted reserve ratios for each Federal Reserve Bank during the years 1920 and 1921. It is apparent from the chart that the banks in the principal agricultural districts, with the exception at times of Chicago, would not have been able to serve the needs of their communities nearly so well had it not been possible to obtain additional funds from the banks in the North and East which were in a stronger reserve position.

In 1920 the principal lending bank was the Federal Reserve Bank of Cleveland, which extended accommodation to other Federal Reserve Banks up to a maximum amount of $145,000,000, when it was extending indirectly through its loans to other reserve banks more credit to member banks outside of its own district than to its own members. In 1921 the Federal Reserve Bank of Cleveland was called upon to lend to other Federal Reserve Banks in a much more moderate degree. The Federal Reserve Bank of Boston rediscounted for other Federal Reserve Banks almost continually during the two years, and the Federal Reserve Bank of New York at different times appeared in interdistrict transactions, either as borrower or lender. During 1921, however, owing to the constant flow of gold from abroad, and to marked liquidation of advances to its own member banks, the New York Federal Reserve Bank's reserve ratio shows a marked and constant advance, and it has been extending accommodation to other Federal Reserve Banks since April. The Federal Reserve Bank of Philadelphia was borrowing from other Federal Reserve Banks during the early part of the year 1920, but as its reserve position improved the bank became a heavy lender to other Federal Reserve Banks beginning with July. This bank was not called upon during the year 1921 to extend any large amount of accommodation to other Federal Reserve Banks.

As a result of the rediscount transactions between Federal Reserve Banks, the actual reserve ratios of the several banks remained fairly steady throughout the year 1920 at between 40 and 45 per cent. In 1921, chiefly in consequence of the constant influx of gold and the reduction of Federal Reserve note circulation, an upward tendency in reserve ratios was noted at all the banks, the greatest advance being recorded in the case of the Federal Reserve Bank of New York, which had a reserve ratio of 37.9 per cent at the end of January, 1921, of 83.6 per cent at the end of November and 78.8 per cent on December 31.

ACTUAL AND ADJUSTED RESERVE RATIOS OF FEDERAL RESERVE BANKS, 1920–21.[1]

[Percentages are based on end of month figures.[2]]

	System.	Boston.		New York.		Philadelphia.		Cleveland.		Richmond.		Atlanta.	
		Actual.	Adjusted.	Actual.	Adjusted.	Actual.	Adjusted.	Actual.	Adjusted.	Actual.	Adjusted.	Actual.	Adjusted.
1920.													
January	44.5	42.6	42.3	40.3	35.3	40.6	30.4	48.3	55.4	44.6	41.9	48.5	56.0
February	42.5	50.5	47.3	37.6	34.3	40.2	29.0	44.9	48.6	44.0	44.0	44.2	52.2
March	42.7	45.0	50.4	39.1	36.9	40.8	30.5	45.8	54.8	42.0	33.7	48.3	50.0
April	42.4	53.1	58.9	39.9	45.7	40.3	34.3	50.5	61.3	43.2	29.0	41.4	41.4
May	42.7	50.1	55.4	41.8	46.9	40.2	40.2	51.5	61.4	40.2	25.6	40.4	36.2
June	43.6	56.8	61.9	39.2	42.8	45.0	45.0	51.1	63.1	41.7	27.0	40.6	36.4
July	44.2	56.5	68.7	40.4	40.8	44.8	47.7	56.5	70.9	41.9	28.6	40.8	29.3
August	43.2	53.1	69.4	38.5	35.9	48.3	51.6	48.7	74.3	46.6	33.0	40.4	23.5
September	43.6	51.4	66.2	43.7	42.9	48.5	58.2	48.3	78.6	42.5	29.3	40.5	17.0
October	43.1	49.6	70.2	39.1	35.1	51.3	61.2	51.9	80.2	45.5	38.2	40.5	24.2
November	44.4	55.0	61.9	40.8	39.2	49.6	55.4	56.5	79.4	43.2	38.0	40.1	21.2
December	45.4	55.3	59.5	40.0	39.5	54.2	58.7	59.1	75.9	45.4	40.3	40.7	24.8
1921.													
January	49.0	64.4	68.6	37.9	34.2	58.9	60.2	66.7	78.5	48.0	48.0	42.2	33.9
February	50.1	62.4	62.7	40.5	39.0	55.9	57.0	68.9	74.1	48.6	48.6	41.8	41.8
March	52.0	59.6	59.6	55.4	55.3	52.9	52.9	67.5	71.0	41.9	41.9	41.5	41.5
April	54.8	72.0	73.3	55.0	56.2	55.2	55.2	68.2	69.1	42.8	35.0	45.3	45.3
May	58.1	68.9	70.1	61.8	63.8	52.0	52.0	70.8	70.8	43.2	35.0	46.8	46.8
June	60.8	72.4	75.0	71.2	74.1	57.5	57.5	65.5	65.5	45.2	31.0	44.4	44.4
July	63.7	77.4	81.2	73.5	76.4	63.5	63.5	66.5	68.8	42.5	27.6	41.6	40.6
August	66.8	71.4	79.0	75.5	78.1	66.9	66.9	71.4	73.2	40.1	27.7	40.8	35.6
September	68.8	75.9	82.3	81.5	83.6	70.2	70.2	69.0	72.1	44.7	29.7	40.4	31.0
October	70.6	79.5	84.8	81.9	83.3	70.0	70.0	70.0	71.6	46.6	37.4	40.3	32.1
November	72.7	76.3	79.4	83.6	84.0	74.6	74.6	74.8	74.9	43.7	41.1	40.5	35.9
December	70.2	78.0	78.0	78.8	78.8	71.2	71.2	69.0	69.0	42.6	42.6	43.3	43.3

	Chicago.		St. Louis.		Minneapolis.		Kansas City.		Dallas.		San Francisco.	
	Actual.	Adjusted.	Actual.	Adjusted.	Actual.	Adjusted.	Actual.	Adjusted.	Actual.	Adjusted.	Actual.	Adjusted.
1920.												
January	50.3	57.3	48.9	49.8	50.2	50.2	49.6	49.6	50.2	62.6	40.3	41.3
February	44.1	48.5	43.0	43.0	48.4	51.4	47.0	52.2	45.9	64.0	49.5	45.6
March	41.3	42.3	39.3	33.2	48.3	56.1	45.3	46.3	52.8	59.5	49.9	52.0
April	40.2	35.3	40.2	18.5	39.4	30.7	41.6	32.9	40.5	38.1	42.4	40.1
May	39.9	37.5	40.1	13.9	41.0	25.8	40.7	33.1	40.8	30.2	42.2	42.9
June	40.0	36.7	41.9	27.8	41.1	21.2	41.1	33.9	41.4	37.4	52.0	52.1
July	40.7	39.4	42.3	26.3	40.4	29.3	39.7	26.8	40.5	17.9	46.8	52.3
August	43.0	42.0	41.6	24.8	40.0	22.8	40.7	28.3	39.9	10.8	44.8	49.2
September	39.1	35.3	40.2	21.0	39.1	22.2	41.3	18.4	39.8	10.0	40.3	42.5
October	40.3	39.4	40.4	21.6	39.2	18.1	40.3	15.9	39.6	13.5	44.9	45.0
November	40.0	40.0	41.3	34.9	39.5	18.0	40.2	24.4	40.3	18.9	44.9	46.8
December	40.4	40.4	44.5	44.5	39.8	27.7	41.4	25.2	41.8	17.5	49.3	51.1
1921.												
January	50.5	50.5	50.9	50.9	40.6	38.2	41.0	41.0	40.6	23.5	53.8	58.2
February	52.3	52.3	54.9	54.9	43.5	43.5	48.0	48.0	38.8	27.0	51.2	53.3
March	41.7	41.7	52.2	52.2	44.6	44.6	43.3	43.3	39.8	26.5	53.3	53.3
April	49.5	49.5	56.2	56.2	41.8	40.0	43.3	43.3	39.3	30.5	55.0	55.0
May	56.6	56.6	55.8	55.8	41.7	29.8	51.2	51.2	40.8	35.0	54.8	54.8
June	53.5	53.5	50.6	50.6	40.8	28.0	50.7	50.7	38.9	28.7	58.8	58.8
July	60.8	60.8	53.0	53.0	38.1	25.6	53.1	53.1	40.1	15.7	61.1	61.1
August	70.0	70.0	58.6	58.6	39.4	24.5	59.9	59.9	40.1	9.2	64.6	64.6
September	67.8	67.8	58.4	58.4	41.3	39.3	50.8	50.8	41.2	22.4	66.7	66.7
October	71.0	71.0	66.7	66.7	39.7	36.2	50.4	50.4	41.5	30.1	71.6	71.6
November	74.2	74.2	63.5	63.5	47.3	47.3	48.6	48.6	39.3	35.7	79.3	79.3
December	69.9	69.9	64.8	64.8	58.5	58.5	50.5	50.5	43.1	43.1	76.5	76.5

[1] Ratio of cash reserves to note and net deposit liabilities, January, 1920–February, 1921; ratio of cash reserves to note and total deposit liabilities since March, 1921.

[2] For 1920 the figures are for last Friday of each month; for 1921, for last day of each month.

NET AMOUNT OF ACCOMMODATION RECEIVED FROM OR EXTENDED TO OTHER FEDERAL RESERVE BANKS.

[End-of-month holdings in thousands of dollars. Plus sign indicates net accommodation extended; minus sign, net accommodation received.]

Date.	Boston.	New York.	Philadelphia.	Cleveland.	Richmond.	Atlanta.	Chicago.
1920.							
Jan. 30	− 1,021	−75,649	−32,790	+ 27,521	− 5,000	+15,000	+51,918
Feb. 27	−11,923	−55,308	−38,925	+ 15,601		+16,187	+33,410
Mar. 26	+20,414	−34,096	−35,555	+ 38,304	−15,000	+ 3,351	+ 7,605
Apr. 30	+22,126	+92,683	−20,709	+ 48,275	−24,850		−38,471
May 28	+20,366	+82,054		+ 43,761	−25,000	− 8,500	−18,995
June 25	+17,130	+56,567		+ 52,078	−24,904	− 7,960	−24,950
July 30	+48,368	+ 6,474	+10,014	+ 64,756	−23,133	−21,607	−10,001
Aug. 27	+66,911	−40,923	+11,812	+121,060	−25,000	−31,963	− 8,001
Sept. 24	+60,655	−13,404	+35,812	+145,620	−24,620	−45,533	−29,800
Oct. 29	+84,396	−61,362	+37,201	+138,750	−14,275	−36,122	− 7,050
Nov. 26	+27,654	−24,502	+21,758	+112,106	−10,000	−40,216	
Dec. 30	+16,575	− 6,917	+17,109	+ 81,573	−10,000	−33,659	
1921.							
Jan. 31	+15,686	−51,827	+ 4,554	+ 55,062		−17,318	
Feb. 28	+ 1,082	−22,654	+ 3,826	+ 23,326			− 1,000
Mar. 31		− 513		+ 15,222			− 1,000
Apr. 30	+ 4,992	+16,950		+ 4,000	−14,925		
May 31	+ 5,500	+27,020			−15,000		
June 30	+ 9,405	+38,024			−24,849		
July 30	+13,896	+37,530		+ 8,986	−25,000	− 1,850	
Aug. 31	+26,716	+34,768		+ 6,820	−20,000	− 8,925	
Sept. 30	+21,853	+26,933		+ 11,422	−24,853	−16,881	
Oct. 31	+17,958	+18,328		+ 5,664	−14,900	−14,195	
Nov. 30	+10,246	+ 4,324		+ 242	− 4,324	− 7,488	
Dec. 31							

Date.	St. Louis.	Minneapolis.	Kansas City.	Dallas.	San Francisco.	Total.
1920.						
Jan. 30	+ 1,663			+14,950	+ 3,408	114,460
Feb. 27		+ 4,000	+10,050	+23,500	+ 3,408	105,156
Mar. 26	−11,829	+10,029	+ 1,871	+ 7,825	+ 7,081	96,480
Apr. 30	−41,385	−11,111	−15,871	− 3,000	− 7,687	163,084
May 28	−50,060	−19,132	−13,865	−13,000	+ 2,371	148,552
June 25	−26,723	−23,672	−12,958	− 5,000	+ 392	126,167
July 30	−30,607	−13,738	−22,902	−26,716	+19,092	148,704
Aug. 27	−32,434	−20,347	−22,247	−34,540	+15,672	215,455
Sept. 24	−36,996	−21,349	−41,175	−37,419	+ 8,209	250,296
Oct. 29	−37,305	−26,603	−44,895	−32,828	+ 93	260,440
Nov. 26	−12,793	−25,860	−28,464	−26,600	+ 6,917	168,435
Dec. 30		−14,801	−29,086	−27,711	+ 6,917	122,174
1921.						
Jan. 31		− 2,775		−19,445	+16,063	91,365
Feb. 28	+ 1,000			−12,898	+ 7,318	36,552
Mar. 31	+ 1,000			−14,700	− 9	16,222
Apr. 30		− 2,000		− 8,992	− 25	25,942
May 31		−12,020		− 5,500		32,520
June 30		−13,175		− 9,405		47,429
July 30		−12,530		−21,032		60,412
Aug. 31		−14,768		−24,610		68,304
Sept. 30		− 2,080		−16,394		60,208
Oct. 31		− 3,428		− 9,427		41,950
Nov. 30				− 3,000		14,812
Dec. 31						

EARNINGS AND OPERATING EXPENSES OF THE FEDERAL RESERVE BANKS.

In its annual report for the year 1920 the Federal Reserve Board expressed the opinion that, in view of the decline in prices from the high level reached in 1919 and the recession of business, it might be expected that credit requirements, both for the purpose of maintaining reserve balances and for obtaining Federal Reserve notes for circulation, would be lighter. During 1921 there was a material reduction both in the loans and deposits of member banks, especially in financial and manufacturing centers, and this has been reflected in a decrease in the amount of reserves required to be carried with the Federal Reserve Banks and, consequently, in the amount of member bank borrowings.

Much the greater part of the decrease in member bank borrowings, however, which shows a gradual but continuous decline from $2,687,000,000 at the end of 1920 to about $1,144,000,000 at the end of 1921, was due to the reduction of over $900,000,000 in the volume of Federal Reserve notes in circulation, caused by lower price levels and by net imports of $667,000,000 of gold, practically all of which found its way into the Federal Reserve Banks. This decline in the volume of rediscounts which Federal Reserve Banks have been called upon to make for member banks, together with the successive reductions in discount rates, has resulted in a decrease in gross earnings from $181,297,000 in 1920 to $122,865,000 in 1921. The greater part of the decrease was due to smaller earnings during the last half of the year, when gross earnings aggregated $46,182,000, as compared with $76,683,000 for the first half of 1921 and $99,520,000 for the last six months of 1920. Slightly over 89 per cent of the gross earnings for 1921, as against 82 per cent for 1920, came from paper discounted for member banks. The daily average of discounted paper held aggregated $1,804,000,000 in 1921, as compared with $2,530,000,000 in 1920.

The Board desires again to call attention to the fact that the discount policies of the Federal Reserve Banks are directed with a view to accommodating the commercial, industrial, agricultural, and livestock interests of the country in the manner and to the extent permitted by the Federal Reserve Act and not for the purpose of increasing the profits of the Federal Reserve Banks or the amount of franchise taxes payable to the Government. In accordance with the provisions of section 7 of the Federal Reserve Act, after dividends at the rate of 6 per cent per annum are paid to the member banks on the Federal Reserve Bank stock held by them, and after the surplus has been brought up to 100 per cent of the subscribed capital of each Federal Reserve Bank, 90 per cent of the net earnings remaining are paid to the United States as a franchise tax, the Federal Reserve Bank being allowed by law to retain the remaining 10 per cent as a further addition to its surplus.

Although the discounts for member banks during 1921 have been much smaller in amount than in 1920, the number of bills and notes discounted increased by about 200,000, or from approximately 1,000,000 pieces in 1920 to about 1,250,000 in 1921. The number of checks and drafts which passed through the transit departments of the Federal Reserve Banks during the year 1921 has also shown a material increase, notwithstanding a marked decline in the aggregate amount in dollars. This increased volume of business, together with the further broadening of services extended to member banks and the assumption on July 1 of fiscal agency expenses, which hitherto had been reimbursed by the Treasury, has resulted in a comparatively small increase in operating expenses. In order to care properly for the increased volume of transactions, as above indicated, some of the Federal Reserve Banks have found it necessary to increase slightly the number of their officers and employees as may be seen from the following table:

OFFICERS AND EMPLOYEES.

Federal Reserve Bank.	Number Dec. 31—		Average salary as of Dec. 31, exclusive of bonus.	
	1921	1920	1921	1920
Boston	734	776	$1,564	$1,405
New York	2,907	2,936	1,628	1,580
Philadelphia	897	842	1,431	1,375
Cleveland	977	969	1,583	1,492
Richmond	745	667	1,390	1,346
Atlanta	482	446	1,519	1,445
Chicago	1,728	1,731	1,558	1,414
St. Louis	762	851	1,484	1,339
Minneapolis	467	459	1,479	1,392
Kansas City	894	863	1,612	1,309
Dallas	637	613	1,573	1,414
San Francisco	1,267	1,132	1,673	1,482
Total	12,497	12,285	1,565	1,447

In consequence of the partial or total discontinuance of bonus payments by the Federal Reserve Banks, it has been necessary in some cases to make slight advances in the basic salaries paid to employees and to junior officers. If bonus payments which during 1920 generally ranged from 10 per cent for junior officers and senior employees to 20 per cent for junior employees are considered in connection with the salaries given above, it will be found that the salary adjustments have not resulted in an increase in the average compensation paid to officers and employees.

The following table taken from the Board's reply of October 31, 1921 (S. Doc. No. 75), to Senate resolution 153 shows that the average annual salary paid to officers of the Federal Reserve Banks, as of October, 1921, was $7,743, as compared with an average annual salary of $13,092 paid by the larger member banks in Federal Reserve Bank cities.

AVERAGE ANNUAL SALARIES PAID TO OFFICERS OF EACH FEDERAL RESERVE BANK AND BY THREE OF THE LARGER MEMBER BANKS IN EACH FEDERAL RESERVE BANK CITY AS OF OCTOBER, 1921.

[Bonus excluded.]

Federal Reserve district.	Federal Reserve Bank.	Member banks.	Federal Reserve district.	Federal Reserve Bank.	Member banks.
Boston	$9,679	$14,745	St. Louis	$7,078	$11,675
New York	12,745	[1] 17,331	Minneapolis	6,478	10,621
Philadelphia	10,125	15,733	Kansas City	6,147	10,313
Cleveland	7,792	10,061	Dallas	5,512	8,767
Richmond	6,696	6,473	San Francisco	6,459	11,409
Atlanta	5,677	7,828			
Chicago	7,946	15,440	System	7,743	13,092

[1] Six national banks.

It will be noted from the above table that the average annual salary ($13,092) paid by the larger member banks in Federal Reserve Bank cities was 69 per cent in excess of the average annual salary paid by all Federal Reserve Banks.

The Board has already given the Senate full and detailed information in the Senate document above referred to regarding the salaries paid officers and employees by the Federal Reserve Banks and regarding their investments in banking houses and equipment, and in order that this information may be preserved and more generally disseminated the letter and exhibits which were sent to the Senate are reprinted on pages 359–491 of this report.

The Federal Reserve Bank of Dallas is now the only one whose net earnings have not yet been sufficient to enable it to accumulate a surplus equal to its subscribed capital, as authorized by the act of March 3, 1919, amending section 7 of the Federal Reserve Act. All other Federal Reserve Banks have accumulated surplus funds in excess of their subscribed capital, the Federal Reserve Bank of New York in 1919, the Federal Reserve Banks of Boston, Philadelphia, Richmond, Atlanta, Chicago, Minneapolis, Kansas City, and San Francisco in 1920, and the Federal Reserve Banks of Cleveland and St. Louis in 1921. In the table below are shown the 100 per cent or normal surplus and the additional surplus, called for convenience the "super-surplus," which is created by carrying to surplus account 10 per cent of net earnings after the normal surplus is equal to 100 per cent of the subscribed capital, also the ratio of total surplus to subscribed capital stock of each Federal Reserve Bank on January 1, 1922.

[Amounts in thousands of dollars.]

Federal Reserve Bank.	Surplus Jan. 1, 1922.			Subscribed capital, Jan. 1, 1922.	Ratio of surplus to subscribed capital, Jan. 1, 1922 (per cent).
	Normal surplus.	Super-surplus.	Total.		
Boston	15,871	612	16,483	15,871	103.9
New York	54,228	5,969	60,197	54,228	111.0
Philadelphia	17,473	472	17,945	17,473	102.7
Cleveland	22,268	366	22,634	22,268	101.6
Richmond	10,857	173	11,030	10,857	101.6
Atlanta	8,379	735	9,114	8,379	108.8
Chicago	28,614	411	29,025	28,614	101.4
St. Louis	9,206	182	9,388	9,206	102.0
Minneapolis	7,138	330	7,468	7,138	104.6
Kansas City	9,141	505	9,646	9,141	105.5
Dallas	7,394	....	7,394	8,406	88.0
San Francisco	14,749	450	15,199	14,749	103.1
Total	205,318	10,205	215,523	206,330	104.5

The question having arisen as to the amount that a Federal Reserve Bank might properly charge off each year for depreciation on the bank buildings owned by it, the Board has ruled that Federal Reserve Banks may charge against current net earnings each year an amount not in excess of 2 per cent of the cost of their buildings, exclusive of land. Should a Federal Reserve Bank desire to charge off an additional amount or to provide a reserve for depreciation on its building, the charge must be made against supersurplus and not against current net earnings. Thus the amount of franchise taxes payable to the United States is not affected by writing down immediately the book value of banking houses to an amount which represents normal or prewar costs of construction.

Out of their net earnings during 1921, after the payment of dividends, the Federal Reserve Banks transferred $9,329,000 to their normal surplus accounts, $6,664,000 to their supersurplus accounts, and paid $59,974,000 to the United States Treasury as a franchise tax.

The table below shows the gross and net earnings of each Federal Reserve Bank for the year 1921, the amount of dividends paid, the amount transferred to surplus account and the amount paid to the United States as a franchise tax.

[Amounts in thousands of dollars.]

Federal Reserve Bank.	Gross earnings.	Current net earnings.	Net debits to current net earnings.	Net earnings available for dividends, surplus, and franchise tax.	Dividend payments.	Transferred to surplus account.	Franchise tax paid to United States Government.
Boston	6,969	4,730	448	4,281	473	772	3,036
New York	34,705	26,537	443	26,094	1,609	3,783	20,702
Philadelphia	8,008	5,241	[1] 98	5,339	518	935	3,886
Cleveland	9,391	6,434	150	6,284	660	2,329	3,295
Richmond	6,730	4,603	209	4,394	322	694	3,378
Atlanta	7,407	5,826	330	5,496	246	770	4,480
Chicago	20,382	15,530	1,025	14,505	854	2,075	11,576
St. Louis	5,166	3,205	253	2,952	270	1,043	1,639
Minneapolis	4,966	3,640	489	3,151	212	488	2,451
Kansas City	5,713	3,302	246	3,056	268	487	2,301
Dallas	4,244	2,383	769	1,614	252	1,362	....
San Francisco	9,184	5,367	447	4,921	436	1,255	3,230
Total	122,865	86,798	4,711	82,087	6,120	15,993	59,974

[1] Credit.

The following table shows the total payments of franchise taxes to the United States by each Federal Reserve Bank up to the present time:

FRANCHISE TAXES PAID TO THE UNITED STATES GOVERNMENT.

Federal Reserve Bank.	1917	1919	1920	1921	Total.
Boston	$75,100	....	$2,473,499	$3,035,920	$5,584,519
New York	649,363	$2,703,894	39,318,511	20,702,440	63,374,208
Philadelphia	....	....	363,662	3,886,552	4,250,214
Cleveland	....	....	....	3,294,713	3,294,713
Richmond	116,472	....	204,585	3,377,632	3,698,689
Atlanta	40,000	....	2,136,288	4,480,251	6,656,539
Chicago	215,799	....	10,394,480	11,576,009	22,186,288
St. Louis	....	....	....	1,639,109	1,639,109
Minneapolis	37,500	....	524,234	2,450,967	3,012,701
Kansas City	....	....	2,240,228	2,300,558	4,540,786
Dallas	....	....	....	....	....
San Francisco	....	....	3,069,255	3,230,315	6,299,570
Total	1,134,234	2,703,894	60,724,742	59,974,466	124,537,336

RESERVES FOR SELF-INSURANCE AND UNDETERMINED LOSSES.

The Federal Reserve Banks have been authorized to set up reserves during 1921 for self-insurance, and to cover undetermined and possible losses arising from their dealings with banks which have failed or suspended, as follows:

Federal Reserve Bank.	Reserved for self-insurance.	Reserved for possible losses.
Boston	....	....
New York	$250,000	....
Philadelphia	....	....
Cleveland	100,000	$100,000
Richmond	50,000	100,000
Atlanta	....	250,000
Chicago	....	500,000
St. Louis	....	150,000
Minneapolis	....	500,000
Kansas City	....	200,000
Dallas	....	561,500
San Francisco	....	500,000
Total	400,000	2,861,500

BUILDING OPERATIONS.

BUILDINGS OF FEDERAL RESERVE BANKS AND BRANCHES.

There is given below a tabular statement showing the total cost to December 31, 1921, of bank premises at each Federal Reserve Bank and branch, and in all cases where it is possible to make an estimate the estimated cost (including land and vaults but excluding furniture, fixtures, and equipment) of buildings when completed.

COST OF BANK PREMISES OF FEDERAL RESERVE BANKS AND BRANCHES TO DEC. 31, 1921.

Federal Reserve Bank or branch.	Original investment.	Cost of remodeling bank buildings.	Cost to Dec. 31, 1921, of buildings in course of construction or completed.	Total cost exclusive of furniture and fixtures to Dec. 31, 1921.	Estimated cost of building when completed (including land and vaults but excluding furniture and fixtures).
Boston	[1] $1,296,380		$3,643,117	$4,939,497	$5,200,000
New York:					
Banking house	4,797,882		1,703,074	6,500,956	19,976,368
Annex building	681,531		1,454,916	2,136,447	2,136,447
Buffalo					
Philadelphia	600,000	$1,409,441		2,009,441	2,009,441
Cleveland	910,491		2,104,000	3,014,491	7,538,000
Cincinnati	380,744			380,744	(2)
Pittsburgh	515,000	448,417		963,417	963,417
Richmond	208,729		2,408,905	2,617,634	2,645,783
Baltimore	451,193			451,193	(2)
Atlanta	283,000		627,866	910,866	1,748,974
Birmingham					
Jacksonville	45,827			45,827	(2)
Nashville	85,000		4,000	89,000	258,000
New Orleans	[1] 201,250		6,710	207,960	(2)
Chicago	2,936,149		4,072,888	7,009,037	10,186,000
Detroit	650,000			650,000	
St. Louis	1,051,140		30,253	1,081,393	(2)
Little Rock	85,008			85,008	(2)
Louisville	175,275	560		175,835	(2)
Memphis					
Minneapolis	600,000		169,070	769,070	(2)
Helena	15,000		162,399	177,399	177,399
Kansas City	500,000		3,635,378	4,135,378	4,875,000
Denver	100,948			100,948	(2)
Oklahoma City	65,235			65,235	(2)
Omaha	165,000	40,350		205,350	205,350
Dallas	294,902	39,246	1,485,253	1,819,401	1,819,401
El Paso	39,004		107,796	146,800	146,800
Houston	65,843		220,688	286,531	412,311
San Francisco	405,705	232,895	603,707	1,242,307	4,165,705
Los Angeles					
Portland					
Salt Lake City	[1] 114,075			114,075	(2)
Seattle					
Spokane					
Total	17,720,311	2,170,909	22,440,020	42,331,240	

[1] Net cost.
[2] Contracts have not been let nor have plans been approved.

The status of building operations at each Federal Reserve Bank and branch is shown in the following table:

New or remodeled building is owned and occupied.	Rented quarters are occupied.			
	New building is under construction.		Building or building site purchased but remodeling or new construction not begun.	No property has been purchased.
	Less than 50 per cent complete.	More than 50 per cent complete.		
New York (annex building only).	New York.	Boston.	Cincinnati.	Buffalo.
Philadelphia.[1]	Cleveland.	Chicago.	Jacksonville.	Birmingham.
Pittsburgh.	Minneapolis.[2]	Houston.	Nashville.	Memphis.
Richmond.[3]	Atlanta.[5]		New Orleans.	Los Angeles.
Baltimore.[4]	San Francisco.[7]		Detroit.	Portland.
Atlanta.[5]			St. Louis.	Seattle.
Louisville.			Little Rock.	Spokane.
Helena.			Denver.	
Kansas City.[3]			Oklahoma City.	
Omaha.[6]			Salt Lake City.	
Dallas.				
El Paso.				
San Francisco.[7]				

[1] In addition, storage space is rented at $1,500 per year.
[2] Foundation work has been completed but final plans for building have not yet been approved and no contracts have been let for superstructure.
[3] New construction nearing completion.
[4] No remodeling done. A new site has been purchased, and it is proposed to sell the building now occupied.
[5] New building completed in 1918, but annex is now under construction.
[6] Further remodeling and vault construction contemplated.
[7] Part of the property purchased was remodeled and is now occupied, but additional quarters are rented pending completion of construction.

Detailed information regarding property purchased by each Federal Reserve Bank for the head office and for branches is given below. Owing to declining costs of building operations the actual investments will probably be considerably less than the estimated amounts.

BOSTON.

July, 1918: Purchased property at Pearl and Milk Streets, covering 14,333 square feet, for $1,000,000. Property sold in November, 1919, for $1,150,000.

August, 1919: Purchased property bounded by Pearl, Franklin, and Oliver Streets, covering 40,330 square feet (on which stood old buildings razed in 1920), for $1,411,500. The net cost of property to the bank, after paying preliminary expenses connected with purchase and deducting profits on property at Pearl and Milk Streets, was $1,296,379.78.

Total cost to December 31, 1921, of new building in course of construction, $3,643,117; estimated cost upon completion, including cost of land, $5,200,000; estimated cost of additional furniture and fixtures, $100,000.

NEW YORK.

June, 1918: Purchased property for banking house site at corner of Liberty, Nassau, and Maiden Lane.

February, June, 1919: Purchased adjoining properties running through from Liberty Street to Maiden Lane. Total cost of property purchased in 1918 and 1919, which covers 45,950 square feet, was $4,797,881.72.

Total cost to December 31, 1921, of new building in course of construction, $1,703,074; estimated cost upon completion, including cost of land, $19,976,368. Building will not be completed for about two years, and there is no basis at present on which to estimate the cost of furniture and fixtures.

April, July, 1920: Purchased, for annex building site, properties at corner of Gold Street and Maiden Lane and at 10 Gold Street and at 89 Maiden Lane at a total cost of $681,531.17; total cost, including land, $2,136,447; cost of furniture and fixtures, $66,730.78. The annex building is commercial in type and was constructed with a view to its sale if not needed upon completion of the main building.

BUFFALO BRANCH.

No purchase has been made of bank premises for the use of the Buffalo branch, which occupies leased quarters.

PHILADELPHIA.

December, 1917: Purchased Horner Building on Chestnut Street, covering 19,205 square feet, which is now occupied as banking house, for $600,000.

Cost of remodeling building and construction of vault, $1,409,441; cost of furniture and fixtures, $413,033.82.

CLEVELAND.

February, 1919: Purchased Masonic Temple property at Superior and Rockwell Streets, consisting of one five-story and two four-story buildings and covering 29,763 square feet, for $910,491, including preliminary expenses connected with purchase. In July, 1920, bank contracted for purchase of adjoining property, covering 13,000 square feet, for $375,000.

Total cost to December 31, 1921, of new building in course of construction, $2,104,000; estimated cost upon completion, including cost of land, $7,538,000; estimated cost of additional furniture and fixtures, $150,000.

CINCINNATI BRANCH.

October, 1920: Purchased property at Fourth and Race Streets, covering 13,172 square feet, for $380,744, including preliminary expenses connected with purchase. Building operations not begun.

PITTSBURGH BRANCH.

February, 1920. Purchased property at Ninth Street and Liberty Avenue, covering 4,144 square feet, for $515,000, on which is a 10-

story building now occupied by the branch as a banking house. Total cost of remodeling, $448,417.36. Cost of furniture and fixtures, $76,053.86.

RICHMOND.

July, 1916: Purchased property at Ninth and Franklin Streets, covering 11,444 square feet, for $128,435, including preliminary expenses connected with purchase.

May, 1919: Purchased Virginia Hotel property at Eighth and Franklin Streets, covering 4,455 square feet, and separated from above property by a 20-foot alley, for $80,293.90.

Total cost of building in course of construction to December 31, 1921, $2,408,905. Estimated cost of building when completed, including cost of land, $2,645,783. Cost of additional furniture and fixtures, $153,776.

BALTIMORE BRANCH.

Fall of 1917: Purchased the National Mechanics Bank Building, covering 4,840 square feet, for $200,000, which has been occupied since the opening of the branch in 1918 as a banking house. Cost of furniture and equipment since establishment of branch, $94,606.31.

June, 1920: Purchased property, covering 12,500 square feet, at corner of Calvert and Lexington Streets, for $251,192.90. This consists of three pieces of property rented to various tenants, possession to be had at end of 1921, except from one tenant whose lease runs to October, 1924.

Branch expects to sell the National Mechanics Bank Building after building proposed banking house on the Calvert Street property.

ATLANTA.

October, 1916: Purchased the First Presbyterian Church property, covering 18,180 square feet, on Marietta Street, for $102,500. The old church building on back of lot was utilized in new bank building, which was constructed at a cost of $417,400, including $14,630 for furniture and fixtures.

January, 1921: Purchased the adjoining ground, covering 18,000 square feet, for $180,500. Cost to December 31, 1921, of addition to building in course of construction was $225,094.92; estimated cost upon completion, including cost of land, $1,243,704; estimated cost of additional furniture and fixtures, $10,000.

BIRMINGHAM BRANCH.

No purchase has been made of bank premises for the use of the Birmingham branch, which occupies leased quarters.

JACKSONVILLE BRANCH.

October, 1921: Purchased property covering 4,770 square feet at corner of Hogan and Church Streets for $45,826.96, including preliminary expenses connected with purchase. Building operations not begun.

NASHVILLE BRANCH.

July, 1921: Purchased two-story building and lot on Third Avenue, covering 5,267 square feet, for $85,000, possession to be had in January, 1922. It is intended to remodel present building for branch banking house, at an estimated total cost, including cost of land and present buildings, of $258,000. Estimated cost of furniture and fixtures, $4,000.

NEW ORLEANS BRANCH.

July, 1919: Purchased the Commercial National Bank Building, on lot covering 8,475 square feet, for $238,750, including preliminary expenses connected with purchase. Actual net cost of site after sale of building to be dismantled and removed, $201,250. Preliminary expenses in connection with new building, $6,710. Plans for building have not been completed; no bids have been called for and no contracts have been let. Therefore, no estimate of total cost can be given.

CHICAGO.

December, 1918: Purchased the Shedd property, covering 26,400 square feet, bounded by La Salle, Jackson, and Quincy Streets, for $2,936,149.26.

Total cost to December 31, 1921, of new building in course of construction, including cost of wrecking old buildings, $4,072,888. Estimated cost upon completion, including cost of land, $10,186,000; estimated cost of additional furniture and fixtures, $250,000.

DETROIT BRANCH.

December, 1921: Purchased lot covering 13,000 square feet at corner of Fort and Shelby Streets for $850,000, and pursuant to previous agreement immediately sold to a bank owning the adjoining property one-fourth, or 3,250 square feet, for $200,000, retaining 9,750 square feet on the corner at a cost of $650,000. Plans for building have not been approved and no contracts have been let.

ST. LOUIS.

January, 1919: Purchased property occupied by the St. Louis Union Trust Co., corner Locust and Fourth Streets, and three adjoining properties on Fourth Street, covering 20,367 square feet, for $540,461.50.

January, 1920: Purchased adjoining property, covering 8,274 square feet, on Locust Street, running north from alley to Broadway, for $510,678.50; purpose being to build on this site an addition to the banking house on the above property or to sell this second property if found that a larger building is not required. Cost to December 31, 1921, of dismantling improvements on property, $29,600. Old elevator parts were sold for $225. Plans for building have not been approved and no contracts have been let.

LITTLE ROCK BRANCH.

January, 1921: Purchased vacant lot, covering 8,000 square feet, at corner of Third and Louisiana Streets, for $85,007.50. Plans for building have not been approved and no contracts have been let.

LOUISVILLE BRANCH.

May, 1919: Purchased National Bank of Commerce Building, Fifth and Market Streets (5,550 square feet), for $150,275, which is now occupied by branch as banking house. Cost of furniture and fixtures, $45,315.

August,1920: Purchased adjoining vacant lot, covering 2,340 square feet, for $25,000, for purpose of building addition to above banking house. Building operations not begun.

November, 1921: Federal Reserve Board authorized bank to purchase adjoining lot covering 3,135 square feet at a cost of $27,500.

MEMPHIS BRANCH.

No purchase has been made of bank premises for the use of the Memphis branch, which occupies leased quarters.

MINNEAPOLIS.

November, 1919: Purchased property, covering 25,575 square feet, at corner of Marquette Avenue and Fifth Street, for $600,000. Total cost to December 31, 1921, of new building in course of construction, $169,070. Foundation work has been completed but final plans for building have not yet been approved and no contracts have been let for superstructure.

HELENA BRANCH.

January, 1920: Purchased property of Independent Telephone Co., covering 2,475 square feet, including modern, fireproof one-story building, for $15,000. Cost of remodeling building and constructing vault, $162,399. Cost of furniture and fixtures, $36,000. This building has been occupied since the opening of the branch in February, 1921.

KANSAS CITY.

July, 1918: Purchased property, covering 16,675 square feet, at corner of Tenth Street and Grand Avenue, for $500,000. Cost to December 31, 1921, of banking house in course of construction, $3,635,378; estimated cost of completed building, including cost of land, $4,875,000; estimated cost of fixtures and additional furniture,

$235,000. Although not entirely completed, the above building is now occupied by the Federal Reserve Bank.

DENVER BRANCH.

October, 1921: Purchased property, covering 25,785 square feet, at corner of Eighteenth and Curtiss Streets, for $100,948, including preliminary expenses. Plans for building have not been completed, no bids have been called for, and no contracts let.

OKLAHOMA CITY BRANCH.

August, 1921: Purchased property, covering 10,500 square feet, at corner of Third and Harvey Streets, for $65,235, including preliminary expenses.

Building plans have not yet been approved, no bids have been called for, and no contracts let.

OMAHA BRANCH.

May, 1920: Purchased the Farnum Building, a five-story and basement stone and brick building, covering 8,712 square feet, then leased by branch as banking quarters, for $165,000. Cost of remodeling to December 31, 1921, $40,350. Cost of furniture and fixtures, $55,000.

DALLAS.

August, 1915: Purchased for $112,500 five-story and basement fireproof building at Commerce and Martin Streets, covering 2,500 square feet, which had been leased by the bank since April, 1915. Cost of remodeling building, $39,246.

November, 1918: Purchased property at corner of Wood and Akard Streets, covering 29,233 square feet, for $145,783.39. In the fall of 1920 the Thomas property, adjoining the above, on Wood Street and covering 4,500 square feet, was purchased for $36,619.40.

Cost of completed bank premises, including land and cost of remodeling original buildings, $1,819,401; estimated cost of additional furniture and fixtures $107,389.

Bank proposes to sell old building at Commerce and Martin Streets.

EL PASO BRANCH.

July, 1919: Purchased lot, covering 6,000 square feet, on Myrtle Avenue, for $39,003.50, on which a two-story building, costing $107,796.03 was erected as a permanent banking house and occupied by branch in August, 1920. Cost of fixtures and additional furniture, $9,224.41.

HOUSTON BRANCH.

October, 1920: Purchased site covering 10,000 square feet at Fannin Street and Prairie Avenue for $65,842.74. Cost to December

31, 1921, of building in course of construction, $220,688; estimated cost of additional furniture and fixtures, $5,000.

SAN FRANCISCO.

Summer of 1917: Purchased end of block bounded by Commercial, Sansome, and Sacramento Streets, and in spring of 1918 purchased remainder of block to Battery Street. Total property purchased covers 32,863 square feet and cost $405,705.37. Remodeled and occupied part of property as banking house at cost of $232,895. Cost to December 31, 1921, of new building in course of construction, $603,707. Estimated cost of building completed, including cost of land, $4,165,705.

Cost of additional furniture and fixtures has not yet been estimated.

LOS ANGELES BRANCH.

No bank premises have been purchased for the use of the Los Angeles branch, which occupies leased quarters.

PORTLAND BRANCH.

No bank premises have been purchased for the use of the Portland branch, which occupies leased quarters.

SALT LAKE CITY BRANCH.

January, 1921: Purchased for $115,080.36 property covering 27,225 square feet at corner of South Temple and State Streets. Nothing has been done toward preparation of building plans and no estimate of cost, therefore, can be given.

SEATTLE BRANCH.

No bank premises have been purchased for the use of the Seattle branch, which occupies leased quarters.

SPOKANE BRANCH.

No bank premises have been purchased for the use of the Spokane branch, which occupies leased quarters.

GOLD SETTLEMENT FUND.

There has been no important change during the year in the method of operating the gold settlement fund, which has been fully explained in previous reports. All Federal Reserve Banks and 16 branches now settle through the fund, the only addition during 1921 being the Helena branch of the Federal Reserve Bank of Minneapolis, which opened for business February 1, 1921.

Combined clearings and transfers through the fund during the year amounted to $68,223,882,000 compared with $92,625,805,000 in 1920, $73,984,252,000 in 1919, $50,251,592,000 in 1918, $27,154,704,000 in 1917, $5,533,966,000 in 1916, and $1,052,649,000 in 1915, making a grand total of $318,826,850,000 since the inception of the fund on May 20, 1915. The average weekly volume of clearings and transfers combined for each year since the fund was established is shown below:

1921	$1,311,998,000	1917	$522,206,000
1920	1,781,265,000	1916	106,422,000
1919	1,422,774,000	1915	31,898,000
1918	966,377,000		

For the week, September 16–22, combined clearings and transfers aggregated $1,663,696,858.52, the record figure for the year. Unusual transactions during that week affecting the gold settlement fund operations included transfers of funds in connection with payments incident to the sale and redemption of Treasury certificates and transfers incident to the payment of interest due September 15 on Liberty loan issues.

The total expense of operation for 1921, including the rental of leased telegraph wires and clerical services, was approximately $485,000, an increase of approximately $115,000 over the cost of operation for the year 1920. The increase is accounted for largely by the fact that since July 1, 1921, the Board has been obliged to pay a rental charge for leased telegraph wires fixed on the basis of commercial rates instead of on the basis of governmental rates which prevailed before that date.

STATE BANK MEMBERSHIP.

Further increases in membership of State banks and trust companies are shown for the year, though the net gain in number of banks was not as large as during 1920, due to liquidation of some State bank members and conversion of others into national banks, and to the withdrawal from membership of a number of institutions of relatively small size. At the end of the year there were 1,621 State bank and trust company members of the Federal Reserve System with aggregate capital and surplus of $1,118,587,000 and total resources of $9,910,756,000, as compared with 1,481 banks having a combined capital and surplus of $1,035,023,000 and resources of $9,826,794,000 on December 29, 1920. The figures by Federal Reserve districts for both years are as follows:

[Amounts in thousands of dollars.]

Federal Reserve district.	Dec. 31, 1921.			Dec. 29, 1920.		
	Number.	Capital and surplus.	Total resources.	Number.	Capital and surplus.	Total resources.
Boston	40	75,350	724,523	39	73,537	724,063
New York	133	365,377	3,734,967	134	362,810	3,929,629
Philadelphia	51	76,417	389,520	46	73,051	382,301
Cleveland	115	146,812	1,019,144	111	111,480	879,621
Richmond	66	25,589	153,148	56	24,281	158,937
Atlanta	127	45,642	333,829	84	41,389	352,480
Chicago	377	187,183	1,769,952	358	179,732	1,774,753
St. Louis	105	53,111	417,959	91	49,246	386,546
Minneapolis	135	14,398	126,896	116	13,359	122,785
Kansas City	44	13,704	151,183	63	12,003	136,221
Dallas	202	21,711	124,654	185	21,110	137,530
San Francisco	219	85,369	959,085	198	73,025	841,928
Total	1,614	1,110,663	9,904,860	1,481	1,035,023	9,826,794

A comparison between the number, capital and surplus, and total resources of member banks; of nonmember banks eligible for membership; and of all banks in the United States other than mutual savings and private banks is made in the table shown below. It will be noted that the resources of member banks of the Federal Reserve System (National and State) constitute 76.6 per cent of the resources of all banks, both National and State, which are members or are eligible for membership on the basis of capital requirements, and nearly 70 per cent of the banking resources of all banks in the United States (exclusive of mutual savings and private banks) on June 30, 1921, the latest date for which complete data are available.

[Amounts in thousands of dollars.]

	Number.	Per cent of total.	Capital and surplus.		Total resources.	
			Amount.	Per cent of total.	Amount.	Per cent of total.
Member banks:						
National	8,150	83.6	2,298,981	67.3	19,630,124	66.2
State banks and trust companies	1,595	16.4	1,117,448	32.7	10,009,135	33.8
Total:						
June 30, 1921	9,745	100.0	3,416,429	100.0	29,639,259	100.0
June 30, 1920	9,399		3,197,473		32,194,301	
Member banks and nonmember banks eligible for membership:						
Member banks	9,745	50.3	3,416,429	74.3	29,639,259	76.6
Eligible nonmember banks	9,640	49.7	1,183,527	25.7	9,034,347	23.4
Total:						
June 30, 1921	19,385	100.0	4,599,956	100.0	38,673,606	100.0
June 30, 1920	18,257		4,305,804		41,361,856	
All banks in the United States, exclusive of mutual savings and private banks:						
Member banks	9,745	33.1	3,416,429	67.6	29,639,259	69.6
Nonmember banks	19,732	66.9	1,638,019	32.4	12,928,966	30.4
Total:						
June 30, 1921	29,477	100.0	5,054,448	100.0	42,568,225	100.0
June 30, 1920	28,715		4,750,786		46,023,671	

The relative size of State bank and trust company members as compared with eligible nonmember banks is illustrated in the subjoined tables, in which banks having combined capital and surplus of $1,000,000 or over are shown in Group I, and banks having a combined capital and surplus of less than $1,000,000 in Group II. From an examination of these tables it will be seen that over 80 per cent of the total resources of the larger banks, or those in Group I, belong to members of the system, whereas in Group II, which is made up of the smaller banks throughout the country, only about 21 per cent of the resources are controlled by members of the system. Of the 1,595 State bank and trust company members, however, 1,396—or 88 per cent—are shown as having a combined capital and surplus of less than $1,000,000.

I. STATE BANKS AND TRUST COMPANIES WITH COMBINED CAPITAL AND SURPLUS OF $1,000,000 OR MORE.

[Amounts in thousands of dollars.]

Federal reserve district.	Number.		Capital and surplus.		Total resources.	
	Members.	Eligible nonmembers.	Members.	Eligible nonmembers.	Members.	Eligible nonmembers.
Boston	18	6	64,022	12,662	594,970	97,492
New York	50	22	353,699	71,622	3,605,453	543,178
Philadelphia	13	31	63,086	67,447	309,321	297,726
Cleveland	20	19	122,155	44,431	853,087	237,408
Richmond	11	18	16,965	41,250	104,307	187,759
Atlanta	13	1	30,050	1,200	247,380	10,798
Chicago	36	13	138,750	30,235	1,271,907	214,505
St. Louis	12	3	35,500	8,350	254,902	46,667
Minneapolis		3		4,400		18,605
Kansas City	3	1	11,215	1,250	123,214	3,065
Dallas	4	2	4,785	2,475	26,825	12,937
San Francisco	19	11	56,957	19,819	691,488	275,336
Total:						
June 30, 1921	199	130	897,184	305,141	8,082,854	1,945,476
June 30, 1920	182	132	794,226	299,900	8,044,347	2,050,810
Per cent:						
June 30, 1921	60.5	39.5	74.6	25.4	80.6	19.4
June 30, 1920	58.0	42.0	72.6	27.4	79.7	20.3

II. STATE BANKS AND TRUST COMPANIES WITH COMBINED CAPITAL AND SURPLUS OF LESS THAN $1,000,000.

[Amounts in thousands of dollars.]

Federal reserve district.	Number.		Capital and surplus.		Total resources.	
	Members.	Eligible nonmembers.	Members.	Eligible nonmembers.	Members.	Eligible nonmembers.
Boston	23	164	11,340	32,591	114,920	375,584
New York	84	251	24,117	53,488	297,956	544,185
Philadelphia	35	283	11,473	59,735	81,581	436,657
Cleveland	93	629	21,625	82,521	188,305	669,685
Richmond	51	780	7,993	82,841	47,964	562,436
Atlanta	103	777	14,246	62,328	76,548	465,126
Chicago	328	2,405	47,354	197,843	481,127	1,740,056
St. Louis	90	1,125	16,784	82,508	145,907	581,439
Minneapolis	133	849	14,741	46,091	126,369	422,209
Kansas City	57	1,093	6,392	68,874	54,818	515,026
Dallas	201	528	18,313	37,932	101,463	210,457
San Francisco	198	626	25,886	71,634	209,323	566,011
Total:						
June 30, 1921	1,396	9,510	220,264	878,386	1,926,281	7,088,871
June 30, 1920	1,192	8,726	193,970	808,431	1,962,495	7,116,745
Per cent:						
June 30, 1921	12.8	87.2	20.0	80.0	21.4	78.6
June 30, 1920	12.0	88.0	19.4	80.6	21.6	78.4

APPROXIMATE DISTRIBUTION OF BANKING POWER BETWEEN MEMBER AND NONMEMBER BANKS.

The following figures have been prepared with a view of ascertaining the approximate distribution of banking power in the several States between banks which are members and banks which are not members of the Federal Reserve System. The figures in the first column show the proportion that the capital, surplus and undivided profits, and deposits of nonmember banks bears to the corresponding items for all banks within a given State. The figures in the second column show the proportion that the number of nonmember banks bears to the number of all banks within a given State. "All banks" are taken (with a few minor exceptions in some States) to include National and State banks, trust companies, and savings banks having capital stock.

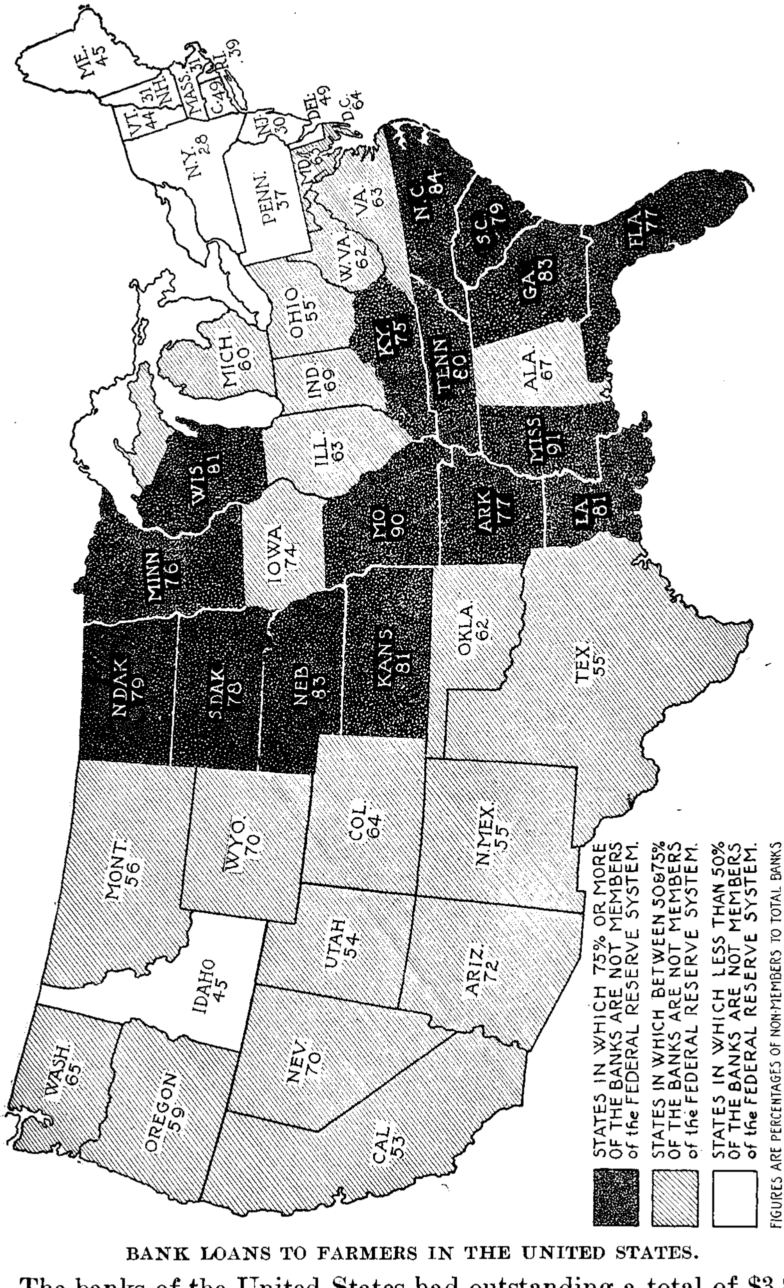
Data given in the report of the Comptroller of the Currency for 1920 were used as the basis for all calculations. All figures are as of June 30, 1920.

State.	Banking power of nonmember banks.[1]	Number of nonmember banks.
	Per cent of total banking power.	*Per cent of total banks.*
Maine	46	45
New Hampshire	38	31
Vermont	59	44
Massachusetts	21	31
Rhode Island	16	39
Connecticut	40	49
Total, New England States	28	39
New York	14	28
New Jersey	33	30
Pennsylvania	31	37
Delaware	34	49
Maryland	46	63
Washington, D. C	51	64
Total, Eastern States	22	36
Virginia	34	63
West Virginia	49	62
North Carolina	54	84
South Carolina	57	79
Georgia	48	83
Florida	44	77
Alabama	32	67
Mississippi	78	91
Louisiana	35	81
Texas	26	55
Arkansas	50	77
Kentucky	46	75
Tennessee	42	80
Total Southern States	42	72

State.	Banking power of nonmember banks.[1]	Number of nonmember banks.
	Per cent of total banking power.	*Per cent of total banks.*
Ohio	31	55
Indiana	52	69
Illinois	31	63
Michigan	24	60
Wisconsin	49	81
Minnesota	45	76
Iowa	61	74
Missouri	45	90
Total, Middle Western States	39	73
North Dakota	62	79
South Dakota	63	78
Nebraska	61	83
Kansas	62	81
Montana	38	56
Wyoming	36	70
Colorado	29	64
New Mexico	36	55
Oklahoma	35	62
Total, Western States	50	74
Washington	31	65
Oregon	29	59
California	37	53
Idaho	30	45
Utah	30	54
Nevada	61	70
Arizona	60	72
Total, Pacific States	36	57
Grand total	33	67

[1] Sum of capital, surplus, undivided profits, and total deposits.

The map shows graphically by States, the proportion of nonmember banks to the total number of banks (National and State) in each State.



MAP SHOWING, BY STATES, THE PERCENTAGE OF THE NON-MEMBER BANKS TO THE TOTAL NUMBER OF BANKS (National & State)

BANK LOANS TO FARMERS IN THE UNITED STATES.

The banks of the United States had outstanding a total of $3,870,-000,000 in personal and collateral loans to farmers and a total of

$1,447,000,000 in farm mortgage loans on December 31, 1920, according to an estimate recently made by the United States Department of Agriculture. These figures are based on returns received from 13,540 banks in the United States, constituting about 45 per cent of all the banks of the country. Questionnaires were sent to all the 30,178 banks, but satisfactory returns were obtained from less than one-half of these banks. Personal and collateral loans to farmers constituted 13.3 and farm mortgage loans about 5 per cent of all loans and discounts of the reporting banks. By applying these percentages to the total loans and discounts of national banks as reported by the Comptroller of the Currency for December 29, 1920, and to those of nonnational banks as reported for June 30, 1920, the Department obtained the estimates just given.

The following table shows the number of banks reporting and the loans to farmers, by geographic divisions:

LOANS TO FARMERS.

[Amounts in millions of dollars.]

Geographical division.	Number of banks.			Total loans to farmers.			Personal and collateral loans to farmers.			Farm mortgage loans.		
	Total.	Reporting.		At reporting banks	Per centage of total loans and discounts of these banks.	Estimated total for all banks.	At reporting banks.	Per centage of total loans and discounts of these banks.	Estimated total for all banks.	At reporting banks	Per centage of total loans and discounts of these banks.	Estimated total for all banks
		Number.	Per cent of total.									
United States	30,178	13,540	44.86	$2,189	18.26	$5,317	$1,587	13.29	$3,870	$602	4.97	$1,447
New England	1,129	661	58.55	54	4.12	121	12	.92	27	42	3.20	94
Middle Atlantic	3,009	1,709	56.80	91	1.45	141	72	1.10	107	19	.35	34
East North Central	5,507	2,645	48.03	454	18.70	991	300	12.38	656	154	6.32	335
West North Central	9,086	3,726	41.01	799	54.63	2,094	595	40.77	1,563	204	13.86	531
South Atlantic	3,294	1,312	39.83	146	18.64	407	117	14.34	313	29	4.30	94
East South Central	1,840	881	47.88	111	30.76	287	75	19.93	186	36	10.83	101
West South Central	3,305	1,072	32.44	160	38.67	615	145	34.07	542	15	4.60	73
Mountain	1,601	745	46.53	145	43.04	324	121	35.61	268	24	7.43	56
Pacific	1,407	789	56.08	229	18.10	337	150	11.16	208	79	6.94	129

These estimates of the Department of Agriculture may be compared with estimates made by the Board for all member banks on May 4, 1920, and April 28, 1921. The Board's estimates are based on member bank reports on call dates to the Comptroller of the Currency in the case of national banks, and to the Board in the case of nonnational members. The nature of loans made by the banks was not ascertainable from these reports, but the banks were classified in accordance with their location in agricultural, semiagricultural, and nonagricultural counties. Counties whose products, measured by value, were at least 80 per cent agricultural were classed in the first group; counties where the proportion was between 50 and 80 per cent in the second group, and counties where the proportion was less than 50 per cent in the third group. On this basis it appears that of all member bank loans on April 28, 1921, 17 per cent were made by banks in agricultural counties, 8 per cent by banks in semiagricultural counties, and 75 per cent by banks in nonagricultural counties. It is noteworthy that the percentage of loans for agricultural purposes on the basis of the Board's estimate, 17 per cent, is very close to the department's estimate of 18 per cent, though the two figures were arrived at independently and by different methods.

The following table shows the Board's estimates, by Federal Reserve districts:

Distribution of Member Bank Loans, by Character of Counties, on May 4, 1920, and Apr. 28, 1921.

Amounts in millions of dollars.]

Federal Reserve district.	Loans of member banks in—						Percentage of total loans.					
	Agricultural counties.		Semi-agricultural counties.		Non-agricultural counties.		1920			1921		
	1920	1921	1920	1921	1920	1921	Agricultural.	Semiagricultural.	Nonagricultural.	Agricultural.	Semiagricultural.	Nonagricultural.
Boston	35.2	34.5	21.3	22.9	1,332.0	1,295.9	2.5	1.6	95.9	2.6	1.7	95.7
New York	146.5	161.5	76.4	81.9	5,494.7	5,068.6	2.6	1.3	96.1	3.1	1.5	95.4
Philadelphia	87.2	96.8	33.2	34.7	1,003.7	975.9	7.8	3.0	89.2	8.8	3.1	88.1
Cleveland	162.5	160.8	367.8	375.3	1,062.2	1,163.0	10.2	23.1	66.7	9.5	22.1	68.4
Richmond	197.3	202.1	147.2	146.7	552.0	542.7	22.0	16.4	61.6	22.7	16.4	60.9
Atlanta	150.3	154.7	113.3	118.4	484.1	425.4	20.1	15.2	64.7	22.1	17.0	60.9
Dallas	360.0	337.2	106.5	104.2	237.4	207.5	51.1	15.2	33.7	52.0	16.0	32.0
Chicago	691.9	675.5	291.9	274.6	2,107.6	1,975.2	22.4	9.4	68.2	23.1	9.4	67.5
St. Louis	200.0	196.2	34.9	34.3	623.9	550.2	23.3	4.1	72.6	25.1	4.4	70.5
Minneapolis	395.2	376.0	76.3	71.6	338.5	297.8	48.8	9.4	41.8	50.4	9.6	40.0
Kansas City	406.7	353.8	87.0	78.0	564.9	489.5	38.4	8.3	53.3	38.4	8.5	53.1
San Francisco	357.3	404.5	128.3	122.8	990.3	972.6	24.2	8.7	67.1	27.0	8.2	64.8
Total	3,190.1	3,153.6	1,484.1	1,465.4	14,791.3	13,964.3	16.4	7.6	76.0	17.0	7.9	75.1

EXCESSIVE BORROWINGS OF MEMBER BANKS.

In its annual report for 1919, the Federal Reserve Board pointed out the fact that were all member banks of a Federal Reserve Bank to ask for accommodation proportionate to that which had been advanced to a few, the Federal Reserve Bank would not be able out of its own resources to meet the demand, and stated that it was possible to determine theoretically what a fair line of accommodation for any member bank would be; that is, the amount of accommodation which could be granted safely and reasonably with due regard for the claims of other member banks. In order, therefore, to provide some effective means of restricting excessive rediscounting by certain member banks, other than a general increase in discount rates which would affect all borrowing banks alike, or the refusal of further accommodation to excessive borrowers, the Board recommended that the Federal Reserve Act be amended to authorize the Federal Reserve Banks, with the approval of the Federal Reserve Board, to determine, by uniform rule applicable to all member banks alike in a given Federal Reserve district, the normal maximum rediscount line of each member bank and to adopt graduated discount rates to apply equally and ratably to all banks rediscounting amounts in excess of the normal line so determined.

Although only four Federal Reserve Banks took advantage of the amendment authorizing graduated or progressive discount rates, which became effective on April 13, 1920, all of them have submitted reports regularly to the Federal Reserve Board covering borrowings of member banks in excess of their normal lines which were determined by multiplying 65 per cent of the reserve balances maintained with the Federal Reserve Bank plus the paid-in subscription to the capital stock of the Federal Reserve Bank by two and one-half. With information of this character at hand, the Federal Reserve Board was informed in regard to the situation in each district, as well as its relation to the condition of the system as a whole.

The ratio of total borrowings by all member banks to their aggregate basic discount line, which averaged 78 per cent for the 10-day period ending May 20, 1920, when detailed reports were first submitted to the Federal Reserve Board, continued to rise (for the system as a whole) until the middle of December, 1920, when it reached 91 per cent. At the end of October, 1920, when the amount of inter-reserve bank accommodation reached its maximum, this ratio stood at 88 per cent and the reserve percentage of the system at 43.1 per cent. Since December, 1920, the ratio of borrowings to basic lines has gradually receded, and at the end of December, 1921, total borrowings by all member banks amounted to only 37 per cent of their basic lines. This decrease was brought about by large imports of gold, by the general recession of business, and by the decline in prices, with the consequent return of Federal Reserve notes for redemption.

Since the submission of the first reports of borrowings in excess of basic lines the larger banks in the financial and manufacturing centers have reduced their excess borrowings very materially, while an increasing number of the smaller banks, especially in the agricultural sections, have become borrowers in excess of their basic lines. This is evidenced by the fact that while the number of excess borrowing banks has continued to increase the basic discount lines and average borrowings of such banks have declined very sharply as may be seen from the following table:

Banks Borrowing in Excess of Basic Lines.

[Amounts in thousands of dollars.]

Federal Reserve district.	Number of banks.			Basic discount lines.			Average borrowings.		
	May 11-20, 1920.	Dec. 21-31, 1920.	Dec. 16-31, 1921.	May 11-20, 1920.	Dec. 21-31, 1920.	Dec. 16-31, 1921.	May 11-20, 1920.	Dec. 21-31, 1920.	Dec. 16-31, 1921.
Boston	54	54	50	43,385	103,599	18,864	61,295	134,778	23,975
New York	114	92	93	265,705	562,301	73,346	349,199	764,004	108,733
Philadelphia	146	108	138	105,485	63,425	32,609	188,650	99,602	50,516
Cleveland	53	34	117	56,563	38,132	28,621	82,769	55,217	43,360
Richmond	175	237	252	49,310	47,335	34,937	110,446	113,445	83,030
Atlanta	122	255	294	41,614	58,432	42,465	107,221	163,886	93,744
Chicago	342	582	558	218,389	222,949	69,432	347,521	415,243	124,374
St. Louis	115	152	168	77,876	54,076	22,507	136,428	95,592	45,007
Minneapolis	178	203	406	42,199	36,320	16,355	74,882	75,265	38,099
Kansas City	184	380	359	49,133	58,757	22,688	97,739	112,432	38,588
Dallas	163	408	349	32,927	35,429	19,096	59,084	78,191	43,634
San Francisco	161	264	192	55,856	59,774	12,294	103,864	124,666	34,887
Total	1,807	2,769	2,976	1,038,442	1,340,529	393,214	1,719,098	2,232,321	727,947

From the table shown below, it will be seen that while there were about 3,000 banks borrowing in excess of their basic lines at the end of 1921, the ratio of total borrowings of all member banks to the aggregate of their basic discount lines was only 37 per cent, the Federal Reserve district of Atlanta being the only one in which aggregate borrowings of all banks are shown to be in excess of their basic lines.

Loans to Member Banks in Excess of Basic Discount Line During the 16-Day Period Dec. 16 to 31, 1921.

[In thousands of dollars.]

Federal Reserve district.	All banks borrowing in excess of basic line.				All member banks in district.			
	Number of banks.	Basic discount line.	Average borrowings.	Per cent, 3÷2.	Number of banks Dec. 15.	Basic discount line.[1]	Total borrowings.[1]	Per cent, 3÷2.
	1	2	3	4	1	2	3	4
Boston	50	18,864	23,975	127	436	199,825	59,171	30
New York	93	73,346	108,733	148	800	1,247,695	209,080	17
Philadelphia	138	32,609	50,516	155	704	191,987	88,552	46
Cleveland	117	28,621	43,360	151	884	240,600	114,594	48
Richmond	252	34,937	83,030	238	625	104,780	94,668	90
Atlanta	294	42,465	93,744	221	513	80,293	90,827	113
Chicago	558	69,432	124,374	179	1,443	420,913	185,520	44
St. Louis	168	22,507	45,007	200	586	116,502	63,053	54
Minneapolis	406	16,355	38,099	233	1,023	79,650	51,212	64
Kansas City	359	22,688	38,588	170	1,097	128,500	69,979	54
Dallas	349	19,096	43,634	228	861	80,987	50,597	62
San Francisco	192	12,294	34,887	284	855	215,238	67,093	31
Total	2,976	393,214	727,947	185	9,827	3,106,970	1,144,346	37

[1] Actual figures as of Dec. 1, 1921.

CHECK CLEARING AND COLLECTION.

During the year 1921 there were no very important developments in the Federal Reserve check clearing and collection system. Some of the nonmember banks, desiring to maintain their so-called "exchange" charges, have continued their attempts to limit the check clearing and collection functions of the Federal Reserve Banks in very much the same manner as was described in the Board's annual report for the year 1920. That report discussed the history of the development of the Federal Reserve check clearing and collection system and the issues involved in the controversy over par collection, and fully set forth the considerations which have caused the Federal Reserve Board and the Federal Reserve Banks to feel that the Federal Reserve Act imposes upon them the duty of extending and perfecting the facilities offered by the Federal Reserve System to member banks and to the public for the par clearance of checks. It is necessary, therefore, merely to supplement that previous discussion and bring it up to date.

The outstanding feature of the year in connection with check clearing and collection has been the progress of the suit against the Federal Reserve Bank of Atlanta, in which a number of nonmember banks obtained a temporary restraining order prohibiting the Federal Reserve Bank from collecting checks drawn upon them, and the institution of somewhat similar suits against the Federal Reserve Banks of Richmond, Cleveland, and San Francisco.

As stated in the Board's last annual report, the United States Circuit Court of Appeals for the Fifth Circuit, after hearing the argument in the suit against the Federal Reserve Bank of Atlanta, handed down its decision in November, 1920, affirming the decision of the United States District Court for the Northern District of Georgia, the District Court having held that it had jurisdiction of the suit and having granted the defendant's motion to dismiss the complaint. The motion to dismiss the complaint was in the nature of a demurrer and was made and argued without the taking of any testimony. An appeal was taken to the Supreme Court of the United States, which heard argument in April, 1921, and rendered its decision on May 16. The decision of the Supreme Court affirmed the decision of the Circuit Court of Appeals so far as the jurisdictional point was concerned, and thereby conclusively established that the United States courts have jurisdiction of all cases against Federal Reserve Banks which involve the requisite jurisdictional amount of $3,000 or more. The Supreme Court did not, however, affirm the decision of the Circuit Court of Appeals with respect to the motion to dismiss the complaint, but on the contrary held that the allegations of the complaint were sufficient, if proved, to entitle the plaintiff to some legal remedy. It became necessary, therefore, to try the case upon its merits in the United States District Court for the Northern District of Georgia. The trial was set for November 28, 1921, but due to illness in the family of the judge it was postponed until January 9, 1922.

Organized opposition to par clearance has attempted to make much of the decision of the Supreme Court and has distorted its meaning and effect, presumably in order to create the impression that the decision terminates the litigation in favor of the plaintiff banks and is a condemnation of the methods of check collection actually employed by the Federal Reserve Bank of Atlanta. This is entirely contrary to the facts, for, as heretofore stated and as clearly appears from the opinion itself, no evidence has been adduced in support of or against the charges contained in the complaint, and the motion to dismiss raised only the question of the proper construction of the plaintiffs' bill of complaint without in any way attempting to pass upon its truth or falsity. Mr. Justice Holmes said, in rendering the opinion of the court:

> The question at this stage is not what the plaintiffs may be able to prove, or what may be the reasonable interpretation of the defendants' acts, but whether the plaintiffs have shown a ground for relief if they can prove what they allege.

It was believed that the allegations of the plaintiff's bill of complaint, when properly construed, did not even charge the Federal Reserve Bank of Atlanta with action, or intended action, which was illegal. Consequently, very shortly after the institution of the suit, the Federal Reserve Bank of Atlanta moved to dismiss the complaint upon the merits, upon the ground that it did not state facts sufficient to constitute a cause of action, thereby admitting, but only for the purpose of that particular motion, any facts properly alleged in the complaint. The United States District Court and the United States Circuit Court of Appeals took the same view as to the construction of the allegations of the bill of complaint and held that such facts as were properly alleged would not, even if proved, entitle the plaintiff to any relief, but the Supreme Court of the United States took a contrary view and held, in effect, that sufficient facts were alleged to entitled the plaintiffs to relief if they were able to establish those facts by proof.

The Board has investigated the charges that have been made against Federal Reserve Banks as to the use of oppressive methods in the collection of checks, and in no case have the facts as brought out sustained the charges. So far as the Board has been able to discover the officers and employees of Federal Reserve Banks have in all cases, and often under the most trying circumstances, conducted themselves courteously and with consideration toward the banks which have refused to remit at par for checks drawn upon them and have thereby made it necessary for the Federal Reserve Banks to arrange for the counter presentation of such checks. There was no reason for not proceeding immediately with the trial upon the merits in the suit against the Federal Reserve Bank of Atlanta, except that the motion to dismiss the complaint appeared to offer a way for the speedy termination of that suit.

In view of the decision of the Supreme Court as to the construction to be placed upon the bill of complaint, it appears that the only effect of the motion to dismiss has been to delay the final decision upon the merits of the issues involved in the litigation.

The full text of the opinion of the Supreme Court will be found among the exhibits attached to the complete report.

In the Board's annual report for 1920 five States—Mississippi, Louisiana, South Dakota, Georgia, and Alabama—were enumerated as having enacted laws designated to obstruct the par collection of checks by Federal Reserve Banks, these laws purporting to require or permit banks in the respective State to make charges "for collecting and remitting" cash items "which are presented to the payer bank through or by any bank, banker, trust company, Federal Reserve Bank, post office, express company, or any collection agency, or by any other agency whatsoever." During the year 1921 the legislatures of three other States—North Carolina, Tennessee, and Florida—enacted more or less similar laws for the same purpose. The Legislature of Louisiana also enacted a law purporting to make it a misdemeanor punishable by fine or imprisonment for any person to give any notice of the nonpayment of any check drawn on any bank in that State after such bank has offered to pay the check in accordance with the laws of Louisiana.

The North Carolina law just referred to provides that "it shall be lawful for all banks and trust companies in this State to charge a fee, not in excess of one-eighth of 1 per cent, on remittances covering checks," and provides also that all checks drawn on such banks and trust companies "shall, unless specified on the face thereof to the contrary by the maker or makers thereof, be payable at the option of the drawee bank, in exchange drawn on the reserve deposits of said drawee bank when any such check is presented by or through any Federal Reserve Bank, post office, or express company, or any respective agents thereof." Relying upon this law a number of North Carolina State banks and trust companies obtained an injunction in the superior court of Union County, N. C., prohibiting the Federal Reserve Bank of Richmond from refusing to accept "exchange drawn by plaintiffs on their reserve deposits," i. e., checks on correspondent banks, in payment of checks presented and from returning such checks to the drawers thereof as dishonored because plaintiffs have refused to pay same in cash. The trial of this suit will probably be held the latter part of February, 1922, and the final decision will in all probability determine whether or not State legislatures have constitutional authority to enact legislation of this character.

In July, 1921, a State bank in Kentucky brought suit against the Federal Reserve Bank of Cleveland to enjoin the latter from collecting checks drawn upon the plaintiff bank by presentation at the counter, and in September, 1921, a State bank in Oregon brought a similar suit against the Federal Reserve Bank of San Francisco. These suits are still pending before the United States district courts for the respective districts in which the plaintiff banks are located. In neither of the suits has the original bank which instituted it been joined by any other bank as plaintiff.

On January 1, 1921, checks on all but 1,755 of the 30,523 banks in the United States could be collected at par through the Federal Reserve Banks, these 1,755 banks being located in the seven Southeastern States of Tennessee, South Carolina, Louisiana, Mississippi, Alabama, Georgia, and Florida. Since that time, due principally to the injunction against the Federal Reserve Bank of Richmond, which prevents that bank from handling checks on such nonmember banks in North Carolina as are parties to the suit heretofore mentioned, the number of such banks has increased to 2,353, which is the figure as of January 1, 1922. In addition to the seven Southeastern States enumerated above, there are banks in each of the following States checks on which are not handled by the Federal Reserve Banks: North Carolina, Nebraska, North Dakota, South Dakota, Minnesota, Oklahoma, Wisconsin, Wyoming, Montana, Kentucky, and Oregon. The aggregate number of such banks in the five last-named States is only 22.

The following extract from the Board's annual report for 1920 indicates the Board's views as to the propriety, under present conditions, of the practice of exacting exchange charges:

> The Board has frequently had occasion to point out that in their origin exchange charges were justified on account of the necessity for, and the high cost of, actually transporting currency, but that under existing conditions those charges can be justified upon no scientific or economic principle, since the payment of checks at places other than where the drawee bank is located involves little expense and that is borne by the Federal Reserve Banks. Even the banks which decline to remit at par to the Federal Reserve Banks receive the benefits of the Federal Reserve check clearing facilities by having the checks which they receive collected through a correspondent bank which is a member of the Federal Reserve System, although they contribute nothing to the strength of the System. To the extent that the practice of charging ex-

change is continued under the operation of the Federal Reserve System, it is an anachronism which permits the charging banks to impose a charge upon commerce and industry after they have ceased to perform the service which in former times justified the imposition of such a charge.

As stated in that report, and as previously stated herein, the Board believes that the terms of the Federal Reserve Act impose upon it, and upon the Federal Reserve Banks, the duty of developing and perfecting the Federal Reserve par collection system, while the opponents of par collection urge the contrary view and even contend that the Federal Reserve Banks are without legal authority to collect, by presentation at the counters of the drawee banks, checks drawn on nonmember banks which are unwilling to remit at par for checks presented through the mails by the Federal Reserve Banks. The events of the last year have not changed or modified the Board's position in this matter. The opinion of the Circuit Court of Appeals of the Fifth Circuit, rendered in the case against the Federal Reserve Bank of Atlanta, is the only judicial opinion which has touched upon this point and that opinion confirmed the Board's construction of the act, saying that—

The Federal Reserve Act does not only not evince a purpose to deny to the Reserve Bank the power to collect checks of nonmember and nondepositing banks, but exhibits a general policy to encourage a uniform and universal system of par clearance, which could only be accomplished by conferring power upon the Reserve Bank to handle checks drawn on all banks upon any terms that might be essential except the payment to the remitting bank of compensation for remitting.

The Supreme Court of the United States deemed it unnecessary to pass upon the question of the powers of the Federal Reserve Bank of Atlanta and did not attempt to construe the provisions of the Federal Reserve Act, so that the opinion of the Circuit Court of Appeals still stands as the most authoritative interpretation of the Federal Reserve Act with regard to the Federal Reserve check clearing and collection system.

In the following table are given the number and amount of checks and drafts handled by the Federal Reserve Banks during monthly periods in 1921.

Items Handled by All Federal Reserve Banks Combined, Exclusive of Duplications on Account of Items Being Handled by More Than One Federal Reserve Bank or Branch.

[Numbers in thousands; amounts in thousands of dollars.]

Month ending—	Total items handled.		Items drawn on banks in district of reporting Federal Reserve Bank or branch.		Items drawn on United States Treasurer.		Items forwarded direct to members and nonmembers in other Federal Reserve districts.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.
Jan. 15, 1921	43,481	11,946,417	40,410	11,447,577	3,064	497,064	7	1,776
Feb. 15, 1921	39,172	9,729,587	36,961	9,283,245	2,204	444,749	7	1,593
Mar. 15, 1921	39,566	9,439,475	37,624	8,909,097	1,937	528,936	5	1,442
Apr. 15, 1921	47,021	10,748,339	43,937	10,155,304	3,076	591,167	8	1,868
May 15, 1921	42,282	9,325,882	39,038	8,834,578	3,236	489,610	8	1,694
June 15, 1921	44,960	9,848,000	42,202	9,366,550	2,749	479,670	9	1,780
July 15, 1921	43,721	9,854,512	40,629	9,313,689	3,084	539,347	8	1,476
Aug. 15, 1921	41,865	9,304,290	39,372	8,904,621	2,484	398,020	9	1,649
Sept. 15, 1921	42,518	9,317,016	40,082	8,904,476	2,427	410,932	9	1,608
Oct. 15, 1921	44,812	10,298,779	41,792	9,828,654	3,010	468,426	10	1,699
Nov. 15, 1921	45,283	9,949,830	42,031	9,510,748	3,241	436,501	11	2,581
Dec. 15, 1921	46,352	10,135,243	43,484	9,736,831	2,858	395,788	10	2,624
Total:								
1921	521,033	119,897,370	487,562	114,195,370	33,370	5,680,210	101	21,790
1921	446,671	157,499,605	419,905	150,588,027	26,688	6,886,556	78	25,022
Monthly average:								
1921	43,419	9,991,448	40,630	9,516,281	2,781	473,351	8	1,816
1920	37,223	13,124,967	34,992	12,549,002	2,224	573,880	7	2,085

FISCAL AGENCY OPERATIONS.

During the past year the Secretary of the Treasury completed the discontinuance of the subtreasuries in accordance with the provisions of an act of Congress approved May 29, 1920. The subtreasuries at New Orleans, St. Louis, Baltimore, Philadelphia, and Cincinnati were discontinued on January 5, January 8, January 14, February 3, and February 10, respectively, and the functions and duties heretofore performed by them, as enumerated in the annual report for 1920, are now performed by the Federal Reserve Banks or branches in those cities, with the exception of the keeping in custody of reserve and trust funds consisting of gold coin and bullion and standard silver dollars securing gold and silver certificates, respectively, and held as reserve against United States notes, and the issue of gold order certificates on gold deposits.

The special separate instructions issued by the Secretary of the Treasury on August 30, under the provisions of the act of May 29, 1920, authorized all Federal Reserve Banks to make exchanges, replacements, and redemptions of United States paper currency, which operations had previously been performed by subtreasuries, and the following Federal Reserve Banks and branches have undertaken these functions during 1921 on dates as specified:

New Orleans	Jan. 5, 1921.	Spokane	Apr. 1, 1921.
Baltimore	Jan. 14, 1921.	Pittsburgh	Apr. 4, 1921.
Cincinnati	Feb. 10, 1921.	Atlanta	June 10, 1921.
Helena	Mar. 1, 1921.	Jacksonville	June 10, 1921.
Cleveland	Mar. 2, 1921.	Birmingham	June 10, 1921.
Dallas	Mar. 22, 1921.	Nashville	June 10, 1921.
Los Angeles	Apr. 1, 1921.	Omaha	Oct. 29, 1921.
Portland	Apr. 1, 1921.	Denver	Oct. 29, 1921.
Salt Lake City	Apr. 1, 1921.	Oklahoma City	Oct. 29, 1921.
Seattle	Apr. 1, 1921.		

The Secretary of the Treasury, on October 19, 1920, under the provisions of the act of May 29, 1920, authorized all Federal Reserve Banks to make exchanges and redemptions of United States coin, which functions were previously performed by the subtreasuries, and during 1921 the following Federal Reserve Banks and branches have undertaken these operations on dates as specified:

New Orleans	Jan. 5, 1921.	Cleveland	May 19, 1921.
St. Louis	Jan. 8, 1921.	Atlanta	June 10, 1921.
Baltimore	Jan. 14, 1921.	Jacksonville	June 10, 1921.
Louisville	Jan. 26, 1921.	Birmingham	June 10, 1921.
Memphis	Jan. 26, 1921.	Nashville	June 10, 1921.
Little Rock	Jan. 26, 1921.	Omaha	Oct. 29, 1921.
Minneapolis	Feb. 1, 1921.	Denver	Oct. 29, 1921.
Philadelphia	Feb. 3, 1921.	Oklahoma City	Oct. 29, 1921.
Cincinnati	Feb. 10, 1921.	Detroit	Nov. 18, 1921.
Helena	Mar. 1, 1921.	Buffalo	Nov. 18, 1921.
Dallas	Mar. 22, 1921.		

The Federal Reserve Bank of Richmond and the branches named below had not assumed the operations relating to replacements, exchanges, and redemptions of United States paper currency and coin up to December 31 because of lack of adequate facilities:

Currency and coin: El Paso, Houston.

Coin: Pittsburgh, Los Angeles, Salt Lake City, Seattle, Portland, and Spokane.

It is expected, however, that the Federal Reserve Bank of Richmond and most of the above-named branch banks will take over these functions early in 1922.

The closing of the subtreasuries and the assumption of their principal duties by the Federal Reserve Banks has resulted in improved currency and coin facilities to the country. The location and banking connections of the Federal Reserve Banks and their branches afford a more convenient and natural method for the proper distribution of paper currency fit for circulation than it was possible to secure through the subtreasuries, and there has already been a decided improvement throughout the United States not only with respect to the condition of the paper currency but with respect to the supply of notes of desired denominations.

A material economy to the Government has resulted not only by the reduction in operating expenses effected by abolishing the subtreasury establishments but also by the elimination of the necessity of keeping with the Assistant Treasurers working supplies of currency and coin required to enable them to perform their functions, amounting in the aggregate to approximately $25,000,000. It has not been necessary to increase the balances of Government funds with the Federal Reserve Banks by reason of their assumption of subtreasury functions.

The sinking-fund purchases under the cumulative sinking fund established by section 6 of the Victory liberty loan act approved March 3, 1919, were made by the Treasury Department in the open market, at the prevailing market prices, through the Federal Reserve Bank of New York and the Federal Reserve Bank of San Francisco as fiscal agents of the United States. Substantially all of the purchases were made in the New York market, which is the central market for the country, and the purchases in San Francisco were relatively small. During 1921 $380,340,700 face amount of Victory 4¾'s and $88,548,000 face amount of Victory 3¾'s were purchased.

There were also purchased during 1921 by Federal Reserve Banks $50,056,350 face amount of Liberty bonds under the provisions of section 3 of the first Liberty bond act and section 3 of the second Liberty bond act, which provide that repayments by foreign Governments on account of the principal of their obligations purchased by the United States under the authority of these acts shall be applied to the purchase and retirement of Liberty bonds.

In addition to the assumption of the fiscal agency functions described above, the Federal Reserve Banks have continued to act as fiscal agents of the Government during the past year in the handling of all details incident to the sale, allotment, distribution, and redemption of Treasury certificates of indebtedness and the sale, allotment, and distribution of Treasury notes among member and non-member banks in their respective districts, including the collection of funds received from the sale of certificates and notes and the depositing of funds with depositary banks and withdrawing same as required by the Treasury. Federal Reserve Banks have also made denominational exchanges, conversions, and exchanges of temporary for permanent Liberty bonds, received collections on account of income and excess profits taxes, redeemed coupons covering interest payments on Government bond, Victory note, and certificate issues, and have handled the sale and exchange of thrift stamps and other Government savings securities.

A summary of these transactions, other than sales of Treasury certificates and notes, appears in the following table:

	Number of pieces.	Amount.
Treasury certificates redeemed	722,000	$3,424,357,000
Liberty bonds and Victory notes:		
Conversions	586,000	321,368,000
Exchanges	17,884,000	7,000,031,000
Transfers of ownership	99,000	101,454,000
Purchased for account of United States Treasury	448,000	738,840,000
Received in payment of inheritance taxes	21,000	25,449,000
All other transactions	2,000	185,000
War Savings securities sold	633,000	3,817,000
United States Government coupons paid	98,407,000	766,020,000

As fiscal agents of the Treasury the Federal Reserve Banks have placed $1,201,522,000 of Treasury loan certificates of indebtedness, $1,708,459,500 of tax certificates, and $701,897,700 of Treasury notes during 1921.

The following tables show the amount of allotments of Treasury certificates and notes during the calendar year 1921 by issues and Federal Reserve districts:

ALLOTMENTS OF TREASURY LOAN CERTIFICATES AND TREASURY NOTES DURING 1921.

Federal Reserve Bank.	Treasury loan certificates.							Treasury notes maturing in 1924.		Total.
	Maturing in 1921.				Maturing in 1922.					
	Series E.	Series F.	Series G.	Series H.	Series A.	Series B.	Series C.	Series A.	Series B.	
Boston	$591,500	$24,524,000	$11,402,000	$14,343,500	$21,208,000	$21,068,500	$2,410,000	$22,905,000	$37,423,400	$155,875,900
New York	61,019,000	77,043,000	49,451,500	74,067,000	99,954,000	99,622,500	13,813,000	157,225,200	146,615,100	778,810,300
Philadelphia	5,160,500	18,903,000	10,945,000	19,047,000	25,757,500	30,336,500	3,652,000	45,509,500	40,597,200	199,908,200
Cleveland	7,559,000	16,841,000	12,221,000	16,125,000	23,300,000	19,370,000	7,984,000	21,175,200	36,500,000	161,075,200
Richmond	3,830,500	5,009,000	4,222,000	6,146,500	7,615,000	7,865,000	1,649,500	8,698,500	14,249,000	59,285,000
Atlanta	1,540,000	3,258,500	2,398,500	2,809,000	3,572,500	6,949,500	1,290,500	2,169,900	5,934,700	29,923,100
Chicago	16,445,000	18,764,500	16,526,500	22,932,000	29,989,000	26,127,500	8,062,500	20,650,200	43,210,700	202,707,900
St. Louis	4,981,500	5,760,500	6,511,500	8,512,000	10,797,500	9,233,500	2,218,500	9,740,100	16,212,500	73,967,600
Minneapolis	2,817,000	4,660,000	2,650,000	5,190,000	6,990,000	7,709,000	1,550,000	5,301,100	13,840,000	50,707,100
Kansas City	3,524,000	6,564,000	4,456,500	6,200,000	8,375,000	9,883,500	1,725,000	5,346,500	11,674,500	57,749,000
Dallas	2,197,000	1,424,000	2,552,000	2,764,500	4,071,500	5,289,500	1,541,000	4,058,600	5,449,000	29,347,100
San Francisco	8,995,000	9,275,000	9,550,000	12,375,000	14,540,000	16,016,500	5,900,000	8,411,800	19,000,000	104,063,300
Total	118,660,000	192,026,500	132,886,500	190,511,500	256,170,000	259,471,500	51,796,000	311,191,600	390,706,100	1,903,419,700
Rate of interest, per cent.	5½	5¾	5½	5½	5½	5½	4¼	5¾	5½	
Date issued	Jan. 15, 1921	Jan. 15, 1921	Feb. 15, 1921	Apr. 15, 1921	May 16, 1921	Aug. 1, 1921	Nov. 1, 1921	June 15, 1921	Sept. 15, 1921	
Maturity date	Apr. 15, 1921	Oct. 15, 1921	July 15, 1921	Oct. 15, 1921	Feb. 16, 1922	Aug. 1, 1922	Apr. 1, 1922	June 15, 1924	Sept. 15, 1924	

ALLOTMENTS OF TREASURY CERTIFICATES ISSUED IN 1921 IN ANTICIPATION OF TAX PAYMENTS.

Federal Reserve Bank.	In anticipation of tax payments during 1921. Series T. S. 2.	In anticipation of tax payments during 1922.								Total.
		Series T. M.	Series T. J.	Series T. M. 2.	Series T. M. 3.	Series T. S.	Series T. S. 2.	Series T. J. 2.	Series T. D.	
Boston	$12,912,000	$22,066,000	$21,070,000	$9,101,500	$8,692,000	$10,921,500	$17,002,500	$3,100,500	$20,696,000	$125,562,000
New York	85,721,500	124,187,500	137,155,500	47,263,500	48,422,500	80,057,500	66,495,000	18,471,500	94,098,500	701,873,000
Philadelphia	10,434,000	40,346,000	25,333,500	9,033,500	8,191,500	12,081,500	17,476,500	3,707,000	25,888,500	152,492,000
Cleveland	23,634,000	28,341,000	39,225,000	11,295,000	10,100,000	13,320,000	14,283,000	10,300,000	20,700,000	171,198,000
Richmond	6,291,000	10,149,500	8,526,000	3,746,000	2,550,500	4,665,000	6,619,000	2,799,500	6,996,500	52,343,000
Atlanta	2,647,500	2,386,500	3,850,000	1,812,500	2,793,500	1,617,500	5,547,500	1,826,500	6,853,500	29,335,000
Chicago	21,879,500	20,536,500	33,774,500	17,636,000	15,856,000	26,778,500	21,288,000	9,877,500	27,318,500	194,945,000
St. Louis	4,705,000	8,574,000	12,701,500	3,695,000	3,035,500	6,145,500	6,638,500	2,411,500	8,611,500	56,518,000
Minneapolis	3,166,000	4,068,500	5,462,500	2,689,000	3,420,000	3,500,000	5,730,000	1,450,000	7,442,500	36,928,500
Kansas City	4,850,500	9,149,500	9,477,500	2,516,500	5,632,000	6,705,000	6,475,000	2,069,000	8,493,500	55,368,500
Dallas	2,546,000	2,396,000	4,708,000	2,489,000	5,278,500	3,979,000	3,586,500	2,605,000	4,175,000	31,763,000
San Francisco	14,515,000	16,300,000	12,900,000	5,613,500	10,600,000	13,100,000	8,550,000	6,285,000	12,270,000	100,133,500
Total	193,302,000	288,501,000	314,184,000	116,891,000	124,572,000	182,871,000	179,691,500	64,903,000	243,544,000	1,708,459,500
Rate of interest, per cent.	5½	5¾	5½	5¼	5	5¼	4½	4¼	4½	....
Date issued	Mar. 15, 1921	Mar. 15, 1921	June 15, 1921	Aug. 1, 1921	Sept. 15, 1921	Sept. 15, 1921	Nov. 1, 1921	Dec. 15, 1921	Dec. 15, 1921	....
Maturity date	Sept. 15, 1921	Mar. 15, 1922	June 15, 1922	Mar. 15, 1922	Mar. 15, 1922	Sept. 15, 1922	Sept. 15, 1922	June 15, 1922	Dec. 15, 1922	....

The Federal Reserve Banks, as fiscal agents and depositaries of the Treasury, received during 1921 deposits of the greater part of the $4,970,000,000 paid to the Government on account of income and excess-profits taxes and other ordinary receipts. The maximum, minimum, and daily average balances of the Government with all Federal Reserve Banks during the past year have been as follows:

GOVERNMENT DEPOSITS HELD BY FEDERAL RESERVE BANKS DURING 1921.

[In thousands of dollars.]

Month.	Maximum.	Minimum.	Daily average.
January	57,212	5,617	25,301
February	68,206	11,000	50,337
March	123,212	37,835	81,151
April	84,201	18,857	50,627
May	60,516	13,799	28,487
June	64,401	14,597	28,579
July	51,893	9,093	29,764
August	69,746	19,014	43,879
September	98,540	22,189	59,339
October	96,673	10,739	50,234
November	63,949	29,179	42,242
December	95,951	20,213	54,364
Year	123,212	5,617	45,320

On December 31 there was a total of 9,281 special bank depositaries for Government funds, which had been designated by the Secretary of the Treasury, through the Federal Reserve Banks. The average daily Government balances with these depositaries during 1921 was $261,364,000, and as security for these deposits the Federal Reserve Banks approved and held collateral of an average face value, based on end-of-month figures, of approximately $549,693,000.

BRANCHES OF FEDERAL RESERVE BANKS AND THEIR OPERATIONS.

The branches of Federal Reserve Banks have been established under the provisions of section 3 of the Federal Reserve Act. The branches are in no sense independent banks, but are, as is implied in the official title of section 3, " branch offices." Subject to such rules and regulations as the Federal Reserve Board may prescribe, they are operated under the supervision of a board of directors consisting of not more than seven nor less than three directors, of whom a majority of one is appointed by the Federal Reserve Bank of the district and the remaining directors by the Federal Reserve Board. The law provides that directors of branch banks shall hold office during the pleasure of the Federal Reserve Board and the Board has from the outset adopted the policy of limiting the terms for which they are designated to a period of one year.

On December 31, 1921, there were 23 branches of Federal Reserve Banks in operation, the Helena (Mont.) branch of the Federal Reserve Bank of Minneapolis, authorized in 1919, having been opened for business on February 1, 1921, following the completion of its vault which was constructed in a building purchased in November, 1919, and remodeled for use as banking quarters. The territory assigned to the new branch embraces the entire State of Montana, in which there were located on June 30, 1921, a total of 202 member banks (national and State), having a capital of $12,905,000, a surplus of $5,668,000, and total resources of $131,275,000. The powers and functions which the Helena branch is authorized to exercise place it in the first group of branches described on page 92 of the 1920 Annual Report of the Federal Reserve Board; that is, the branch renders practically the same services for, and has the same direct relations with, member banks in the territory assigned to it as does the parent bank for member banks in other parts of the district. No new branches were authorized by the Board during the past year. Of the present branches, one—New Orleans—was established in 1915, five in 1917, ten in 1918, four in 1919, two in 1920, and one in 1921.

The following table shows the volume of business handled by each branch and by the Savannah agency during the year 1921:

OPERATIONS OF FEDERAL RESERVE BRANCH BANKS DURING 1921.

[Numbers in thousands. Amounts in thousands of dollars.]

Federal Reserve branch.	Items handled.[1]		Currency (coin and paper).		Volume of paper discounted and bought.	Average daily bill holdings.	Member banks' reserve balances Dec. 31, 1921.
	Number.	Amount.	Received.	Paid out.			
Buffalo	9,300	2,131,145	146,993	139,951	[2] 1,043,883	[2] 29,258	[2] 16,577
Cincinnati	12,415	2,564,398	124,406	76,471			
Pittsburgh	16,270	4,684,330	284,953	236,864			
Baltimore	12,837	3,177,174	147,382	131,389	620,154		16,528
Birmingham	4,548	860,941	35,520	22,564			
Jacksonville	2,753	525,966	50,620	38,375			
Nashville	3,564	647,670	35,693	23,426			
New Orleans	3,013	910,446	100,520	85,224	531,847	33,567	13,716
Detroit	8,568	2,375,023	264,356	249,818	1,176,298	50,002	33,106
Little Rock	4,241	526,981	30,008	27,554	141,099	10,705	4,223
Louisville	6,174	979,771	80,625	61,451	362,425	11,899	8,053
Memphis	2,871	473,801	47,732	47,844	215,492	18,166	6,043
Helena	2,365	271,050	12,263	9,642	57,954	10,039	5,546
Denver	6,733	1,154,607	43,616	21,484	147,911	9,540	13,543
Oklahoma City	12,264	1,763,284	17,130	12,393			
Omaha	8,639	1,179,435	27,416	22,563	204,093	21,434	13,765
El Paso	2,375	315,595	34,625	16,001	97,867	11,144	3,080
Houston	5,359	944,229	42,954	28,430	129,433	9,350	10,508
Los Angeles	16,501	2,559,717	151,229	140,012	145,382	13,552	32,328
Portland	3,797	661,543	34,356	26,494	143,789	9,637	10,159
Salt Lake City	5,593	902,168	14,803	11,644	486,347	36,061	8,531
Seattle	4,575	786,093	66,639	59,433	122,428	3,539	11,636
Spokane	2,937	445,769	11,153	9,903	115,768	9,040	6,052
Total:							
1921	157,692	30,841,136	1,804,992	1,498,930	5,742,170	286,933	213,394
1920	125,435	37,560,687	1,616,708	1,696,087	6,836,678	290,630	218,536
Savannah agency:							
1921			8,601	6,517			
1920			11,663	9,388			

[1] From Dec. 16, 1920, to Dec. 15, 1921, except that in the case of Helena the period dates from opening of branch on Feb. 1.

[2] Buffalo city banks only. Bill holdings are based on figures as of the 52 weekly statement dates during the year.

THE FOREIGN EXCHANGES.

Foreign exchange rates in 1921 showed a general trend upward, although the wide fluctuations which have characterized the post-war period continued to be a feature of the exchange market. During the war exchange rates were stabilized artificially by the various governments and the pound sterling was held around 4.764375. In the spring of 1919 the "pegging" of exchanges was discontinued and the values of European exchanges and currencies in New York began to decline persistently and rapidly, with occasional sharp temporary recoveries. The decline which has taken place represents an adjustment of the exchange values which were artificially sustained during the war to the changed commercial and monetary conditions of the post-war period. During the year 1921 this downward adjustment of sterling, francs, and lire appears to have come, for the time being, at least, to an end, but the value of the Austrian krone declined almost to the vanishing point, and the precipitate decline since May of the German mark has been one of the spectacular features of the year.

Exchange rates were affected by the reparations payments and by the discussion of financial settlements with Germany. The average rates for January and December, together with the lowest and highest monthly average rates during the year for leading foreign currencies are shown in the following statement:

	Par of exchange (cents).	Rates in 1921 (cents per unit of foreign currency).					
		Average for January.	Lowest monthly average for the year.		Highest monthly average for the year.		Average for December.
			Month.	Rate.	Month.	Rate.	
Pound sterling	486.65	374.1970	July	363.2130	December	415.6108	415.6108
French franc	19.30	6.4330	January	6.4330	May	8.3688	7.8446
Italian lira	19.30	3.5520	...do	3.5520	...do	5.2960	4.4365
German mark	23.82	1.6000	November	.3924	February	1.6400	.5258
Swedish krona	26.80	21.4000	July	21.0400	December	24.5281	24.5281
Dutch florin	40.20	32.8800	August	31.0000	...do	36.3104	36.3104
Argentine gold peso	96.48	79.3820	July	65.7990	February	80.3900	74.8042
Brazilian milreis	32.44	15.1390	...do	10.4490	...do	15.5970	12.6692
Chilean paper peso	19.53	14.3200	August	10.2400	March	14.7600	10.7837
Japanese yen	49.85	48.7000	October	47.6552	January	48.7000	47.9219
Indian rupee	48.65	28.6100	July	23.0588	...do	28.6100	27.4488
Shanghai tael	66.85	76.9000	March	64.2250	October	78.4016	75.3162

Sterling, francs, and lire pursued substantially parallel courses during the 12 months' period. Moderate advances in the early part of the year were followed by a sharp rise in May, when the amount of the German reparations was fixed and prospects for an adjustment of international financial relations appeared brighter. This rally, however, was followed by a rapid decline when the first German payment of $50,000,000 was made. Inasmuch as this payment was required to be made in dollar exchange, the demand for dollars, already keen, became still more intensified and other currencies depreciated correspondingly. This resulted in a modification of the reparations arrangement, and Germany was permitted to pay future installments in other currencies.

The decline in exchange rates which began in May continued until October, although sterling began to react as early as July, owing to the settlement of the British coal strike and the continuous exports of gold to the United States. An upward turn in the exchanges of other allied countries, partly in response to improved trade conditions, took place in November. During the closing weeks of the year the progress of the Conference on Limitation of Armament and the prospect of a satisfactory conclusion of Irish negotiations in England were reflected in a pronounced upward movement in sterling and of the exchanges of western European countries.

German exchange reached its peak of 1.64 cents in February and remained at about that level until May, but the payment of the first installment of the indemnity, followed by the progressive demoralization of the fiscal situation in Germany, the continued issue of large amounts of Treasury bills and Reichsbank notes and the persistent efforts of German citizens to convert marks into other currencies, resulted in the decline of the mark to the lowest point ever reached. From 1.6 cents in May, the mark declined to 0.39 cent in November, but rallied to 0.53 cent in December.

The Austrian krone and the Polish mark, owing to the uninterrupted issue of enormous volumes of notes, declined so rapidly that at the close of 1921 these currencies were valued at a small fraction of 1 per cent of their parity and were practically negligible as media of international payments.

The Czechoslovakian krone, on the other hand, as the result of a strong fiscal policy and control of exports and imports, was held during the year at the comparatively high level of 5 to 6 per cent of its parity, and the Yugoslavian dinar, notwithstanding a considerable decline, was still worth at the end of the year about 7 per cent of its par value.

Exchanges of South American countries during the early part of the year continued to decline owing to unfavorable trade balances and to the fall in the price of their staple products. During the summer, however, some of these countries obtained credits in the United States and in the latter part of the year their exchanges showed decided improvement. In Brazil, the efforts of the Government to maintain the price of coffee and to control exchange transactions were also a factor in the advance in milreis. In Argentina reports indicate a favorable turn in general economic and trade conditions.

Japanese exchange remained steady throughout the year in its position slightly below par. The Indian rupee declined during the first part of the year, but advanced after June when the effects of favorable climatic conditions and consequent improvement in trade conditions began to be felt. Gold exports to Japan and the United States also tended to strengthen rupee exchange. During recent weeks, however, a downward movement of rupee exchange has resulted from the fall of the mark and the consequent decline in German purchases of hemp, jute, and other Indian raw materials.

Silver moved within comparatively narrow limits, the lowest monthly average quotation being about 57 cents in March and the highest about 71 cents in October.

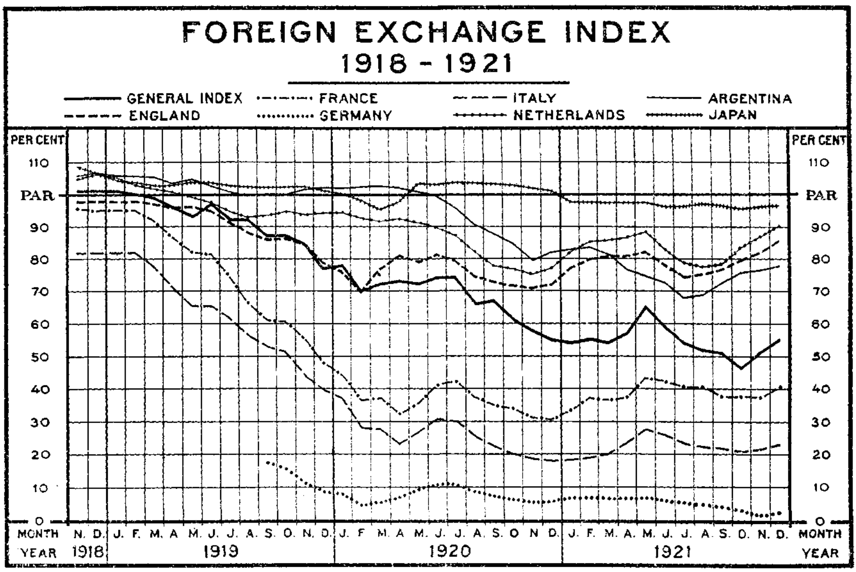
In accordance with the provisions of the emergency tariff act of May 27, 1921, the Federal Reserve Bank of New York, beginning with June 17, has made a daily statement to the Treasury of the average noon buying rates for various foreign currencies in the New York market. On the basis of these statements the Federal Reserve Board compiles monthly high, low, and average quotations of all the important currencies and publishes them in the Federal Reserve Bulletin. A table is published in the appendix showing these quotations for each month from July to December. In addition to the high, low, and average quotations, percentages of par are shown. A chart illustrating the fluctuations of the leading exchanges since the armistice appears on the next page.

In view of the great importance which the movement of foreign exchange rates has assumed in international trade and financial relations, the Board has undertaken to compile monthly on the basis of quotations from 18 principal countries a general index of foreign exchange. This index has been calculated for each month, beginning with November, 1918, the quotations prior to July, 1921, being obtained from private sources and those from July to December, 1921, from the statements of the Federal Reserve Bank of New York. This general exchange index is given in the statement below and is represented by the heavy solid line on the chart.

FOREIGN EXCHANGE INDEX.

	1918	1919	1920	1921
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*
January	....	101	78	54
February	....	100	70	55
March	....	99	72	54
April	....	96	73	57
May	....	93	72	65
June	....	97	74	59
July	....	92	74	53
August	....	92	66	52
September	....	88	67	51
October	....	88	61	46
November	101	84	58	51
December	101	77	55	55
Year	....	89	68	54

In compiling this index the average quotations for each of the 18 countries included, expressed as percentages of par, are weighted by the volume of merchandise and gold and silver transactions between the respective countries and the United States during the preceding month, the index being what is known as a "weighted geometric average." Stated in another way, without the use of technical terms, the index shows how many dollars would be required each month to purchase in the New York market a representative assortment of foreign exchange bills which at par would have cost $100. The index was slightly over 100 during the first three months succeeding the armistice, when the "pegging" arrangements still prevailed, and oriental and South American exchanges were high owing to unpaid balances accumulated during the gold embargo. Beginning with March, 1919, the exchange index declined almost uninterruptedly until January, 1921, when it stood at 54 per cent. During 1921 the index rose to 65 per cent for May, declined to 46 per cent for October, but rose again to 55 per cent for December. For the year 1921 the foreign exchange index works out at 54, compared with 68 for 1920 and 89 for 1919.



FOREIGN BRANCHES OF NATIONAL BANKS.

The Federal Reserve Board during the year 1921 authorized the establishment of a foreign branch in Paris, France, by the National City Bank of New York. This branch, already an operating institution, was purchased from the Farmers Loan & Trust Co. of New York, December 31, and given the title of Paris Branch of the National City Bank of New York on the same date.

During the year the National City Bank closed its branches at Barranquilla, Bogota, and Medellin in the Republic of Colombia, the branch at Cape Town, Union of South Africa, and the branch at Port of Spain, Trinidad.

The First National Bank of Boston operates to date but one foreign branch, located at Buenos Aires, Argentine Republic, which was authorized by the Board in July, 1917.

FOREIGN BANKING CORPORATIONS.

In the Board's annual report for the year 1920 there was given a list of foreign banking corporations organized under State law and doing business under agreement with the Federal Reserve Board as provided in section 25 of the Federal Reserve Act. During the past year there has been no increase in the number of these corporations nor has the scope of the operations of those listed in the 1920 report been enlarged; on the contrary, some of them have curtailed their business because of certain unfavorable conditions with which they have been confronted.

The two corporations which were reported last year as having been organized under the provisions of section 25 (a) of the Federal Reserve Act, commonly known as the Edge Act, during the year 1921, did only a moderate volume of business and are extending their operations slowly and cautiously. No new corporations have been organized during the year under the provisions of section 25 (a).

TRUST POWERS OF NATIONAL BANKS.

During the past year, through its counsel's office, the Board has continued to advise and cooperate with the national banks in connection with the operation of their trust departments, which may be established with the Board's consent under authority of the provisions of section 11(k) of the Federal Reserve Act. In order fully to inform itself regarding this general subject the Board addressed to all national banks which have been granted trust powers a questionnaire designed to elicit information as to the degree of success which they are attaining in the operation of their trust departments and as to the nature of the practical and legal difficulties, if any, which they are encountering. On October 15, 1921, which is about the date this questionnaire was sent out, 1,387 national banks held permits to exercise fiduciary powers under the terms of section 11(k) of the Federal Reserve Act. The banks responded readily and seemed to appreciate the Board's efforts to cooperate with and assist them in this matter. The Board believes that the results of the questionnaire will prove very valuable to all who are interested in the subject.

The answers to the questionnaire show that the opposition on the part of the State authorities which at first existed in many of the

States has very largely disappeared, and that in all but three or four of the States national banks are permitted to exercise fiduciary powers on a basis of substantial equality with State trust companies. A large number of banks are operating trust departments very successfully, many of them stating that they are meeting with much greater success than they had anticipated. Seven hundred and ninety-four national banks replying to the questionnaire had acted in various fiduciary capacities 8,341 times in the aggregate, and it is estimated that they held trust funds aggregating over $825,000,000. The national banks which are operating trust departments are almost unanimous in the opinion that their trust departments bring new business into the banks, and enable them to retain balances which upon the death of their customers would otherwise be diverted to competing trust companies. It appears also that many national banks which are located in small communities where there are no trust companies are furnishing, through their trust departments, a service which their communities greatly need, although they are somewhat handicapped by the fact that their customers are not as yet fully acquainted with the advantages of corporate fiduciaries. A complete and detailed summary of the replies to the Board's questionnaire is published among the exhibits in the appendix.

During the past year the Board, after examination and report by the counsel's office, has approved 134 original and 14 supplementary applications by national banks for fiduciary powers.

BOARD'S ORGANIZATION AND EXPENDITURES.

There have been several changes in the Board's organization and staff during the past year. On March 4, Hon. Andrew W. Mellon succeeded Hon. David F. Houston as Secretary of the Treasury and ex officio member and chairman of the Federal Reserve Board.

On March 17, Hon. D. R. Crissinger took the oath of office as Comptroller of the Currency and ex officio member of the Federal Reserve Board, his predecessor having retired from office on March 2, 1921.

The term of David C. Wills as a member of the Board expired on March 4, and on May 12 John R. Mitchell, of St. Paul, Minn., took the oath of office as a member of the Board, having been appointed by the President for a full term of 10 years.

The total cost of conducting the work of the Board during the year 1921, including salaries of members and the cost of printing and circulating the Federal Reserve Bulletin, was $722,318.86. Two assessments were levied against the Federal Reserve Banks during the year, aggregating $741,436.29, or approximately 239 thousandths of 1 per cent of their average paid-in capital and surplus for the year.

A statement of salaries paid and of other expenditures by the Board is given in the appendix.

FEDERAL ADVISORY COUNCIL.

The Federal Advisory Council held its four statutory meetings in Washington during 1921 on the following dates: February 21, May 16, September 19, and November 21. No other meetings of the council were held during the year. Recommendations made by the council appear in the appendix.

CONFERENCES HELD BY THE BOARD.

The Federal Reserve Board conferred with the Federal Advisory Council on the occasion of each of its meetings in Washington.

On April 12 the Board held a conference with the governors of the Federal Reserve Banks, and on April 14 one class B director from each Federal Reserve Bank joined with the Board and the governors of the banks for the purpose of discussing the credit situation as it then existed. On October 25 a joint conference was held with the Federal Reserve agents and the governors of the Federal Reserve Banks. At these conferences matters relating to the operations of the Federal Reserve System were discussed.

A meeting with the Board of representatives of all Federal Reserve Banks was held in Washington on January 13, 1921, to discuss the Federal Reserve interdistrict time schedule.

On February 21 and 22 a conference of statisticians, which included representatives of the Board and the Federal Reserve Banks, as well as a number of business statisticians, was held in Washington for the purpose of discussing business condition reports.

On July 20 the Board held a conference with the Governors of the Federal Reserve Banks of Richmond, Atlanta, St. Louis, Kansas City, and Dallas, at which the credit situation in the cotton States was discussed.

KERN AMENDMENT TO THE CLAYTON ACT.

As originally enacted section 8 of the act approved October 15, 1914, known as the Clayton Antitrust Act, absolutely prohibited interlocking directorates between certain classes of banks. The act of May 15, 1916, known as the Kern amendment, modified the provisions of that section so as to allow a person who first obtains the permission of the Federal Reserve Board to serve not more than three banks in the prohibited classes, if such banks are not in substantial competition. Under the terms of this amendment the Board is authorized at its discretion to grant, withhold, or revoke such consent if the banks involved are not in substantial competition, but the Board has no authority to grant such consent if the banks involved are in substantial competition.

Inasmuch as several years had elapsed since the enactment of the Kern amendment, the Board in the fall of 1920 undertook to review the entire situation with reference to interlocking directorates, in order to determine whether, in view of changed conditions, it ought to exercise its discretionary power to revoke some of the permits which it had granted previously. In view of the complicated nature of the provisions of the Clayton Act relating to interlocking bank directorates it is the practice of the Board to refer all matters relating thereto to its counsel's office, and that office collected and arranged the data for this review and has made a thorough study of the legal and practical problems involved.

During the course of the Board's review of the situation, urgent representations were made on behalf of some of the banks involved that to revoke outstanding permits and break up long-standing relations would work hardship and injustice upon many banks and bank directors. It was argued that the intent of Congress in enacting the Clayton Act was to encourage competition between banks, and that where competition had sprung up between two banks while their directorates had been interlocked that intent was not being defeated by the existence of the interlocking directorate. There is no doubt of the soundness of this argument, and it emphasizes the fact, which had for some time been impressed upon the Federal Reserve Board, that section 8 of the Clayton Act as amended by the Kern amendment penalizes directors who have acted in accordance with the intent of Congress and have encouraged the growth of competition between the banks which they serve.

When the work done in connection with the review of the interlocking directorates revealed to the Board how many instances there were in which a strict enforcement of the terms of section 8 of the Clayton Act would operate inequitably, the Board decided to consider the question of a further amendment to the Clayton Act to carry out more effectually the intention of Congress to promote and encourage competition. The matter was referred to the Board's committee on the Clayton Act, which, after making a careful study of the problem, with the assistance of counsel, rendered a report in which it recommended an amendment which would authorize the Federal Reserve Board to permit a person to serve not more than three competing banks, when the Board is satisfied that such interlocking directorates will not result in a restriction of credit or lessening of competition between the banks involved, the Board, however, to continue to have full power to revoke such permits at any time.

The committee further recommended that existing permits previously granted by the Board be not disturbed until the probability of the enactment of such an amendment could be ascertained, and that the Board postpone final action on its review of the existing situation which had been scheduled for April 1. The Board adopted the recommendations of its committee on the Clayton Act and a bill amending the Clayton Act in this manner was drafted and submitted to the Senate and House Committees on Banking and Currency. The bill was introduced in the House of Representatives on April 21, 1921, and was referred to the Committee on Banking and Currency, but no further action has been taken regarding it. The Board desires to take this opportunity to renew its recommendation that the proposed amendment to the Clayton Act be enacted. A draft of the proposed amendment and the report of the Board's committee on the Clayton Act which explains more fully the problems involved are published as exhibits in the appendix to this report.

During the year 1921 the Board has acted upon 297 applications for its permission to serve two or more banks under the Kern amendment, counsel's office having investigated and made its report to the Board upon each of these applications. The Board has also, through counsel's office, investigated and acted upon approximately 500 apparent violations of the Clayton Act, reported by national bank examiners.

AMENDMENTS TO THE FEDERAL RESERVE ACT.

The Federal Reserve Act has been amended three times during the year 1921—by two different acts approved February 27, 1921, and by an act approved June 14, 1921. Each of these amendments, which will be discussed in order, was recommended by the Federal Reserve Board.

By one of the acts approved February 27, 1921, the provisions of section 11(m), which had expired by limitation on December 31, 1920, was reenacted with a slight modification and made effective until October 31, 1921. That section, as amended by the act of March 3, 1919, had authorized the Federal Reserve Board to permit Federal Reserve Banks to discount for any member bank the paper of a single borrower up to 20 per cent of the member bank's capital and surplus, provided that such paper in excess of 10 per cent of the member bank's capital and surplus was secured by Liberty bonds, Victory notes, or United States certificates of indebtedness. As amended by the act of February 27, 1921, the scope of the section was narrowed by limiting its application to paper secured by Liberty bonds and Victory notes only when the borrower was the original subscriber thereto. The section as amended still applied, however, to paper secured by United States certificates of indebtedness, however acquired.

The other act, approved February 27, 1921, amended section 25(a) by adding a proviso to the first paragraph thereof to the effect that nothing in that section should be construed to deny the right of the Secretary of the Treasury to use any corporation organized thereunder as a depositary in Panama, the Panama Canal Zone, the Philippine Islands, and in other insular possessions and dependencies of the United States. The necessity for this amendment arose from the fact that the Treasury officials were doubtful whether the authority to require corporations organized under section 25(a) to act as fiscal agents included the right to use them as depositaries.

Section 25(a) was amended again by the act of June 14, 1921. As originally enacted, that section required corporations organized under it to have a capital of not less than $2,000,000, one-fourth of which had to be paid in before the corporation was authorized to commence business and the remainder of which had to be paid in in installments of 10 per cent at the rate of one installment every two months. This requirement was modified by the act approved June 14, 1921, so that a corporation with an authorized capital in excess of $2,000,000 may apply for the consent of the Federal Reserve Board to have such excess paid in on call of the board of directors, provided that in all events 25 per cent of the total authorized capital must be paid in before the corporation commences business.

FUNDAMENTAL PRINCIPLES OF THE FEDERAL RESERVE ACT.

More than seven years have elapsed since the establishment of the Federal Reserve Banks, but there is still a surprising lack of knowledge of what they really are and of what their proper functions are, not only on the part of the public at large, but among business men and bankers as well.

During the past year many things have been said and written regarding the Federal Reserve System which are calculated to create entirely false impressions, and in order that a clearer idea may be presented of the principles which govern the policies of the Federal Reserve Board and the operations of the Federal Reserve Banks, it seems desirable to review briefly some of the essential features of the Federal Reserve Act, to discuss the measure of authority conferred upon the Federal Reserve Board, the joint and separate powers exercised by the Federal Reserve Board and the Federal Reserve Banks, and to describe concisely the fundamental character and some of the distinctive functions of the Federal Reserve Banks.

NO CENTRAL BANK.

Attention should be called, first of all, to the fact that the Federal Reserve Act did not establish a central bank. On the contrary, it adopted the regional principle and authorized the establishment of not more than 12 banks, to be located in various sections of the country. Each of these banks is practically independent of the others, in operation as well as in local policies. From a legal standpoint, these banks are private corporations organized under a special act of Congress, namely, the Federal Reserve Act. Their stockholders are their member banks, each of which is required to subscribe to the capital stock of the Federal Reserve Bank an amount equal to 6 per cent of its own capital and surplus, one-half of which amount is required to be paid in.

DISPOSITION OF EARNINGS.

After all necessary expenses of a Federal Reserve Bank have been paid or provided for, the stockholders are entitled to receive an annual dividend of 6 per cent on the paid-in capital stock, which is cumulative. After the dividend claims have been fully met, the net earnings are paid to the United States as a franchise tax, except that the entire earnings are paid into a surplus fund until that fund amounts to 100 per cent of the subscribed capital stock of the Federal Reserve Bank. Thereafter 10 per cent of the net earnings are paid into the surplus fund and the remaining 90 per cent paid to the Government as franchise tax.

ORGANIZATION.

Each bank has nine directors, of which six are elected by the member banks and three are appointed by the Federal Reserve Board. Not more than three directors can be officers or directors of member banks and the three directors appointed by the Federal Reserve Board can not be officers, directors, or stockholders in any bank. Three directors elected by the member banks must be men who are actively engaged in their respective districts in agriculture, commerce, or some other industrial pursuit. As there are 12 Federal Reserve Banks, there are, therefore, 108 Federal Reserve Bank directors, of which only 36 are appointed by the Federal Reserve Board, while the remaining 72 directors are elected by the member banks of the country—nearly 10,000 in number.

LENDING POWERS.

The law does not contemplate direct competition by the Federal Reserve Banks for business with each other or with national banks, State banks, trust companies, and savings banks. Federal Reserve Banks are not allowed to receive deposits from the public and can accept deposits only from their member banks, from the United States Government, and, solely for the purposes of exchange or collection, from nonmember banks or trust companies. They are not allowed to make loans or advances direct to the public, but can lend only to the United States, to their member banks, and, subject to certain conditions, for periods not exceeding six months, in anticipation of the collection of taxes or the receipt of assured revenues, to States, counties, municipalities, and other political subdivisions in the United States.

The Federal Reserve Banks are not permitted by law to make loans direct to individuals, firms, and corporations, and while they can, under certain restrictions, purchase bills of exchange and bankers' acceptances in the open market, their dealings with the public in the matter of loans are limited to the discounting of notes, drafts, and bills of exchange for member banks, all such paper to be indorsed by the member bank offering it. In lending in this way to their member banks, the Federal Reserve Banks are not authorized by law to use the same discretion and freedom of action that are allowed national banks, State banks, and trust companies, but they must observe the limitations prescribed by law as to the character and maturity of the notes offered them by member banks for discount; except as to notes, drafts, and bills drawn or issued for agricultural purposes or based on live stock, which a Federal Reserve Bank may discount for a member bank if the maturity does not exceed six months, a Federal Reserve Bank can not discount any paper for a member bank which has longer than 90 days to run, exclusive of days of grace.

The law puts a limitation also upon the character of advances against member banks' notes. A Federal Reserve Bank may make advances to its member banks on their promissory notes for a period not exceeding 15 days, provided such promissory notes are secured by the deposit or pledge of bonds or notes of the United States, or by notes, drafts, and bills of exchange or bankers' acceptances which are themselves eligible for rediscount or purchase by a Federal Reserve Bank. To be technically eligible for rediscount a note must be indorsed by a member bank, its maturity must be within the time limit prescribed by law, and it must have been issued or drawn for agricultural, industrial, or commercial purposes, and it must also be shown that the proceeds of the note have been used or are to be used for such purposes.

As Federal Reserve Banks are not permitted by law to rediscount any paper which does not bear the indorsement of a member bank, it is clear that in order for a Federal Reserve Bank to render financial assistance to those engaged in commerce and industry, in agriculture, or in the raising of live stock, the loans must first be negotiated with member banks. There are many loans, however, which member banks may legally and properly make which can not be rediscounted with Federal Reserve Banks for the reason that the law does not admit of the classification of such paper as eligible. A Federal Reserve Bank, therefore, can not discount any paper, however good it may be, which is not technically eligible under the terms of the Federal Reserve Act; and, on the other hand, it is entirely within its right in declining to discount notes which, even though technically eligible, are not satisfactory from a credit standpoint.

Federal Reserve Banks are forbidden by law from discounting notes, drafts, or bills covering merely investments, or issued or drawn for the purpose of carrying or trading in stocks, bonds, or other investment securities, except bonds and notes of the Government of the United States.

RESERVES.

The Federal Reserve Act, as amended, has changed both the amount and character of the reserves which all national banks and State member banks must carry against their deposit liabilities. For a long period of years it has been the practice of American banks to carry as a reserve in cash and on deposit with other banks a certain proportion of their deposits. Before the passage of the Federal Reserve Act the national banks in the three central reserve cities were required to keep in their own vaults as reserve in gold or lawful money an amount equal to 25 per cent of their net deposits, and in other cities and towns they were required to keep a part of their required reserves in cash in their own vaults, while a part might be kept on deposit with other banks. The laws regarding the reserves of State banks varied in the different States. Under the Federal Reserve Act the percentage of reserve required has been substantially reduced, and, as amended, no national bank and no State member bank is required to keep any definite amount of cash in its own vaults, and whatever amount of cash is kept on hand by the member banks, as deemed necessary by the judgment and experience of their officers, does not count as part of the banks' lawful reserve.

The entire legal reserves of all member banks must be kept on deposit with the Federal Reserve Banks. As a consequence, the cash resources of the Federal Reserve Banks are necessarily very large and their holdings of gold, in particular, constitute a very large proportion of all the gold in the country. The gold held by the Federal Reserve Banks is equal to all the gold that would have been in circulation or held by all the banks throughout the country if there had been no Federal Reserve Banks established.

As the Federal Reserve Banks are made the sole custodians of the legal reserves of all member banks, the object of Congress in throwing safeguards and limitations around their loan transactions is evident. It is necessary that Federal Reserve Banks should keep themselves in a "liquid" position; that is, their bills discounted must be of short maturity and should be readily collectible. The strength of the entire banking system of the United States is directly related to the strength of the Federal Reserve Banks. If the Federal Reserve Banks should allow themselves to get into a weak, overextended, and unsafe position, all member and nonmember banks would be seriously affected.

GENERAL POWERS AND LIMITATIONS.

While Congress has placed upon the Federal Reserve Board the responsibility of defining eligible paper, within the meaning of the Federal Reserve Act, it has intrusted the management of the Federal Reserve Banks, under the general supervision of the Federal Reserve Board, to their own directors. Each Federal Reserve Bank has power to appoint, by its board of directors, such officers and employees as are not otherwise provided for in the Federal Reserve Act and to define their duties, to prescribe by-laws, not inconsistent with the law, regulating the manner in which its general business may be conducted, and to exercise, by its board of directors, or duly authorized officers or agents, all powers specifically granted by law and such incidental powers as may be necessary to carry on the business of banking within the limitations prescribed by law.

Each Federal Reserve Bank is conducted under the supervision and control of its board of directors, who are charged by law to perform the duties usually appertaining to the office of directors of banking associations and to administer the affairs of the bank fairly and impartially and without discrimination in favor of or against any member bank or banks and, subject to the provisions of law and the orders of the Federal Reserve Board, to extend to each member bank such discounts, advancements, and accommodations as may be safely and reasonably made with due regard for the claims and demands of other member banks.

The Federal Reserve Board is not authorized by law to pass upon the paper which is offered for discount to Federal Reserve Banks. This is a function which must be exercised by the directors of the Federal Reserve Bank or by their duly authorized officers or agents. While the law does not prescribe any fixed limit as to the amount of loans that a Federal Reserve Bank may make to a member bank, it does require that due regard must be given to the claims and demands of other member banks; that is, to their possible needs for credit accommodation. It also provides that a Federal Reserve Bank must extend to each member bank such discounts and accommodations as may be "safely and reasonably made." This means that the directors of a Federal Reserve Bank and the officers appointed by them must exercise their best judgment in granting discount accommodations. They must assure themselves that the discounts are such as can be safely made, and reasonably made, with due regard to the possible requirements of other member banks which may ask for accommodations later on.

The lending power is not vested in the Federal Reserve Board and the reason for this is probably twofold. First. The Federal Reserve System is not a central bank. It is a regional system comprising twelve banks. Congress did not intend that there should be a centralized control of credits. Second. In a country embracing so vast an area as the United States, it would be a very difficult task, if not an impossibility, for a central board to pass intelligently upon the security of the paper offered for discount, which must necessarily come from all sections of the country.

NO CONTROL OVER MEMBER BANK LOANS.

While the Federal Reserve Act was intended to strengthen the banking system of the United States and to provide ready means of rediscounting certain classes of paper, it is also the evident intention of the act to disturb as little as possible the business of the member and nonmember banks, or their dealings with their customers. There is nothing in the Federal Reserve Act which gives either the Federal Reserve Board or a Federal Reserve Bank any control over the loan policy of any member bank. A Federal Reserve Bank can not compel a member bank to make a loan which it does not desire to make, nor restrain it from making a loan which it wishes to make even though it is forbidden by law.

A Federal Reserve Bank can not lend directly to the customers of a member bank, nor does it, in fact, take the initiative in making loans to a member bank for the purpose of enabling the member bank to distribute the funds so advanced to its customers. The Federal Reserve Bank lends to the member bank against transactions already made, for the purpose of enabling the member bank to restore its reserve to the legal requirement, after the reserve has been impaired or is about to be impaired because of increased loans and deposits.

There is a very general popular misconception regarding this, and it may be that some of the member banks are responsible for this misunderstanding without being actuated, however, by sinister motives. Banks, as a rule, do not like to admit to customers that they are short of loanable funds nor do they wish to arouse enmity in declining to make loans or in asking for a reduction of a loan already made.

There are doubtless some bank officers who are able frankly to decline an application for a loan in a way which leaves no sting, but not all bank officers have such tact. Some are frank enough, but their bluntness hurts the feelings of the would-be borrower. It is not unusual, therefore, for some bank officers in declining loans to seek to evade direct responsibility. Formerly, the board of directors was made useful in this capacity. In recent years, however, bank officers have found in the Federal Reserve Board or the Federal Reserve Bank a much more satisfactory buffer than a local board of directors. In many cases, in small towns particularly, banks have found it convenient to pass the responsibility on to the Federal Reserve Bank or the Federal Reserve Board, and have stated to a borrower or would-be borrower that they would like to grant the extension asked for or make the loan desired, but the Federal Reserve would not permit it. Such a procedure has a tendency to relieve the situation as far as the local bank is concerned, but it is certainly unfair to the Federal Reserve System. This evasion of responsibility has subjected the Federal Reserve Banks to a great amount of unjust criticism and has given the public a wrong impression of the authority and attitude of the Federal Reserve Banks and the Federal Reserve Board.

It is entirely true that a Federal Reserve Bank, mindful of its responsibility under the law and acting in accordance with the dictates of ordinary banking prudence, may have had occasion to call the attention of some of its larger borrowing banks to their large discount lines, which have run in some cases over a period of years without being reduced, and have called the attention of the borrowing banks to the necessity of working themselves into a stronger position. But in no case within the knowledge of the Federal Reserve Board has any Federal Reserve Bank undertaken to say to a member bank what particular loans it should call or ask to have reduced.

FEDERAL RESERVE NOTE ISSUES.

There is perhaps as much confusion in the public mind regarding the issue of Federal Reserve notes as there is regarding the rediscounting functions of the Federal Reserve Banks. There are some who appear to have an impression that the Federal Reserve Board has power to expand or contract the currency of the country at will and that it has exercised this power in a reckless and arbitrary manner. While the law prescribes that the Federal Reserve Board shall have the right, acting through the Federal Reserve Agent, to grant in whole or in part or to reject entirely the application of any Federal Reserve Bank for Federal Reserve notes, it has never exercised this right. On the contrary, it has always approved promptly every application which has been made for the issue of Federal Reserve notes. One of the purposes of the Federal Reserve Act, as stated in its caption, is to furnish an elastic currency, but there are some whose idea of elasticity is continuous stretching.

Currency to be really elastic must be susceptible of expansion or the reverse, as the needs of industry and commerce may require. Many believe that there was a preordained contraction of the currency during the year 1920, determined upon in order to reduce prices. The expansion of nearly $600,000,000 in Federal Reserve note circulation which actually took place during that year shows that the impression is absolutely unwarranted.

An increase or decrease in the volume of Federal Reserve notes outstanding is not the result of any preordained policy or premeditated design, for the volume of Federal Reserve notes in circulation depends entirely upon the activity of business or upon the kind of activity which calls for currency rather than book credits.

Federal Reserve notes can be issued only against collateral in an amount equal to the sum of the Federal Reserve notes applied for, which collateral security must be notes and bills discounted or acquired by the banks or gold or gold certificates. The law requires each Federal Reserve Bank to maintain a reserve of 40 per cent in gold against its Federal Reserve notes in actual circulation.

During the year 1921 the loans of the Federal Reserve Banks to their member banks decreased by about $1,500,000,000; and as the notes discounted with Federal Reserve Banks have been paid off, Federal Reserve note currency has come back to the banks and, in the absence of a demand for it, has not been reissued. Upon payment of commercial paper which has been deposited to secure Federal Reserve notes, there necessarily results either an immediate return of an equivalent amount of notes to the bank or an automatic increase in the percentage of gold reserve available for their redemption. Federal Reserve notes are not legal tender, nor do they count as reserve money for member banks. They are issued only as a need for them develops, and as they become redundant in any locality they are returned for credit or for redemption to the Federal Reserve Banks or to the Treasury at Washington. Thus, there can not be at any time more Federal Reserve notes in circulation than the needs of the country at the prevailing level of prices and wages require, and as the demand abates the volume of notes outstanding will be correspondingly reduced through redemption. The increased volume of Federal Reserve notes in circulation from 1917 to the end of the year 1920 was, in so far as it was not the result of direct exchanges for gold and gold certificates, the effect of advancing wages and prices and not their cause, just as the reduction which has taken place during the past year is the result of lower prices and smaller volume of business, rather than their cause.

Under the Federal Reserve System, as business expands, as labor is more fully employed, and as production increases and distribution becomes more active, there follows a demand for greater discount accommodations and a need for more currency, and the increased volume of discounts furnishes a means of providing the increased volume of currency required.

GOLD RESERVES AND INTEREST RATES.

The Federal Reserve Banks held on December 28, 1921, a gold reserve of about $2,870,000,000 and a combined reserve against member banks' deposits and note issues of slightly more than 71 per cent. Or, if the legal minimum reserve of 35 per cent be set up against deposits, there would remain a gold reserve of slightly more than 97 per cent against Federal Reserve notes in circulation.

For some months past there has been a marked easing in domestic rates of interest. Notwithstanding some unfavorable features in the revenue laws, the investment market is now absorbing securities at reasonable rates which could not have been considered a few months ago. Market quotations of Liberty bonds have steadily advanced until they are now approaching par. Good railroad and industrial bonds have also appreciated, and there have been some noticeable advances in standard stocks.

In his annual report recently sent to Congress, the Secretary of the Treasury remarks that the advance in the price of Liberty bonds and Victory notes is in part a reflection of easier credit conditions and lower interest rates, though increased buying on the part of investors and better distribution of the public debt doubtless account for much of the improvement. High commodity prices and great business activity usually mean lower prices for bonds and other securities yielding a fixed income, while reduced commodity prices and lower money rates bring higher market prices for bonds.

CONCLUSION.

In conclusion, a word more may be added by way of summary: A Federal Reserve Bank is what its name implies. It is a reserve bank. It holds on deposit the entire legal reserve of its member banks. It is not authorized by law to receive deposits from the public, nor to lend directly to individuals, firms, or corporations. It can rediscount paper of short maturity for member banks with their indorsement; that is, notes, drafts, and bills of exchange issued or drawn for agricultural, industrial, or commercial purposes, or the proceeds of which have been used or are to be used for such purposes. Based in part on the security of such paper, it can put in circulation Federal Reserve notes in sufficient volume to meet the requirements of ordinary business transactions or of an acute emergency.

But the Federal Reserve System should not be expected to accomplish the impossible. It can not control individual judgment or action. It is not a panacea for all economic and financial ills, and it can not, however skillful its administration may be, prevent periods of depression, although it can do much to modify them. Other nations, such as Great Britain and France, with their great central banking institutions, have always had their years of prosperity and their periods of depression, although they have been free from the money panics which we formerly had in this country as a result of our inadequate banking system and which we would, no doubt, have had in the most aggravated degree a year or so ago but for the efficiency and stabilizing influence of the Federal Reserve System.

There are well-defined cycles in business. There are the short and frequently recurring cycles incident to the changes of the seasons and there are longer swings or periods of prosperity and depression, the rotation being about as follows: (1) Business activity and increasing production; (2) excessive expansion and speculation, followed hitherto by panic and forced liquidation; (3) a long period of slow liquidation, business depression, and stagnation; and (4) revival.

There are those who believe that the beginning of revival is not far distant. When it does definitely set in it will be followed in due course by a new era of prosperity.

In the light of recent experience we should remember, when we again enter into a period of full prosperity, that a reaction will follow sooner or later; and if the flow of the incoming tide can be controlled so that the crest may not be reached too rapidly nor rise too high the subsequent reaction will be less severe and the next period of industrial and commercial activity and general prosperity will be marked by saner methods, greater achievement along constructive lines, and by a longer duration than any which we have had before. We should not forget that the ebb of the tide is always equal to the flow and that the ebb in the Bay of Fundy, where the tide rises highest, is far greater than in safer harbors where the tidal fluctuations are more moderate.

By direction of the Federal Reserve Board:

W. P. G. Harding,
Governor.

The Speaker of the House of Representatives.

APPENDIX A.

OUR PRESENT FINANCIAL AND ECONOMIC PROBLEMS.

By Hon. SYDNEY ANDERSON, Member of the House of Representatives from Minnesota and Chairman of the Joint Congressional Commission of Agricultural Inquiry.

ADDRESS BEFORE BALTIMORE CHAPTER OF AMERICAN INSTITUTE OF BANKING.

I am very grateful for this opportunity to tell you something of the work that the Joint Commission of Agricultural Inquiry has been doing. It is always a privilege to address an audience of Americans. It is not only a privilege but a responsibility in these days when the developments of each 24 hours demonstrate that the problems of peace are no less urgent or important than those of war. It is good to be an American now, when American leadership is daily proving its power and influence in world affairs. It is good to know that we have a right to hope for the lifting of the burdens incident to the competitive race for national armaments.

I want at the outset to say that the commission is conducting an inquiry, not an inquisition. We have set up, for the purpose of obtaining information for the commission's use, more than 200 voluntary committees with a cooperating organization consisting of more than 3,000 persons. These cooperating organizations have included representatives of practically all of the principal trades and industries in the United States, including railroads.

I have been asked to discuss specifically the investigation which has to do with the relation of the Federal Reserve System to the crisis through which we have been passing and the causes of the spread between producers' and consumers' prices.

In order to appreciate the relation of the Federal Reserve System to the crisis, it is necessary to discuss the events which led up to it, and the decisions of the Treasury Department and the Federal Reserve Banks which had a direct bearing upon these events.

The Federal Reserve Banks began operations in November, 1914, shortly after the beginning of the great World War. The period which followed their organization was one of great expansion and business activity, due in part, I think, to the reduction of reserve requirements, increased mobility of reserves and credit, and the greater expansion permitted under the Federal Reserve System. The normal activity of the period was augmented by the enormous demands of the warring countries in Europe for supplies, which were mainly bought on forward contracts in which price was second in importance to the certainty of delivery. During this period prices of commodities increased 75 per cent and loans and discounts of all banks, State and National, approximately 40 per cent.

The discount rates of the Federal Reserve Banks, in accordance with the uniform policy of banks of issue the world over, were maintained during this period on a basis somewhat above the market rates on the class of paper to which they were applicable.

With our entrance into the World War, it became apparent that the costs incident to its prosecution could not be paid from the current collection of taxes, and it was necessary to provide immediate payment by the manufacture of credit. The methods employed in this manufacture of credit are no doubt familiar. The point I wish to bring out is that at this time two decisions were made which had a profound bearing and influence upon the conditions which subsequently developed. The first of these was the adoption by the Treasury Department of the policy of offering issues of Government bonds and certificates of indebtedness at rates below the market, which, in my judgment (and this is a point which doubtless will be contradicted by economists and bankers), served to increase the total borrowings of the Government and to promote an unnecessary expansion. The second decision was incidental to the first and involved the determination of the Federal Reserve Board and Federal Reserve Banks to maintain discount rates at a point below going market rates upon the paper to which they were applicable.

It is worthy of note in this connection that, notwithstanding the opportunity and even inducement to expansion which this policy offered, the expansion of loans and discounts of all banks during the period of American participation in the war amounted to only 15 per cent and the increase in prices during the period to 17 per cent. This was doubtless due to restrictions, moral and legal, imposed during the war upon the use of credit, the production of nonessentials, and upon consumption generally.

Shortly before signing the armistice, when the hope of peace became a practical certainty, there began a short period of temporary business recession accompanied by a very slight contraction of loans and discounts. This lasted, however, only to about April first. Had discount rates been raised sharply and progressively, following this period, much of the expansion, speculation, spending, and extravagance which characterized the postwar period might have been avoided. At this time, however, the flotation of the Victory loan, which it was then thought might amount to $6,000,000,000, was under consideration and the Treasury Department feared that a change in the policy touching discount rates, and in its own policy of selling bonds below the market rates, might result in endangering the loan and perhaps in compelling the refunding of the previous issues as well as in depressing the price of existing private bond issues.

Thus, the policy of the Federal Reserve Banks touching discount rates was again subordinated to the policy of the Treasury Department in meeting its credit requirements. In the absence of the restraining influence of increasing interest rates upon borrowings at the Federal Reserve Banks and as a result of the removal of the restrictions, moral and legal, upon the use of credit, upon production of nonessential commodities and upon consumption generally, there ensued a period of intense business activity, expansion, speculation, and extravagance, the like of which has never before been seen in this country or in the world.

This period of expansion was characterized by the phenomena which accompany a period of intense business activity preceding a period of business depression. People began to spend freely and extravagantly and in many cases beyond their current incomes. Orders piled up in great numbers and in duplication. Great volumes of debts were made for plant extension, production, and consumption; banks became extended and gradually the reserves of the banks of issue declined toward the legal minimum. Expansion of loans and discounts during the postwar period exceeded 30 per cent, while prices in the same period rose 33 per cent.

In December, 1919, the Federal Reserve Board and Federal Reserve Banks began to take the action which, in my opinion, should have been taken in the early part of that year. Discount rates were raised slightly in December and more radically and progressively during the early part of 1920. By June, 1920, prices of some commodities had already declined considerably and this was especially true of the farm products of which we produce a surplus in this country. The phenomena which precede periods of industrial depression and business stagnation began to be evident. There developed an exhaustion of current capital and credit. Bankers were forced to stop loaning and then to call loans. Goods were forced on the markets and backed up in the channels of distribution, resulting in increased pressure for loans when credit could not be had except at a high price, and in many instances could not be obtained at all. Orders were canceled. The psychological factors, which in times of intense business activity combined to produce an atmosphere of optimism and to develop a sellers' market, now conspired to produce an atmosphere of pessimism and to develop a buyers' strike. By June, 1921, loans and discounts of national banks had been reduced 12 per cent, Federal Reserve notes 15 per cent, bills discounted and bills bought by Federal Reserve Banks 36 per cent.

By June 30, 1921, wholesale prices of all commodities had declined 44 per cent and prices of farm products 54 per cent. The tremendous decline in prices of agricultural commodities and the hardships attendant upon this decline, and upon the necessary restrictions of credit imposed during the period, reacted in August and September, 1920, in a demand for amelioration of the discount policy of the Federal Reserve Banks in the direction of lower discount rates. I have no doubt that, if it had been possible to take action to arrest the processes of liquidation at this period without incurring great danger of precipitating a financial crash in the midst of industrial crisis, such action would have been beneficial, particularly from the standpoint of the farmers whose products were hit by price declines with greater force than any others. However, inasmuch as no change in policy took place at this time, an estimate of its effect must be purely speculative. It is clear that any change of policy at this time must have been a sufficiently radical reversal of the existing policy to induce borrowings on the part of member banks and to encourage lending to their customers.

Many of the banks at this time were overextended, the unadjusted reserve ratio in many of the Federal Reserve districts at a very low point, and the reserves of the system as a whole close to the legal minimum. There was no certainty that a policy of discount rates below market rates would have served to arrest the processes of liquidation, and on the other hand, it seems probable that such a policy would have been attended by bank failures precipitating a financial crash in the midst of a period of industrial crisis.

The extent of the expansion which occurred during the entire period following the beginning of the World War to October, 1920, is illustrated by the fact that this total expansion was in excess of 100 per cent. Bank loans over this entire period increased at a rate three times as great as that of the period preceding 1914.

There is a very strong feeling in the country that the policy of restriction of credit was applied in many districts with unnecessary vigor and in many instances with unnecessary harshness; that loans were sometimes called where the wiser policy would have been to extend credit at a high rate. On the whole, however, the most significant fact developed by the experience of the past six years of the operation of the Federal Reserve System is that the system has proved sufficiently flexible to meet the requirements of the period of the greatest expansion that the country is likely to know, and to contract credit and currency in correspondence to the lessening of business activity.

On the other hand, the experiences of the past eighteen months have demonstrated the inadequacy of the present banking system of the country from the standpoint of meeting the requirements of the farmer. The farmer is entitled to and should have credit of a maturity corresponding to his turnover and his ability to pay his indebtednes at maturity from the proceeds of the farm; that is, a credit running from six months to three years. The existing banking machinery of the country does not fill these requirements. In addition, the farmer is entitled to just as good an approach to the sources of credit as any one else in any other industry. In my opinion, these requirements can all be met by an adaptation of the present banking machinery which will make it possible for existing banking institutions to furnish credit of the maturity desired without tying up their resources in such a way as to limit the commercial usefulness of these resources.

To accomplish this result, I would permit all existing financial institutions dealing directly with the public, including national and State banks, farm loan associations, and live-stock companies, to make loans to farmers for periods of from six months to three years and to rediscount the paper with the Federal land banks or to act directly as the agent of the Federal land banks in making these loans. The farm paper indorsed by the financial institution taking it to the Federal land banks would be made the basis of short-time debentures by the Federal land banks which would be sold to the investment public in the same way as farm loan bonds are now sold. I would authorize the Federal land banks to rediscount any of such paper held by them with the Federal Reserve Banks when the paper had reached the maturity of six months or less. I would also authorize the Federal Reserve Banks to buy and sell debentures of Federal land banks as they now buy and sell Federal farm loan bonds. This adaptation of existing bank machinery would give the farmer the kind of credit he needs without the additional burden of overhead and investment which would be necessary in the creation of new institutions to meet his credit requirements, and without tying up the quick assets of financial institutions in such a way as to limit their ability to function in respect to the short-time requirements of either agriculture or industry. This plan is approved by a majority of the Federal Reserve Board and Treasury officials.

The impression seems to be rather general in the country that the contraction of loans and discounts and of credit during the period of deflation, through which we have just passed, was much greater than it actually was and that the liquidation which took place in the agricultural sections was relatively greater than in the industrial sections.

The Commission gathered a great deal of data in an effort to demonstrate the truth or falsity of both of these impressions. The compilations made by the Commission, showing total loans and discounts of all banks, include the figures to June 30, 1921. The contraction of loans and discounts of national banks from June, 1920, to June, 1921, amounted to 12 per cent; of State banks and trust companies, to 1.6 per cent; and of all banks, exclusive of savings banks, 6.5 per cent. Total bills discounted and bills bought by Federal Reserve Banks were reduced 36 per cent; Federal Reserve notes in circulation, 15 per cent.

It is rather significant as an indication of the power of expansion of the Federal Reserve System that expansion during the period of business prosperity and contraction during the period of business depression, were both greater in national banks and member banks than in nonmember banks. With respect to the second impression that liquidation was greater in agricultural than in industrial communities, the Commission made a study which involved obtaining, analyzing, and compiling the statements of more than 9,000 banks. For the purpose of this study the counties in the United States were divided into three classes: agricultural counties, semiagricultural counties, and nonagricultural counties. The agricultural counties included all counties in which 80 per cent or more of the products produced were agricultural in character; the semiagricultural counties, counties in which 50 per cent to 80 per cent of the products produced were agricultural, and the nonagricultural counties, those in which less than 50 per cent of the products were agricultural in character.

An examination was made of the bank statements of all the member banks in these counties, as of May 4, 1920, and as of April 28, 1921. From these statements a tabulation was made showing the percentage of increase or decrease in loans and discounts, in borrowings from the Federal Reserve Banks, in borrowings from other banks, and in total deposits in the three classes of counties, which we have been considering, during the period.

The tabulation shows that loans and discounts in agricultural counties during the period were reduced 1.2 per cent; in semiagricultural counties, 1.3 per cent; in nonagricultural counties, 5.6 per cent, and in the country as a whole 4.5 per cent. It shows also that borrowings from the Federal Reserve Banks increased in the agricultural counties 56.6 per cent, and decreased in the semiagricultural counties 0.2 per cent; in the nonagricultural counties 28.5 per cent, and in the country as a whole, 19.5 per cent. Borrowings from other banks increased in agricultural counties 65.7 per cent; in semiagricultural counties 19 per cent; in nonagricultural counties 0.6 per cent. Total deposits decreased in agricultural counties 11.1 per cent; in semiagricultural counties 5.2 per cent; and in nonagricultural counties 4.4 per cent. The greater reduction in deposits in the agricultural counties accounts, in part, at least, for the relatively heavy demand upon the Federal Reserve System by banks in agricultural communities and likewise accounts for the pressure felt by banks in agricultural counties during the period of deflation.

On the whole, it seems safe to conclude that while there was unquestionably great pressure for liquidation in the agricultural sections of the country as well as in the industrial sections, and that this pressure resulted in great hardship upon both the banks and their customers, the actual liquidation of bank loans in the agricultural sections of the country has been relatively less than in the industrial sections. I have no doubt that this is due in large measure to the fact that the faster turnover of commercial stocks in most instances diminished losses incident to their liquidation, while farm crops were, for the most part, sold at prices wholly inadequate to liquidate current agricultural debts.

It was urged also before the commission that high rates for call money in New York City resulted, during this period, in drawing money and credit from the agricultural sections of the country to New York for speculative purposes. The commission thoroughly investigated this claim and made an analysis of the balances kept by out-of-town banks in New York City banks during the period, and also of the amounts loaned by New York banks for out-of-town correspondents on the stock exchange.

This analysis showed that during the entire period from January, 1920, to July, 1921, the balances of out-of-town correspondents in New York banks and the loans placed by New York banks for out-of-town correspondents in street loans constantly declined. During this period the balances of out-of-town banks in New York banks and loans by New York banks for out-of-town correspondents on the stock exchange, combined, declined $520,000,000.

The tremendous and very urgent demands for industrial and agricultural loans during this period resulted in a movement of money and credit away from New York instead of to New York. This conclusion is verified by an examination of the transactions of the New York Federal Reserve Bank through the gold settlement fund, which shows an aggregate net movement of money away from New York during this period of nearly $400,000,000.

I come now to a discussion of the causes of the spread between producers' and consumers' prices. The usual method of approach to this question is to state that the principal cause of this spread is the profiteer, who preys upon the necessities of the people, and that all the ills of distribution can be cured by putting the profiteers in jail. I am willing to assert that if there is one profiteer in the country, there is one too many, and that he ought to be in jail, but I do not believe that the problems of distribution can be solved by putting profiteers in jail.

The first essential to the solution of the problems of distribution is a general understanding on the part of those who contribute to distribution, either in the way of products or services, and on the part of the general public, as well, that there is a real problem of distribution, and that in its solution is the hope of more adequate prices from the producers' standpoint and more reasonable prices from the consumers' standpoint.

We know that the costs of distribution were slowly but steadily increasing prior to 1913. So far as we can ascertain, they have about doubled since 1913, and to-day the costs of distribution represent about one-half of the price which the final consumer pays. These increases in costs do not occur wholly in any one place in the line of distribution. They occur as a part of the price of every element of service performed in connection with the distribution of the product all along the line.

The price which the final consumer pays is a composite of thousands of other prices and includes the cost of production, sorting, grading, packing, bulking, transporting, storing, insuring, selling and delivering the product, including the overburden of interest and wages, rent, and administration, all along the line.

In general, all of these costs apparently have increased, and in recent months have not declined in anything like the proportion in which commodity prices have fallen.

I am unable to state the proportion which these increased costs bear to the total cost of distribution or their absolute relation to costs for the same services in 1913 or any prior year, but it is certain that they do not represent the total of the increased costs of distribution. Part of these costs are represented by additional services incident to the complex character of our civilization and the congestion of population in the large cities.

Merchandising to-day consists largely of selling the consumer what he wants, when he wants it, and making him pay for it. A witness before the commission recently put the elements of merchandising in the following order: First, the exact article or type of goods desired or that would utimately satisfy; second, a pleasing environment; third, a pleasing and dependable quality of service; fourth, quality of merchandise and lowest prices. This viewpoint is clearly typical of merchandising to-day. Goods are sold not so much by offering a price as by offering service, convenience, dependability, reputation, and credit.

The local merchant acts as the outlet of the manufacturer and wholesaler rather than as the local buyer for the community. He is frequently persuaded to overstock with goods and to purchase goods for which there is small or no local demand, thus lengthening his turnover and the cost of doing business.

In the principal retail trades there are approximately 1,000,000 retail dealers, or 1 for each 110 inhabitants or 1 for each 25 families. Of grocers and delicatessen dealers there are 335,000, or 1 for each 315 people or 73 families. There are 27,000 wholesalers, or 1 for approximately 4,000 inhabitants or 900 families. Whether this number of wholesalers and retailers is excessive and adds to the economic burden of the country, it is extremely difficult to say, as there is a wide difference of opinion, but it is altogether probable that the total includes a large number whose existence can not be justified from the standpoint of economic and efficient distribution.

Another element in the spread between producers' and consumers' prices is to be found in the quality, quantity, and variety of service, environment, and atmosphere demanded by the consumer from the merchant. The variations of quantity, quality, and variety of service demanded or furnished is reflected in a wide variation of price of the same commodity at different stores in the same city. On the whole, however, the attitude of the consumer is such as to offer very little hope of reducing the spread between producers' and consumers' prices through reducing the quantity, quality, or variety of the service required.

Reduction of this spread must come for the most part through a reduction in the cost of the elements of service and overburden all along the line; by more efficient methods of distribution; by reducing unnecessary transportation hauls; by more efficient merchandising methods; by more closely relating output to market; by speeding up turnover; by reducinig unnecessary stocks; and by otherwise shortening and speeding up the steps between producer and consumer.

This means, first of all, the completion of the cycle of readjustment of prices and wages; second, a more thorough understanding of the problem and the elements in its solution by everyone concerned with it; and third, a recognition, on the part of everyone contributing any service in the process of distribution, of his responsibility to his community and to the country to do his part toward reducing the burden.

There is no legislative pill that will cure the ills of distribution, no governmental panacea which can be applied to the solution of these problems. The problem is the problem of each of us and of all of us, and the banker as well as the manufacturer and merchant must contribute his share in reducing the spread between producers' and consumers' prices.

ANNUAL REPORT OF THE FEDERAL RESERVE BOARD.

WASHINGTON, *January 16, 1923.*

Sir: In compliance with the requirements of section 10 of the Federal reserve act, the Federal Reserve Board submits herewith its ninth annual report, which covers operations for the calendar year ended December 31, 1922.

The year 1922 has been a year of almost continuous recovery from the disorganized markets and depressed business conditions resulting from the abrupt price decline of 1920. When the last annual report of the Federal Reserve Board was written, at the close of the year 1921, recovery had already begun, the resumption of business activity being indicated in the larger volume of production and trade even while prices were still declining. During the latter half of 1921 the price level was relatively stable, and so even before the opening of the year 1922 business men and manufacturers began to feel that they could go forward and make commitments for the future. In consequence of this reviving demand prices of many commodities advanced, and higher prices were accompanied by larger output and by fuller employment of labor. Prices and production both increased during 1922, but the production of basic commodities increased at a more rapid rate than the level of prices, and at the end of the year the output of industry was greater than at any time since early in 1920.

While the revival of 1922 has been primarily industrial in character, there has also been a decided improvement in the agricultural situation. The farm value of most of the important crops was larger than in the previous year, owing both to greater yields and higher prices. Prices of agricultural products are still out of line with other prices, but a readjustment has been in progress during the year. Cotton at the close of the year was two and one-half times its low price of March and April, 1921, but its high price was due to reduced stocks and a short crop, while in the cereals generally good crops were bringing to the farmer considerably larger sums than last year, even though their recovery of price has not been so great as in cotton. Price recovery among the cereals has been greatest in the case of the cheaper grains—corn, rye, and oats—which Europe, with its present curtailed buying power, has imported in increased quantities. Our relatively decreased exports of wheat have been reflected in a more moderate advance in price. The incompleteness of agricultural revival as compared with the recovery which has recently taken place in the industrial world is partly explained by the disorganization of

European markets, since the prices of agricultural products are more dependent on export demand than prices of other classes of commodities.

During more than half of the year, while prices advanced steadily, the discounts of the Federal reserve banks continued the decline which had prevailed throughout the preceding year, and the same was true of the loans of member banks. In 1920 two-thirds of the tremendous decline in prices took place while Federal reserve loans and currency issues were increasing, and in 1922 practically the entire advance in prices took place while Federal reserve loans were declining. The discounts of the Federal reserve banks—the advances made to member banks, omitting acceptances bought in the open market—reached their low point July 26, 1922, at $380,000,000, when they were no less than 86 per cent below their maximum of $2,827,000,000 reached on November 5, 1920. It is noteworthy that Federal reserve discounts and note issues lagged behind the advance in prices of the past year by much the same interval of time as on the downward turn of prices in 1920. A decline in business activity and in prices has been followed by a reduction in loans and currency issues by the Federal reserve banks, and an advance in production and prices has been reflected in an increase of loans and currency required to transact the larger volume of business. This sequence of events shows that the Federal reserve banks, through their loans and currency issues, are responsive to the needs of business.

The long period of liquidation came to an end shortly after the middle of the past year, and in the early autumn renewed demands of business and agriculture caused increased borrowings both at member banks and at Federal reserve banks. It may be noted that the low point of reserve bank discounts on July 26 was still much above the level of discounts at any time before the United States entered the World War. The increase of loans since July 26, while so far rather moderate, appears to be more than seasonal, for it started earlier than at crop-moving time and continued to the end of December, standing at the close of the year $250,000,000 above the low point. If we were not so accustomed to talking in war figures this expansion would seem considerable.

Just as the liquidation in 1921 first affected the large cities of the East and was slow in gathering momentum in agricultural districts, where the member banks carried a large volume of frozen loans and the Federal reserve banks helped them to extend all possible accommodation to their customers, even though it required rediscounting with eastern Federal reserve banks, so the increased borrowing of the past five months has been most marked in the eastern industrial sections. The differences between the various sections of the country in the process of liquidation and of renewed loan activity are discussed in more detail in a subsequent portion of this report.

At the end of 1921, after liquidation had been under way for more than a year, there were still 906 member banks whose borrowings from the Federal reserve banks were no less than three times as large as their normal basic line, that is to say, these banks were receiving at least three times as much accommodation as their pro rata share of the lending power of the reserve banks. The total borrowings of these banks constituted 494 per cent of their basic line, while the total borrowings of all the member banks were only 40 per cent of their basic line. The largest number of banks borrowing at least three times their basic line was shown for the Chicago, Minneapolis, and Atlanta districts, where there were 185, 160, and 141 such banks. In the Richmond, Dallas, and San Francisco districts the number of banks with excess borrowings was also considerable. By the end of November, 1922, only 376 banks were borrowing as much as three times their basic lines. In the Boston, New York, Philadelphia, and Cleveland districts the number of such banks was negligible. The largest number, 94, was shown for the Chicago district, and the next largest, 88, for the Minneapolis district. But for the system as a whole total discounts were only 20 per cent of the basic line and in no district did the ratio exceed 42 per cent. The marked improvement which took place during the year was due in a large measure to increased prices for farm products, coupled with good crops in nearly all sections of the country. Funds received by the farmers for their crops enabled them to pay off a considerable portion of their borrowings from the local banks, which in turn were able to liquidate their indebtedness to the Federal reserve banks.

MEMBER BANK BORROWINGS IN RELATION TO BASIC DISCOUNT LINE DURING 15-DAY PERIOD ENDING NOVEMBER 30, 1922 AND 1921.

Federal reserve district.	Banks borrowing at least three times basic line.				All member banks.	
	Number.		Ratio of average borrowings to basic line.		Ratio of borrowings to basic line.	
	1922	1921	1922	1921	1922	1921
			Per cent.	*Per cent.*	*Per cent.*	*Per cent.*
Boston	1	1	365	434	36	32
New York	1	4	550	397	12	18
Philadelphia	3	21	326	441	29	46
Cleveland	2	7	340	414	20	45
Richmond	31	115	521	484	42	105
Atlanta	48	141	572	462	39	134
Chicago	94	185	466	470	20	44
St. Louis	14	39	403	496	27	61
Minneapolis	88	160	616	573	26	82
Kansas City	10	24	526	364	21	65
Dallas	35	107	604	507	15	72
San Francisco	49	102	531	594	21	34
Total	376	906	518	494	20	40

In the first part of the year the reserve banks purchased considerable amounts of Government securities, which offset the reduction in discounts and maintained earning assets at a fairly steady level. These purchases increased the amount of funds in the market and thus indirectly enabled member banks to continue the liquidation of their borrowings. After June 14, when Government security holdings reached a total of $630,000,000, the banks allowed maturing Government obligations to run off without the substitution of new securities. At the end of the year Government security holdings of reserve banks stood at $458,000,000. In this connection it is to be noted that Pittman Act certificates, which were issued during the last year of the war as security for Federal reserve bank notes, have been entirely paid off, the last $12,000,000 having been canceled at the close of the year. They stood at the beginning of the year at $113,000,000.

Acceptance holdings of the reserve banks, which had reached a maximum of $585,000,000 in December, 1919, declined rapidly after that time, partly as a result of the decrease in the volume of foreign trade and partly because, as the investing public became more familiar with acceptances and appreciated their safety and liquidity, a larger proportion found their way into the hands of savings banks, insurance companies, and other large-scale investors. At the end of July, 1921, the total of acceptances held by the reserve banks fell short of $20,000,000. In 1922, however, and especially in the second half of the year, the stiffening of money rates increased the volume of acceptances offered to the reserve banks, and at the end of the year their total reached $246,000,000. It is noteworthy that these holdings were more widely distributed among the several Federal reserve banks than in previous years, only about one-fifth of the total being held by the Federal Reserve Bank of New York.

The Federal reserve banks made considerable progress during the year in their program of economy and efficiency. There was continued effort on the part of the reserve bank organizations to cut down expenses wherever possible without reducing the efficiency of the organizations or their ability to meet future emergencies, and without discontinuing any of the important free services, such as the par collection of checks and the still very large volume of fiscal agency operations, for which there is only partial reimbursement. Because of these free services the Federal reserve banks have to maintain a large staff of employees, but owing to increased efficiency and to improved methods of operation, together with the reduction in the cost of Federal reserve currency, it has been possible to effect a reduction in total expenses during the year of about $6,500,000.

The Federal Reserve Board has watched with interest the development of cooperative marketing associations in districts where staple agricultural products are produced in quantity for the general market, and in response to requests made from time to time has greatly broadened its rulings and regulations with regard to the rediscount of the paper of these marketing associations. The board has gone as far in this direction in ruling upon questions presented to it as the law appears to allow and has furthermore approved certain amendments in the direction of still further broadening its powers, which are now pending in the so-called Capper and Lenroot bills, now before the United States Senate. These bills extend the privilege of rediscount to nine months paper, which by some critics will be held to be contrary to sound reserve bank principles. The board believes, however, that the extension of this privilege will not greatly increase the average maturities of the paper in the portfolios of the Federal reserve banks. Under the proposed legislation, unsecured nine months paper can not be used as collateral for issues of Federal reserve notes until it comes within six months of maturity.

One of the developments in banking which has attracted considerable attention during the past year has been the establishment of branches by some of the larger State banks. Attention was drawn to this development largely because it had gone so far in a few States, notably California, and in a few large cities, including New York, Cleveland, and Detroit, as to reduce greatly the number of national banks. In view of this fact, and of the fact that the national banking act does not prohibit the opening of additional offices of a national bank within the limits of the city mentioned in its charter, the Comptroller of the Currency has been permitting such banks to open additional offices in States where State banks are given the privilege of establishing branches. This does not meet the situation in California and does not fully meet it in the cities mentioned, and an amendment to the national banking act allowing national banks the same privilege given State banks in States where branch banking is permitted is much to be desired. There has been some discussion of branch banking in connection with the discussion over rural credits legislation. The Joint Commission of Agricultural Inquiry in Chapter VIII of Part 2 of its report, entitled "Credit," published in 1922, recognizes the fact that our independent banking system, with its 30,000 units, "makes impossible the full utilization of the resources of some banks in the locality to relieve a situation where other banks of the same locality are extended to the full limit consistent with safety to their depositors," and adds "A system of limited branch banking might furnish a possible solution of this problem." Such systems are in fact already established in some sections of our country, notably in California, and appear to have gone far toward solving the problem. Branch banking has lowered the rate of interest in some of the leading agricultural sections of California and at the same time has provided added security for the deposits of the farmers. There are interesting neighborhood branch banking groups in other States, which appear to be serving their communities well. State-wide branch banking is permitted in several southern States, but has not yet been developed on an extensive scale. In the absence of laws permitting branch banking, there has been in certain sections a considerable development of so-called "chain banks"—banks owned or controlled in groups by individuals or by holding companies. The largest of these systems includes some 175 small banks.

BANKING DEVELOPMENTS.

During the year 1922, as already stated, credit liquidation, which had been under way since October, 1920, first slackened, then came to a halt, and finally in midsummer gave way to an unmistakable upward turn. The course of credit demand in the larger cities can be followed by observing the changes in total loans and investments of about 800 reporting member banks. This figure, rather than loans alone, measures the extent of the public's demand for bank credit, and during the past year changes in loans and investments combined have been the most significant indicator of credit trends. This total reached its peak in the middle of October, 1920, declined rapidly for the rest of that year and during the first nine months of 1921, when seasonal requirements temporarily arrested or obscured the course of liquidation, thereafter resumed its downward trend in 1922, and reached its lowest level early in March of that year. Beginning with March a recovery is shown for the rest of the year, though considerable fluctuations have occurred.

This general trend of total loans and investments is the resultant of two distinct movements—that of loans and that of investments. Loan liquidation of these member banks did not come to an end until about the end of July, when the total of loans was $10,739,000,000—more than $2,500,000,000 below the maximum figure reached in the fall of 1920. This continuous and drastic liquidation of loans was accompanied, beginning in September, 1921, by increases in both demand and time deposits. Funds were pouring into the member banks in the form of Federal reserve notes retired from circulation and of gold imported from abroad. The banks first applied these funds to the reduction of their indebtedness at the Federal reserve banks, but as early as the fall of 1921 there were many member banks which had entirely paid off their obligations to the reserve banks, and such banks began to invest their funds in Government and other securities. Security holdings of member banks thus began to increase in September, 1921, and grew almost continuously from that time until the end of 1922. The larger part of the increase was in Government securities bought chiefly by the banks in money centers, while the smaller part of the additional investments was in corporate securities, most of which were acquired by member banks outside of the reserve cities. This growth of the investment account, representing as it did the placement of excess funds by the member banks, became much less pronounced after the end of July, 1922, when renewed demands on the banks for loans were caused by seasonal requirements and by increasing industrial and commercial activity.

LOANS AND INVESTMENTS OF MEMBER BANKS.

The distribution of the loan and investment account of reporting member banks on significant dates is shown in the table below.

Loans and discounts of reporting member banks declined consistently from January 7, 1921, the first date for which figures for loans are available, to July 26, 1922, but advanced decidedly after that date. The proportion that loans constituted of total loans and investments decreased from 79.8 per cent on January 7, 1921, to 70.7 per cent on July 26, 1922, and 70.1 per cent at the end of the year. Investments, on the other hand, began to increase in the late fall of 1921 and increased steadily after that time. Their proportion of the total loans and investments continued to rise until July 26, 1922. Loans secured by Government obligations and "all other" loans, which comprise the bulk of commercial loans, followed about the same course both relatively and absolutely as total loans. But loans secured by stocks and bonds, which represent in part stock-exchange loans, show a different course of development. After declining between January and September, 1921, they increased for the rest of the period, and their proportion of total loans and investments, which was only 18.9 per cent on January 7, 1921, rose to 22.8 per cent on July 26, 1922, and to 23.3 per cent at the end of the year. Among the increases in investments the most notable is the rise in investments in Govern-

REPORTING MEMBER BANKS.

	Amount (in millions of dollars).					Per cent of total loans and investments.				
	Jan. 7, 1921.	Sept. 7, 1921.	Mar. 8, 1922.	July 26, 1922.	Dec. 27, 1922.	Jan. 7, 1921.	Sept. 7, 1921.	Mar. 8, 1922.	July 26, 1922.	Dec. 27, 1922.
Loans and discounts, total	13,219	11,482	10,896	10,739	11,329	79.8	78.0	75.0	70.7	70.1
Secured by United States obligations	868	605	419	261	290	5.2	4.1	2.9	1.7	1.8
Secured by stocks and bonds	3,127	2,921	3,111	3,460	3,775	18.9	19.8	21.4	22.8	23.3
All other	9,224	7,956	7,366	7,018	7,264	55.7	54.1	50.7	46.2	45.0
Investments, total	3,342	3,244	3,631	4,450	4,823	20.2	22.0	25.0	29.3	29.9
United States securities	1,313	1,221	1,571	2,126	2,549	7.9	8.3	10.8	14.0	15.8
All other	2,029	2,023	2,060	2,324	2,274	12.3	13.7	14.2	15.3	14.1
Total loans and investments	16,561	14,726	14,527	15,189	16,152	100.0	100.0	100.0	100.0	100.0
Accommodation at Federal reserve banks	2,050	979	255	98	370	12.4	6.7	1.8	.6	2.3

ment securities, which advanced from $1,221,000,000 on September 7, 1921, to $2,549,000,000 on December 27, 1922, or from 7.9 per cent of the total loans and investments to 15.8 per cent. Investments in corporate securities rose by about $300,000,000 between the beginning of September, 1921, and the end of July of the past year, but receded by about $50,000,000 during the latter part of the year. Their proportion of the total rose until July, when it was 15.3 per cent, and then declined to 14.1 per cent at the end of the year.

Accommodation received by the reporting member banks from the Federal reserve banks shrank until the end of July of the past year, but recovered during the latter part of the year. From 12.4 per cent of total loans and investments, this proportion declined to 0.6 per cent at the end of July, but recovered to 2.3 per cent at the end of the year. Figures for New York City banks alone tell substantially the same story as those for all reporting banks in leading centers, the difference being merely one of degree. The changes and tendencies just pointed out are merely somewhat more emphasized in the case of the New York banks.

CREDIT IN INDUSTRIAL AND RURAL COUNTIES.

Tendencies reported for the member banks in leading cities are good indications of credit developments in industrial and financial centers, but they do not afford an adequate basis for judging developments in smaller towns and in country districts. A study made in 1921 classified loans by member banks in accordance with whether the banks were located in agricultural, semiagricultural, or in nonagricultural counties. The figures showed that between May, 1920, and April, 1921, considerable liquidation had been effected in nonagricultural counties, while agricultural counties showed only a slight change, the proportion of all the loans in agricultural counties increasing during the period. The accommodation extended to these banks by the Federal reserve banks, which for nonagricultural counties had declined by 28.5 per cent, showed an increase of 56.6 per cent for agricultural counties. A similar tabulation has been made for March 10, 1922, and the table below presents a comparison of the changes that have occurred in the three classes of banks in the two yearly periods.

MEMBER BANKS GROUPED BY CHARACTER OF COUNTIES.

[In millions of dollars.]

Character of counties.	Loans.			Accommodation at Federal reserve banks.		
	May 4, 1920.	Apr. 28, 1921.	Mar. 10, 1922.	May 4, 1920.	Apr. 28, 1921.	Mar. 10, 1922.
Agricultural	3,190	3,154	2,933	226	353	241
Semiagricultural	1,484	1,465	1,367	138	138	66
Nonagricultural	14,791	13,964	12,846	2,207	1,578	310

Loan liquidation at member banks during the period between the spring of 1921 and the spring of 1922 proceeded at an approximately equal rate in agricultural and nonagricultural counties, but the member banks in agricultural counties did not reduce their borrowings from the reserve banks at anything like the same rate as did the members in urban centers. Federal reserve accommodation to banks in agricultural counties shows a decline of about one-third for the period, while in nonagricultural counties the reduction amounted to more than four-fifths.

Credit trends in New York City, in other central reserve and reserve cities, and outside of such cities for so-called country banks are shown in the table below. In using the figures shown in the table it should be remembered that a substantial percentage of the so-called country national banks are located in large industrial centers that are not classified as reserve cities.

In New York City loan liquidation appears to have come to an end by May 5, 1922. During May and June there was a slight recovery, but between June and September loans declined again by about $150,000,000. In other central reserve and reserve cities loans declined consistently until the end of June, but increased by September 15. In country banks the recovery began after May 5 and continued through both the subsequent calls. But more significant than this is the fact that in New York City and in other reserve cities investments in Government securities increased practically without interruption from September, 1921, to the latest report date. At country banks, on the other hand, Government security holdings declined from the beginning of 1921 to June 30, 1922, and increased only moderately during the period preceding the latest call. Holdings of corporate securities, which show a decrease in New York City and only a slight increase in other reserve

NATIONAL BANKS.

[In millions of dollars.]

Call date.	Loans and discounts.			United States securities.			Other investments.		
	New York.	Other central reserve and reserve cities.	Country banks.	New York.	Other central reserve and reserve cities.	Country banks.	New York.	Other central reserve and reserve cities.	Country banks.
1921.									
Feb. 21	2,553	4,674	5,610	251	546	1,250	224	411	1,220
Apr. 28	2,348	4,471	5,549	237	532	1,233	261	448	1,282
June 30	2,203	4,319	5,491	297	506	1,216	252	460	1,294
Sept. 6	2,117	4,167	5,410	193	475	1,194	225	455	1,294
Dec. 31	2,166	4,034	5,315	322	509	1,145	265	478	1,338
1922.									
Mar. 10	2,039	4,014	5,240	334	555	1,143	247	478	1,362
May 5	2,019	3,936	5,240	406	609	1,110	274	497	1,391
June 30	2,063	3,918	5,277	504	688	1,094	309	526	1,443
Sept. 15	1,910	4,012	5,326	526	752	1,125	265	531	1,494

centers during the period between the two latest calls, show a practically uninterrupted growth at country banks for the entire two-year period. From $1,220,000,000 on February 21, 1921, country bank holdings of corporate securities increased to $1,494,000,000 on September 15, 1922—an increase of $274,000,000. These figures indicate that country banks were not only investing their additional idle funds in corporate securities, but were to some extent disposing of their holdings of United States Government securities and investing funds thus released in other securities bearing more attractive interest rates.

In connection with the differences in the process of liquidation between urban and rural centers, it is interesting to compare the trend of reserve bank accommodation to reporting member banks in leading cities and to nonreporting member banks outside of the leading cities. A table showing this comparison is given below:

DISCOUNTS OF FEDERAL RESERVE BANKS FOR REPORTING AND FOR NONREPORTING MEMBER BANKS.

[Amounts in millions of dollars.]

	Oct. 15, 1920.	July 26, 1922.	Dec. 27, 1922.
Total discounts	2,774	380	630
Discounts for reporting members	2,249	98	370
Discounts for nonreporting members	525	282	260
Ratio of discounts for reporting banks to total discounts (per cent)	81.1	25.8	58.7

On October 15, 1920, about four-fifths of the discounts of reserve banks were discounts for reporting member banks in leading cities. On July 26, 1922, the more rapid liquidation of loans in the cities reduced this proportion to 25.8 per cent. Since then increased borrowing, chiefly in New York City, has raised the ratio to 58.7 per cent.

LOANS AND DEPOSITS.

The following statement shows for significant dates changes in loans and in deposits of reporting member banks:

REPORTING MEMBER BANKS.

[Amounts in millions of dollars.]

	Jan. 7, 1921.	Sept. 7, 1921.	July 26, 1922.	Dec. 27, 1922.
Loans and discounts	13,219	11,482	10,739	11,329
Net demand deposits	10,938	9,982	11,043	11,255
Time deposits	2,909	2,914	3,515	3,708
Ratio of net demand deposits to loans (per cent)	82.7	86.9	102.8	99.3

Member banks derived the funds for the liquidation of their obligations to the reserve banks and for investment in United States Government and in other securities from the growth of demand and time deposits during the period of loan liquidation. While loans declined until the end of July, 1922, deposits began to increase as early as September, 1921. Between September 7, 1921, and July 26, 1922, net demand deposits of reporting member banks in leading cities increased by $1,061,000,000, or by about 11 per cent. Loans declined by $743,000,000, or about 6 per cent, and the ratio of net demand deposits to loans rose from 82.7 per cent on January 7, 1921, to 102.8 per cent on July 26, 1922. The increase in loans and the less rapid increase in deposits during the last part of the year reduced this ratio to 99.3 per cent. Time deposits, on the other hand, grew consistently throughout the period and stood at the end of December, 1922, at $3,708,000,000, or about $799,000,000 above their level at the opening of 1921.

FEDERAL RESERVE BANKS.

At the end of January, 1922, the liquidation of Federal reserve bank assets, which had begun in November, 1920, slackened decidedly. Discounted paper in the hands of the reserve banks declined until the end of July, but the liquidation of discounts was largely offset by the purchase of Government securities and in the latter part of the year by investment in acceptances. Total reserve bank funds in the market remained fairly steady throughout the year, the lowest level being reached on August 9, when earning assets were down nearly to $1,000,000,000. From that time they gradually advanced to $1,334,000,000 at the end of the year. By the end of the year Government security holdings of the reserve banks had declined $172,000,000 below their peak and stood at $216,000,000 above the figure at the beginning of the year, while discounts had decreased by $550,000,000 and acceptances increased by $132,000,000, the decrease in total earning assets thus being $202,000,000. The table below shows changes in the principal items of the Federal reserve bank statement, and the charts on pages 69 and 70 illustrate these changes graphically.

FEDERAL RESERVE BANKS.

[In millions of dollars.]

Date.	Cash reserves.	Discounts.	Acceptances.	Government securities.	Federal reserve notes.	Total deposits.	Reserve ratio.
1920.							Per cent.
Oct. 15	2,155	2,774	320	329	3,353	1,916	42.7
1921.							
Jan. 7	2,277	2,607	235	288	3,270	1,846	46.4
Dec. 28	2,992	1,180	114	241	2,443	1,765	71.1
1922.							
Jan. 25	3,059	850	83	250	2,184	1,779	77.2
Feb. 21	3,081	721	83	355	2,174	1,772	78.1
Mar. 29	3,103	636	103	441	2,182	1,805	77.8
Apr. 26	3,125	500	83	567	2,158	1,833	78.3
May 31	3,130	471	118	603	2,141	1,870	78.0
June 28	3,148	469	154	557	2,124	1,939	77.5
July 26	3,181	380	156	541	2,127	1,888	79.2
Aug. 30	3,196	404	172	498	2,153	1,882	79.2
Sept. 27	3,203	420	238	451	2,243	1,840	78.4
Oct. 25	3,212	469	258	409	2,299	1,842	77.6
Nov. 29	3,203	650	259	304	2,330	1,860	76.
Dec. 27	3,149	630	246	458	2,464	1,900	72.

This year of relative stability in reserve bank assets, accompanied by a readjustment between the different classes of assets, also witnessed a gradual increase in reserves. This increase was much less than in 1921, but still amounted to about $157,000,000 and reflected net gold imports of $238,000,000 for the year. The increase in the gold reserves of the reserve banks thus absorbed a large proportion of the imported gold, but, in accordance with the Treasury policy of paying out gold, a certain amount was added to circulation, the total gold coin and gold certificates in circulation at the end of the year being $96,000,000 larger than at the beginning. In 1921 the available funds which the imported gold added to our reservoir of credit were entirely absorbed through the reduction of reserve bank earning assets, the decline of which exceeded the net imports of gold by about $1,000,000,000. In 1922, on the other hand, the reduction in earning assets of the reserve banks was about $36,000,000 less than net gold imports.

Federal reserve note circulation declined during the first six months of the year, the lowest figure of $2,123,000,000 being reported on June 14, when reserve bank discounts were also at low ebb. During the remainder of the year Federal reserve notes increased and stood at the close of the year at $2,464,000,000, or about $21,000,000 above their level at the close of 1921. Deposit liabilities of the reserve banks underwent considerable short-time fluctuations, as is their custom, but generally speaking they show an upward tendency for the year in accord with the general upward tendency in member bank deposits. The year has been one of relative stability of the reserve ratio, which has varied between 70 and 80 per cent. The lowest ratio is recorded for January 4 and the highest for August 9, when the earning assets of reserve banks were at their low level for the year.

A large part of the increase in Federal reserve bank borrowings during the latter part of the year was at the Federal Reserve Bank of New York and was borrowed on collateral notes secured by United States Government obligations. The increasing business activity and credit demands of the country were reflected first in the withdrawal of balances by banks in the interior from their New York correspondents. The amounts due to other banks by the reporting member banks in New York City show a downward trend throughout the latter half of the year. It is largely these withdrawals of funds from the large banks in New York City that have caused the recent increased borrowings from the New York reserve bank by these metropolitan banks. This movement of funds from the financial center is partly seasonal in character and is often an early indication of the revival of loan activity in the interior.

GOLD MOVEMENTS AND FOREIGN EXCHANGE.

Gold imports to the United States, which have proceeded on a large scale since September, 1920, continued in 1922, though in reduced volume, net imports for the year being $238,000,000, compared with $667,000,000 in 1921. Since the lifting of the gold embargo the United States has received a net addition of about $698,000,000 in gold, chiefly from Great Britain, France, Sweden, Canada, and the Netherlands. On the other hand, net gold losses are shown in our dealings with Argentina and the Orient. The losses of gold occurred during the first 15 months of the period, when balances accumulated during the war were being withdrawn by South America, Japan, China, and India. During the period from September, 1920, to the end of 1922 this country has gained gold from nearly all the countries of the world, Japan being the only important country to which a net export is shown. The net gain in gold during the period of two and one-third years was $1,083,000,000, wiping out the loss of $385,000,000 during the first 15 months after the removal of the embargo and adding $698,000,000 to our gold stock.

Continuous investment in foreign securities on a considerable scale, together with the movement of gold to this country, has been reflected in a general rise in exchange rates on principal countries. During the year the rise in our price level, which was not accompanied by corresponding increases in the price levels of some of the European countries, has also contributed to the rise in exchange rates.

The pound sterling reached its lowest level of $3.38 in February, 1920, and has since advanced to $4.61 in December, 1922. Throughout the past year the advance in sterling has been consistently sustained, and at the end of the year the pound was only about 5 per cent below parity, much the highest level reached since early in 1919. The French franc and the Italian lira reached their lowest levels at the end of 1920. In the early part of 1921 they advanced, but declined again before the end of the year. In 1922 their course has been similar to that in the preceding year but on a somewhat higher level. Toward the end of the year a decided decline in the franc is noted, though it recovered somewhat during the last few weeks. The average for December, 1922, was 7.23, compared with 7.84 in December, 1921. In the case of the lira a slight net improvement is shown for the year. Nearly all European neutrals show improved rates at the end of 1922. Among the South American currencies the Argentine and Chilean pesos rose during the year, while the Brazilian milreis declined. Poor trade conditions in China have been reflected in a decline in the price of silver and in a corresponding drop in the tael. The Indian rupee, on the other hand, shows the result of better trade conditions and of the rise in sterling exchange by an advance from less than 27 cents to about 31 cents. The Japanese yen also rose somewhat during the year and was within 3 per cent of par in December.

The catastrophic decline of the German mark has been the feature of the year in foreign exchange. Throughout the period from the armistice the mark has been pursuing a downward course, with occasional upward trends whenever prospects of a financial settlement became brighter. At the end of the past year the mark, worth 23.8 cents at par, was quoted at only about 1.4 cents a hundred.

The foreign exchange index, which is a weighted average of 17 leading exchange rates, not including Germany, advanced during the year and stood in December at 70, compared with 64 in December of the preceding year.

DISCOUNT RATES DURING 1922.

Interest and discount rates, which began to decline in the spring of 1921, continued to fall until somewhat past midyear of 1922, by which time the discount rates of the Federal reserve banks had been reduced to the level obtaining at the end of the year, viz, 4 per cent at the Boston, New York, and San Francisco banks and 4½ per cent at all other Federal reserve banks. In order to bring out the general trend in interest and discount rates during the year, there is presented below a table showing the discount rates charged by the Federal reserve banks each month, together with open-market rates in New York on bankers' acceptances and prime commercial paper, as well as the rates on call loans. The rates charged to customers by member banks on paper rediscounted with the Federal reserve banks during December, 1921 and 1922, are shown in the table on page 16.

Interest and Discount Rates.

Month.	Discount rates of Federal reserve banks.	Open-market rates in New York on—								
		Indorsed bankers' acceptances, 60–90 days.			Prime commercial paper, 30–60 days.			Call loans.		
		Low.	High.	Customary.	Low.	High.	Customary.	Low.	High.	Customary.
January	4½–5½	3⅞	5	4 –5	4½	5½	5	3	6	5 –6
February	4½–5	3⅝	5½	4⅛–4¼	4½	5	....	3½	7	5 –6
March	4½–5	4	4⅞	4⅛	4¾	5	5	4	6	4 –5½
April	4½–5	3⅜	4½	3½–4½	4½	5	....	3	8	4½–5½
May	4½–5	3⅜	3½	3⅜	4¼	4¾	4½	3½	6	5
June	4 –5	3⅛	5	3⅛–3⅜	4	4½	4 –4¼	3	6	4 –5
July	4 –5	3	5½	3¼–3½	4	4½	4 –4¼	2¾	8	3¾–6
August	4 –5	2 15/16	3¾	3⅛–3½	4	4½	4 –4¼	3	6	3¾–5
September	4 –4½	3¼	3½	....	4	4½	4 –4¼	3	6	4 –5
October	4 –4½	3⅛	4	3⅜–4	4	4¾	4 –4½	4	6	4½–5
November	4 –4½	3⅝	4¼	4 –4⅛	4½	5	4¾–5	4¼	6	5
December	4 –4½	4	4½	4⅛–4½	4½	5½	4½–5	4	6	5

In any comparison of the relation of discount rates of the Federal reserve banks to market rates, it is evident that reserve bank rates can not as a rule be maintained at a level in excess of rates charged by member banks to their customers on paper eligible for discount. This would be clearly impracticable in sections of the country where banks frequently charge 10 per cent and 12 per cent on such paper. Nor can reserve bank rates always be maintained above call-money rates which have marked fluctuations and occasionally reach very high levels. In this respect banking and credit conditions in this country differ from those in England, where the official rate of the Bank of England is a minimum rate applicable to highly standardized bills with well-established markets. The nearest equivalent to such paper in this country are bankers' acceptances and prime commercial paper which have a ready sale in the open market. Although the market for this class of paper has been broadened considerably since the organization of the Federal reserve system, such paper still constitutes a small fraction of the volume of bank loans in the United States.

By reference to the foregoing table, it will be seen that the Federal reserve bank discount rates were substantially parallel with rates on prime commercial paper and slightly above rates on bankers' acceptances throughout the whole year, though the margin between the discount rates at the reserve banks and the rates on bankers' acceptances began to grow smaller beginning with September and had practically disappeared by the end of the year. The open-market rates on prime commercial paper also showed a distinct upward trend during the last three months of the year.

In connection with the decline in rates of interest charged to customers by member banks which has taken place, it is important to know whether the reduction has been more or less general throughout the country or whether it has been confined to any particular section or class of banks. To measure the relative changes which took place during 1922 in interest rates charged to customers, the member banks in each Federal reserve district have been divided into three groups, according to the size of the cities and towns, and a calculation has been made of the average rate charged by the member banks in each group on paper discounted for customers and subsequently rediscounted at the Federal reserve banks. In making this classification, banks in cities having a population of 100,000 or more have been classed as banks in large cities; banks in cities having a population of from 15,000 to 100,000 as banks in medium size cities; and banks in cities and towns having a population of less than 15,000 as banks in small cities and towns. It will be noted from the table shown below, which gives the average rates charged by member banks on customers' paper rediscounted with the Federal reserve banks during December, 1921, and December, 1922, that the most pronounced decline occurred in the large cities, where the rates dropped from an average of 6.12 per cent in December, 1921, to 5.1 per cent in December, 1922; that in medium size cities the rates have fallen off only about three-fourths of 1 per cent, or from 7.15 to 6.4 per cent; and that in the case of banks located in small cities and towns the rates have declined about 0.3 per cent, or from about 8 to 7.7 per cent.

AVERAGE RATES CHARGED BY MEMBER BANKS ON CUSTOMERS' PAPER REDISCOUNTED WITH FEDERAL RESERVE BANKS DURING DECEMBER, 1921 AND 1922.

Federal reserve bank.	Average rates charged by member banks in—								Average rates charged by Federal reserve banks.	
	Large cities.		Medium size cities.		Small size cities and towns.		All classes of cities.			
	Dec., 1922.	Dec., 1921.	Dec., 1922.	Dec., 1921.	Dec., 1922.	Dec., 1921.	Dec., 1922.	Dec., 1921.	Dec., 1922.	Dec., 1921.
Boston	4.81	6.05	5.49	6.12	5.82	6.22	4.84	6.05	4.00	4.50
New York	4.94	6.00	5.97	6.02	5.74	6.11	4.99	6.00	4.00	4.50
Philadelphia	4.98	5.96	6.00	6.00	5.86	6.03	5.00	5.97	4.50	4.50
Cleveland	5.63	6.26	6.05	6.42	6.22	6.30	5.67	6.26	4.50	5.00
Richmond	5.93	6.07	6.19	6.75	6.74	6.94	6.20	6.60	4.50	5.13
Atlanta	5.81	7.10	6.98	7.52	7.91	7.93	6.34	7.34	4.50	5.28
Chicago	4.97	6.38	6.27	7.07	7.46	7.52	5.36	6.60	4.50	5.00
St. Louis	5.33	6.37	6.63	7.55	7.78	8.04	5.61	6.69	4.50	5.00
Minneapolis	5.73	6.78	7.38	8.88	8.98	8.74	8.08	7.65	4.50	5.50
Kansas City	6.26	7.18	6.36	7.33	8.80	8.92	7.06	7.87	4.50	5.00
Dallas	6.34	7.60	8.55	8.30	9.75	9.69	8.41	8.97	4.50	5.50
San Francisco	5.23	6.08	7.24	7.31	8.01	8.19	5.44	6.37	4.00	5.00
Total	5.10	6.12	6.41	7.15	7.69	7.97	5.38	6.50	4.30	4.91

It is noteworthy that the rates charged by banks in the small cities and towns of agricultural districts of the West and South are practically on the same level as they were a year ago. This is doubtless due to the fact that in those sections it is the custom for banks to charge a given rate of interest, usually ranging from 8 to 10 per cent the year around, without regard to interest rates obtaining in the industrial sections of the country or to discount rates in effect at the Federal reserve banks. Inasmuch, therefore, as the reduction of the discount rate at the Federal reserve banks has not resulted in a corresponding decline in the rates paid by farmers and other borrowers who deal with banks located in the small cities and towns of the agricultural sections of the West and South, it is apparent that in those sections of the country where relatively high interest rates prevail, and there is a wide margin between such rates and the Federal reserve bank rates, the latter have but slight, if any, effect upon rates charged by member banks. In the financial centers, however, where the money markets are more sensitive to changes in credit demand, there is a closer relationship between reserve bank discount rates and rates charged to customers by member banks.

In order to present a more definite picture of the spread in rates charged in the various classes of cities, there is presented below a table showing the percentage of total rediscounts with the Federal reserve banks during December, 1921 and 1922, on which member banks charged their customers interest at rates up to and including 4½ per cent, 5 per cent, 6 per cent, and so on up to 10 per cent. It is noteworthy that in December, 1921, member banks charged their customers rates of 5 per cent or less on eight-tenths of 1 per cent of the paper rediscounted with the Federal reserve banks, whereas in December, 1922, this percentage had increased to 61. It is also interesting to note in this connection that while 26 per cent of the paper rediscounted by banks in small cities and towns in December, 1922, bore rates of 6 per cent or less, over 97 per cent of the paper rediscounted by the banks in large cities bore such rates. As a matter of fact, banks in small cities and towns charged 8 per cent or more on 59 per cent of the paper rediscounted with the Federal reserve banks during December, 1922. As stated previously, there has been little change in rates charged by banks in small cities and towns since 1921, while in the case of banks in large cities over two-thirds of the paper rediscounted in December, 1922, was taken from customers at rates of 5 per cent and under, compared with less than 1 per cent in December, 1921.

INTEREST RATES CHARGED CUSTOMERS BY MEMBER BANKS ON PAPER REDISCOUNTED WITH FEDERAL RESERVE BANKS IN DECEMBER, 1922 AND 1921.

	Average rate charged.	Percentage of rediscounts on which member banks charged rates up to—					
		4½ per cent.	5 per cent.	6 per cent.	7 per cent.	8 per cent.	10 per cent.
All rediscounting banks:							
December, 1922	5.38	24.49	60.53	90.06	93.60	98.28	99.99
December, 1921	6.50	.09	.83	68.84	91.64	98.25	99.98
Banks in large cities:							
December, 1922	5.10	27.84	68.92	97.45	99.43	100	....
December, 1921	6.12	.09	.89	74.16	97.06	99.86	99.99
Banks in medium size cities:							
December, 1922	6.41	3.64	8.41	65.63	82.99	98.13	100
December, 1921	7.15	.01	.65	28.53	62.15	94.59	100
Banks in small cities and towns:							
December, 1922	7.69	1.46	2.75	26.04	37.28	79.71	99.81
December, 1921	7.97	....	.12	17.59	30.65	76.16	99.73

Discount rates of the Federal reserve banks at the beginning of 1922 were 4½ per cent on all classes and maturities of eligible paper at the three eastern Federal reserve banks—Boston, New York, and Philadelphia, 5½ per cent at Minneapolis and Dallas, and 5 per cent at the remaining seven banks. The Federal reserve banks of Minneapolis and Dallas reduced their rates to 5 per cent effective January 11 and January 9, respectively, while between January 23 and April 14 six other banks reduced their discount rates to 4½ per cent. In June and July the Federal reserve banks of Boston, New York, and San Francisco put into effect a rate of 4 per cent, and shortly thereafter the Minneapolis, Kansas City, and Dallas banks reduced their rates to 4½ per cent. At the end of the year the discount rates were 4 per cent at the Federal reserve banks of Boston, New York, and San Francisco, and 4½ per cent at the remaining nine banks.

Rates applicable to bankers' and trade acceptances bought in the open market are not fixed as is the case with discount rates, the Federal Reserve Board merely approving minimum rates at which these acceptances may be purchased by Federal reserve banks. It should be understood, therefore, that the rates approved by the Federal Reserve Board are not necessarily actual buying rates. As a matter of fact, during the past few months the rates at which bankers' acceptances were selling in the open market and were being purchased at the Federal reserve banks were approximately 1½ per cent above the minimum rates authorized by the Federal Reserve Board. At the beginning of the year the minimum authorized rate on bankers' acceptances purchased in the open market was 4 per cent at all Federal reserve banks except Minneapolis and Kansas City, where it was 5 per cent, and Dallas, where the minimum was 6 per cent. In view of the decline of market rates on prime bankers' acceptances, which began in 1921, the board in January, 1922, approved a reduction to 3½ per cent in the minimum authorized rate for a number of the reserve banks, followed by reductions to 3 per cent in March and April and to 2½ per cent in June and July. At the end of the year the minimum authorized rate was 2½ per cent at the Federal reserve banks of Boston, New York, Philadelphia, Atlanta, Chicago, and San Francisco, and 3 per cent at the other six banks.

On May 24, 1922, the Federal Reserve Board advised the Federal reserve banks that upon request it would approve a minimum rate at which eligible trade acceptances were to be purchased in the open market, this rate to be not less than one-half of 1 per cent above the minimum buying rate for bankers' acceptances in effect at the Federal reserve banks. Under this new policy eight Federal reserve banks requested and obtained approval of a separate minimum buying rate for trade acceptances. At the end of the year 1922 this rate was 3 per cent at the Federal Reserve Bank of New York, 3½ per cent at Philadelphia and San Francisco, and 4 per cent at the Federal reserve banks of Cleveland, Richmond, Atlanta, St. Louis, and Dallas. A complete record of all changes in Federal reserve bank discount rates made during the year appears on pages 42, 44, and 45.

EARNINGS, EXPENSES, AND VOLUME OF OPERATIONS OF THE FEDERAL RESERVE BANKS.

Earnings of the Federal reserve banks in 1922 were less than in any previous year since 1917 and totaled only about 41 per cent of earnings in 1921, which in turn represented a substantial falling off from the maximum of 1920. The primary cause of this reduction in earnings was the liquidation of reserve bank earning assets which, from a peak of $3,400,000,000 in October, 1920, declined to $1,000,000,000 at the beginning of August, 1922. Since that time, as elsewhere stated, the demand for accomodation by member banks has increased, and by the close of the year total earning assets rose to about $1,300,000,000, the average amount held during the year being $1,200,000,000, as compared with $2,200,000,000 during 1921 and $3,200,000,000 during 1920.

A second factor in the reduction of earnings was the lowering of discount and open-market rates in 1921 and 1922, which is reflected in a decline in the average rate of earnings on total earning assets from 5.61 per cent in 1921 to 4.11 per cent in 1922. Sharp declines in average rates of earnings on discounted paper and on bills bought in open market were, to some extent, offset by an increase from 2.37 per cent in 1921 to 3.67 per cent in 1922 in the average rate of return on United States securities. This increase was due largely to the gradual redemption by the Treasury of the 2 per cent Pittman Act certificates held by the Federal reserve banks and pledged as security against Federal reserve bank-note circulation, and to larger purchases by the Federal reserve banks, at rates ranging around 4 per cent or higher, of tax and loan certificates of indebtedness and of Treasury notes partly under repurchase agreement from member and non-member banks and bill brokers. The following table shows the daily average holdings of each class of earning assets, earnings therefrom, and the annual rates of earnings during 1921 and 1922:

RATES OF EARNINGS ON EARNING ASSETS.

[Amounts in thousands of dollars.]

	Daily average holdings.		Earnings.		Annual rate of earnings.	
	1921	1922	1921	1922	1921	1922
					Per cent.	*Per cent.*
Discounted bills	1,804,305	573,247	109,599	26,523	6.07	4.63
Purchased bills	91,817	159,207	5,234	5,629	5.70	3.54
United States securities	264,014	454,750	6,254	16,682	2.37	3.67
Municipal warrants	43	66	2	4	5.27	5.40
Total	2,160,179	1,187,270	121,089	48,838	5.61	4.11
Miscellaneous earnings			1,776	1,653		
Total earnings			122,865	50,491		

When it is borne in mind that the cost of operating the loan and discount and investment departments of the Federal reserve banks is only about 5 per cent of total current expenses, it will be readily seen that the decline in the volume of discount and open-market operations, and therefore of earnings from the high level reached in 1921,could not of itself cause any material decline in current expenses. As a matter of fact, although the amount of bills discounted has fallen off very materially, the volume of work handled by the discount departments of the Federal reserve banks has not fallen off during 1922 in the same proportion. The principal reason for this is that a much greater percentage of the borrowings than during 1921 was by banks in small cities and towns, which obtain accommodation on notes and bills drawn for much smaller amounts than those generally used by banks in the large cities. As an evidence of this fact it may be stated that the number of notes discounted for member banks during 1922 was 841,000, compared with about 1,435,000 during 1921, a reduction of 41 per cent in the number as compared with a decrease of 62 per cent in the face value of bills discounted. Furthermore, the fact that there has been some decrease in the volume of work of the discount departments is not indicative of a general decline in the work of the banks, as may be seen from the table below, which shows the approximate number and amount of items handled in the principal departments of the banks, together with total expenses for the years 1920, 1921, and 1922.

It will be noted that the number of pieces of coin and currency received and counted has increased continuously and was considerably larger during 1922 than in the preceding years, and that there has been an exceptionally large growth in the number of collection items handled, i. e., coupons (other than Government) and time notes and drafts forwarded to the Federal reserve banks for collection and credit to the account of member banks. The number of Government coupons paid in 1922 was about 17 per cent less than the number handled in 1921. Since the departments that handle the above classes of transactions require a large number of employees to conduct their operations, and since the service is rendered free of charge to member

VOLUME OF WORK.

	1922	1921	1920
Number of pieces handled:			
Bills discounted	841,000	[1] 1,435,000	[1] 1,190,000
Currency received and counted	1,431,506,000	1,358,181,000	1,085,459,000
Coin received and counted	2,048,942,000	1,791,637,000	(2)
Checks handled	638,625,000	574,910,000	504,198,000
Collection items handled	4,969,000	3,575,000	2,136,000
Transfers of funds	1,189,000	1,079,000	732,000
United States Government coupons paid	81,694,000	98,407,000	113,701,000
Amount handled:			
Bills discounted	$22,082,887,000	$57,759,128,000	$85,320,874,000
Currency received and counted	8,668,505,000	9,251,349,000	7,964,399,000
Coin received and counted	221,871,000	254,262,000	(2)
Checks handled	160,130,624,000	130,166,596,000	179,505,223,000
Collection items handled	4,768,971,000	4,267,651,000	5,398,421,000
Transfers of funds	70,553,465,000	50,936,519,000	48,979,205,000
United States Government coupons paid	759,124,000	766,020,000	741,942,000
Expenses:			
Current expenses of banks	28,028,000	33,311,000	28,289,000
Fiscal agency expenses absorbed by Federal reserve banks	1,531,000	1,246,000	
Fiscal agency expenses reimbursable by United States Treasury	1,184,000	2,610,000	6,215,000
Total expenses (exclusive of furniture and equipment)	30,743,000	37,167,000	34,504,000

[1] Revised figures. [2] Figures not available.

banks, and through them to the public, the increase in the volume of work which has actually taken place has resulted in increased expenses, with no corresponding addition to the banks' revenue. Only in the discount department, as commented on above, and in the fiscal agency department has there been any material reduction in the volume of the work handled.

During 1922 the board's committee on economy and efficiency, which was appointed in 1921, has been active, in cooperation with the chairmen of like committees in the various Federal reserve banks, in an endeavor to reduce expenditures wherever possible, consistent with the efficient operation of the banks. Two conferences have been held, at which all banks were represented, and reports have been currently furnished showing the trend in current expenses from month to month, as well as in the volume of work handled in the several departments of the banks. With these detailed comparative reports before them, the Federal reserve banks are now able to measure to a certain extent the efficiency with which each of their departments is operating, and the committees on economy and efficiency are aided in their efforts to reduce expenses either by improving methods of handling the work or by eliminating inefficient employees. This, together with the smaller outlay for Federal reserve currency, is reflected in a reduction in the expenses of the banks, including reimbursable fiscal agency expenses, from $37,200,000 in 1921 to $30,700,000 in 1922, a decline of about 17 per cent, notwithstanding the fact that the Federal reserve banks are now absorbing all of the expenses connected with the handling of replacements, exchanges, and redemptions of United States paper currency and coin which prior to the taking over of these functions by the Federal reserve banks during 1920 and 1921 were handled by the United States subtreasuries. Since July 1, 1921, the Federal reserve banks have also assumed as a part of their own current expenses the total expense connected with the exchange, conversion, and transfer of ownership of Liberty bonds and Victory notes, the redemption of Victory notes, payment of coupons on Government bonds, notes, and certificates, and practically all other fiscal agency operations except those connected with new issues of Government securities. As compared with the year 1921 the salaries paid to officers and employees during 1922 (including salaries reimbursable by the Treasury Department) show a reduction of $1,800,000, the cost of Federal reserve currency $3,500,000, and all other expenses $1,200,000, while the number of officers and employees has declined from 12,496 at the end of 1921 to 12,047 at the end of 1922, the latter figure not including temporary employees taken on at the end of the year for the purpose of handling the redemptions of war savings securities maturing on January 1, 1923.

Following the March 3, 1919, amendment, the provisions of the Federal reserve act in regard to transfers of earnings to surplus account were construed to authorize the holding of two distinct funds—the normal surplus fund resulting from transfers from net earnings for the purpose of bringing the surplus account up to 100 per cent of subscribed capital and the so-called supersurplus fund resulting from the transfer of 10 per cent of net earnings authorized by section 7 of the act. In accordance with this interpretation of the act, the normal surplus of each Federal reserve bank at the end of 1920 and 1921 was increased, if earnings were sufficient, to 100 per cent of the bank's subscribed capital, without reference to the amount, if any, carried as supersurplus. In 1921, when all the Federal reserve banks except Dallas had accumulated a surplus fund in excess of their subscribed capital, the Federal Reserve Board ruled, as stated in its 1921 annual report, that should a Federal reserve bank desire to charge off an amount in excess of 2 per cent of the cost of its building, exclusive of land, the charge should be made against supersurplus and not against current net earnings. The purpose of this ruling was to avoid any adverse effect upon the amount of franchise taxes payable to the Government through the writing down by a Federal reserve bank of the book value of its banking houses erected during a period of high costs to an amount representing normal costs of construction. In accordance with this ruling, the Federal reserve banks of Cleveland, Richmond, Chicago, and San Francisco charged their supersurplus accounts, at the end of 1921, with depreciation allowances on their buildings, as follows: Cleveland, $125,000; Richmond, $225,276.50; Chicago, $2,030,000; San Francisco, $250,000.

During the past year the Federal Reserve Board asked its counsel for an opinion as to the propriety of Federal reserve banks accumulating surplus funds in accordance with the method described above. In his opinion counsel stated that the Federal reserve act, section 7, as amended, contemplated a single surplus fund and that the practice of maintaining a "normal surplus" equal to 100 per cent of subscribed capital and transferring 10 per cent of net earnings after the payment of all expenses and dividends to a separate account known as "supersurplus" was not authorized by law. The board therefore instructed the Federal reserve banks to recalculate their distribution of earnings between surplus and franchise taxes for prior years, with the result that the banks paid to the United States Government $3,400,062 out of their surplus accounts. This amount, added to the franchise tax payable out of earnings during 1922, made a total of $10,850,605, which was paid to the United States Treasury on December 30, 1922.

The above-mentioned ruling of counsel, which precluded any further charges against surplus to cover depreciation allowances and special reserves and necessitated the reversal of such charges theretofore made, made it necessary for the board to review its policy with reference to depreciation allowances and special reserves. Accordingly, on August 1, 1922, the Federal reserve banks were advised that in the future requests for authority to charge off depreciation on bank premises or to set up a reserve for depreciation thereon should be accompanied with a statement showing for each separate piece of property the cost, estimated replacement value, and book value of buildings, either completed or in course of construction; the cost, estimated market value, and book value of land owned; and the cost of fixed machinery and equipment, such as heating, lighting, plumbing, ventilating systems, etc., in order that the board might have complete data before it in passing upon such requests and in order that separate rates of depreciation might be determined for land, buildings, and fixed machinery and equipment. In the same letter the board stated that no charges against current net earnings would be authorized to cover depreciation on land where the estimated market value of the land was equal to or in excess of its book value and that, in general, depreciation allowances on bank buildings were not to exceed 2 per cent of their estimated replacement cost (including vaults but excluding fixed machinery and equipment) unless the estimated replacement cost of bank buildings was materially below book value, in which case requests for permission to write off a depreciation charge in excess of 2 per cent would be considered. Estimated replacement costs were to be determined by taking the mean of the actual cost and the estimated lowest construction costs at any time in the past 15 years. The rule laid down with reference to fixed machinery and equipment provided that reserves should be based upon the estimated life of the machinery and equipment, with a view to its ultimate replacement, the annual reserve allowance in no case to exceed 10 per cent of cost. Later in the year the board also requested the banks, in submitting their requests for permission to set aside reserves against probable losses in connection with closed banks, to furnish complete data as to the amount due from each failed bank and from banks considered to be in an overextended or unsafe condition, with a careful estimate of the loss which probably would be sustained in each case.

As stated above, in accordance with counsel's opinion that the establishment of a supersurplus account distinct from the normal surplus is not authorized by the Federal reserve act, all charges heretofore made against supersurplus account have been reversed. In the case of the Cleveland, Richmond, and San Francisco banks, the resulting increase in the book value of the bank buildings was relatively small. In the case of the Chicago bank, however, the board felt that, inasmuch as its building was complete, a charge should be allowed against current net earnings for the purpose of reducing the book value of the building to a point approaching its replacement value. The bank was therefore authorized to charge its earnings with a depreciation allowance of $1,400,000, as a partial offset against the $2,030,000 reserve which had to be returned to its surplus account. The Federal reserve banks of Boston, New York (for the annex building only), Richmond, Atlanta, Kansas City, and Dallas were allowed to write off allowances in excess of 2 per cent, or of $262,000, $197,573.89, $137,317.42, $152,562.96, $250,052.65, and $132,820.22, respectively, from the book value of their buildings.

Gross and net earnings of each Federal reserve bank during the past year, dividends paid to member banks, additions to surplus account, and amounts paid to the Government as a franchise tax for 1922 and for preceding years, are shown in the table below.

FINANCIAL RESULTS OF OPERATION OF THE FEDERAL RESERVE BANKS DURING 1922.

Federal reserve bank.	Gross earnings.	Current expenses.	Current net earnings.	Net deductions from current net earnings.	Net earnings available for dividends, franchise tax, and surplus.
Boston	$3,541,313.05	$2,022,399.94	$1,518,913.11	$421,510.36	$1,097,402.75
New York	11,341,318.77	6,776,529.39	4,564,789.38	843,196.31	3,721,593.07
Philadelphia	4,251,950.44	2,053,919.07	2,198,031.37	[1] 38,845.07	2,236,876.44
Cleveland	4,994,282.14	2,461,266.12	2,533,016.02	264,327.96	2,268,688.06
Richmond	2,832,943.88	1,631,355.84	1,201,588.04	334,140.62	867,447.42
Atlanta	2,352,736.14	1,293,052.51	1,059,683.63	386,953.93	672,729.70
Chicago	6,748,862.37	4,080,056.88	2,668,805.49	1,263,590.59	1,405,214.90
St. Louis	2,456,447.58	1,623,222.38	833,225.20	185,653.44	647,571.76
Minneapolis	1,969,247.68	1,084,942.49	884,305.19	101,610.10	782,695.09
Kansas City	3,094,660.07	2,010,820.23	1,083,839.84	300,804.20	783,035.64
Dallas	2,085,774.84	1,515,390.56	570,384.28	216,259.52	354,124.76
San Francisco	4,821,201.55	3,006,387.05	1,814,814.50	154,458.29	1,660,356.21
Total	50,490,738.51	29,559,342.46	20,931,396.05	4,433,660.25	16,497,735.80

Federal reserve bank.	Dividends paid.	Transferred to surplus account.	Paid to Government as franchise tax for—		
			Current year.	Past years.[2]	Total.
Boston	$481,951.27	$76,568.14	$538,883.34	$247,349.91	$786,233.25
New York	1,652,138.30	206,945.48	1,862,509.29	1,604,549.37	3,467,058.66
Philadelphia	541,551.90	839,960.64	855,363.90	36,366.25	891,730.15
Cleveland	692,436.27	861,263.90	714,987.89	....	714,987.89
Richmond	333,320.71	53,412.67	480,714.04	20,458.51	501,172.55
Atlanta	256,617.65	41,611.20	374,500.85	213,628.77	588,129.62
Chicago	876,202.56	52,901.23	476,111.11	710,189.99	1,186,301.10
St. Louis	283,165.81	276,449.67	87,956.28	....	87,956.28
Minneapolis	213,774.01	56,892.10	512,028.98	52,423.36	564,452.34
Kansas City	275,654.88	50,738.07	456,642.69	208,169.99	664,812.68
Dallas	251,914.87	102,209.89	....	....	....
San Francisco	448,306.50	121,204.97	1,090,844.74	306,925.46	1,397,770.20
Total	6,307,034.73	2,740,157.96	7,450,543.11	3,400,061.61	10,850,604.72

[1] Addition.
[2] Amounts shown represent deferred franchise taxes for 1920 and 1921, paid on Dec. 31, 1922, and are in addition to $124,537,336 paid prior to that date.

Net earnings of the Federal Reserve Bank of Dallas have not been sufficient to enable it to accumulate a surplus equal to its subscribed capital, as authorized by the act of March 3, 1919, amending section 7 of the Federal reserve act, and this bank accordingly has not yet paid any franchise tax.

Current net earnings of each Federal reserve bank during 1922, and the daily average amounts of paid-in capital, surplus, and member banks' reserve deposits during the same year, also the ratio of current net earnings to (1) average paid-in capital, (2) capital and surplus, (3) capital, surplus, and reserve deposits are shown in the table:

RATIO OF EARNINGS TO CAPITAL, SURPLUS, AND RESERVE DEPOSITS.

[Amounts in thousands of dollars.]

Federal reserve bank.	Current net earnings.	Daily average—			Ratio of current net earnings to—		
		Paid-in capital.	Surplus.	Member banks' reserve deposits.	Average paid-in capital.	Average paid-in capital and surplus.	Average paid-in capital, surplus, and reserve deposits.
					Per cent.	*Per cent.*	*Per cent.*
Boston	1,519	8,032	16,483	118,563	18.9	6.2	1.1
New York	4,565	27,536	60,197	698,991	16.6	5.2	.6
Philadelphia	2,198	9,026	17,945	105,795	24.4	8.1	1.7
Cleveland	2,533	11,541	22,511	139,725	21.9	7.4	1.5
Richmond	1,201	5,555	11,030	56,155	21.6	7.2	1.7
Atlanta	1,060	4,277	9,114	47,930	24.8	7.9	1.7
Chicago	2,669	14,603	29,025	254,867	18.3	6.1	.9
St. Louis	833	4,719	9,388	64,994	17.7	5.9	1.1
Minneapolis	884	3,563	7,468	44,599	24.8	8.0	1.6
Kansas City	1,084	4,594	9,646	76,938	23.6	7.6	1.2
Dallas	570	4,199	7,394	47,665	13.6	4.9	1.0
San Francisco	1,815	7,472	15,199	124,900	24.3	8.0	1.2
Total	20,931	105,117	215,400	1,781,122	19.9	6.5	1.0

The first two ratios are generally used in analyzing earnings of financial institutions as related to invested capital, but in the case of Federal reserve banks which are not operated for profit the ratio last shown is more significant, since the funds contributed by member banks which may be used in extending credit consist not only of capital and surplus but include also the reserve balances which member banks are required by law to maintain at the Federal reserve banks.

BRANCHES OF FEDERAL RESERVE BANKS AND THEIR OPERATIONS.

At the present time the Federal reserve banks have 23 branches and 1 agency, all of which were established prior to January 1, 1922. The Federal reserve banks of Boston and Philadelphia have no branches or agencies, while the other Federal reserve banks have one or more branches as follows: New York, 1; Cleveland, 2; Richmond, 1; Atlanta, 4 (also 1 agency); Chicago, 1; St. Louis, 3; Minneapolis, 1; Kansas City, 3; Dallas, 2; San Francisco, 5.

No requests for the establishment of additional branches have been received by the Federal Reserve Board during the current year, and as a matter of fact, the board is very reluctant to authorize the establishment of any further branches, for the reason that they add materially to operating costs. Most of the branches now in operation were established during or immediately following the war period, when there seemed to be very good reasons for going to the expense of maintaining branches in the cities in which they were established. There is some doubt now, however, as to whether or not the greater promptness with which member banks in certain Federal reserve branch cities may now avail themselves of the services of the Federal reserve bank is of sufficient importance to warrant the additional cost to the Federal reserve bank of maintaining the local branch. It may be necessary, therefore, at some time in the future to give serious consideration to the advisability of discontinuing certain of the existing Federal reserve branch banks.

In order that a general idea may be obtained as to the relative volume of business handled by the various Federal reserve branches and of the volume of work handled by the branches as a whole during the year under review, as compared with the two preceding years, a table is shown on page 149 bringing out the volume of work handled in the principal departments of each branch. The functions of the Savannah agency are limited to the supplying of coin and currency to member banks located in Savannah.

BUILDING OPERATIONS OF FEDERAL RESERVE BANKS, 1922.

The end of the year 1922 found 15[1] of the 35 Federal reserve banks and branches occupying new or remodeled buildings, as compared with 11 on December 31, 1921. In addition, construction was proceeding on 7 buildings, while authority of Congress to proceed with building operations was being awaited in the case of 1 bank and 6 branches. The status of the building operations of each Federal reserve bank and branch on December 31, 1922, was as follows:[2]

New or remodeled buildings owned and occupied:[1] Boston, Philadelphia, *Pittsburgh*, Richmond, *Baltimore*, Atlanta, *Nashville*, Chicago, *Louisville*, *Helena*, Kansas City, *Omaha*, Dallas, *El Paso*, *Houston*.

New buildings under construction: New York, Cleveland, Atlanta (annex to present building), *New Orleans*, Minneapolis, *Oklahoma City*, San Francisco.

[1] Does not include annex building constructed by New York principally for storage purposes or building remodeled for temporary occupancy by San Francisco.

[2] Branches in italics.

New building operations awaiting Congressional authority: *Jacksonville, Detroit,* St. Louis, *Little Rock, Denver, Omaha,*[3] *Salt Lake City.*

Site purchased, but no plans for new building: *Cincinnati.*

No property purchased: *Buffalo, Birmingham, Memphis, Los Angeles, Portland, Seattle, Spokane.*

The act of Congress approved June 3, 1922, amending section 10 of the Federal reserve act, contains a provision concerning building operations of the Federal reserve banks as follows:

> No Federal reserve bank shall have authority hereafter to enter into any contract or contracts for the erection of any building of any kind or character, or to authorize the erection of any building, in excess of $250,000, without the consent of Congress having previously been given therefor in express terms: *Provided,* That nothing herein shall apply to any building now under construction.[4]

As a result of this legislation, resolutions authorizing building operations have been introduced into Congress for the St. Louis bank and the following branches: Jacksonville, Detroit, Little Rock, Denver, Omaha, and Salt Lake City. On December 31 these resolutions were still pending in Congress. In the case of the Jacksonville branch of the Federal Reserve Bank of Atlanta, however, bids have been asked for a building to cost not exceeding $250,000 (including land, building, and vault).

Three new buildings were completed and occupied during the year, namely, those of Boston, Chicago, and Houston; and the Nashville branch building, which was purchased in July, 1921, has been remodeled into more suitable quarters. Construction begun previous to 1922 has progressed steadily during the past year on the new buildings of the New York, Cleveland, Minneapolis, and San Francisco banks, and on the annex of the Atlanta bank building. New construction of buildings on property purchased previous to 1922 was begun at New Orleans and Oklahoma City in May.

In the spring the Federal Reserve Bank of St. Louis purchased property in St. Louis adjoining that owned by it; also a lot in Louisville adjoining the property owned and occupied by the Louisville branch, with the idea of eventually extending the present one-story building to cover the entire property. No other purchases of property were made during the past year, but the Federal Reserve Bank of Dallas sold the property utilized by it as a banking house prior to the construction of its new building.

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[3] Authority of Congress awaited to reconstruct present building.

[4] The act of February 9, 1923, amends this provision by making it apply only to buildings to be erected for branch Federal reserve banks and authorizes an expenditure of $250,000 for the building proper, exclusive of vaults and all equipment.

GOLD SETTLEMENT FUND.

The method of operating the gold settlement fund, which has been fully explained in previous reports, has remained essentially unchanged during 1922. The arrangements made in 1921 to provide a daily settlement between Federal reserve banks for Federal reserve notes, whether fit for use and returned to the bank of issue or unfit for use and returned to the Treasury for redemption, was, however, simplified by the inauguration on February 1, 1922, of a separate daily Federal reserve note settlement. This daily settlement supplies an effective means of complying with that part of section 16 of the Federal reserve act which provides that no Federal reserve bank shall pay out notes issued through another under penalty of a tax of 10 per cent upon the face value of notes so paid out. The method of handling transfers for national banks to their 5 per cent redemption funds against national-bank notes was also simplified by the adoption on June 1 of the plan of making such transfers from the gold redemption funds of the Federal reserve banks against Federal reserve notes, instead of from the gold settlement fund, thereby reducing these transactions to simple transfers by the Treasury between two funds in its custody.

Combined clearings and transfers through the fund during the year aggregated $76,489,962,000, as against $68,223,882,000 in 1921, $92,625,805,000 in 1920, $73,984,252,000 in 1919, $50,251,592,000 in 1918, $27,154,704,000 in 1917, $5,533,966,000 in 1916, and $1,052,649,000 in 1915, a grand total of $395,316,812,000 having been handled through the fund since its inception on May 20, 1915. The average weekly volume of clearings and transfers combined for each year since the fund was established is shown below:

1922	$1,470,960,000	1918	$966,377,000
1921	1,311,998,000	1917	522,206,000
1920	1,781,265,000	1916	106,422,000
1919	1,422,744,000	1915	31,898,000

Daily clearings alone aggregated $75,335,987,000 in 1922, compared with $64,934,801,000 in 1921. Direct transfers, which amounted to but $1,153,975,000 in 1922, compared with $3,289,081,000 in 1921, reflect the absence of any rediscount operations between Federal reserve banks in 1922 and a considerably reduced volume of transfers on Government account.

The total cost of operation, including the rental of leased telegraph wires and clerical services, was approximately $500,000, or about 65 hundredths of 1 cent on each $1,000 of funds transferred as against $485,000 in 1921.

STATE BANK MEMBERSHIP.

Ninety-eight State banks and trust companies, with aggregate capital and surplus of approximately $42,500,000 and total resources of $275,800,000, were added to membership during the year, while 33 of the former members, with aggregate capital and surplus of approximately $13,100,000 and total resources of $72,400,000, discontinued membership by reason of voluntary liquidation, receivership, or voluntary withdrawal. In addition, 35 of the former members, with aggregate capital and surplus of approximately $27,800,000 and total resources of $259,300,000, either converted into or were taken over by national banks or merged with other State bank members, their resources thus remaining in the system as a whole. On December 29, 1922, there were 1,639 State institutions which were members of the system, with aggregate capital and surplus of approximately $1,175,000,000 and total resources of $11,917,000,000.

On June 30, 1922, the latest date for which complete data are available, there was a total of 30,325 banks in the United States (including national and State commercial banks, mutual and stock savings banks, private banks, and loan and trust companies), with aggregate capital and surplus of $5,599,134,000 and resources of $50,147,513,000. Of these institutions 9,892 were national banks and State bank and trust company members of the Federal Reserve System, with a capital and surplus of $3,496,319,000 and resources of $31,723,950,000. The resources of member banks of the Federal Reserve System therefore constituted about 63 per cent of the total resources of all banks in the country.

Under the provisions of the Federal reserve act, however, mutual savings and private banks are not eligible for membership, and there is also a large number of State banks and trust companies whose capital stock is not sufficient to meet the requirements of the act. There were, nevertheless, 9,678 State banks and trust companies with capital stock sufficient to enable them to become members which were not members of the Federal Reserve System at the end of June, 1922, the aggregate capital and surplus of these eligible nonmember banks being $1,209,115,000 and their resources $8,983,580,000. If the banks which are not eligible for membership in the Federal Reserve System under the present provisions of the act are excluded, it is found that at the end of June, 1922, the national banks and State bank and trust company members represented about 78 per cent of the banking power of all banks eligible for membership.

CHECK CLEARING AND COLLECTION.

During the year 1922 there have been a number of developments in the Federal reserve check clearing and collection system, most of these arising out of litigation in which several of the Federal reserve banks have been involved. Much of this litigation has been pending since 1921, and some since 1920, and the earlier aspects thereof were dealt with in the board's annual reports for 1920 and 1921.

Atlanta par clearance case.—In 1920 several nonmember banks in Georgia brought suit in the State courts against the Federal Reserve Bank of Atlanta to enjoin it from collecting checks drawn on the plaintiff banks in any manner other than through the usual and ordinary channels of collection through the mails. On motion of the Federal reserve bank this suit was removed to the United States District Court for the Northern District of Georgia, which rendered a decision holding (1) that the Federal court had jurisdiction of the suit because it arose under the laws of the United States, and (2) that the suit should be dismissed because the allegations of the complaint did not charge an actionable wrong. Plaintiffs appealed to the United States Circuit Court of Appeals for the Fifth Circuit, and on November 15, 1920, that court affirmed the decision of the district court in all respects. Thereafter, an appeal was taken to the United States Supreme Court, which rendered a decision on May 16, 1921, affirming the decision of the circuit court of appeals upon the jurisdictional question, but reversing the decision upon the question of the sufficiency of the complaint. The Supreme Court held, purely as a matter of pleading, that the allegations of the complaint stated a cause of action and, if sustained by the evidence, would entitle the plaintiffs to the injunction sought for. The case was accordingly remanded to the district court for trial on the merits.

The trial of this case on the merits was held during January, 1922, and resulted in a decision upholding the Federal reserve bank's position in every important respect. The district court held that the reserve bank was entitled under the law to employ any proper means or agency to collect at par checks drawn on banks which refused to pay without deduction for exchange charges, and that the evidence failed to show that it had acted illegally or oppressively in its check-collection methods. The court, therefore, denied an injunction on all the points requested by the plaintiffs, except that it enjoined the Federal reserve bank from publishing in its "par list" the names of the plaintiff banks without their consent, on the ground that the inclusion of their names in the "par list" might be held to indicate that such banks agreed to remit at par. The court saw no objection, however, to including in the "par list" the name of any town or city with a representation that the Federal reserve bank would undertake to collect at par checks drawn on any bank in such town or city.

Plaintiffs appealed from this decision to the United States Circuit Court of Appeals for the Fifth Circuit, which rendered a decision on November 2, 1922, affirming the decision of the district court in all respects.

It is anticipated that plaintiffs will appeal in turn to the Supreme Court of the United States, and of course it is highly desirable that this question be finally adjudicated in the court of last resort.

Richmond par clearance case.—As noted in the board's annual report for 1921, a number of States have enacted laws designed to obstruct the par collection of checks by Federal reserve banks. Such a statute, enacted on February 5, 1921, by the Legislature of North Carolina, has been declared unconstitutional by the Supreme Court of that State. That act in substance authorized an exchange charge not exceeding one-eighth of 1 per cent for remittances and gave North Carolina State banks the option of paying checks drawn on them in exchange drafts on their reserve deposits, whenever such checks were presented for payment by or through any Federal reserve bank, post office, or express company. Relying upon this statute, a number of State banks and trust companies brought suit against the Federal Reserve Bank of Richmond in the superior court of Union County, N. C., to enjoin the reserve bank from refusing to accept drafts drawn by plaintiff banks on their reserve deposits in payment of checks presented for collection and from returning such checks to the drawers as dishonored when plaintiffs refused to pay same in cash. At the instance of the reserve bank this suit was removed to the United States District Court, but was in turn remanded to the State court, because the jurisdictional amount of $3,000 was not involved. The superior court granted the injunction as prayed for; but on appeal to the Supreme Court of North Carolina that decision was reversed, the injunction was dissolved, and the statute involved was held to be unconstitutional on the ground that it was in conflict with a valid Federal statute.

The decision of the Supreme Court of North Carolina was rendered on May 24, 1922. Subsequently, plaintiff banks applied for and were granted a rehearing, but on December 13, 1922, the petition for rehearing was dismissed in a memorandum decision which did not modify or supplement the court's former opinion. No appeal can be taken from this decision except by writ of certiorari to the Supreme Court of the United States, but it is understood that the plaintiff banks will apply for such a writ.

Cleveland par clearance case.—On July 15, 1921, the Farmers & Merchants Bank of Catlettsburg, Ky., brought suit in the State court against the Federal Reserve Bank of Cleveland to enjoin it from collecting checks drawn on plaintiff by presentation at the counter. The Boyd County circuit court, in which the suit was brought, issued a temporary injunction restraining the reserve bank from using any method of check collection against plaintiff except the usual method of collection through the mails. The case was then removed to the United States District Court for the Eastern District of Kentucky, which, on October 14, 1922, granted a preliminary injunction restraining the defendant bank and its collecting agent in Catlettsburg from continuing to make collections of checks drawn on the plaintiff through presentation by such agent over the counter and restraining the reserve bank from advertising that it would collect checks drawn on plaintiff free of charge and from doing anything else for the purpose of forcing the plaintiff to remit at par. The case was not tried on its merits, however, but was presented largely on affidavits filed in support of the motion for a preliminary injunction, and no opportunity was given for cross-examination of the witnesses. It is anticipated that the trial on the merits will soon take place.

San Francisco par clearance case.—The San Francisco par clearance case involved a suit brought on September 29, 1921, in the United States District Court for the District of Oregon by the Brookings State Bank of Brookings, Oreg., to enjoin the Federal Reserve Bank of San Francisco from collecting checks drawn on plaintiff except through the usual course of collection through the mails. Plaintiff bank had refused to remit at par for checks drawn on it and sent to it by the reserve bank for collection, and the reserve bank had maintained an agent at Brookings for a period of about a year to collect checks over the counter of the plaintiff bank. This agent was withdrawn before the hearing of the suit, and it then became the reserve bank's practice to send checks drawn on the plaintiff bank to it indorsed "Pay to Brookings State Bank for collection only and remittance in full without deduction for exchange or collection charges." Plaintiff returned these checks unpaid and unprotested, and the reserve bank then returned them to the forwarding banks, advising the latter that plaintiff bank had refused to pay and had not protested and that they must look to the plaintiff bank for their protection.

In its decision, which was rendered June 26, 1922, the court intimated that the reserve bank was acting within its authority in maintaining an agent at Brookings for making counter collection of checks, but treated this as an academic question, because the agent had been withdrawn. The court did not grant the injunction, therefore, in the terms requested, but merely enjoined the defendant bank from sending advice as above described to its correspondent banks that they must look to the plaintiff for their protection, holding that defendant had no right to hold the plaintiff responsible for not having its own paper protested for nonpayment.

A different and somewhat novel proceeding has grown out of this San Francisco par clearance case. In November, 1922, the Brookings State Bank brought an action against the Federal Reserve Bank of San Francisco for damages to compensate plaintiff bank for its loss occasioned by the methods pursued by the reserve bank in making collections of checks drawn on plaintiff. This case has not yet been tried.

It is thus seen that, while the par clearance controversy is not settled, material progress has been made in the past year in bringing to a head the various issues involved, and it may be reasonably anticipated that the projected appeals to the Supreme Court of the United States will, during the next year, determine the right of the Federal reserve banks to collect all checks at par.

The full text of the opinions rendered during the year 1922 in the cases discussed above will be found on pages 258–274.

TRUST POWERS OF NATIONAL BANKS.

The right of national banks to exercise trust powers granted pursuant to the provisions of section 11(k) of the Federal reserve act has been the subject of litigation in two States, Rhode Island and Pennsylvania, during the year 1922.

The Aquidneck National Bank of Newport, R. I., in 1915 received permission from the board to exercise the fiduciary powers then permitted under section 11 (k) of the Federal reserve act, to wit, trustee, executor, administrator, and registrar of stocks and bonds. Subsequently this bank was appointed executor, and in order to qualify and carry out its duties as such it tendered to the general treasurer of the State of Rhode Island the amount of bonds which the laws of Rhode Island require of trust companies as security for the performance of their trust functions. This tender of securities was made pursuant to the requirement of section 11 (k), as amended by the act of September 26, 1918, to the effect that whenever the laws of a State require corporations acting in a fiduciary capacity to deposit securities with the State authorities for the protection of private or court trusts, national banks so acting shall be required to make similar deposits. The general treasurer of Rhode Island refused to accept the bonds so tendered on the ground that the State law did not authorize him to receive such securities from national banks. The Aquidneck National Bank then petitioned the Supreme Court of Rhode Island for a writ of mandamus to compel the general treasurer to accept such deposit of securities.

In July, 1922, the Supreme Court of Rhode Island rendered a decision denying the petition, and basing its refusal to issue the writ of mandamus on two general grounds: (1) That the exercise of fiduciary powers by national banks in Rhode Island was in contravention of State law; and (2) that there was no provision of State law empowering the general treasurer of the State to receive such deposits from national banks. In holding that the exercise of trust powers by national banks in Rhode Island was in contravention of State law, the court gave great weight to the fact that trust companies are the only corporations in Rhode Island authorized to exercise trust powers, and that the State law requires of trust companies, as security for the performance of their duties, the pledge of their entire capital stock in addition to the bonds required to be deposited with the State treasurer, while national banks have no power to pledge their capital stock. The court mentioned the definition of what shall be deemed to be contravention of State law contained in section 11 (k) of the Federal reserve act, as amended, but held that Congress had no power to construe the State laws of Rhode Island. No appeal has been taken from this decision, but it is understood that the right of national banks to exercise trust powers in Rhode Island will be more directly tested in another proceeding.

The Corn Exchange National Bank of Philadelphia has also been involved in litigation over its right to exercise trust powers in Pennsylvania. The orphans' court of Philadelphia refused to acknowledge the capacity of that bank to act as guardian, because it had not been approved as fiduciary under the rules of such court. The national bank petitioned for such approval, but the orphans' court dismissed the petition on the ground that the exercise of fiduciary powers by a national bank in Pennsylvania was in contravention of the State law. It based this decision upon a former decision rendered in 1921 in the matter of the National Bank of Germantown, in which the same court gave three reasons for holding that the exercise of fiduciary powers by national banks in Pennsylvania was in contravention of State law: (1) Under section 11 (k) of the Federal reserve act, as amended, national banks may deposit uninvested trust funds in their commercial departments upon depositing approved securities in their trust departments, while the laws of Pennsylvania require all trust funds to be kept separate and apart from the assets of the trustee corporation, and the State banking department has by regulation required all trust funds to be deposited in a separate institution; (2) section 11(k) permits the examination by State examiners of the trust departments only, and not of the commercial departments of national banks exercising trust powers; and (3) in the case of the insolvency of a national bank exercising trust powers the Federal law provides that a receiver appointed by and under the control of the Comptroller of the Currency shall take possession of and administer all the assets and affairs of such national banks, thus removing such assets from the jurisdiction of the State courts.

The Corn Exchange National Bank appealed from these adjudications of the orphans' court, and on November 23, 1922, the superior court of Philadelphia County reversed the orphans' court and upheld in all respects the right of national banks in Pennsylvania to exercise trust powers. The court laid great stress upon the fact that Congress had expressly defined the meaning of the term "in contravention of State or local law" as used in section 11(k), and held that this definition was controlling upon State courts. The court, therefore, found that none of the alleged conflicts between State and Federal law which were relied upon by the orphans' court in denying to the Corn Exchange National Bank the right to act as guardian constituted a contravention of State law within the meaning of section 11(k) of the Federal reserve act, and that, consequently, the Corn Exchange National Bank must be upheld in its contentions.

On December 28, 1922, the Commonwealth of Pennsylvania, through its attorney general, petitioned the superior court for leave to intervene in this proceeding, which was granted. The Commonwealth then petitioned the Supreme Court of Pennsylvania for leave to appeal from the decision of the superior court, which petition also was granted. The supreme court heard arguments on this appeal on January 15, 1923.

The full text of the decisions of the Supreme Court of Rhode Island and the superior court of Philadelphia County will be found on pages 274 and 277.

Permits to exercise fiduciary powers.—During the past year, the board has approved 161 original and 16 supplemental applications by national banks for permission to exercise fiduciary powers under the provisions of section 11(k) of the Federal reserve act. The total number of banks holding permits to exercise trust powers on December 31, 1922, was 1,547, a list of which, with the powers granted, is published on pages 214–228.

CLAYTON ANTITRUST ACT.

Since the issue of its last report the board has received and considered 156 applications presented to it under the so-called Kern amendment to section 8 of the Clayton Antitrust Act, relating to interlocking bank directorates.

In its last annual report, pages 87 to 89, the board pointed out certain difficulties in the administration of the Kern amendment to the Clayton Act and certain illogical and inequitable situations created by the unscientific modus operandi of that provision, and recommended the enactment of an amendment to remedy the situation. As pointed out in that report, a bill to effect this purpose was introduced in the House of Representatives on April 21, 1921, and was referred to the Committee on Banking and Currency. No action has yet been taken regarding that bill, however, and the board desires to take this opportunity to renew its recommendation that the proposed amendment to the Clayton Act be enacted, for the reasons set forth in its last annual report.

AMENDMENTS TO THE FEDERAL RESERVE ACT.

During the year 1922 the Federal reserve act has been amended by two acts, one approved June 3 and the other July 1.

The act of June 3, 1922, amended section 10 of the Federal reserve act in several respects. It increased the number of appointive members of the Federal Reserve Board from five to six and provided that in the selection of such members the President "shall have due regard to a fair representation of the financial, agricultural, industrial, and commercial interests, and geographical divisions of the country," whereas section 10 previously provided that in selecting the appointive members of the board the President should have due regard to a fair representation "of the different commercial, industrial, and geographical divisions of the country." The amendment also eliminated the requirement that at least two of the appointive members should be persons experienced in banking or finance.

This amendment also added a paragraph to section 10 providing in substance that no Federal reserve bank should thereafter erect any building of any kind or character to cost in excess of $250,000 without the express consent of Congress, with a proviso that this prohibition should not apply to any building then under construction.

Prior to the amendment of July 1, 1922, the tenth paragraph of section 9 of the Federal reserve act had prohibited Federal reserve banks from rediscounting for a State member bank any of the paper of any one borrower who was liable to such bank for borrowed money in an amount greater than 10 per cent of the lending bank's capital and surplus, except that the discount of bills of exchange drawn against actually existing values and of commercial or business paper actually owned by the person negotiating the same were not considered as money borrowed within the meaning of that section. That provision operated as an indirect restriction on the amount of credit which might be extended to a single borrower, because a State member bank would hesitate to lend in excess of the prescribed amount to a borrower when to do so would render all of the paper of that borrower held by such bank ineligible for rediscount. This resulted in a discrimination against State member banks, because section 5200 of the Revised Statutes, which restricts the amount of credit that national banks may extend to any one borrower, not only makes the exceptions which were provided for by section 9 of the Federal reserve act, but in addition thereto provides that several other classes of paper shall not be considered as borrowed money. The board accordingly recommended a change in the law which would place State member banks upon an equality with national banks in this respect. The act approved July 1, 1922, accomplished this purpose by amending section 9 so as to provide merely that no Federal reserve bank shall discount for any State member bank the paper of any borrower who is liable to such bank for borrowed money in an amount greater than could be borrowed lawfully from such bank if it were a national bank.

AMENDMENTS TO BOARD'S REGULATIONS.

During the year 1922 the board made two amendments to its regulations, one to Regulation A relating to rediscounts under section 13 of the Federal reserve act and one to Regulation B, relating to open-market purchases by Federal reserve banks of bills of exchange, trade acceptances, and bankers' acceptances under section 14 of the Federal reserve act.

The amendment to Regulation A was issued under date of March 29 and made no substantial change in the previous regulation except in that part which dealt with bankers' acceptances growing out of the importation or exportation of goods. That part of the regulation was simplified by the elimination of certain detailed provisions with reference to security and the character of evidence to be furnished to show that the acceptances arose out of bona fide transactions involving the importation or exportation of goods.

The board was led to make this amendment to its regulations by the belief that conditions affecting foreign trade had changed materially since the issuance of its former regulations and that the former detailed regulations were no longer necessary. Moreover, it was believed that the general advancement of foreign trade, with the resulting benefit to the agricultural and commercial interests, could be furthered most effectually at that time by the substitution of simpler regulations applicable to acceptances in export and import transactions.

In so amending its regulation, however, the board made it clear that its action was not intended to imply any change of view as to the meaning or proper construction of the law or as to the broad principles which should govern the exercise of the acceptance privilege, and that its action was intended merely to allow a greater latitude to Federal reserve banks for the exercise of their discretion and judgment within the bonds of the express and implied limitations of the law.

The amendment to the board's Regulation B was issued under date of December 19, and its sole purpose was to permit Federal reserve banks, until further notice, to purchase in the open market, with or without the indorsement of member banks, bankers' acceptances with maturities not in excess of six months which are drawn by growers, or by cooperative marketing associations composed exclusively of growers, of nonperishable, readily marketable, staple agricultural products, to finance the orderly marketing of such products grown by such growers and secured at the time of acceptance by warehouse, terminal, or other similar receipts issued by parties independent of the borrowers and conveying security title to such products.

The board was moved to take this action by a desire to provide more ample facilities for financing the orderly marketing of staple agricultural products, especially by cooperative marketing associations. This was in accordance with the principle previously recognized by the board that the carrying of agricultural products for such periods as are reasonably necessary in order to assist the orderly marketing thereof is a proper step in the process of distribution. There is a material distinction, however, between carrying agricultural products for such periods as are reasonably necessary to effect orderly marketing and a mere speculative withholding from the market in the hope ultimately of obtaining a higher price. In issuing this amendment to its regulations, therefore, the board pointed out that before purchasing such acceptances Federal reserve banks should assure themselves that the agricultural products underlying the transaction were not being held for speculation, but were being marketed in an orderly manner or stored as a part of the process of orderly marketing. The board pointed out, further, that care should also be exercised by Federal reserve banks in purchasing acceptances of long maturities, in order that the liquidity of the aggregate investments held by them should not be affected.

The text of the board's amended regulations and the letters of transmittal explaining the purpose and effect of the amendments are published on pages 249–254.

FEDERAL ADVISORY COUNCIL.

The four statutory meetings of the Federal Advisory Council during 1922 were held in Washington beginning on the following dates: January 13, April 27, September 25, and November 20. The recommendations made to the board by the council are printed on pages 407–413.

CONFERENCES HELD BY THE BOARD.

As customary, the Federal Reserve Board conferred with the Federal Advisory Council on the occasion of each of its meetings during the year.

On May 2 the governors of the Federal reserve banks met with the board in Washington, and on October 10 a joint conference was held with both the governors of the Federal reserve banks and the 12 Federal reserve agents. General programs relating to the operations of the Federal Reserve System were submitted to and discussed at these conferences.

ORGANIZATION, STAFF, AND EXPENDITURES.

During the year 1922 there have been several changes in the organization and staff of the Federal Reserve Board. The term of office of Hon. W. P. G. Harding, governor of the board, expired on August 9. No appointment to fill the vacancy had been made at the close of the year.

By the terms of an amendment to section 10 of the Federal reserve act, approved June 3, 1922, the number of appointive members of the Federal Reserve Board was increased from five to six. The appointment of the additional member had not been made at the end of the year.

In May, 1922, the division of analysis and research was transferred from New York City to Washington, D. C. On September 15, 1922, Mr. Walter W. Stewart was appointed director of the division, to succeed Mr. H. Parker Willis, resigned.

Mr. Walter S. Logan, general counsel of the board, resigned on September 30, and Mr. Walter Wyatt, assistant counsel, was promoted to the position of general counsel, effective October 1.

Mr. L. G. Copeland was appointed on August 22, 1922, to succeed Mr. W. E. Buell as chief of the division of Federal reserve issue and redemption.

The total cost of conducting the work of the board during the year 1922, including salaries of members and the cost of printing and circulating the Federal Reserve Bulletin, was $729,745.11. Two assessments were levied against the Federal reserve banks during the year aggregating $722,544.61, or approximately 225 thousandths of 1 per cent of their average paid-in capital and surplus for the year.

By direction of the Federal Reserve Board:

EDMUND PLATT,
Acting Governor.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

ANNUAL REPORT OF THE FEDERAL RESERVE BOARD.

WASHINGTON, *February 15, 1924.*

SIR: The year covered in this, the tenth annual report of the Federal Reserve Board is of more than ordinary interest, since it has afforded an opportunity for the Federal reserve system to function under circumstances less influenced by conditions arising out of the war than any previous year. In the absence of those major disturbances which so profoundly affected business and credit conditions during the war and early post-war readjustment, Federal reserve credit policies, in response to prevailing economic conditions and on the basis of earlier experience, have undergone a fuller development. The volume, character, and occasion of rediscount operations and open-market transactions of the Federal reserve banks, the extent and influence of gold movements upon the credit and currency situation, rate policy, and the basic factors underlying general credit policy—these and other related matters that will be of continuing importance in the future have held an important place in the year 1923 in the functioning of the Federal reserve banks and in the deliberations and decisions of its governing authorities.

The text of the report as herewith presented is devoted to a discussion of some of the broader aspects of the workings of the Federal reserve system and the fundamentals of its operation and administration as they may be viewed in the perspective of almost a decade of experience. These are believed to be matters of such widespread public interest as to make a fuller discussion of them than has been attempted in any previous report of the Board a useful undertaking at this time. In consequence many administrative matters which have had the attention of the Board during the year 1923 are given a subordinate place in the present report.

BANKING AND BUSINESS IN 1923.

Taking the year as a whole and regarding it in the perspective of the after-war readjustment period, there is abundant evidence that, so far as the United States is concerned, economic readjustment has been proceeding at a rapid rate and is now nearing completion. The economic balance as between various industries and sections of the country is not yet fully restored, but during the past two years there has been rapid progress in the direction of a more stable equilibrium and of a better alignment of prices between different commodity groups. In agriculture there has been a general improvement, though in the wheat-growing and livestock industries the recovery has been slow and incomplete. The year 1923 was characterized by a large industrial output, practically full employment, a sustained consumers' demand for goods, and a level of prices more stable than in any year since 1915.

In the banking history of the year the outstanding events are the large increase in the volume of credit and currency provided to meet the demands of the country's business, the considerable inflow of gold, and the continued use of a volume of reserve bank credit of over a billion dollars that changed little between the opening and the close of the year. In the support of the increased volume of production and trade the member banks of the Federal reserve system between the spring of 1922, when the recovery of industry made itself felt in a larger demand for credit, and the end of 1923 extended an additional volume of credit of over $3,300,000,000. This represents an increase of about 14 per cent for the period and brought the total loans and investments of all member banks to a record level. That the banks of the country were able to finance the credit requirements of an enlarged volume of business and to meet an increase in the demand for currency amounting to more than $500,000,000, without giving rise to a demand for additional Federal reserve bank credit, is explained by the fact that member banks met this demand by the use of funds made available by the continued inflow of gold. This gold has served as a substitute for reserve bank credit. Had there been no gold imports, the growth of business and the increased demand for currency would have resulted in a demand for Federal reserve bank credit approximately equal to the half billion of gold imported during the period.

The ability of the banking system during the past two years to meet the considerable increase in the demand for credit and currency without an increased use of reserve bank credit differs from the experience during the war period and the years of active business immediately following the war. During 1919 and 1920, for example, the rapid increase in member bank credit was accompanied by a more rapid rate of increase in Federal reserve bank credit. In 1922 and 1923, however, it was the additional gold received from abroad and not additional use of reserve bank credit which enabled the member banks to meet the increased credit and currency demand. The fact that a volume of Federal reserve bank credit of about $1,200,000,000 has been continuously in use during the past two years indicates that, while the gold received from abroad has been sufficient to supply the reserve and currency needs of member banks, it has not been in such volume as to enable the member banks, after supplying the new demands of their customers for credit and currency, to meet their total requirements without continuing to borrow in considerable volume from the Federal reserve banks. Federal reserve banks, therefore, continued in the year 1923, as in other years, to be an important and essential element in the country's credit structure.

Changes in the volume of member bank credit during the year, more than in Federal reserve bank credit, have reflected the course of business developments. Total loans of all member banks increased by nearly $1,000,000,000 during the year. That the principal demand for credit was for commercial, industrial, and agricultural purposes is indicated by the rapid increase in the volume of loans of this character made by member banks in leading cities. The period of most rapid increase in the demand for credit was the first quarter of the year, when trade was active and the volume of production in basic industries was greater than at any previous time. At the opening of 1923 the upward movement of production, which had begun in the middle of 1921, continued at a rapid rate and production in basic industries reached the highest level on record; labor was fully employed; and prices were rising. During the late spring and summer months, however, there was a recession in industrial activity, though the distribution of merchandise was well maintained. The slackening in productive activity arose more from the hesitancy of business concerns in placing forward orders than from a lessened demand on the part of ultimate consumers, and the price declines which occurred during the period were chiefly in materials used in industry rather than in consumers' goods. During the last quarter of the year, while the volume of production was below the record levels of the spring, trade continued active and prices showed a degree of stability unusual in recent years.

FEDERAL RESERVE DISCOUNT POLICY.

These banking and business developments constituted the circumstances in which the Federal reserve system functioned during 1923 and with reference to which Federal reserve credit policy was formulated. In carrying out this policy the system has not relied upon changes in discount rates as the only means of influencing the general credit situation. The open-market transactions of Federal reserve banks during 1923, which are later considered in some detail, as well as their discount policy, have reflected Federal reserve credit policy. Furthermore, the experience of several of the reserve banks is demonstrating that changes in discount rates need not be in all circumstances the main reliance or in any situation the exclusive reliance in making the credit policy of the reserve banks effective. By maintaining constant, close, and direct contact with the loan policies and operations of its member banks, through examination or otherwise, a reserve bank can do much by other means than changes in discount rates to establish an effective supervision and control of the credit released by it to its member banks.

Discount policy in 1923.—Discount rates in 1923 underwent fewer changes than in any other year in the history of the system. The only changes in discount rates were at the Federal reserve banks of Boston, New York, and San Francisco, where near the end of February rates were advanced from 4 per cent to 4½ per cent, bringing the rates at these banks to the level prevailing at all other reserve banks.

These advances gained significance from the fact that they were the first rate advances in more than two years. At the time there had been a considerable increase on a national scale in the demand for credit and the existing inequality between discount rates in various districts tended to attract an undue proportion of borrowing to the centers with low rates. The effect of the rate advances of the three banks was to bring about a better regional distribution of credit and to test the character and soundness of the credit demand by having the obligations of borrowers passed upon by banks in their own locality.

The attitude of the Federal reserve system, as expressed in these rate changes, was not immediately reflected in any change of the volume of bank credit in use. This, however, is not to be taken as indicating that the advances of rates, slight as they appeared, were without consequence. The influence of the change of discount rates by the reserve banks can not be measured by any immediate effect that they might be expected to have on the total volume of borrowing at member banks. The credit process which finally gives rise to a granting of credit by a member bank has its beginning in the business plans and decisions of the bank's customers. The movement in the volume of credit at any given time, and particularly in times of business expansion, has a momentum which can not be immediately checked, and while the expansion is actively going on the movement tends to gain momentum at an increasing rate. The volume of banking credit in use and outstanding, as recorded in the statements of the banks, is the outcome of commercial plans and commitments which may antedate by many months the extension of credit by the banks. Business transactions which are already under way will ordinarily be carried through to completion, quite irrespective of changes that have supervened in credit conditions and money rates. The rise in discount rates is not intended to interrupt or interfere with antecedent commitments that are in process of completion but rather to induce a more prudent attitude on the part of borrowers with regard to new commitments. It requires, therefore, some time for a rate change to show its effects in the altered lending operations of the banks.

In the months immediately following the rate advances made in February, 1923, the volume of credit, especially the borrowings for commercial and industrial purposes, continued to increase at a rapid rate. Prices, particularly of those commodities which had been advancing rapidly for about a year, ceased their rise in May, chiefly because the increased volume of production which the rise in prices had stimulated was reaching the market and taking effect in supplies of goods available for consumption. While consumers' demand was maintained and the volume of trade continued large throughout the year, there was some recession in industrial activity in the second half of the year and a decline in the price level from the peak reached in May to approximately the level of the corresponding months of the previous year.

The rise of prices during the early months of 1923, which in comparison with the price movements experienced under more settled business conditions of the years before the war was proceeding at a relatively rapid rate, led to expressions of concern that the country might once more be entering upon a period of credit expansion and gave rise in certain quarters to a demand for further discount rate advances. The judgment of the Board, however, was that the increasing volume of credit was justifying itself in the continued increase in the volume of production and consumption; the fact that there was little indication of speculative activity was regarded as sufficient evidence that credit was not being put to uneconomic uses.

In commenting on the business and credit situation at the time, the Board said in its Review of the Month for March that "the economic use of credit is to facilitate the production and orderly marketing of goods and not to finance the speculative holding of excessive stocks of materials and merchandise. So far as the available indications go, the increased demand for credit during recent months appears to have arisen from the larger financial requirements of current production and trade and not from speculation in inventories. When production reaches the limits imposed by the available supplies of labor, plant capacity, and transportation facilities—in fact, whenever the productive energies and resources of the country are employed at full capacity—output can not be enlarged by an increased use of credit and by further increases in prices." The view of the Board at the time that the upward movement of prices was not due to an unwarranted expansion of credit, as tested by the volume of trade and industry, was confirmed by the subsequent course of economic events.

During the closing months of 1923 prices became more stable, the reduced volume of production became better adjusted to the current demand, and the volume of commercial and agricultural borrowing, after reaching a peak during the crop-moving period, declined slightly. All of these developments indicated that the year 1923 by comparison with previous years attained a considerable degree of economic stability. The outcome for the year shows that the banks of the country through the extension of credit supported the industrial and trade recovery that was under way and that the Federal reserve banks through their discount policy performed the function laid down in the act of "accommodating commerce and business."

Relation of discount rates to market rates.—The experience of the last year throws light upon the important and much discussed but as yet little understood problem of the basis of Federal reserve discount policy and rates.

Discussions have usually addressed themselves to the question of relationship that should exist and be maintained between Federal reserve bank rates and the rates in the open market and between Federal reserve bank rates and prevailing rates charged by member banks to their customers for current commercial accommodation. The view most widely held in financial and banking circles is that the Federal reserve bank rate should move in sympathy with general money rates, rising as they rise and falling as they decline. A further development of this theory, based upon the leadership which it is felt the Federal reserve banks should assume in the money market, asserts that when money conditions are tightening the Federal reserve bank rates should lead the rise of money rates. A still further and more extreme view holds that Federal reserve bank rates normally should be above the level of member bank rates. A comparison of money rates in the New York market during the year 1923 with the discount rate maintained by the Federal Reserve Bank of New York is presented in the following table:

	Federal reserve discount rate.	Prime bankers' acceptances, 90 days.	Treasury certificates.	Prime commercial paper, 60 to 90 days.
1923.				
January	4.00	4.00	3.66	4.63
February	4.00	4.00	3.65	4.63
March	4.50	4.00	4.12	4.98
April	4.50	4.125	4.13	5.13
May	4.50	4.125	3.95	5.13
June	4.50	4.125	3.84	4.91
July	4.50	4.125	3.91	4.94
August	4.50	4.125	3.86	5.02
September	4.50	4.125	4.01	5.125
October	4.50	4.125	4.22	5.125
November	4.50	4.125	3.94	5.10
December	4.50	4.125	3.88	4.88

It appears that the Federal reserve bank discount rate of 4½ per cent was in excess of the rate on bankers' acceptances and Treasury certificates of short maturity throughout the year and below the commercial paper rate.

The relation in 1923 between Federal reserve bank rates and rates charged by member banks in the different districts to their customers is indicated by a comparison of the practically uniform rate throughout the year at all the Federal reserve banks and the rates paid by customers to member banks on paper rediscounted with the Federal reserve banks. This comparison is presented in the following table:

	Federal reserve bank rate.	Member bank rate.
Boston	4.42	5.07
New York	4.42	5.22
Philadelphia	4.50	5.31
Cleveland	4.50	5.58
Richmond	4.50	6.09
Atlanta	4.50	6.25
Chicago	4.50	5.62
St. Louis	4.50	5.59
Minneapolis	4.50	7.93
Kansas City	4.50	7.15
Dallas	4.50	8.41
San Francisco	4.44	5.84
Average for all districts	4.47	5.48

The table brings out the fact that the margin between the Federal reserve bank rate and member bank rates varies considerably from district to district, and that in general the spread is narrowest in those districts where the financial centers are located. The differences in the margin reflect in part the differences in the costs and risks of member bank lending in various sections of the country. These differences between districts also represent the wider margin between the Federal reserve bank rate and member bank rates in smaller cities as compared with the larger centers. With the Federal reserve bank rate at 4½ per cent, the rates charged to customers in December, 1923, were 5.44 per cent for cities of 100,000 population and over, 6.34 per cent for cities from 15,000 to 100,000, and 7.54 per cent for cities of less than 15,000. The diversity in member bank rates, whether considered by Federal reserve districts or by size of cities is, therefore, apparent. It follows that the Federal Reserve Board, in approving the maintenance by all Federal reserve banks of rates at a uniform level practically throughout the year, was guided by no mechanical rule as to the necessity of maintaining a fixed and invariable relationship between reserve bank rates and member bank customer rates. Indeed, the observations of the Federal Reserve Board and the experience of the Federal reserve banks make it certain that the Federal reserve banks and the Federal Reserve Board can not adequately discharge their function of "fixing rates with a view of accommodating commerec and business" by the simple expedient of any fixed rule or mechanical principle.

New York and London money markets.—Reference has already been made to the principle not infrequently advocated that the discount rates of the Federal reserve banks must be higher than current rates for commercial accommodation in order to be "effective" rates. This view appears to be based on a loose analogy with the London market and with the traditional policy of the Bank of England. "Bank rate" in the London market is the official minimum rate at which the Bank of England stands ready to extend credit on paper of certain well-defined character. This rate is normally above the rate at which this class of paper is bought and sold in the London money market. It is not, however, above the rate charged by the London joint-stock banks on loans to their customers, in the form usual for borrowings in England for ordinary commercial and industrial use, that is to say, in the form of "overdrafts" and "advances."

A comparison of the rate structure of the New York market with that of the London market brings out that in the New York market the official discount rate of the Federal reserve bank is also above the open-market rate on that class of paper, to wit, bankers' acceptances, most nearly comparable to the bills which are the principal type of paper in the London market. A comparison further shows that in London, as in New York, the bulk of the loans made by commercial banks to their customers are at rates higher than bank rate in London or the Federal reserve discount rate in New York.

English banking practice does not, therefore, establish the inference that Federal reserve bank discount rates in order to be effective must be penalty rates—that is, be higher than the rates charged by member banks on customer loans. Little in the way of good would result from any attempt to adopt or set this up as the regulative principle in the adjustment of reserve bank rates.

There is an important difference between the relationship sustained by member banks to their Federal reserve banks and by London joint-stock banks to the Bank of England. When member banks lend money to their customers they obtain from them promissory notes which are eligible for rediscount with the Federal reserve bank. The London joint-stock banks, on the other hand, make most of their loans to customers in the form of overdrafts or advances which do not result in negotiable instruments and therefore can not be converted into balances at the Bank of England. The temptation which is present under the American banking system to rediscount customer paper and relend the proceeds because of the profit arising from such rediscount, when the Federal reserve bank rate is sufficiently below the customer rate to make such a transaction profitable, is not present under the English system.

That this difference in the respective banking situations of the two countries is a fact to be reckoned with in the application of the discount policy of the Federal reserve banks is certain, but the methods by which it will most appropriately be reckoned with, experience is already making it clear, are not to be found principally, if at all, in the establishment and maintenance of reserve bank rates at punitive levels. The outlook for Federal reserve credit regulation would indeed be unpromising, in view of the great disparity of customer rates at member banks in different sections of the country, if the reserve banks had no other means than discount rates by which to regulate the volume of their credit used, and if this discount rate could exert no effective influence unless it were a penalty rate.

The experience of the Federal reserve banks under normal conditions of operation has as yet been too brief to make it possible to speak comprehensively and definitely concerning the proper relation of Federal reserve bank discount rates and member bank customer rates. This is particularly true because of the variety of economic and financial conditions in the United States, partially expressed, as has just been pointed out, in the lack of uniformity of interest rates in the different sections of the country. It will take much further and fuller experience under more normal conditions to enable each Federal reserve bank operating in the particular circumstances of its district to work out the most practicable method of relating its rates to competitively determined member bank rates within its field of operation. The regional organization of the Federal reserve system was recognition of the fact that Federal reserve discount rates need not at all times and in all circumstances be uniform in the several districts, and experience appears to confirm the conclusion that no single and uniform method of adjusting discount rates will be found equally workable and equally satisfactory in all the districts.

While it is not, therefore, possible to speak dogmatically on the subject of Federal reserve rates and the basis on which they will best and most usefully be adjusted in fulfilling the purpose of the Federal reserve act, to wit, that of fixing rates "with a view of accommodating commerce and industry," it is possible to point to certain considerations derived from the experience of the Federal reserve banks which have an important if not a decisive bearing upon the problem of regulating the flow and use of Federal reserve bank credit by means of the discount rate. Broadly stated, an effective Federal reserve discount rate will be one that gives effective support to a Federal reserve bank's credit and discount policy. The objective in Federal reserve discount policy is the constant exercise of a steadying influence on credit conditions.

The Federal reserve banks are the country's supplementary reservoir of credit and currency, the source to which the member banks turn when the demands of the business community have outrun their own unaided resources. The Federal reserve supplies the needed additions to credit in times of business expansion and takes up the slack in times of business recession. It is its responsibility to regulate the flow of new and additional credit from its reservoirs in accordance with solid indications of the economic needs of trade and industry. When production, trade, and employment are in good volume and the credit resources of the commercial banks of the country are approximately all employed and there are signs neither of speculative business expansion nor of business reaction, Federal reserve bank rates should be neither so low as to invite the use of credit for speculative purposes nor so high as to discourage its use for meeting legitimate productive needs of the business community. It seems clear that if business is undergoing a rapid expansion and is in danger of developing an unhealthy or speculative boom, it should not be assisted by too easy credit conditions. In such circumstances the creation of additional credit by rediscounting at Federal reserve banks should be discouraged by increasing the cost of that credit—that is, by raising the discount rate. It seems equally obvious that if industry and trade are in process of recovery after a period of reaction, they should be given the support and encouragement of cheaper credit by the prompt establishment at the Federal reserve banks of rates that will invite the use of Federal reserve credit to facilitate business recovery. The reason for variable Federal reserve discount rates is the necessity of adjusting rates to these changes in business and credit conditions.

The experience of the Federal reserve banks, notwithstanding that the brief period of their active operation on a considerable scale has been one of disturbed economic and financial conditions, is demonstrating that there is a sufficiently close connection between changes in Federal reserve bank rates and changes in rates charged their customers by member banks on a sufficiently large volume of customer borrowings to make Federal reserve rates an important and at times a leading influence in money centers. In that sense the Federal reserve bank rate may be said to be effective. Its effectiveness and the range of its influence have been promoted in no inconsiderable degree in recent years by the increasing fluidity of the American credit system—that is, by the ease with which credit flows between the larger financial centers and the interior of the country.

Member bank customer rates have shown a tendency to move with changes in Federal reserve bank rates. This is particularly noticeable in the larger financial centers of the country, for reasons that need not be detailed, and when after a considerable period of stable rates the Federal reserve bank rate is advanced. This is not merely or principally because of the addition made to the cost of credit, but because an advance of rates when properly timed is taken by the business community as an indication of the attitude of the Federal reserve system toward the credit situation—the relation of the volume of the country's credit to the volume of its production and trade. It is for this reason that the leadership of the Federal reserve banks when rates are advancing appears from experience to be more promptly recognized than when rates are declining.

OPEN-MARKET POLICY AND OPERATIONS.

The credit policy of the Federal reserve system in 1923 was expressed not in its discount policy alone, but also in the open-market operations of the Federal reserve banks. The year has witnessed a considerable development in the scope, purpose, and method of these open-market operations. The results of the year have demonstrated that open-market operations, when wisely timed and well conceived, are, in a larger measure than has hitherto been generally appreciated, capable of giving effective support to the discount policy of Federal reserve banks without an accompanying change of rates. This new chapter of experience is of sufficient consequence in its bearing upon the development of the Federal reserve system to merit extended notice.

Discount and open-market operations.—Two broadly distinguishable classes of credit operations, that is to say, ways of making "discounts, advancements, and accommodations," are recognized and authorized by the Federal reserve act. There are, first, the so-called rediscount operations, and, second, the so-called open-market operations, these being the terms used by the Federal reserve act to distinguish the two major classes of Federal reserve bank operations. The provisions of the law governing rediscount operations are found in section 13 of the Federal reserve act and those governing open-market operations in section 14.

An "open-market" operation consists in the purchase or sale in the general or open market by a reserve bank of such classes of investments as it is authorized by the act to buy and sell. The classes of investments specified by the act as appropriate for purchase and sale by the Federal reserve banks in the open market are cable transfers, bankers' acceptances, bills of exchange, securities of the United States Government, and certain types of obligations of minor political subdivisions. In making purchases and sales of these classes of securities the Federal reserve banks may deal directly with the public, for the act provides that they may purchase and sell "at home or abroad, either from or to domestic or foreign banks, firms, corporations, or individuals."

By a rediscount operation, on the other hand, is meant the rediscount by a member bank with a reserve bank of the paper of its customers, when that paper conforms to the "eligibility" tests set up by the reserve act. There is no open market for customer paper or so-called line of credits loans—no market, at least, in the sense in which the term market may be applied to such two-name paper as trade bills, bankers' acceptances, etc. An important purpose of the Federal reserve act was to improve the status of customer paper of eligible character, or, as the Federal reserve act states in its title, "to afford means of rediscounting commercial paper."

There can be no doubt that the Federal reserve act looked forward to the development in the United States in the course of time of an open market of considerable extent for dealings in short-term bills of the kinds described in section 14 of the act, and it was expected and desired that operations in the open market should be engaged in by the Federal reserve banks from time to time much after the manner of the central banks of leading foreign countries by the purchase or sale of securities for the purpose of exerting an influence on the state and course of credit.

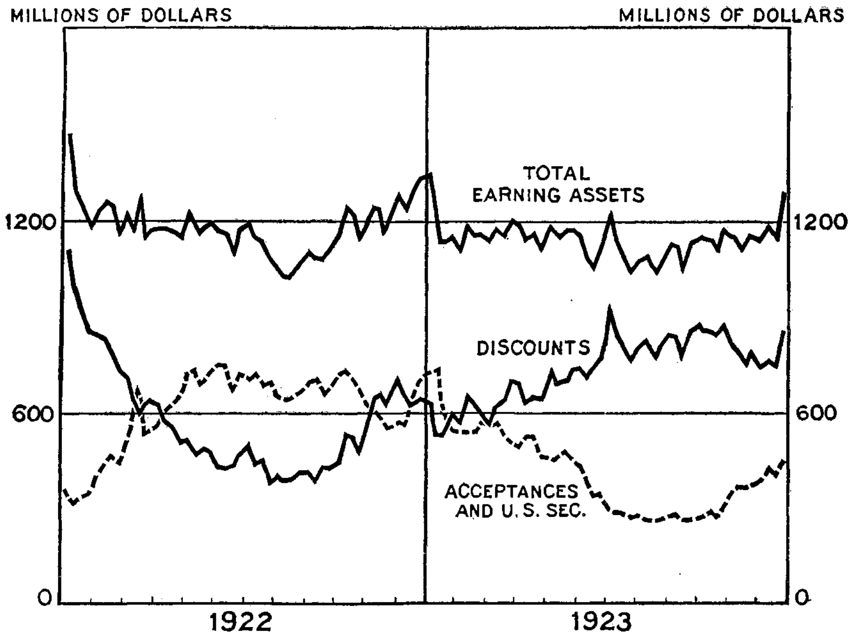
A review of the history of the open-market transactions of the Federal reserve system shows that during the first three years of their operation the volume of open-market securities held by the reserve banks was larger than the volume of their discounts for member banks. Easy money conditions during this period, the large influx of gold, and the strong reserve position of the member banks made it possible for them to finance the great growth that was then taking place in the volume of the country's business without borrowing from the Federal reserve banks. The reserve banks entered the open market at this time partly to secure earnings from the investments from which their operating expenses could be defrayed, but largely also for the purpose of building up a broader discount market in the United States by encouraging the use of bankers' acceptances and by freely dealing in them.

After the entry of the United States into the World War the increased demand for credit for Government financing resulted in a rapid increase in borrowing by member banks at the reserve banks. From that time until the end of 1921, when the liquidation following the crisis of 1920 had pretty well completed its course, the volume of paper held by the Federal reserve banks as discounts was much larger than the holdings of open-market investments. The volume of such investments was at times considerable during this period, but, taking the period as a whole, the holdings of open-market investments during the five years from the time of our entry into the war until the spring of 1922 constituted a relatively small proportion of the total earning assets of the Federal reserve banks.

Open-market operations in 1922 and 1923.—During the years 1922 and 1923 the open-market transactions of Federal reserve banks entered upon a new phase. Not only were these transactions at times large in their absolute volume as well as in their volume relative to the rediscount operations of the banks, but they also showed between the beginning and the end of the period great fluctuations, both absolutely and relatively. Moreover, during these two years, in contrast to the earlier period, open-market transactions of the Federal reserve banks were principally in Government securitiese Following the general liquidation in 1921 there was a rapid and continued repayment of borrowings by member banks. The volume of paper held under discount by the Federal reserve banks reached a low level during the first part of the year 1922. Some of the reserve banks, in order to assure themselves of sufficient earnings to meet their expenses and their dividend requirements, began to purchase considerable amounts of short-term Treasury securities. By mid-year the volume of such securities held by the reserve banks reached nearly $600,000,000. The course of these operations, entered upon independently by each of the twelve banks, made evident the need for a better coordination of the open-market operations of the several banks, and in 1922 led to the creation of a committee of officers of the reserve banks for the purpose of coordinating reserve bank dealings in Government securities, so as to prevent possible conflict between their own transactions and those which as fiscal agents of the Government they were conducting for the Treasury. Moreover, and eventually destined to be far more important, the character and scale of the open-market operations engaged in by the Federal reserve banks during the year 1922 and the early part of 1923 showed the need of bringing these operations more definitely into line with the general credit policy of the system.

The part that open-market operations may play in general credit policy is influenced by the fact that changes in the volume of securities held by the reserve banks have an effect on the volume of their discounts for member banks. The purchase of securities in the open market by a Federal reserve bank places funds in the hands of member banks which these banks may use in the repayment of borrowings from the reserve banks; the sale of securities, on the other hand, by withdrawing funds from the market may lead to additional borrowing from the reserve banks. The difference between discount operations and open-market operations is that the initiative in rediscounting lies with the member banks, while in the purchase and sale of securities the initiative may be taken by the reserve banks. The extent to which member banks borrow in order to replace the funds withdrawn by the reserve banks through the sale of securities is a measure of the demand for reserve bank credit. The sale of securities by a reserve bank may thus serve as a test of the degree of adjustment between the demand for reserve bank credit and the outstanding volume of such credit.

The changes in the volume of open-market holdings and of discounts during 1922 and 1923 and the extent to which these changes offset each other in the total volume of earning assets are shown in the chart. The volume of open-market holdings with which the Federal reserve banks entered the year 1923 amounted to $712,000,000, made up as follows: Government securities, $457,000,000; acceptances, $255,000,000. At that time the discounts of the Federal reserve system amounted to $628,000,000. The earning assets of the 12



reserve banks, therefore, at the beginning of the year 1923 consisted of discounts and open-market investments in approximately equal volume. By the end of the year the volume of open-market holdings for the 12 banks amounted to $440,000,000, made up of Government securities, $104,000,000, and acceptances, $336,000,000. The reduction in the volume of open-market investments was accompanied by a substantially equal increase in the volume of discounts, with the result that the total volume of Federal reserve bank credit outstanding changed but little. The gradual withdrawal from the open market by the reserve banks during the first half of 1923 placed upon the member banks the responsibility for validating the continued use of the existing volume of reserve bank credit and tested the degree of dependence of the credit structure upon the volume of Federal reserve bank accommodation outstanding. The record shows that member banks met the test by discounting in a volume substantially equal to the reduction in open-market holdings. There was no material change in the volume of reserve bank credit in use. The reduction of open-market holdings by reserve banks, therefore, did not result in the withdrawal of support, but in a change in its character. The fact that the reduction of the open-market holdings during 1923 was accompanied by an increased amount of discounting by member banks in a volume approximately equal to the funds withdrawn by the reduction of open-market holdings showed that the total volume of reserve bank credit outstanding was not in excess of the demand for such credit.

The relationship just described between open-market operations, discount operations, and the total volume of reserve bank credit is based upon the experience of the Federal reserve system as a whole, and is not evident to the same extent in the operations of the individual reserve banks. The purchases of Government securities in 1922 by reserve banks outside the money centers did not result in a corresponding decline in the discounts for their member banks, and in the early part of 1923 the security holdings of some reserve banks were materially reduced without causing a commensurate increase in the borrowings of member banks of those districts. The fact that open-market operations of individual reserve banks may not be reflected in changes in the demand for credit at these banks, but may influence the credit situation in the money centers where the purchases or sales are made, makes it evident that open-market policy should be a system policy.

Open-market policy in 1923.—It was for these and related considerations that the Federal Reserve Board in April, 1923, took steps to bring about a better coordination of the open-market operations of the Federal reserve banks with their discount operations and their general credit policy. The necessity of coordinated action among the several banks with respect to open-market policy and operations was also an important consideration leading to the earlier appointment of the committee of reserve bank officers to act under the general supervision of the Board in handling open-market problems and operations. This committee is now the agency through which transactions in furtherance of the system's open-market credit policy are carried out. In view of the influence which the open-market operations of any reserve bank in the general money market may have on the credit situation, the board regarded it as essential that the purchases and sales of securities by reserve banks should be made with primary regard to their broader consequences and in accordance with the credit policy of the system. The following was the principle laid down by the Board in this matter: "That the time, manner, character, and volume of open-market investments purchased by Federal reserve banks be governed with primary regard to the accommodation of commerce and business and to the effect of such purchases or sales on the general credit situation."

As the Federal reserve act provides that discount rates shall be fixed "with a view of accommodating commerce and business," the adoption of this principle by the Board has established the open-market policy on the same basis as the discount policy.

The experience of the past year in open-market and discount operations of the reserve banks is significant, because it has demonstrated that with a constant demand for reserve bank credit continuous readjustments in the composition of this credit may occur without resulting in an increase in the total volume outstanding. That throughout 1923, a year of growing business activity and increased credit and currency requirements, there was no demand for additional reserve bank credit was due to the continued inflow of gold from abroad which furnished to member banks the funds needed to finance the enlarged volume of trade and industry.

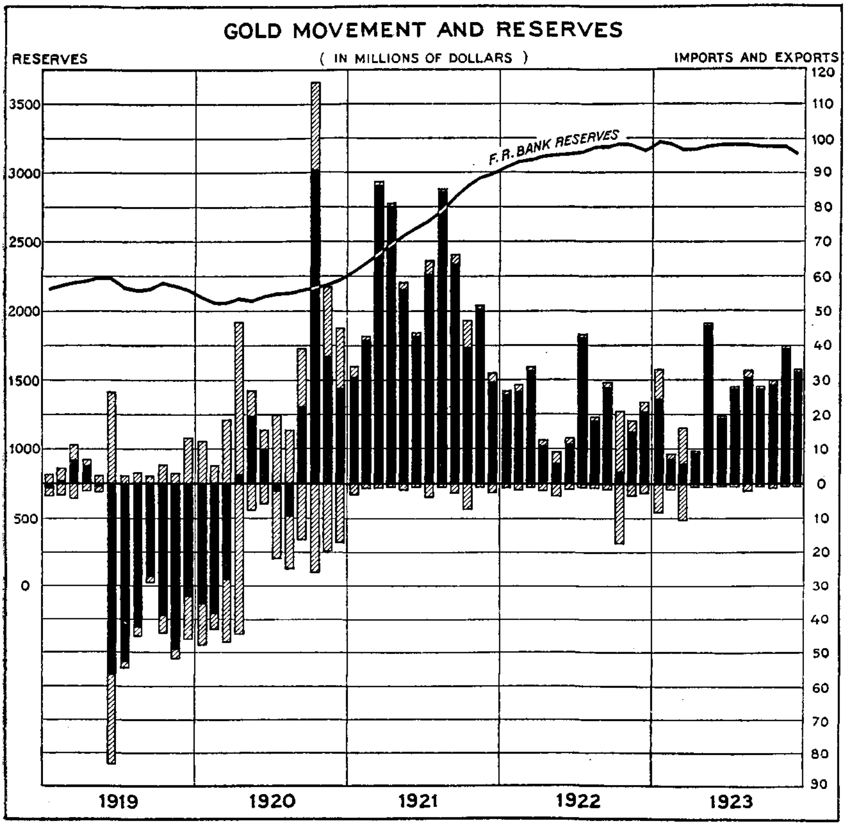
GOLD AND CREDIT.

The important influence exerted by the inflow of gold from abroad during the year 1923 on the banking situation in the country at large and on the position of the Federal reserve banks in relation to the general credit situation has already been the subject of brief reference in this report. Net gold imports into the United States during the past year amounted to $294,000,000. A gold movement of this magnitude in the course of a single year would constitute an impressive development and a factor of consequence even if it were an isolated occurrence. The gold inflow into the United States in the last year, however, presents itself as a continuance of the influx which has been in process since the closing months of the year 1920, and the indications are that the movement which has been bringing gold to our shores during the past three years has not yet spent its force. The shifting of the world's principal monetary metal which has taken place in this period of time is without precedent in monetary history.

Gold imports and the Federal reserve banks.—Since the Federal reserve banks began operations in November, 1914, over two billions of gold have been added to the stock of the United States by importation. It is the gold which has been thus received from abroad that now constitutes the larger portion of the gold reserves of the twelve Federal reserve banks.

The first billion of this gold came prior to the entry of the United States into the World War. Under the policy of gold concentration pursued by the reserve banks during the war, the bulk of the gold received during the two years before our entry into the war was added to the gold holdings of the reserve banks. That concentration formed a part of the general policy of financial mobilization and was a most material factor in the success of the plan adopted for the financing of the war. During the period of our participation in the war gold movements were on a relatively small scale.

The second billion of gold has been received during the five years since the conclusion of the war. This second billion was the net addition to our gold stock after the loss of some $400,000,000 of



Bars above base line represent imports; bars below base line, exports. Black portions represent net imports or exports.

gold between the removal of the gold embargo in 1919 and the autumn of 1920. Net imports of gold during the year 1921 alone amounted to around two-thirds of a billion dollars. The gold reserves of the Federal reserve system, which stood at $2,063,000,000 at the end of the year 1920, increased to $2,875,000,000 at the end of the year 1921, to $3,047,000,000 at the end of the year 1922, and to $3,080,000,000 at the end of the year 1923. Gold movements into and out of the United States and the growth of the reserves of the Federal reserve banks from 1919 to 1923 are shown in the chart.

Gold is the tangible and conventional basis of bank lending and currency issuing power. The particular effect exerted by an influx of gold, therefore, depends upon business and credit conditions and needs at the time when the gold is received. Gold received from abroad in the usual course first finds its way into the member banks. So long as it remains in their hands, it does not count as part of their legally required reserves. A member bank receiving the gold, therefore, deposits it with its reserve bank. If this bank has paper under rediscount with its reserve bank at the time, the gold may be used to reduce its rediscounts. If it has no paper under rediscount the gold adds to its reserve balance and to that extent increases its lending power.

The first billion of gold which, as already noted, came prior to the entry of the United States into the World War, by increasing the reserves of member banks constituted a banking basis for the enormous growth of bank credit and currency which was used to finance the production of war materials and other supplies bought by European Governments in great volume. That was a period of business and credit expansion calling for enlarged lending by the banks of the country.

Further expansion of credit and currency was occasioned by the vast expenditures of the Government during the period of our participation in the war. The addition of $1,149,000,000 of gold to the reserves of the Federal reserve banks after our entry into the war formed the basis of an increase in the discount and investment operations of the Federal reserve banks from $226,000,000 in April, 1917, to $2,291,000,000 in December, 1918. The reserve ratio of the Federal reserve system, which stood at 84.7 per cent in April, 1917, when the aggregate reserves of the system amounted to $963,000,000, fell to 48.8 per cent in December, 1918, when the aggregate reserves of the system stood at $2,151,000,000.

The imports of gold, which took place during the year 1921 and which amounted to $667,000,000, came to the United States in payment of foreign indebtedness and reached us at a time when general loan liquidation which followed the crisis of 1920 was under way. This gold was a substantial factor in facilitating reduction of borrowings by member banks at the Federal reserve banks. As nearly as can be estimated, about one-half of the total reduction in the borrowings of member banks during the years 1921 and 1922 was effected by the use of the imported gold.

Influence of gold imports during 1922 and 1923.—The gold received in the United States since the middle of 1922 has had an effect different from that just noted in 1921 and the first half of 1922. This recent influx of gold has taken place after a period of liquidation and during a period when business was in process of recovery and expansion, and when demand for credit was increasing member bank loans. With the turn in credit and currency demands arising about the middle of 1922, not as many member banks had occasion to use their imported gold to repay borrowings at their reserve banks. The gold, therefore, constituted an addition to their reserve balances and enabled them to expand their loans to their customers without the need of rediscounting, and also to supply the cash requirements of their customers, just as was the case in the two years before our entry into the war in 1917. In brief, the gold received during the period of liquidation in 1921 and 1922 enabled the member banks to recover a considerable degree of the independence of reserve bank support which they had lost in the preceding years, while the gold received since the middle of 1922 has enabled them to maintain their state of relative independence notwithstanding the great intervening growth of credit.

The increase in credit extended by member banks to their customers which, during the past two years has amounted to over $3,000,000,000, has been large enough to absorb the gold received during this time and, taking the banking situation in the country at large, to require the continued maintenance of the volume of reserve bank credit outstanding at the beginning of 1922. While this increase in credit and currency demands was large enough to maintain the existing volume of reserve bank credit, it was not so large as to result in an additional demand for reserve bank credit.

Gold received by a member bank is in ordinary course deposited with its reserve bank. Its first effect is to add both to the reserve balance of the member banks and to the gold reserves of the Federal reserve banks. The reserve bank has no control over the use made of its free reserve balance by its member banks. Therefore, the use made in the first instance of credit arising from a gold import lies with the member bank. When, however, the member bank has expanded its operations to the full extent for which the gold deposit has furnished the required reserves, or has withdrawn currency in a volume equivalent to this deposit, a further use of the additional lending power arising out of the gold can be made only by borrowing from the reserve bank.

The ordinary bank, like any business concern, is organized and conducted for profit. Banks seldom carry surplus reserves. Their disposition is to make full use of their surplus cash resources. . If these resources are in excess of what is needed to meet their customers' credit requirements, they will put them into the general market through the purchase of commercial paper, bond investments, or call loans, so as to keep all of their available funds in one way or another always fully and profitably employed. The reserve banks are in a different position. They are the holders of the ultimate and only true banking reserves of the country. They are the *reserve* banks of the country, and as such they are charged with large responsibilities for the constant maintenance of a sound credit situation. They must, therefore, be conducted with primary regard to the bearing of their operations upon credit conditions rather than by the desire to make full use of their earning power. Reserve bank credit is properly used when in response to the credit and currency requirements of industry and trade. The present large gold holdings of the reserve banks not only afford assurance of adequate credit support for the growth of productive industry in the United States, but also will make it possible for this country to meet any probable future demand for gold from abroad that may arise in connection with the restoration of the international gold standard. It is the part of prudence for the United States and for the Federal reserve banks in particular, as the holders of over $3,000,000,000 of gold (that is, about three-fourths of the total estimated stock of monetary gold in the United States), to pursue a course which will enable them to part with such portion of this gold as Europe will need to reclaim for currency restoration with a minimum of inconvenience and disturbance to our internal financial and economic situation.

Future gold movements.—In view of the important effects of gold imports upon the American credit situation and upon the international monetary situation, the probable extent and direction of future gold movements is a matter of great concern. No inflow comparable with that which has already taken place can be expected, since this movement has drained a large part of the European gold formerly in circulation and has in addition absorbed the bulk of the gold reserves of those countries, notably Russia and Germany, whose financial and monetary conditions were such as to make it impossible for them to keep their central banking reserves intact. The reserves of the central banks of other principal countries of Europe were considerably enlarged during the war and have not declined during the post-war period. Present government policy in these countries is to control gold exports and not to permit the reduction of the reserves of the central banks. In fact, of the $600,000,000 of gold imported into the United States during 1922 and 1923, the bulk consisted of newly mined gold. It is hardly to be expected, therefore, that in the immediate future the gold inflow will exceed or even equal the current gold production of the world. During the past year India has received a share of the new gold because improved economic conditions have led to a favorable trade balance, and gold has gone also to Egypt. A larger or smaller share of the gold output of a year constitutes the probable maximum which can be expected to be available for distribution to the United States and other countries. On the other hand, the prospect of net gold exports depends upon the balance of international payments as influenced by trade movements and international loans and investments and upon the disposition and ability to withdraw gold on the part of those countries which are undertaking to reorganize their currency systems on a gold basis.

Gold standard and currency reorganization.—The attempts during the past year at currency stabilization by European countries have been steps in the direction of the reintroduction of gold as a standard. They have not yet resulted in any considerable addition to gold reserves. Though they differ in method and detail, European efforts to promote better monetary conditions have aimed at the establishment and maintenance of a constant relationship between the value of local currencies and gold. Thus far experiments, which have been on a relatively small scale, have made use of the American dollar and other stable currencies as the equivalent of gold. In view of the low gold value of the total volume of these currencies and the limited use of gold in the settlement of trade balances, the demand for gold for purposes of reestablishing currency stability has not been considerable.

In international trade gold has retained its conventional position as a standard throughout the decade of currency disorganization. The necessity of a common basis for calculating the prices of commodities entering into world trade has had the result that through mutual adjustments of prices and exchange rates international price levels, when expressed in terms of gold, have tended toward equalization. In this adjustment the American dollar, not only because of its convertibility into gold, but because of its stability and because of the trade position of the United States, has become increasingly the unit of account in international trade. Thus the dollar has become the link between countries on a paper currency basis and the gold standard.

The premium on dollar exchange and the large movement of gold to the United States in the postwar period both arose out of the large volume of goods exported to foreign countries during and since the war. Through shipments of gold to the United States foreign countries have been able to meet their unfavorable merchandise trade balance and to reduce their indebtedness for goods bought on credit in earlier years. In spite of the disorganized conditions of the exchanges, the volume of trade between the United States and other countries has been in large volume, and in the payment for goods purchased in the United States the foreign countries have used gold, not as before the war chiefly in the settlement of balances but more as one of the commodities that they were able to export to the United States. An added circumstance favorable to the shipment of gold to this country has been the commanding rôle now played by the United States as the world's most important and, practically speaking, only "free" gold market.

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By a free gold market is meant a market in which credits, howsoever established, are gold credits; that is to say, credits for which gold can be promptly obtained for foreign shipment and withdrawn without obstacle or objection. It is well known that in the financial economy of the world previous to 1914 London was the most important of the world's free gold markets—the one which commanded the greatest confidence and the one, therefore, which attracted the largest volume of foreign financial accounts and the large volume of varied business from every quarter of the world which followed in their wake. By virtue of its creditor position and its unprecedentedly strong gold position the United States has now become the world's gold center. As such it has assumed the high responsibility of so managing the vast gold supply domiciled here that it may be available for redistribution by export as occasion may arise without producing any untoward or disturbing effects in our own domestic, economic, and financial situation.

The United States now holds an aggregate of about $4,000,000,000 of gold. This is approximately four-tenths of the estimated total stock of monetary gold in the world. It is more than double the total monetary stock of the United States before the beginning of the World War in 1914. The history of the distribution of gold in the past demonstrates that monetary gold under normal conditions distributes itself at a fairly steady rate among gold-using countries in proportion to their ability to command it. It is to be expected when conditions are on a more normal basis that a situation similar to this will reestablish itself through the redistribution of gold. Great and impressive as has been the industrial growth of the United States in the past ten years, it can not be contended that it will require a twofold amount of gold to insure the integrity and impregnability of the gold standard. It is to be expected and desired that some portion of the gold which the tides of disorganized trade have brought us in the past ten years will eventually return to the countries whence it has come.

Changes in the gold position of the United States for significant dates since the organization of the Federal reserve system are presented in the table. The increase in the gold reserves of the Federal reserve banks during the nine years of their operation has arisen from net gold imports of over $2,000,000,000, from domestic gold production and from a reduction of about $400,000,000 of gold and gold certificates in circulation. The gold withdrawn from circulation was replaced by Federal reserve notes, largely in pursuance of the policy of concentrating the gold of the country in the reserves of the reserve banks. During 1923, however, there was an increase in the circulation of gold certificates, so that the larger portion of the gold received from abroad during the year has been added to circulation rather than to the gold holdings of the reserve banks.

[In millions of dollars.]

Date	Stock of gold in United States.[1]	Gold in circulation.[1]	Gold reserves of Federal reserve banks.
Nov. 27, 1914	1,817	1,338	228
Apr. 6, 1917	3,089	1,991	944
May 28, 1920	2,664	674	1,953
Dec. 13, 1922	3,909	670	3,061
Dec. 12, 1923	4,210	933	3,116

[1] Figures for the nearest first of the month.

CURRENCY AND CREDIT.

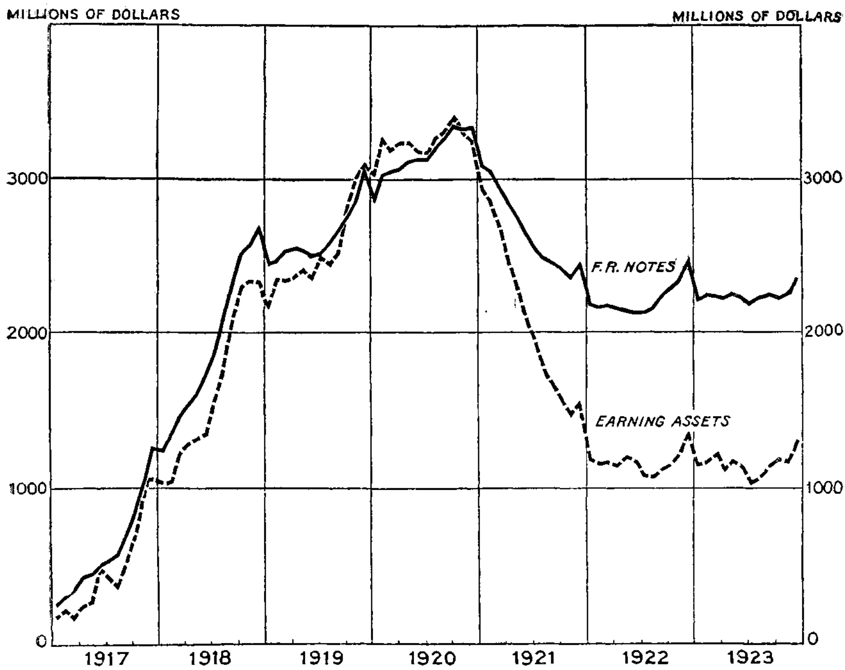
Currency in 1923.—The increased demand for currency during 1923 was met by the payment of gold certificates into circulation and not by the issue of Federal reserve notes. This reflects the recent practice of certain reserve banks, particularly New York, of supplying the currency requirements of their members by paying out gold. For the system as a whole there was during the year a decrease in the volume of Federal reserve notes in circulation, though the total of money in circulation increased. Changes in the total, rather than in the various forms of money in circulation, measure the fluctuations in the demand for currency. Federal reserve banks continued to be the source from which currency was supplied in a volume responsive to changing requirements and the form of money paid out by the reserve banks affected merely the composition of the total money in circulation. The table shows the volume of different kinds of currency in circulation on January 1, 1923, and January 1, 1924.

Kind of money	Amount (in millions).		Percentage distribution.	
	Jan. 1, 1923.	Jan. 1, 1924.	Jan. 1, 1923.	Jan. 1, 1924.
Gold and gold certificates	732	997	15.5	20.1
Silver and silver certificates	597	696	12.6	14.1
United States notes	286	307	6.0	6.2
Federal reserve notes	2,373	2,224	50.1	44.9
Federal reserve bank notes	37	14	.8	.3
National bank notes	708	713	15.0	14.4
Total	4,733	4,951	100.0	100.0

The effect of meeting the currency demand by paying gold rather than Federal reserve notes into circulation has been to increase the proportion of gold in the total circulation to the largest percentage, and to decrease the proportion of Federal reserve notes to the lowest percentage in five years.

While the Federal reserve banks during 1923 continued to function as the source from which the public obtained the currency required to transact the larger volume of business, the increased use of currency did not result in an increased use of Federal reserve bank credit. The reason for this was that the gold received from abroad and deposited with the reserve banks furnished member banks with funds to meet the increased currency demand. The relation between gold imports and currency demand in 1923 was similar to that in 1915 and 1916, which was also a period of gold imports and increasing currency requirements. In those years also the inflow of gold from abroad supplied member banks with credit in sufficient volume to finance a business expansion with little resort to the Federal reserve banks. The experience of 1923 is in contrast, however, to that of 1919–20, when there were no net gold imports and when business expansion led to heavy borrowing at the reserve banks to meet the large and increasing demand for currency.

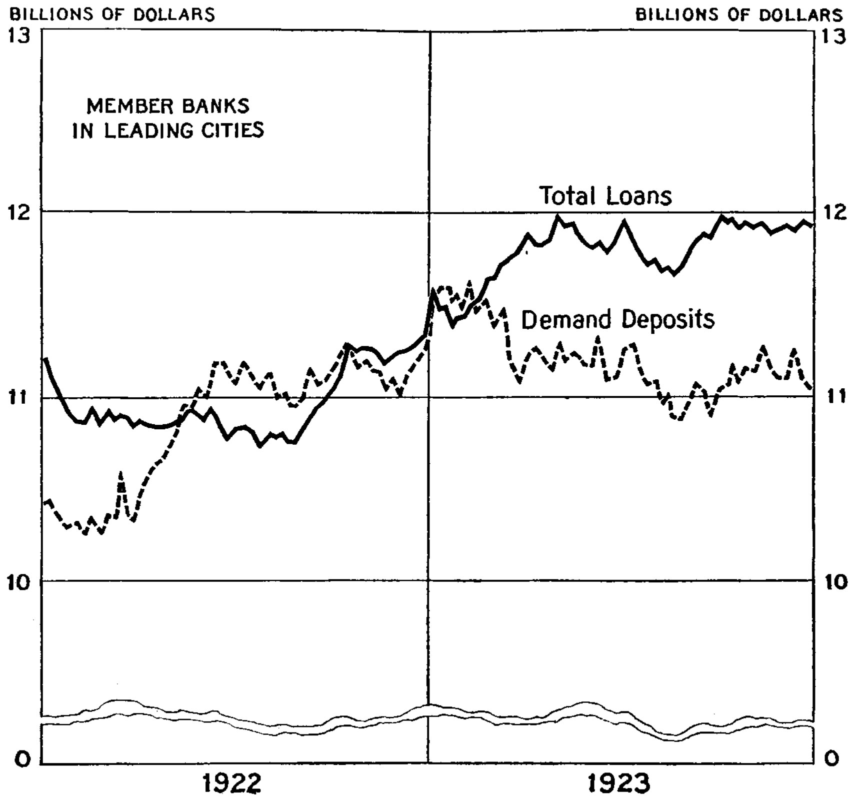
Currency demand and the reserve banks.—In the experience under the reserve system, changes in the demand for currency in the absence of gold imports have been the principal factor accounting for



fluctuations in the total volume of borrowing. Thus total earning assets of the reserve banks and Federal reserve note circulation followed a parallel course until 1921, when the large inflow of gold began. The chart shows the movement of Federal reserve notes and earning assets from 1917 to 1923. The divergence between assets and notes in 1921 was the consequence of the large gold imports which were used in the liquidation of borrowings, and the difference of about $1,000,000,000 between earning assets and note circulation during the past two years measures the extent by which earning assets were reduced by the use of gold received from abroad. During 1922 and 1923 the relative position of earning assets and notes in circulation has remained unchanged, since the gold imported during those years was paid into circulation and was sufficient to supply the increased demand for currency. It is the coincidence of a volume of gold imports in 1923 about equivalent to the increased demand for currency which chiefly accounts for the absence of growth in reserve bank assets, and makes the relation between the movement of assets and notes different from the experience of earlier years.

Credit demand and currency demand.—Though the increase in currency demand in 1923 has not, as in earlier years, been accompanied by a growth of Federal reserve bank credit, it has, as at other times, followed upon a growth in member bank credit. The larger currency requirements of 1923 were preceded by an increase in 1922 of loans and deposits of member banks. This is the usual sequence—an increase of deposits being followed by an increase of the currency. Ordinarily the first effect of an increase in business activity upon the banking position is a growth in loans and deposits. In the earlier stages of a period of banking expansion there is usually a roughly parallel upward movement of the loans and deposits of the banks. Later on, however, the situation changes. There comes a time when the increase of business activity and the fuller employment of labor and increased pay rolls call for an increase of actual pocket money to support the increased wage disbursements and the increased volume of purchases at retail. At this stage the rough parallelism between the growth of loans and deposits of the banks gives way to a divergent movement between these items. Loans may continue to increase while deposits will remain either stationary or show a decline. When the point is reached in a forward movement of business where manufacturers and dealers need more currency for pay roll and other purposes they draw down their deposits at the banks. What in the first instance was the creation of bank credit in the convenient form of a checking account has now become a demand for cash. In other words, the customer's demand for book money (deposits) at the bank becomes converted into a demand for pocket money. This change is reflected in the altered position of the banks. The ratio of loans to deposits rises with an increased demand for currency.

Movements of this character have occurred during the past two years. The year 1922 was one of business recuperation calling for increased banking accommodation. So far as the banking position was concerned, what was going on in 1922 was reflected in the simultaneous growth of member bank loans and deposits. The first half of the year 1923 saw the forward movement in business quickened to an extraordinary degree. Production in basic industries was at an unprecedented rate; there was full employment with wage increases in many industries. The stage had been reached where bank borrowers were availing themselves of their credits to an increasing degree in the form of actual withdrawals of currency. The ratio of loans to deposits was in consequence rising.

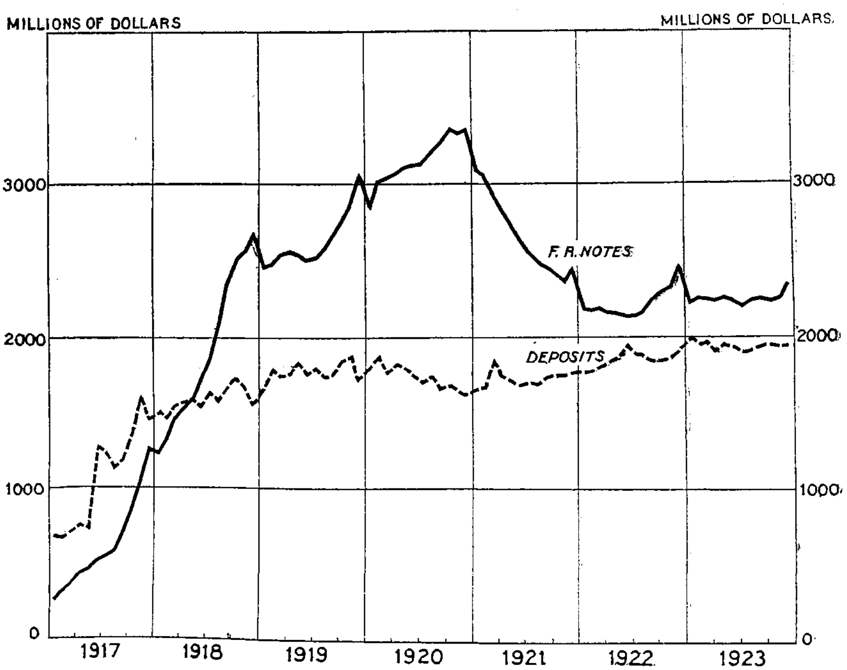


The chart shows that in 1922 deposits of member banks in leading cities increased more rapidly than their loans, while in 1923 deposits declined and loans continued to increase. Thus the ratio of loans to deposits rose during 1923, reflecting the increased demand for currency.

In days before the establishment of the Federal reserve system, the ratio of loans to deposits was commonly used as a trustworthy indicator of the banking position and of the general credit situation. This ratio is still frequently appealed to as foreshadowing changes in money rates. But it is not commonly recognized that the establishment of the Federal reserve system has introduced a new factor which has worked a great change in the situation. Previous to the establishment of the reserve banks a rise in the ratio of loans to deposits was properly regarded as indicating an approach to the limits of bank lending power because it indicated also the approaching exhaustion of the surplus reserves of the banks. It foreshadowed an approaching shortage of cash, and, under a currency system lacking elasticity, a period of credit stringency. Under the Federal reserve system, as before, fluctuations in the ratio of loans to deposits are occasioned by changes in the country's demand for currency. This increased demand, however, under present conditions leads to increased borrowing at the reserve banks. In the absence of gold imports in sufficient volume to meet the currency demand, it will be reflected in larger rediscounting at the Federal reserve banks for the purpose of obtaining currency.

At the reserve banks there is a relationship between the demand for credit and for currency similar to that at the member banks. An increased demand for currency follows upon an increase in the demand for deposit credit at the reserve banks. The first step in the sequence which finally leads to an increase in the demand for currency takes the form of a demand for reserve bank credit to support the larger volume of loans and deposits at member banks. Later, as business continues to expand and as customers of member banks withdraw a larger proportion of their checking accounts in currency, the member bank turns to the reserve bank to obtain the additional currency needed to meet the demands of customers, and for this purpose discounts the customer's note or other eligible paper. As the member bank's customer in availing himself of his credit takes currency in increasing proportion, the member bank is obliged more nearly to match each dollar of cash withdrawn by its customer by a dollar of cash obtained by borrowing at the reserve bank. A point is finally reached where the member bank finds it necessary to rediscount with the reserve bank a larger proportion of the loans it has made to its customers in order to meet their currency requirements. It is then that the resources of the reserve bank are brought more fully into play and its loans mount rapidly. So long as the member bank's customer required only book money, the amount of member bank credit which a dollar of reserve bank credit would sustain was on the average in the ratio of about 10 to 1. But, as the demand for currency increases, this ratio declines and eventually reaches a point where a dollar of reserve bank credit must be obtained by the member bank for each dollar of currency taken from the bank by its customer. It follows that there is no constant ratio which can be safely assumed in estimating the extent to which a given amount of reserve bank credit will enable member banks to expand their loans. This ratio varies according to the stage of business activity and the resulting requirements for currency. From the point of view of the reserve system the important fact is that member banks must depend increasingly upon borrowing from the reserve banks as the demand for currency increases.

It thus appears that the chief occasion for extensive changes in the volume of rediscounting at Federal reserve banks, taking them as a whole, arises out of variations in the demand for currency. Federal reserve banks, therefore, from the point of view of the chief use made of their credit, may be regarded as currency supplying banks. An increased demand for currency is first felt at the counters of the member banks. Since these banks carry little or no surplus cash, that is, cash in excess of what they need to make their customary day-to-day disbursements, an increase in the demands for cash made upon them is promptly



passed on to Federal reserve banks. The reserve banks are the repositories of the country's surplus cash, and in meeting the demand for currency may supply cash either out of their surplus reserves or by the creation of new currency through the issue of Federal reserve notes. The outflow or return flow of Federal reserve notes or other currency at the Federal reserve banks under ordinary conditions quickly and accurately reflects changes in the country's need of currency. Both the increase and the decrease in the total volume of money in circulation are in response to changes in the currency required to transact the country's business with a given volume of trade and production. The Federal reserve note circulation, being the elastic element in our currency system, ordinarily expands when need for additional circulation arises because of a swell in trade and industry, or because of seasonal or emergency demands, and as quickly contracts when the need or emergency which has occasioned its issue disappears.

Experience shows that fluctuations in the volume of Federal reserve note circulation have been much wider than changes in the deposit liabilities of the reserve banks. The movements of notes and deposits from 1917 to 1923 are shown in the chart on page 28. These two liabilities, notes and deposits, constitute the items against which the reserve banks must carry reserves. Changes in the reserve position of Federal reserve banks, owing to the larger changes in the volume of notes than of deposits, have reflected principally increases and decreases in note circulation and in gold reserves. It was in 1920, at the time of the largest volume of Federal reserve note circulation, that the reserve ratio of the system was at its lowest level, and the subsequent rise in the combined reserve ratio occurred at a time when note circulation was rapidly decreasing. Changes in deposit liabilities, on the other hand, have been but a minor influence in their effect upon the reserve ratio. Changes in the ratio of total reserves to notes and deposits combined do not distinguish between the effect on the reserve position of changes in Federal reserve note circulation and in the volume of deposits. The ratio, therefore, represents on the liability side an average of two items which have widely different ranges of fluctuation, and does not give a clear picture of changes in the reserve position of the Federal reserve system and of the factors responsible for those changes.

GUIDES TO CREDIT POLICY.

It is to the reserve ratio that the public in most countries looks to get an indication of changes in the banking position and in the credit situation. This habit of looking at the reserve ratio as an indicator is particularly prevalent in the United States, because the United States is more than any other the country of legally regulated reserves. However theoretically imperfect any reserve ratio may be as a credit and banking index even in normal circumstances, and however defective reserve ratios may have become as a result of the suspension of the gold standard in many countries, the reserve ratio is nevertheless the one banking index that has uninterruptedly enjoyed the prestige of tradition, and there is little or no indication of the displacement of this tradition in the near future. The reserve ratio must, therefore, be reckoned with as a fact in banking administration.

In thus recognizing the importance generally attached by the business public to changes in the reserve ratio as an index of the banking position, the board is not oblivious of, nor indifferent to, the fact that central bank practices associated with an effective international gold standard are now inoperative and that this seriously affects the serviceability of reserve ratios as working guides in credit and currency administration.

The reserve ratio can not be expected to regain its former position of authority until the extraordinary international gold movements which, in part, have occasioned and in part have resulted from the breakdown of the gold standard, have ceased and the flow of gold from country to country is again governed by those forces which in more normal and stable conditions determine the balance of international payments. The gold standard as a regulatory influence can not be effective for one country alone, no matter how impregnable its gold position. Gold movements in the years before the war were in response to changes in the trade and financial position of countries operating on the gold standard, and the changes in the reserve ratios of the central banks, which reflected these movements, were therefore indicative of trade movements and current banking and credit developments. A decline in the reserve ratio reflected either a growth in the liabilities arising chiefly from domestic business or a loss of reserves owing to an unfavorable balance of international payments. Under an effective international gold standard the movements of gold among the money markets of the world exercised a corrective influence on exchange rates, tended to equalize money rates in various countries, and to keep domestic price levels in line with the world price level. In these circumstances, changes in the reserve ratios of the various central banks served as valuable indicators of the changes in the credit and trade relations of the countries and were consequently important guides in the shaping of discount policies. Under the present conditions, with gold embargoes in force in most foreign countries and the United States practically the only free gold market of the world, the movement of gold to this country does not reflect the relative position of the money markets nor does the movement give rise to corrective influences, working through exchanges, money rates, and price levels, which tend to reverse the flow. The significance which movements in the reserve ratios formerly possessed rested upon the fact that they were the visible indicators of the operation of the nicely adjusted mechanism of international finance. With this mechanism now inoperative, the ratios have lost much of their value as administrative guides. It has therefore been necessary for banking administration even in those countries that have been most successful in maintaining a connection with the gold standard to develop or devise other working bases. This has been as true in the United States where the gold standard has been consistently maintained as in other countries where that standard is for the time being inoperative.

The anomalous situation thus confronting central banking administration in all countries has led to much discussion in the United States and elsewhere as to workable substitutes for reserve ratios as guides to credit and currency administration. Particular prominence has been given in discussions of new proposals to the suggestion frequently made that the credit issuing from the Federal reserve banks should be regulated with immediate reference to the price level, particularly in such manner as to avoid fluctuations of general prices. Entirely apart from the difficult administrative problems that would arise in connection with the adoption of the price index as a guide and entirely apart from the serious political difficulties which would attend a system of credit administration based on prices, there is no reason for believing that the results attained would be as satisfactory as can be reached by other means economically valid and administratively practicable. In saying this the board is not unmindful of the abundant evidence recent years have given of the economic and business disturbances occasioned by violent fluctuations of prices. But it must not be overlooked that price fluctuations proceed from a great variety of causes, most of which lie outside the range of influence of the credit system. No credit system could undertake to perform the function of regulating credit by reference to prices without failing in the endeavor.

The price situation and the credit situation are no doubt frequently involved in one another, but the interrelationship of prices and credit is too complex to admit of any simple statement, still less of a formula of invariable application. An oversimplified statement of complex problems contributes nothing toward the development of an effective administrative procedure. It is the view of the Federal Reserve Board that the price situation and the credit situation, while sometimes closely related, are nevertheless not related to one another as simple cause and effect; they are rather both to be regarded as the outcome of common causes that work in the economic and business situation. The same conditions which predispose to a rise of prices also predispose to an increased demand for credit. The demand for credit is conditioned upon the business outlook. Credit is created in increasing volume only as the community wishes to use more credit—when the opportunity for the employment of credit appears more profitable. Sometimes borrowers want to borrow more and sometimes they are content with less. Sometimes lenders are ready to lend more and at other times less. Why this should be so depends on all those multifarious conditions and circumstances that affect the temper of the business community. For the most part these conditions lie beyond the radius of action of the Federal reserve banks. When the business outlook is inviting business men are apt to adventure and new business commitments are made in increasing volume. But only later will these commitments be reflected in the possible rise of prices and an increase in the volume of credit provided by the commercial banks of the country. The Federal reserve banks will not to any considerable extent feel the impact of the increased demand for credit until the whole train of antecedent circumstances which has occasioned it is well advanced on its course; that is, until a forward movement of business, no matter from what impulse it is proceeding, has gained momentum.

Credit administration must be cognizant of what is under way or in process in the movement of business before it is registered in the price index. The price index records an accomplished fact. Good credit administration in times of active business expansion should not encourage or assist the excessive accumulation of forward commitments in business and banking which only later on will definitely reflect the rate at which they have been taking place in resulting changes of credit volume and changes of price levels; and in times of business reaction should discourage enforced liquidation of past commitments which also will only later on reflect the rate at which it has been taking place in altered credit volume and price levels. The problem of efficient credit administration is, therefore, largely a question of timeliness of action.

No statistical mechanism alone, however carefully contrived, can furnish an adequate guide to credit administration. Credit is an intensely human institution and as such reflects the moods and impulses of the community—its hopes, its fears, its expectations. The business and credit situation at any particular time is weighted and charged with these invisible factors. They are elusive and can not be fitted into any mechanical formula, but the fact that they are refractory to methods of the statistical laboratory makes them neither nonexistent nor nonimportant. They are factors which must always patiently and skillfully be evaluated as best they may and dealt with in any banking administration that is animated by a desire to secure to the community the results of an efficient credit system. In its ultimate analysis credit administration is not a matter of mechanical rules, but is and must be a matter of judgment—of judgment concerning each specific credit situation at the particular moment of time when it has arisen or is developing.

There are among these factors a sufficient number which are determinable in their character, and also measurable, to relieve the problem of credit administration of much of its indefiniteness, and therefore give to it a substantial foundation of ascertainable fact. In large part these factors are recognized in the Federal reserve act. The act, therefore, itself goes far toward indicating standards by which the adequacy or inadequacy of the amount of credit provided by the Federal reserve banks may be tested.

The Federal reserve act has laid down as the broad principle for the guidance of the Federal reserve banks and of the Federal Reserve Board in the discharge of their functions with respect to the administration of the credit facilities of the Federal reserve banks the principle of "accommodating commerce and business." (Sec. 14 of the Federal reserve act, par. (d).) The act goes further. It gives a further indication of the meaning of the broad principle of accommodating commerce and business. These further guides are to be found in section 13 of the Federal reserve act, where the purposes for which Federal reserve credit may be provided are described as "agricultural, industrial, or commercial purposes." It is clear that the accommodation of commerce and business contemplated as providing the proper occasion for the use of the credit facilities of the Federal reserve banks means the accommodation of agriculture, industry, and trade. The extension of credit for purposes "covering merely investments or issued or drawn for the purpose of carrying or trading in stocks, bonds, or other investment securities, except bonds and notes of the Government of the United States," is not permitted by the Federal reserve act. The Federal reserve system is a system of productive credit. It is not a system of credit for either investment or speculative purposes. Credit in the service of agriculture, industry, and trade may be described comprehensively as credit for productive use. The exclusion of the use of Federal reserve credit for speculative and investment purposes and its limitation to agricultural, industrial, or commercial purposes thus clearly indicates the nature of the tests which are appropriate as guides in the extension of Federal reserve credit. They clearly describe the nature or character of the purposes for which such credit and currency may be extended. The qualitative tests appropriate in Federal reserve bank credit administration laid down by the act are, therefore, definite and ample.

But the problem of credit and currency administration implies the use not only of qualitative tests but also of quantitative tests. By what means may it be known whether the volume of credit provided by the Federal reserve banks is in any given set of circumstances adequate, excessive, or deficient? The problem in good administration under the Federal reserve system is not only that of limiting the field of uses of Federal reserve credit to productive purposes, but also of limiting the volume of credit within the field of its appropriate uses to such amount as may be economically justified—that is, justified by a commensurate increase in the Nation's aggregate productivity. The Board is fully aware of the fact that the problem of credit extension involves the question of amount or volume as well as the question of kind or character; otherwise stated, involves a *quantitative* as well as a *qualitative* determination. But it is the view of the Board that it is not necessary to go outside of the Federal reserve act to find suitable methods of estimating the adjustment of the volume of credit provided by the Federal reserve banks to the volume of credit needs. The Federal reserve act itself suggests the nature of the tests, guides, or indicators—whatever they may be called—to be used in gauging the need for and the adequacy of Federal reserve credit. The provisions of the act already quoted indicate that the needs for credit which are recognized by the act as appropriate are those derived from agriculture, industry, and trade. It is the belief of the Board that there will be little danger that the credit created and contributed by the Federal reserve banks will be in excessive volume if restricted to productive uses.

A characteristic of the good functioning of the economic system is to be found in the smooth unobstructed movement of goods from the producer through the channels of distribution to their several ultimate uses. The characteristic of the good functioning of the credit system is to be found in the promptness and in the degree with which the flow of credit adapts itself to the orderly flow of goods in industry and trade. So long as this flow is not interrupted by speculative interference there is little likelihood of the abuse of credit supplied by the Federal reserve banks and consequently little danger of the undue creation of new credit. The volume of credit will seldom be at variance with the volume of credit needs as they are reflected in the demands of productive industry as long as (1) the volume of trade, production, and employment, and (2) the volume of consumption are in equilibrium. Credit for short-term operations in agriculture, industry, and trade, when these operations are genuinely productive and nonspeculative in character, that is to say, credit provided for the purpose of financing the movement of goods through any one of the successive stages of production and distribution into consumption, is a productive use of credit. But when the effect of the credit used is to impede or delay the forward movement of goods from producer to consumer, unless such delay is made necessary by some unavoidable cause, e. g., the interruption of transportation facilities, credit is not productively used. The withholding of goods from sale when there is a market or the accumulation of goods for an anticipated rise of price is not a productive use. It is the nonproductive use of credit that breeds unwarranted increase in the volume of credit; it also gives rise to unnecessary maladjustment between the volume of production and the volume of consumption, and is followed by price and other economic disturbances. Administratively, therefore, the solution of the economic problem of keeping the volume of credit issuing from the Federal reserve banks from becoming either excessive or deficient is found.

in maintaining it in due relation to the volume of credit needs as these needs are derived from the operating requirements of agriculture, industry, and trade, and the prevention of the uses of Federal reserve credit for purposes not warranted by the terms or spirit of the Federal reserve act.

There are no automatic devices or detectors for determining, when credit is granted by a Federal reserve bank in response to a rediscount demand, whether the occasion of the rediscount was an extension of credit by the member bank for nonproductive use. Paper offered by a member bank when it rediscounts with a Federal reserve bank may disclose the purpose for which the loan evidenced by that paper was made, but it does not disclose what use is to be made of the proceeds of the rediscount. A farmer's note may be offered for rediscount by a member bank when in fact the need for rediscounting has arisen because of extensions of credit by the member bank for speculative use. Similarly, the note of a member bank collateraled by United States Government securities may be offered for discount to a Federal reserve bank when in fact the proceeds are to be used in supporting the extension of credit for "agricultural, industrial, or commercial purposes." Protection of their credit against speculative uses requires that the Federal reserve banks should be acquainted with the loan policies and credit extensions of their member banks—such acquaintance as can be obtained by examination of their member banks or by other forms of contact with them. In brief, the technical administrative problem presented to each reserve bank is that of finding the ways and means best suited to the circumstances in which it operates of informing itself of when and to what extent the extension of credit for speculative uses is the real occasion of member bank rediscounting.

The administrative problems presented to the Federal Reserve Board are of different character and require a different technique. Unlike the Federal reserve banks, the Federal Reserve Board makes no loans. It is not an operating body, but a supervising body. As a supervising body it is not primarily concerned with the detail of the transactions of the Federal reserve banks. Its concern lies rather with the total volume and the aggregate effects of the credit transactions of the Federal reserve banks. In the discharge of the responsibility placed upon it by the act for the "review and determination" of the discount policy and discount rates of the Federal reserve banks "with a view of accommodating commerce and business," the Federal Reserve Board must look for guidance primarily to information concerning the state of industry and trade and the state of credit. Changes in the volume of bank credit in use are the outcome of changes in the volume of business. A proper and effective credit policy, considered in its broader aspects must, therefore, be based on that wide variety of economic facts which, when brought together, throw light on the changes taking place in the business situation and their relation to current banking and credit trends.

While statistical information concerning production and distribution, covering the whole range of business activity from producer to consumer, is not complete, it is sufficient to indicate currently the rate at which goods are being produced and marketed. Information of this character, as a result of the growing recognition of its value and of the activities in collecting such information both by governmental and private agencies, is now available more currently and in more lines of industry and trade than ever before. The changes from month-to-month recorded in these figures, when brought together and interpreted, indicate the nature and rate of readjustments which are constantly taking place in the industrial and business situation. The activity of business, as measured by these current statistics, is the outcome of the decisions and actions of a large number of individual business men. They are, to be sure, in form and in substance an account of the immediate past, but they also give indications of the conditions affecting the course of business in the future. While this information does not make it possible to measure or estimate in advance the probable aggregate volume of credit needs or to combine into any single formula the elements of judgment applicable to varying credit situations as they arise, it provides basic data needed in banking administration. No statistical analysis can ever be a substitute for judgment in matters of credit administration, but such analyses of economic conditions are indispensable as furnishing the factual basis for credit judgment and for the development of credit policy.

In view of the importance of this information in the determination of credit policy the Board and the Federal reserve banks collect through their statistical organizations, in addition to current reports on banking and credit conditions, basic economic data bearing on changes in the volume of production, trade, and employment, and the movement of prices both in the United States and abroad. The volume of production in physical units indicates the extent of industrial activity and measures the output of goods which will subsequently come into the market. Monthly data are available for basic industries, and while fluctuations in the volume of production in these industries are wider than those in the total for all industries, the data are sufficiently representative to indicate at any given time the direction and trend of industrial activity. Changes in the volume of employment at industrial establishments, figures for which are available for a larger number of industries, not only reflect the degree of current productive activity and thus supplement the figures on production, but because of their bearing on the earnings of workers, also indicate changes in the purchasing power of a large body of consumers. It is the buying power of consumers which primarily determines the demand for goods and the rate at which current production can be maintained. The movement of goods into the hands of final purchasers is measured by the volume of retail buying, which for many lines of trade throughout the country is reported monthly. The rate at which goods are moving through the intermediate channels of distribution is reflected in the volume of wholesale trade and of the shipments of merchandise. A smooth distribution of goods requires that stocks of raw materials and merchandise shall be held at different points in the marketing process, and the extent to which the marketing is orderly—that is, without undue accumulation or exhaustion of stocks—is shown in the changes in the volume of stocks held by producers and distributors. While information concerning stocks is not yet as complete or as current as information on production and trade, it is now available for many commodities and is steadily becoming more satisfactory.

Since the purpose of the Board and of the Federal reserve banks in collecting and compiling this current economic information is to measure changes in the volume of production and trade in relation to changes in the volume of credit, the various lines of information are put into the form of index numbers for purposes of comparison. The use of index numbers, by placing the wide variety of information on a common basis, makes possible comparisons of the direction and rate of change in the basic industrial and commercial activities in their relation to credit trends.

In the current surveys of business conditions published by the Board and the Federal reserve banks, the economic data which they collect are made available to the business community. These publications and the activities of other Government and private agencies in the gathering and interpretation of information with reference to current economic conditions are contributing to a better understanding of the factors at work in the business situation and a better appreciation of the relation between business movements and the volume of credit. The business community from which the demand for credit arises is in a position, on the basis of the more adequate information now available, to shape its policies with reference to the use of credit in accordance with fundamental factors and thus to cooperate with banking authorities in the maintenance of sound credit conditions.

The circumstances which have unavoidably led central banking administrations in all countries to exercise a more direct judgment concerning credit conditions and needs than was necessary in periods when the gold standard functioned as an effective regulator of international trade and financial movements have been discussed earlier in this report. Under the conditions that formerly obtained, action

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of a central bank was largely determined by forces that were registered in changes in its reserve position. No test so simple, so definite, so easily understood, and so practicable has been found, nor is likely to be found, as the old reserve ratio. The banking and business community in prewar days, looking at the position of the central bank—that is, the state of its reserve and the position of its reserve ratio—could see for itself what the state of credit was and what course of action was indicated. The business community could, therefore, closely approximate both the kind of action and the time of action to be taken by central banking authorities. In circumstances which made necessary the protection of their gold reserves, little scope was left for the exercise of large discretion. Under present conditions, however, and until the restoration in some form of the international gold standard, discretion must inevitably play a larger rôle in central banking administration than in pre-war days when more reliance could be placed on changes in the reserve ratio. There is much evidence that this altered situation in which the banking community finds itself is being more fully understood by the general business and borrowing public, and that a more intelligent comprehension of present day credit problems is resulting.

The more fully the public understands what the function of the Federal reserve system is and on what grounds and on what indications its policies and actions are based, the simpler and easier will be the problems of credit administration in the United States. For this reason it has been the policy of the Board to inform the public, either through its official monthly publication or by statements to the press, on matters in which the public has an interest and to which its attention should be drawn. By this means the Board presents to the public a statement of the problems confronting the system and of the attitude of the Board toward current banking and credit developments. The public is a partner in the Federal reserve system. The cooperation of the public based upon an understanding of the broad outlines of Federal reserve credit policy is of the greatest advantage to a good functioning of the system. The difficulties and disturbances which have confronted business men, both in this country and abroad, during the period of post-war readjustments, have obliged them to take cognizance of the fundamental factors which influence the movement of trade and industry and of the relation between these factors and the volume of credit. In the United States more than in any other country business men in recent years have shown a disposition to use current statistical data measuring the rate and movement of basic factors in the economic situation and to adjust the policies of their individual business enterprises to the underlying economic forces. The Federal reserve system in developing its policies is also in a position to use as guides these indicators of changes in the state of industry and trade, and with the increasing public appreciation of the value and meaning of these guides will to a larger degree have the cooperation of an informed public opinion in the carrying out of its policies. It is the belief of the Board that out of the experience of the United States and other countries that are now endeavoring to adapt their banking systems to the changing conditions and needs of industry during this period of unprecedented disturbance, there may result a larger conception of the function of these banking systems and the development of a new and more competent basis of credit administration.

Operations of the Federal Reserve System.

In what follows there is presented the detail of the operation of the Federal reserve banks and branches, together with an account of administrative matters with which the Federal Reserve Board has dealt during 1923.

CONDITION OF FEDERAL RESERVE BANKS.

At the end of 1923 total earning assets of the Federal reserve banks were $1,211,000,000, or about $115,000,000 less than at the end of 1922. This reduction in earning assets was the result of a decline of $303,000,000 in United States Government security holdings, partly offset by increases of $105,000,000 in discounts and of $83,000,000 in acceptances. Federal reserve note circulation was $149,000,000 smaller on December 31, 1923, than on December 30, 1922. Total deposits showed a decline of $14,000,000 for the year and reserves a decrease of $8,000,000.

Statements of condition for each of the 12 Federal reserve banks and for the system as a whole are published in the appendix. The following summary for the system as a whole shows the principal items for December 31, 1922 and 1923, and the changes for the year.

Condition of the Twelve Federal Reserve Banks Combined.

[In thousands of dollars.]

	Dec. 30, 1922.	Dec. 31, 1923.	Increase (+) or decrease (−).
Total reserves	3,176,872	3,168,934	−7,938
Gold reserves	3,047,393	3,080,032	+32,639
Bills discounted	617,780	723,068	+105,288
Bills bought in open market	272,122	354,637	+82,515
United States Government securities	436,155	133,566	−302,589
Total earning assets	1,326,096	1,211,322	−114,774
Federal reserve notes in circulation	2,395,789	2,246,673	−149,116
Total deposits	1,973,532	1,959,579	−13,953

EARNINGS, EXPENSES, AND VOLUME OF OPERATIONS OF THE FEDERAL RESERVE BANKS.

Gross earnings of the Federal reserve banks in 1923, as in the preceding year, were about $50,000,000, owing to the fact that the total volume of earning assets remained at about the same level during the two years, though their composition was changed. The average holdings of discounts and of acceptances was considerably larger in 1923 than in the year before, while the average holdings of United States securities was much reduced through the policy of allowing maturing obligations of the United States Government to be redeemed without purchasing other securities in their place. As a consequence, earnings of the reserve banks from paper discounted for member banks and from acceptances were larger in 1923 than in 1922, while earnings from Government securities showed a substantial decline.

A comparison for the past two years of daily average holdings of each class of earning assets, earnings therefrom, and annual rates of earnings is given in the following table:

HOLDINGS OF EARNING ASSETS, EARNINGS THEREFROM, AND ANNUAL RATES OF EARNINGS.

[Amounts in thousands of dollars.]

	Daily average holdings.		Earnings.		Annual rates of earnings (per cent).	
	1923	1922	1923	1922	1923	1922
Bills discounted	738,114	573,247	32,956	26,523	4.46	4.63
Bills bought in open market	226,548	159,207	9,371	5,629	4.14	3.54
United States Government securities	185,823	454,750	7,444	16,682	4.01	3.67
Municipal warrants	85	66	4	4	4.50	5.40
Total	1,150,570	1,187,270	49,775	48,838	4.33	4.11
Miscellaneous earnings			934	1,653		
Total earnings			50,709	50,491		

Current expenses of the Federal reserve banks have also been on about the same scale for the past two years, in spite of the fact that in the larger departments, such as transit and cash, the volume of work handled has continued to increase. Salaries paid to clerical employees showed a reduction for the year of $196,000—from $14,222,000 to $14,026,000. Total current expenses, however, exclusive of fiscal agency department expenses reimbursable by the Treasury Department, increased slightly and aggregated $29,771,000, as compared with $29,559,000 in 1922.

A general idea of the volume of work performed by Federal reserve banks in rendering services to member banks, mainly free of charge, may be obtained from the table below, showing the number of pieces and the amounts handled in each of the larger departments of the banks during the past three years. In the currency department, for instance, it will be noted that the banks received and counted 1,723,000,000 different bills during 1923, or about 300,000,000 more than were received and counted during 1922. In the coin department the banks received and counted 2,076,000,000 pieces, as compared with 1,954,000,000 during 1922. The work of the transit department also increased quite materially, as will be noted from the fact that the number of checks handled during 1923—697,000,000—exceeded the number handled in 1922 by 58,000,000, or by about 9 per cent. Departments mentioned above, whose services are rendered free of charge to member banks, are the largest operating units in the Federal reserve banks, and the work performed in these departments constitutes a very large proportion of the total operations of the banks. Notwithstanding substantial increases in the volume of work in these departments during 1923 over that handled in 1922, the work was performed at a slightly reduced cost for clerical help. This was due in part to the work of the committees on economy and efficiency of the Federal Reserve Board and of the individual Federal reserve banks, which have continued their endeavors to reduce the cost of conducting the various activities of the banks in so far as consistent with efficient operation and with the rendering of adequate service to member banks.

VOLUME OF OPERATIONS IN PRINCIPAL DEPARTMENTS.

	1923	1922	1921
NUMBER OF PIECES HANDLED.			
Bills discounted	782,000	841,000	1,435,000
Bills purchased in open market	179,000	142,000	127,000
Currency received and counted	1,722,877,000	1,424,672,000	1,353,020,000
Coin received and counted	2,076,075,000	1,953,632,000	1,647,677,000
Checks handled	697,464,000	638,634,000	574,921,000
Collection items handled:			
United States Government coupons paid	64,662,000	81,694,000	98,501,000
All other	5,732,000	4,722,000	3,575,000
United States securities—issues, redemptions, and exchanges by fiscal agency department	[2] 109,115,000	24,753,000	42,067,000
Transfers of funds	1,413,000	1,190,000	1,080,000
Envelopes received and dispatched	44,932,000	(3)	(3)
AMOUNTS HANDLED.			
Bills discounted	$38,379,926,000	$22,082,887,000	$57,759,128,000
Bills purchased in open market	2,547,010,000	1,954,688,000	1,534,401,000
Currency received and counted	10,306,411,000	8,602,185,000	9,223,815,000
Coin received and counted	308,051,000	221,871,000	[1] 251,680,000
Checks handled	206,919,707,000	160,472,450,000	130,482,253,000
Collection items handled:			
United States Government coupons paid	761,731,000	759,124,000	772,330,000
All other	5,900,520,000	4,768,971,000	4,267,651,000
United States securities—issues, redemptions, and exchanges by fiscal agency department	8,414,107,000	14,135,914,000	18,527,752,000
Transfers of funds	78,867,108,000	70,553,465,000	50,936,519,000

[1] Partly estimated.
[2] Large increase due to redemption of war savings securities which matured Jan. 1, 1923.
[3] Data not available.

NOTE.—Figures for 1922 and 1921 have been revised where necessary to place them on a comparable basis with those for 1923.

At the time of closing the books on December 31 the Federal reserve banks obtained permission from the Board to charge their current net earnings with $4,022,246 to cover depreciation on bank premises. These depreciation charges were made in accordance with the instructions of the Board, which provide that in general depreciation allowances on bank buildings in excess of 2 per cent of the estimated replacement cost of the buildings (including vaults but excluding fixed machinery and equipment) will not be approved. An exception is made in cases where the book value of the buildings, owing to high construction costs during the war and post-war periods, is materially above the estimated replacement cost; under such circumstances requests for permission to write off a depreciation charge in excess of 2 per cent are given consideration. No depreciation allowances are authorized on land when the estimated market value of the land is equal to or in excess of its book value. The Federal reserve banks are allowed to set up a separate depreciation reserve to cover depreciation on fixed machinery and equipment, such depreciation reserve being based on the estimated life of the machinery and equipment, but in no case to exceed 10 per cent per annum.

The Board also authorized eight of the Federal reserve banks to set aside reserves aggregating $2,448,775 to cover probable losses in connection with doubtful or worthless paper held under discount for member banks. In case any part of the reserves set aside for this purpose is not actually required to cover losses it will be returned to the banks' profit and loss accounts and distributed in accordance with section 7 of the Federal reserve act.

Gross and net earnings of each Federal reserve bank during the year, dividends paid to member banks, additions to surplus account, and amounts paid to the Government as franchise taxes are shown in the following table:

FINANCIAL RESULTS OF OPERATION OF THE FEDERAL RESERVE BANKS DURING 1923.

Federal reserve bank.	Gross earnings.	Current expenses.	Current net earnings.	Net deductions from current net earnings.	Net earnings available for dividends, franchise tax and surplus.
Boston	$3,506,683.20	$2,134,253.81	$1,372,429.39	$120,294.25	$1,252,135.14
New York	11,413,182.76	6,880,136.17	4,533,046.59	1,489,367 49	3,043,679.10
Philadelphia	4,592,770.81	2,295,726.15	2,297,044.66	119,208.12	2,177,836.54
Cleveland	4,655,090.44	2,550,659.26	2,104,431.18	1,183,210.13	921,221.05
Richmond	2,878,896.24	1,551,155.58	1,327,740.66	234,897.96	1,092,842.70
Atlanta	2,682,313.70	1,294,231.43	1,388,082.27	1,035,903.26	352,179.01
Chicago	6,511,358.49	4,373,023.94	2,138,334.55	959,979.73	1,178,354.82
St. Louis	2,753,434.72	1,472,675.25	1,280,759.47	98,596.84	1,182,162.63
Minneapolis	1,749,253.46	1,082,137.35	667,116.11	341,660.93	325,455.18
Kansas City	2,993,919.41	1,928,119.36	1,065,800.05	718,088.59	347,711.46
Dallas	2,356,436.18	1,391,228.15	965,208.03	632,925.80	332,282.23
San Francisco	4,615,227.13	2,817,165.11	1,798,062.02	1,292,636.20	505,425.82
Total	50,708,566.54	29,770,511.56	20,938,054.98	8,226,769.30	12,711,285.68

FINANCIAL RESULTS OF OPERATION OF THE FEDERAL RESERVE BANKS DURING 1923—Continued.

Federal reserve bank.	Dividends paid.	Transferred to surplus account.			Paid to United States Government as franchise tax.
		For purpose of bringing surplus up to subscribed capital.	10 per cent of balance of net earnings.	Total.	
Boston	$480,267.31		$77,186.78	$77,186.78	$694,681.05
New York	1,749,239.47		129.443.96	129,443.96	1,164,995.67
Philadelphia	582,291.58	$1,132,259 57	46,328.54	1,178,588.11	416,956.85
Cleveland	725,626.57	195,594.48		195,594.48	
Richmond	342,295.22	343,721.73	40,682.57	384,404.30	366,143.18
Atlanta	264,621.84		8,755.72	8,755.72	78,801.45
Chicago	904,370.94		27,398.39	27,398.39	246,585.49
St. Louis	296,809.68	353,927.08	53,142.58	407,069.66	478,283.29
Minneapolis	212,732.68		11,272.25	11,272.25	101,450.25
Kansas City	275,313.51		7,239.80	7,239.80	65,158.15
Dallas	251,429.01	80,853.22		80,853.22	
San Francisco	467,719.53	37,706.29		37,706.29	
Total	6,552,717.34	2,144,062.37	401,450.59	2,545,512.96	3,613,055.38

While in 1921 and 1922 franchise taxes were paid to the Government by all Federal reserve banks except Dallas, in 1923, owing to smaller earnings and to larger transfers to surplus account, there were three reserve banks, those of Cleveland, Dallas, and San Francisco, that paid no franchise tax to the Government. Larger transfers to surplus account by these banks were occasioned by the substantial increase during 1923 in the capital accounts of these reserve banks as a result primarily of increases in the paid-in capital and surplus of their member banks. In accordance with the provisions of the Federal reserve act, Federal reserve banks transfer to surplus account all net earnings remaining after the payment of dividends until the surplus account equals 100 per cent of subscribed capital. Increases in the capital of member banks, therefore, result in larger transfers to surplus by the reserve banks and in a corresponding decrease in earnings available for the payment of the franchise tax.

RATIO OF CURRENT NET EARNINGS TO CAPITAL AND TO CAPITAL AND SURPLUS COMBINED, 1923.

Federal reserve bank.	Current net earnings.	Daily average		Ratio of current net earnings to average	
		Paid-in capital.	Surplus.	Paid-in capital.	Paid-in capital and surplus.
				Per cent.	*Per cent.*
Boston	$1,372,429	$8,004,450	$16,312,376	17.1	5.6
New York	4,533,047	29,153,983	59,799,523	15.5	5.1
Philadelphia	2,297,045	9,704,867	18,748,740	23.7	8.1
Cleveland	2,104,431	12,093,767	23,495,543	17.4	5.9
Richmond	1,327,740	5,704,917	11,288,078	23.3	7.8
Atlanta	1,388,082	4,410,367	8,941,553	31.5	10.4
Chicago	2,138,335	15,072,850	30,398,177	14.2	4.7
St. Louis	1,280,760	4,946,833	9,664,673	25.9	8.8
Minneapolis	667,116	3,545,550	7,472,947	18.8	6.1
Kansas City	1,065,800	4,588,550	9,488,300	23.2	7.6
Dallas	965,208	4,190,483	7,496,307	23.0	8.3
San Francisco	1,798,062	7,795,333	15,263,332	23.1	7.8
Total	20 938,055	109,211,950	218,369,549	19.2	6.4

BUILDING OPERATIONS OF FEDERAL RESERVE BANKS.

At the end of 1923 all the Federal reserve banks except New York, St. Louis, and Minneapolis were occupying their own buildings. During the year the Federal Reserve Banks of Cleveland and of San Francisco moved into their new buildings, though the building of the San Francisco bank was not yet completed. The building in New York is approaching completion, and it is expected that it will be occupied some time during 1924. The building in Minneapolis is more than half completed, and contracts have been let for a building to be constructed in St. Louis. The New Orleans branch of the Federal Reserve Bank of Atlanta and the Oklahoma City branch of the Federal Reserve Bank of Kansas City also moved into their new buildings during 1923, so that in addition to nine Federal reserve banks there are now ten Federal reserve branches occupying their own buildings.

The addition to the building of the Federal Reserve Bank of Atlanta was completed during the year, and construction has begun on the building for the Jacksonville branch. The Board also authorized the Federal Reserve Banks of St. Louis and San Francisco to obtain bids for the construction of banking houses at Little Rock and Salt Lake City. In December the Federal Reserve Bank of Philadelphia purchased property adjoining its present bank building, with a view of providing additional space either by remodeling the building purchased or by the construction of an annex.

All Federal reserve banks and branches now have buildings or building sites, except the branches at Buffalo, Birmingham, Memphis, Seattle, Spokane, Los Angeles, and Portland. The cost of building operations at each Federal reserve bank and branch to December 31, 1923, is shown on pages 198 and 199.

BRANCHES AND AGENCIES OF FEDERAL RESERVE BANKS AND THEIR OPERATIONS.

Of the 23 branches of Federal reserve banks at the close of 1923, 1 (New Orleans) was established in 1915, 5 in 1917, 10 in 1918, 4 in 1919, 2 in 1920, and 1 (Helena) in 1921. No applications for the establishment of additional branches were approved by the Board in 1923 or were under consideration at the end of the year. Hearings on a petition for the establishment of a branch of the Federal Reserve Bank of Kansas City at Wichita, Kans., were held by the Board on September 6 and on December 18, 1923. This application was denied on the ground that the improvement that would be likely to result in the services rendered banks in the proposed territory would not appear to be sufficient to warrant the additional expense required to maintain a branch at Wichita.

In addition to the branches there are three agencies of the Federal reserve banks, one of which (in Savannah) was established in 1919 by the Federal Reserve Bank of Atlanta for the purpose of supplying the currency needs of member banks in that city. In 1923 the Board authorized the establishment of agencies in Havana, Cuba, by the Federal Reserve Banks of Boston and Atlanta, and these agencies were opened for business on September 1. The occasion for the establishment of the Cuban agencies, the first to be opened in foreign territory, was that United States currency is legal tender in Cuba and a considerable volume of our currency, chiefly Federal reserve notes, has been in circulation in Cuba for a number of years. No adequate machinery, however, had been in operation for the withdrawal from circulation of unfit United States currency and for its replacement with new money. It was felt that this could be accomplished through the purchase and sale of cable transfers, bankers' acceptances, and bills of exchange in Cuba, and the agencies of the reserve banks in Cuba were established for the purpose of performing these functions. The Board's resolution authorizing these agencies is appended.

The agency of the Federal Reserve Bank of Boston is authorized to buy and sell cable transfers, to buy, sell, and collect prime bankers' acceptances and prime bills of exchange, but, except under certain specified conditions, is not permitted to pay out any currency in Cuba. The activities of the Federal Reserve Bank of Atlanta, on the other hand, are limited to currency operations and to the purchase, sale, and collection in Cuba of such bankers' acceptances and bills of exchange as have originated in, or are drawn upon, banks or other drawees in the Sixth Federal Reserve District. The Atlanta agency may purchase other bills only upon request of and for account of the Federal Reserve Bank of Boston. Acceptances and bills of exchange eligible for purchase by the Cuban agencies must be payable in dollars, must arise out of actual import or export transactions, must bear the signature of two or more responsible parties, as well as a satisfactory bank indorsement, must have not more than 90 days to run exclusive of days of grace, and must be secured at the time of purchase by shipping documents evidencing the actual import or export and sale of goods.

CUBAN AGENCIES—RESOLUTION ADOPTED BY FEDERAL RESERVE BOARD AT MEETING JULY 30, 1923 (AMENDING ACTION OF JUNE 27, 1923).

Whereas the United States Government, by virtue of the so-called Platt amendment has entered into relations with Cuba which it does not have with any other foreign country, especially in matters of finance and currency, the currency of the United States having been made legal tender by Cuba;

Whereas the Federal Reserve Board is of the opinion that the establishment of an agency in Cuba is desirable as a means of stabilizing banking conditions and furnishing an adequate supply of clean currency;

Whereas the President of the United States and the State Department have advised this Board that it is important that such an agency should be established;

Whereas the Federal Reserve Bank of Atlanta and the Federal Reserve Bank of Boston have each petitioned the Federal Reserve Board for authority to establish an agency in Havana, Cuba, for the purpose of conducting operations permitted under section 14 of the Federal reserve act;

Whereas the Federal Reserve Bank of Boston desires to establish such an agency primarily for the purpose of buying and selling cable transfers and buying, selling, and collecting bankers' acceptances and bills of exchange bearing satisfactory bank indorsements;

Whereas a substantial portion of the currency now in circulation in Cuba consists of Federal reserve notes of the Federal Reserve Bank of Atlanta; and it is feared that the establishment of an agency of another Federal reserve bank in Cuba might result in the retirement of such notes from circulation; and the Federal Reserve Bank of Atlanta desires to establish an agency in Cuba primarily in order that it may maintain the circulation of its Federal reserve notes in Cuba;

Whereas the Federal Reserve Bank of Boston does not desire to put its Federal reserve notes in circulation in Cuba but is willing, if authorized to establish such an agency, to preserve as far as possible the circulation in Cuba of Federal reserve notes issued through the Federal Reserve Bank of Atlanta;

Be it resolved by the Federal Reserve Board, that the applications of the Federal Reserve Bank of Atlanta and the Federal Reserve Bank of Boston for permission to establish such agencies are hereby granted on the following terms and conditions:

(1) The Federal Reserve Bank of Atlanta and the Federal Reserve Bank of Boston are each authorized to establish an agency in Havana, Cuba, and through such agency to buy and sell cable transfers; buy, sell, and collect prime bankers' acceptances and prime bills of exchange, which acceptances and bills are payable in dollars, arise out of actual import or export transactions, bear the signatures of two or more responsible parties, bear a satisfactory bank indorsement, have not more than 90 days to run, exclusive of days of grace, and are secured at the time of purchase by shipping documents evidencing the actual import or export and the actual sale of goods and conveying or securing title to such goods; and to exercise only such incidental powers as shall be necessary to the exercise of the above powers. The term "bills" as hereinafter used shall mean cable transfers, bankers' acceptances, and bills of exchange of the kinds described in this paragraph.

(2) The Federal Reserve Bank of Atlanta shall not buy or sell any cable transfers except at the request of the Federal Reserve Bank of Boston as provided in paragraph 3 hereof, and shall not purchase, sell or collect any bills in Cuba except such as originate in or are drawn upon banks or other drawees, in the Sixth Federal Reserve District; and shall purchase no other bills nor purchase or sell any cable transfers except upon the request of, and for the account of, the Federal Reserve Bank of Boston.

(3) The Federal Reserve Bank of Boston shall not pay out any currency in Cuba, except as hereinafter provided, and whenever bills or cable transfers are offered for sale to its Havana agency and the sellers request payment in Federal reserve notes or other currency, the Federal Reserve Bank of Boston shall request the Federal Reserve Bank of Atlanta to purchase such bills or cable transfers for it and immediately pay for them with Federal reserve notes issued through the Federal Reserve Bank of Atlanta or other currency. The Federal Reserve Bank of Atlanta shall comply with all such requests and shall make immediate payment, and shall immediately resell such cable transfers or bills to the Federal Reserve Bank of Boston at cost and without recourse. If the Federal Reserve Bank of Atlanta shall fail to purchase such bills or cable trans-

fers promptly for the Federal Reserve Bank of Boston or shall not have available in Havana a sufficient supply of currency, the Federal Reserve Bank of Boston may itself purchase such bills and pay for them with its own Federal reserve notes. In making sales of cable transfers and bills of exchange where currency is tendered in payment, the Federal Reserve Bank of Boston shall require the purchasing banks to make the currency payments to the agency of the Federal Reserve Bank of Atlanta for credit to its account. All settlements between the agencies shall be made at the request of the creditor bank by the head offices through the gold settlement fund. Neither bank shall make any direct exchanges of currency in Cuba.

(4) The establishment and operation of such agencies, and the exercise of all the above powers through such agencies, shall be subject to such changes and such further rules and regulations as the Federal Reserve Board may prescribe from time to time.

(5) The Federal Reserve Board expressly reserves the right to revoke its consent at any time to the continuance of such agencies, to require the discontinuance of such agencies or to authorize the establishment of new agencies whenever in its discretion it considers it desirable to do so.

CHANGES IN MEMBERSHIP IN THE FEDERAL RESERVE SYSTEM DURING 1923.

At the close of the year 1923 the total number of member banks in active operation was 9,774, as indicated by reports of condition at that time. Of this number 8,179 were national banks and 1,595 State banks and trust companies. During the year there was a net decrease in active membership of 85; the decrease in the number of national banks was 41, and the decrease in the number of State banks and trust companies 44. Decreases in membership occurred in most of the districts, particularly in the Minneapolis, Kansas City, and San Francisco districts. In the New York, St. Louis, and Philadelphia districts, on the other hand, the number of members increased during the year. Changes in membership by districts for the year are shown in the table below.

MEMBERSHIP IN THE FEDERAL RESERVE SYSTEM.

	Total membership.			State banks and trust companies.			National banks.		
	Dec. 29, 1922.	Dec. 31, 1923.	Increase (+) or decrease (−).	Dec. 29, 1922.	Dec. 31, 1923.	Increase (+) or decrease (−).	Dec. 29, 1922.	Dec. 31, 1923.	Increase (+) or decrease (−).
System	9,859	9,774	−85	1,639	1,595	−44	8,220	8,179	−41
Boston	429	424	−5	39	36	−3	390	388	−2
New York	803	835	+32	136	143	+7	667	692	+25
Philadelphia	716	722	+6	58	66	+8	658	656	−2
Cleveland	880	877	−3	116	118	+2	764	759	−5
Richmond	630	627	−3	68	66	−2	562	561	−1
Atlanta	536	525	−11	143	140	−3	393	385	−8
Chicago	1,440	1,427	−13	379	369	−10	1,061	1,058	−3
St. Louis	608	624	+16	121	127	+6	487	497	+10
Minneapolis	1,000	940	−60	130	109	−21	870	831	−39
Kansas City	1,142	1,122	−20	43	36	−7	1,099	1,086	−13
Dallas	855	849	−6	199	190	−9	656	659	+3
San Francisco	820	802	−18	207	195	−12	613	607	−6

The reduction of 85 in Federal reserve membership was the net result of the addition of 210 member banks and the loss of 295. Of the banks added to the membership, 2 were banks previously closed which resumed activities during the year, 89 were newly organized national banks, and 121 were formerly nonmembers which joined the system. Of the losses in membership, mergers accounted for 87, of which the largest number were in the San Francisco district, voluntary liquidation accounted for 31, absorption by nonmember banks for 48, voluntary withdrawal of State banks and trust companies for 29, and insolvencies or suspensions for 102.

BRANCH BANKING.

The Board has called attention in previous reports to the growth of branch banking in some portions of the country. In the State of California the development has been rapid and continuous in recent years. The growth of branch banking presents a problem which is receiving the serious attention of the Board, with a view of finding a satisfactory method of dealing with the situation. The difficulties of the problem arise in part from the differences in the legislation of the various States and the competitive disadvantages suffered by national banks in States that permit branch banking. The Board is hopeful that it can by administrative measures find some reasonable method of harmonizing existing differences of interest of State and national banks in the matter of branch banking, and thus lay the basis for a policy which will result in shaping the development and practice of branch banking in the United States along useful and serviceable lines.

CHECK CLEARING AND COLLECTION.

On June 11, 1923, the United States Supreme Court handed down decisions in the Atlanta and Richmond par clearance cases, which are of great importance in the Federal reserve par collection system. In the Board's annual report for 1922, at pages 30 to 33, the preliminary steps of this litigation were reviewed and a brief statement relative to the final decisions will be given here.

Atlanta par clearance case.—In a unanimous opinion the Supreme Court affirmed the right of Federal reserve banks to collect for other Federal reserve banks, for member banks and for affiliated nonmember banks checks on any bank within their respective districts, if such checks are payable on presentation and can in fact be collected consistently with the legal rights of the drawee without paying an exchange charge. The court said that within these limits Federal reserve banks have ordinarily the same right to present a check to the drawee bank for payment over the counter as any other bank would have. The Federal Reserve Bank of Atlanta was fully exonerated of all charges of coercion and wrongful intent in its check-collection methods. The court held that it had acted not only entirely within its own rights, but also without violating any right of the nonmember banks involved in the case, which are not entitled to protection against legitimate competition and whose loss of revenue from exchange charges resulting from the superior collection facilities of the Federal reserve system must be considered *damnum absque injuria.* The decision also stands for the proposition that Federal reserve banks are prohibited from paying exchange charges on checks forwarded by them for collection. This decision is reported in 262 U. S. 643, under the caption American Bank and Trust Co. *v.* Federal Reserve Bank of Atlanta.

Richmond par clearance case.—In this case the primary question involved was the validity of a North Carolina statute which authorized State banks to charge exchange on remittances covering checks drawn on them and made such checks, when presented by or through a Federal reserve bank or any agent thereof, payable at the option of the drawee banks in exchange drafts on their reserve deposits, unless the drawer of the check had expressly stipulated for payment in cash. The Supreme Court, two justices dissenting, held this statute to be constitutional. In reaching this conclusion, the court ruled that the Federal Reserve Board is not required by law to establish a universal system of par clearance and that Federal reserve banks are not required to receive for collection or collect at par checks drawn on nonmember banks which refuse to remit at par, although they have the right to do so. The court affirmed the right of unaffiliated nonmember banks to charge exchange on remittances for checks drawn on them, but intimated that if they insist on charging exchange they should not share in the facilities of the par collection system. In this case, also, the court held that Federal reserve banks can not pay exchange charges. This decision is reported in 262 U. S. 649, under the caption Farmers & Merchants Bank *v.* Federal Reserve Bank of Richmond.

The effect of these two decisions is that Federal reserve banks are authorized, but not required, to collect any check which is payable on presentation without deduction for exchange; that the check clearing system should be voluntary in that unaffiliated nonmember banks should not be compelled to forego their right to charge exchange, and that it should be reciprocal in that nonmember banks which will not remit at par for checks drawn on them should not be permitted to share in the par collection facilities. The text of the Supreme Court's opinions discussed above is published on pages 296-304.

There have been no important developments in the par clearance litigation affecting the Federal Reserve Banks of Cleveland and San Francisco since the publication of the Board's annual report for 1922, in which the preliminary aspects of this litigation were discussed.

Following the decisions of the Supreme Court in the Atlanta and Richmond par clearance cases, the Board took under consideration what changes should be made in existent check collection practices in order to conform to the fullest extent to the spirit as well as the letter of these decisions. The Board had conceived it to be its duty under the law to establish in the United States a universal system of par clearance and collection of checks, and in accomplishing that purpose certain of the Federal reserve banks had found it appropriate to maintain agents other than banks for the purpose of making collections at par of checks drawn on nonpar remitting banks. The Supreme Court, however, having declared that the Board has no duty to establish par clearance, the Board directed Federal reserve banks until further notice to discontinue the use of all such agents other than banks, with the result that Federal reserve banks do not now handle for collection checks drawn upon nonmember banks and not collectible at par through usual banking channels. Other suggested changes in the par collection system have also been carefully studied, but no final action has been taken by the Board.

REDISCOUNTS FOR NONMEMBER BANKS.

On June 26, 1923, the Board revoked the permission which had formerly been granted to member banks to act as the media or agents of nonmember banks in rediscounting paper with Federal reserve banks. In order to relieve the general financial stringency during the emergency of 1921, the Board had granted blanket authority to member banks to rediscount nonmember bank paper with Federal reserve banks, but the emergency period having passed, the Board felt that it would contravene the intent of Congress if this general permission were continued. Section 19 of the Federal reserve act provides in part that "No member bank shall act as the medium or agent of a nonmember bank in applying for or receiving discounts from a Federal reserve bank * * * except by permission of the Federal Reserve Board." The obvious purpose of this provision is to prevent nonmember banks from obtaining the benefit of the rediscount privilege, Congress apparently intending that all banks which desire the benefits of the Federal reserve system ought to become member banks and contribute their quota to its resources and successful operation. That this is still the policy of Congress is indicated by the provision in the agricultural credits act of 1923, which authorizes Federal reserve banks to discount agricultural paper for Federal intermediate credit banks, excepting such paper as bears the indorsement of a nonmember bank which is eligible for membership in the Federal reserve system.

In withdrawing from member banks the general privilege of rediscounting nonmember bank paper, the Board let it be known that Federal reserve banks might continue to discount bankers' acceptances and other eligible paper bearing the signature or indorsement of a nonmember bank if such paper were bought by the offering bank in good faith in the open market from some party other than a nonmember bank. The Board also indicated that in exceptional cases and upon specific application it would grant member banks permission to rediscount nonmember bank paper, particularly in cases where the nonmember bank involved was ineligible by law for membership in the Federal reserve system.

ADMINISTRATION OF CLAYTON ACT.

During 1923 there have been a number of developments in the administration of the law relating to interlocking bank directorates which the Board desires to call to the attention of Congress.

In its annual report for the year 1921, on pages 87 to 89, the Board pointed out certain difficulties in the administration of the Kern amendment to the Clayton Act and certain illogical and inequitable situations created by the unscientific modus operandi of that provision and recommended the enactment of an amendment to remedy the situation. A bill to effect this purpose had been introduced in the House of Representatives on April 21, 1921, and referred to the Committee on Banking and Currency. Pending consideration of this bill a number of applications for the Board's permission for interlocking directorates were received, which the Board had no power to grant under the terms of the existing law, because the banks involved appeared to be in substantial competition. If the proposed amendment were enacted, however, the Board believed that it would be authorized to grant its consent to the interlocking directorates in such cases, and it accordingly deferred final action on these applications in the anticipation that the proposed bill would become law. Upon the adjournment of the Sixty-seventh Congress, however, without any action having been taken upon this bill, the Board felt that it could not properly continue to hold the pending applications in abeyance, and it therefore proceeded to their final consideration. All these applications have now been disposed of, the permission applied for being refused or granted, depending upon whether the banks involved were or were not in substantial competition.

Questions have been raised from time to time in the past with regard to the Board's attitude in the matter of the revocation of permits for interlocking directorates which have been granted, particularly in cases where the banks involved have come into substantial competition since the time when the permits were granted. In such cases the Board has no power under the law to permit additional common directors between the banks involved, and it has been represented that, because of the anomalous situation thereby created, the Board should exercise its undoubted power to revoke the permits formerly granted. The Board gave this question very careful consideration. Its counsel advised that the law does not require it to revoke permits in any case, but that the power to revoke them is discretionary. To aid it in determining how this discretionary power should best be exercised, the Board directed its 12 Federal reserve agents to make a comprehensive review of the situation affecting interlocking directorates in their districts, designed to inform the Board in detail whether the terms of section 8 of the Clayton Act were being complied with, and with particular reference to all cases involving banks having interlocking directorates which had been granted at a time when no substantial competition existed, but which could not then be granted under the Kern amendment, because the institutions affected had since become substantial competitors. This investigation disclosed that in a few cases banks with common directors have become substantial competitors since the time when permits for such directorates were granted, either through the natural growth of competitive business or through the acquisition of competitive business incident to a consolidation.

After careful study, the Board decided not to revoke permits in cases where the interlocking directorates have resulted in the growth of competition between the banks involved, believing that this policy would best serve to carry out the underlying intent of the Clayton Act, which, in the Board's view, is to preserve competition between naturally competitive elements and thus prevent the formation of monopolies in various kinds of business in their inception. Where banks having common directors have become substantial competitors, it is obvious that such interlocking directorates have fostered, or at least not prevented, the free growth of competition, and this seems to be precisely what the Clayton Act was designed to accomplish. The Board, therefore, saw no valid reason for breaking up such directorates. It is true that in cases where competition has grown up between certain banks having common directors the Board has no power, under the Kern amendment, to permit additional common directors between the same banks, but this apparent discrimination, resulting from the Board's lack of adequate power under the present terms of the law to deal appropriately with such cases, is a condition which should be remedied by suitable legislation. It surely is not of sufficient gravity to warrant the Board in penalizing directors who have permitted their banks to come into substantial competition and have thus acted in harmony with the spirit and purpose of the law. The Board believes rather that such directors should be permitted to continue to serve their institutions, and that permits granted under the Kern amendment should be revoked only in cases where the interlocking directorate has the effect of lessening or stifling competition between banks which, but for the common directorate, would normally compete, or where there is some other violation of the intent and purpose of the law.

As noted above, a bill was introduced in the House of Representatives on April 21, 1921, which would authorize the Board to grant permits for interlocking directorates between competitive banks if in its judgment "no restriction of banking credit or lessening of competition will result." This amendment was framed by the Board's committee on the Clayton Act, and cogent reasons for its enactment are contained in that committee's report to the Board, published on pages 352 to 356 of the Board's annual report for 1921.

In its present form the act operates in an illogical way and often defeats the very purpose for which it was enacted. It empowers the Board to permit interlocking directorates between banks which are not in substantial competition, even though they have deliberately eliminated competition; but it does not authorize the Board to permit such relationships between banks which have become active competitors in spite of the presence of common directors on their boards. (Of course, if the Board finds that the banks in question have stifled competition by common agreement, it would not permit interlocking directorates between them, even though it has power to do so.) The act also operates inequitably against national banks, because it restricts them in their choice of directors, but does not restrict State banks and trust companies, and thus national banks are seriously handicapped in their competition with State incorporated institutions. If Congress desires the continuance of free competition between banking institutions, this factor should be considered. Very recently a large national bank in New York, which had under consideration the question of denationalization, represented to the Board that the applicability of the Clayton Act in the case of a certain director would be the determining factor in its decision upon this question. Other similar cases have been brought to the Board's attention.

In some cases, also, the refusal to permit an interlocking directorate may have an adverse effect upon the banking and credit situation in the community, and the Board believes it should have power to deal with such cases appropriately. A recent case in point involved two national banks in a small southern city, which had as a common director a man of great influence in the community. The banks were in an extended condition due to the large amounts which they had loaned to the farmers, and their ability to continue their agricultural loans and at the same time keep their doors open depended upon the unshaken confidence of their depositors. It was represented to the Board that if the law were strictly enforced and the influential common director were required to resign from either bank, the community would fail to understand the reason for his resignation, but would immediately suspect the solvency of the institution and a financial crisis would ensue, which might cause irreparable injury to the banking and farming situation in that district. Yet the two banks were admittedly in substantial competition, and under the law as it stands the Board had no power to permit the interlocking directorate. Under these extreme circumstances, however, the Board held that it might properly defer final action upon the application, pending improvement of the financial and agricultural situation in the affected district and pending action by Congress on the bill proposed by the Board.

For these various reasons the Board believes that it will be very desirable to amend the Clayton Act substantially as proposed by the bill introduced in 1921, and it takes this opportunity to renew its urgent recommendation that some such legislation be enacted.

During the past year the Board has received and considered 347 applications presented to it for permission to serve in interlocking directorates.

TRUST POWERS OF NATIONAL BANKS.

The right of national banks to exercise trust powers has during the past year been involved in litigation in the States of Pennsylvania and Missouri.

The Board's annual report for 1922 discussed the preliminary stages of the litigation in Pennsylvania which concerned the right of the Corn Exchange National Bank of Philadelphia to act in a fiduciary capacity. It will be recalled that the Orphans' Court, in which the question first arose, refused to recognize the bank's right to act as guardian or to appoint it as such, on the ground that the exercise of trust powers by national banks in Pennsylvania was in contravention of the State law. The court based this conclusion upon certain conflicts between the State law relating to the administration of trusts by State banking institutions and the provisions of section 11(k) of the Federal reserve act. On appeal, the Superior Court of Pennsylvania reversed the Orphans' Court and upheld in all respects the rights of national banks in Pennsylvania to exercise trust powers. An appeal was then taken to the Supreme Court of Pennsylvania by the Commonwealth, which had intervened in the proceeding.

On April 9, 1923, the Supreme Court of Pennsylvania rendered its decision in this case, affirming the decision of the Superior Court and finally establishing the right of national banks in that Commonwealth to act in fiduciary capacities when authority therefor is given by the Board under section 11(k) of the Federal reserve act. The court considered the various conflicts between State and Federal laws and ruled definitely that the latter are paramount and must prevail; that Congress, in defining what should be considered "in contravention of State law," had made the right of national banks to exercise trust powers depend upon the existence of that right in competitive State institutions, and that if such State banks or trust companies are given the right to exercise trust powers, national banks must be accorded the same right, irrespective of differences in the rules governing the exercise of trust powers. The decision is reported under the caption *In re Turner's Estate*, 277 Pa. 110; 120 Atl. 701, and the text of the opinion is published on pages 304-307.

The litigation in Missouri concerned the right of the Burnes National Bank of St. Joseph to act as executor under a will in which it had been named. The Probate Court on January 29, 1923, refused to issue letters testamentary to the national bank on the ground that the bank was not authorized to act as executor under the laws of Missouri. The national bank applied to the Supreme Court of Missouri for a writ of mandamus requiring the Probate Court to issue letters testamentary to the national bank. On January 4, 1924, the Supreme Court of Missouri rendered an opinion upholding the decision of the Probate Court and denying the writ of mandamus. In its decision the court held that the exercise of trust powers by national banks in Missouri is in contravention of State law, largely because of the conflicts between the provisions of the State law and of section 11(k) of the Federal reserve act relating to the administration of trusts. The court considered the provision in section 11(k) that the exercise of trust powers by national banks shall not be considered in contravention of State law when State institutions, which compete with national banks, are permitted to exercise such powers, but failed to apply it, arguing that it was not controlling and that trust companies in Missouri did not compete with national banks in the sense contemplated by the statute. The full text of the opinion is published on pages 307-314.

A number of the larger national banks in St. Louis and Kansas City were represented in the proceeding and have appealed the case to the United States Supreme Court on a writ of error. The United States has also intervened in the proceeding, through the Solicitor General, in order that the right of national banks to exercise trust powers, granted by Federal law, may be fully protected. The case has been set for argument before the United States Supreme Court on April 7, 1924.[1]

[1] On April 28, 1924, the United States Supreme Court rendered its decision in this case, reversing the decision of the Missouri Supreme Court and definitely upholding the right of national banks in Missouri to exercise trust powers. The full text of the opinion is published on pages 314-315.

Permits to exercise fiduciary powers.—During the year 1923 the Board approved 182 original and 19 supplementary applications by national banks for permission to exercise trust powers. The total number of national banks holding permits to exercise trust powers on December 31, 1923, was 1,819, a list of which, with the powers granted, is published on pages 226–242.

AMENDMENTS TO THE FEDERAL RESERVE ACT.

During the year 1923 the Federal reserve act was amended in several important respects by the act of March 4, 1923. This act is known as the "agricultural credits act of 1923," and its purpose was to provide additional credit facilities for the agricultural and livestock interests of the country. This purpose was in part accomplished by creating new credit institutions adapted to extend credits to the agricultural interests for intermediate periods of from nine months to three years. The act further enlarged the operations of the Federal farm loan system and broadened the provisions of the Federal reserve act relating to agricultural credits. Only the provisions which amended the Federal reserve act will be discussed here.

Capital requirements of member banks.—This act amended the ninth paragraph of section 9 of the Federal reserve act so as to permit banks to become member banks with a capital of 60 per cent of the amount theretofore required, with the proviso that such banks must increase their capital to 100 per cent within the time and under conditions prescribed by the Federal Reserve Board, but in all cases such banks must set aside annually at least 20 per cent of their net income for the preceding year as a fund to be devoted exclusively to such increase of capital.

Discount of factors' paper.—Section 13 of the Federal reserve act was amended so as to provide that notes, drafts, and bills of exchange of factors, issued for the purpose of making advances exclusively to producers of staple agricultural products in their raw state, should be eligible for discount by Federal reserve banks.

Sight and demand bills of exchange.—Section 13 of the Federal reserve act was further amended to provide for the discount and purchase by Federal reserve banks of sight and demand bills of exchange drawn to finance the domestic shipment of nonperishable, readily marketable staple agricultural products, and secured by satisfactory shipping documents. The amendment prescribed that such bills must be forwarded promptly for collection and that in no event might a Federal reserve bank hold such bills for a period in excess of 90 days.

Maturity of acceptances.—The maturity of acceptances eligible for discount, formerly described as "three months' sight," was amended to read "90 days' sight."

Six months' agricultural acceptances.—The act further broadened the power of Federal reserve banks to discount acceptances by authorizing the discount of acceptances with maturities up to six months when drawn for an agricultural purpose and secured at the time of acceptance by documents of title covering readily marketable staples.

Nine months' agricultural paper.—The new section 13a added by the act of March 4, 1923, extends the maturity of agricultural paper eligible for discount from six to nine months. It provides further, however, that such paper having maturities in excess of six months can not be eligible as a basis for the issuance of Federal reserve notes unless secured by negotiable warehouse receipts or similar documents covering readily marketable staple agricultural products or by chattel mortgage upon livestock being fattened for market. This provision in effect, therefore, amends that portion of section 16 of the Federal reserve act which deals with collateral security for Federal reserve notes.

Discounts for Federal intermediate credit banks.—Section 13a also authorizes Federal reserve banks to discount eligible agricultural paper for Federal intermediate credit banks, which latter corporations are one class of the credit institutions established by other provisions of the act. No such paper, however, which bears the indorsement of a nonmember bank which is eligible for membership may be thus discounted.

Purchase and sale of debentures issued by Federal intermediate credit banks and national agricultural credit corporations.—The Federal reserve banks are authorized by section 13a to buy and sell debentures and other similar obligations issued by Federal intermediate credit banks and national agricultural credit corporations, such transactions, however, to be subject to the same limitations as are placed upon the purchase and sale of farm loan bonds, and State, county, and municipal bonds and warrants.

Paper of cooperative marketing associations.—Section 13a further prescribes when paper of cooperative marketing associations shall be deemed to be issued or drawn for an agricultural purpose. Such paper is classified as agricultural paper when (*a*) the proceeds thereof are advanced by the association to its members for an agricultural purpose, (*b*) the proceeds are used by the association in making payments to members for agricultural products delivered by the members, or (*c*) such proceeds are used by the association to pay for grading, processing, packing, or marketing any agricultural products handled by the association for its members. This section also contains a proviso that the express enumeration of certain classes of paper of cooperative marketing associations as eligible for discount shall not be construed as rendering ineligible any other class of such paper which is otherwise eligible for discount.

Limitation of amount of paper of six and nine months maturity which Federal reserve banks may discount.—The Federal reserve act formerly provided that paper having a maturity not exceeding six months may be discounted in an amount to be limited to a percentage of the assets of the Federal reserve bank, to be fixed by the Federal Reserve Board. Section 13a now authorizes the Board to limit to a percentage of the Federal reserve bank's assets the amount of nine-month paper, as well as six-month paper, that such bank may discount.

Open-market dealings in acceptances of Federal intermediate credit banks and national agricultural credit corporations.—The act of March 4, 1923, adds a new subsection (f) to section 14 of the Federal reserve act, authorizing Federal reserve banks to purchase and sell in the open market acceptances of Federal intermediate credit banks and national agricultural credit corporations, whenever the Board shall declare that the public interest so requires.

Federal reserve banks as depositories and fiscal agents.—This act adds a new paragraph to section 15 of the Federal reserve act, authorizing Federal reserve banks to act as depositories for and fiscal agents of any national agricultural credit corporation or Federal intermediate credit bank.

Repeal of progressive discount rate.—The Phelan Act, approved April 13, 1920, which provided for progressive discount rates, is repealed by the agricultural credits act.

Provisions affecting the Federal reserve system without making any textual changes in the Federal reserve act—

Section 207 (a) of the agricultural credits act of 1923 provides that national agricultural credit corporations, having an authorized capital stock of $1,000,000 or more, may discount for any member bank, upon its indorsement, agricultural paper with maturities up to nine months which is secured by warehouse receipts or similar documents covering readily marketable agricultural products, or by chattel mortgages on livestock. Such corporations may also rediscount for a member bank notes, with maturities up to three years, which are secured by chattel mortgages conferring a paramount lien on maturing or breeding livestock or dairy herds.

Section 208 (a) authorizes Federal reserve banks to act as depositaries of United States bonds which national agricultural credit corporations must deposit as a condition to opening for business. Federal reserve banks are also to act as depositaries of United States bonds which such corporations must deposit as security against their indebtedness.

Section 210 authorizes any member bank, with the permission of the Comptroller of the Currency, to invest up to 10 per cent of its capital and surplus in the stock of national agricultural credit corporations.

Section 212 provides that the moneys of national agricultural credit corporations may be kept on deposit subject to check in any member bank.

Federal reserve branch bank buildings.—The Federal reserve act was also amended by the act of February 6, 1923. The act of June 3, 1922, had inserted a paragraph at the end of section 10 which placed a limitation of $250,000 upon the amount which a Federal reserve bank might expend in the construction of a building, and the act of February 6, 1923, amended that provision so as to provide that the $250,000 limitation should apply only to branch-bank buildings and should cover only the cost of the building proper, exclusive of the cost of the vaults, permanent equipment, furnishings, and fixtures. It was further provided that the limitation should not apply to any buildings under construction prior to June 3, 1922.

AMENDMENTS TO REGULATIONS OF FEDERAL RESERVE BOARD.

The amendments made in the Federal reserve act by the agricultural credits act, approved March 4, 1923, necessitated changes in several of the Board's regulations, and the Board took this occasion to make a revision of its regulations. A new issue of the regulations was published under date of July 10, 1923, and a brief discussion of the more important changes is here presented.

The new Regulation A supersedes Regulation A, series of 1922, and has been changed materially in order to conform to the amendments to the Federal reserve act made since the date of issue of the former regulation. Among other things, the new regulation contains a more liberal interpretation of eligible agricultural paper, with its extended maturity of nine months, and incorporates the new provisions of law classifying as agricultural paper certain paper of cooperative marketing associations. The regulation makes provision for the new classes of paper which were made eligible for discount by the agricultural credits act, viz, sight and demand drafts secured by bills of lading covering the domestic shipment of nonperishable, readily marketable agricultural staples, and paper of factors issued for the purpose of making advances to producers of staple agricultural products. Provision is also made for the discount, with maturities up to six months, of bankers' acceptances drawn for an agricultural purpose and secured by documents of title covering readily marketable staples.

The act of July 1, 1922, amended the law with reference to the amount of paper of any one borrower which a Federal reserve bank might discount for a State member bank, fixing such amount at the same limit applicable to cases involving national banks, and the new Regulation A has been modified accordingly.

Regulation B supersedes Regulation B, series of 1922, and has been simplified by the omission of the provision in the former regulation which made a very limited class of bankers' acceptances drawn by cooperative marketing associations eligible for purchase in the open market. The amendments to the law made a much broader class of bankers' acceptances drawn for agricultural purposes eligible for discount and for purchase in the open market, thus rendering the former provision unnecessary.

Regulations C and D supersede the corresponding regulations of the 1920 series and contain no material changes.

Regulation E, superseding Regulation E, series of 1920, has been rearranged, but no substantial change has been made except the elimination of the 10 per cent limitation on the amount of warrants of any municipality which might be purchased by a Federal reserve bank with the indorsement of a member bank.

Regulation F is the same as the 1920 regulation, which it supersedes.

Regulation G, superseding Regulation G, series of 1920, has been changed only to the extent that it no longer requires notes representing real-estate loans to be canceled at maturity and new notes taken in their place. The new regulation permits a maturing note to be renewed or extended, but, as before, it provides that a national bank must not obligate itself in advance to make any renewal.

Regulation H, superseding Regulation H, series of 1920, has been changed materially so as to conform to the amendments to section 9 of the Federal reserve act contained in the agricultural credits act, which made a State bank with a capital of 60 per cent of the amount theretofore required eligible for membership, provided it increases its capital to 100 per cent under certain terms and conditions, in large part to be prescribed by the Federal Reserve Board. In the new Regulation H, the Board has provided that banks admitted to membership with 60 per cent of the normal capital must increase their capital to the required 100 per cent within five years after admission to membership and to this end must set aside annually not less than 50 per cent of their net earnings for the preceding year. Certain other less important changes have also been made in the new regulation.

Regulation I, which supersedes the corresponding 1920 regulation, has been changed so as to conform to the present practice in connection with the applications of newly organized national banks for membership in the Federal reserve system, and also so as to require receivers and liquidating agents of failed member banks to apply for the surrender and cancellation of Federal reserve bank stock held by such banks within six months after their appointment.

A new draft of Regulation J was tentatively approved, but has not yet become effective. Consequently check clearing and collection operations are still governed by the provisions of Regulation J, series of 1920. The Board has, however, instructed Federal reserve banks to discontinue the use of agents other than banks for the purpose of making collections at par of items drawn upon nonpar remitting banks.

Regulation K is identically the same as the 1920 regulation, which it supersedes.

Regulation L has been changed slightly by broadening the definition of the term "national bank," as used in the regulation, to include all banking institutions organized or operating under the laws of the United States. A statement of the general principles adopted by the Board for its guidance in determining whether two or more banks are in substantial competition has also been inserted in the regulation.

The text of the Board's new series of regulations is published on pages 265-294.

PUBLICATION OF DIGEST OF RULINGS.

In 1923 the counsel of the Federal Reserve Board completed the preparation of a "Digest of rulings of the Federal Reserve Board." The main part of this publication is given over to digests or summaries of all the Board's rulings, court decisions, legal opinions, and similar matters which have been published in the Federal Reserve Bulletin to the end of 1923. These digests contain the gist of the rulings and opinions which have interpreted the Federal reserve act and other legislation affecting the operation of the Federal reserve system, and they state the salient facts and conclusions reached in sufficient detail to make it unnecessary in most cases to refer to the full text of the rulings as published in the Bulletin. The digest is fully indexed and the arrangement is such as to make reference to the various rulings as convenient as possible. In this respect the digest is substantially an annotated edition of the Federal reserve act. In addition, the Digest of Rulings includes the regulations of the Federal Reserve Board, the full text of the Federal reserve act, with appendices and index as published in the 1923 edition, the act in its original form as enacted December 23, 1913, with a composition showing by italics and canceled words the textual changes made by all amendments to the act, and a nontechnical summary of all these amendments showing the purpose and effect of the changes made.

FEDERAL ADVISORY COUNCIL.

Four meetings of the Federal Advisory Council were held in Washington during 1923, on the following dates: February 20, May 21, September 17, and November 19. The recommendations of the council to the Board are printed on pages 457-465.

CONFERENCES HELD BY THE BOARD.

As customary, the Federal Reserve Board conferred with the Federal Advisory Council on the occasion of each of its meetings during the year.

The governors of the Federal reserve banks convened in Washington on March 26 and conferences of the governors and chairmen of the Federal reserve banks were held, beginning November 12.

ORGANIZATION, STAFF, AND EXPENDITURES.

During the year 1923 the following changes have occurred in the organization and staff of the Federal Reserve Board:

On March 14, 1923, Hon. Milo D. Campbell, of Coldwater, Mich., was appointed a member of the Federal Reserve Board, in accordance with the amendment to section 10 of the Federal reserve act whereby the number of appointive members of the Board was increased from five to six. Mr. Campbell died suddenly on March 22, after having served as a member of the Board only eight days. To fill this vacancy Hon. Edward H. Cunningham, of Des Moines, Iowa, was appointed, effective May 14, to fill the unexpired term of 10 years.

On May 1 Hon. D. R. Crissinger, of Marion, Ohio, Comptroller of the Currency, was appointed governor of the Federal Reserve Board to fill the vacancy caused by the expiration on August 9, 1922, of the term of office of Hon. W. P. G. Harding, of Birmingham, Ala., and on the same date Hon. Henry M. Dawes, of Chicago, Ill., assumed the office of Comptroller of the Currency and ex officio member of the Federal Reserve Board.

Hon. John R. Mitchell, of St. Paul, Minn., resigned as a member of the Board on May 12 and was succeeded by Hon. George R. James, of Memphis, Tenn., whose appointment was effective May 14.

On September 15, Mr. Wm. W. Hoxton, general secretary, resigned to accept an appointment as Federal reserve agent and chairman of the board of directors of the Federal Reserve Bank of Richmond, and Mr. Walter L. Eddy, executive secretary, was appointed secretary, effective October 1, 1923. Mr. J. C. Noell, Federal reserve examiner, was appointed assistant secretary, effective October 1, 1923.

On March 6, 1923, Mr. George B. Vest, who had been employed in the office of the Board's general counsel since October, 1922, was appointed assistant counsel.

On July 1 the division of analysis and research and the office of statistician were consolidated into one division under the title of division of research and statistics. Mr. W. W. Stewart, who had been the director of the division of analysis and research, became director of the consolidated division.

The total cost of conducting the work of the Board during the year 1923, including salaries of members and the cost of printing and circulating the Federal Reserve Bulletin, was $726,428.28.

Two assessments were levied against the Federal reserve banks aggregating $702,634.68, or approximately 215 thousandths of 1 per cent of their average paid-in capital and surplus for the year.

By direction of the Federal Reserve Board:

D. R. Crissinger,
Governor.

The Speaker of the House of Representatives.

ANNUAL REPORT OF THE FEDERAL RESERVE BOARD

WASHINGTON, *February 20, 1925.*

SIR: In this, its eleventh annual report, the Federal Reserve Board reviews the business and banking developments in 1924 as they affected the position of the Federal reserve banks and describes the operations of the Federal reserve system during the year. The board, in its annual report for 1923, discussed in the light of the experience of the Federal reserve system for the preceding ten years certain of the basic factors underlying the administration of Federal reserve bank credit. The present report indicates the manner in which the discount and open-market policies discussed more fully in last year's report have functioned under business and credit conditions prevailing in 1924.

INDUSTRY AND TRADE IN 1924

Business and industry in 1924, taking the year as a whole, were less active than in 1923, when production and trade were in exceptionally large volume. The recession in industrial activity which began in the spring of 1923 continued, with a brief interruption at the turn of the year, until the middle of 1924. Increased output in certain basic industries early in 1924 resulted in a larger volume of production than could be currently marketed at prevailing prices, with the consequence that stocks accumulated, prices receded, production was sharply curtailed, and there was a decrease in employment at industrial establishments. The volume of trade, however, continued at a high level throughout the period of industrial recession and, as distribution of goods to the consumer was in larger volume than current production, stocks of merchandise which had accumulated during the spring months were gradually reduced and a renewed demand for materials was reflected in a firmer tone in the commodity markets. This industrial readjustment, together with an improvement in the position of the farmer, was an important factor in bringing about a business recovery during the last quarter of the year. The farmer's income, particularly in certain sections of the wheat producing regions, was larger in 1924 than in recent years, though the corn crop was short. In the aggregate, crop production was as large as in 1923 and prices at the farm averaged considerably higher. Conditions in the livestock industry, however, continued to be unfavorable. Wheat farmers in this country benefited by the shortage of the world wheat crop and the consequent larger export demand. Financing of agricultural exports as well as of exports of other raw materials in large volume was facilitated by the flotation in the United States of an unusually large amount of foreign loans, which increased the buying power of foreign purchasers in our markets. This improvement in the European demand for American products, the increase in the current income of the farmer, and a growth in business confidence were factors in bringing about the increase in business activity during the closing months of the year. Between September and December industrial output and factory employment increased sharply from the low point reached in midsummer, and this expansion in production in basic industries was sufficient to overcome the larger part of the previous decline. At the end of 1924, as a result of a readjustment in prices and the improvement in the world market for agricultural products, there was a better balance between industry and agriculture than at any time in more than four years.

GROWTH OF MEMBER BANK CREDIT

In the banking and credit situation the principal development in 1924 was a decline in money rates during the first half of the year, which carried those rates by midsummer to the lowest level in a decade. This ease in the money market was the result of an abundance of loanable funds at member banks and not of a decreased use of credit to finance current business. In fact, throughout most of the year the volume of commercial borrowing at member banks in principal cities continued near the high level of the autumn of 1923, and after the seasonal advance in the latter part of 1924 was in larger volume than at any time in more than three years. This continued demand for commercial credit during the period of slackened industrial activity may be accounted for in part by the fact that throughout this period the volume of trade and distribution was maintained at a high level. Decreased industrial activity, however, accompanied by lessened employment and smaller pay rolls, resulted in a diminished demand for hand-to-hand money, and as currency released from circulation flowed into the member banks it increased the volume of their funds available for lending. Further additions to the supply of funds arose from gold imports, which during the first half of the year were in larger volume than during 1923. Member banks used funds arising from these two sources to repay their borrowings at the Federal reserve banks, and the reduction during the early part of 1924 in the total of Federal reserve bank credit in use was about equivalent to the inflow of currency from domestic circulation and of gold received from abroad. When repayment to the reserve banks had brought the volume of borrowing by member banks to a low level, these banks used further additions to their funds as a basis for enlarging the volume of their outstanding credit, chiefly through the purchase of investment securities and the making of loans on stocks and bonds. The growth during the last seven months of 1924 in the total loans and investments of member banks in leading cities was about $2,000,000,000, of which $900,000,000 represented an increase in investments, $800,000,000 an increase in loans secured by stocks and bonds, and $300,000,000 an increase in commercial loans.

This rapid growth in the volume of member bank credit, which began in June, was accompanied by a correspondingly rapid increase in demand deposits amounting to about $1,800,000,000. In the financial centers, where the growth of deposits was largest, the increase represented in part a growth of balances held for banks in the interior. This concentration of funds in the money centers, which usually occurs during periods of declining business activity, contributed to the ease in the central money markets and was one of the factors responsible for the low level of rates prevailing during July and August. Toward the end of August, however, the demand for credit and currency in connection with crop moving and the autumn trade, and the revival of industrial activity, resulted in some return flow of funds to the interior, and rates became firmer during the latter months of the year. Demand for currency reached its peak in December and, together with the outward movement of gold during that month, led member banks to increase their borrowings at the reserve banks. The large growth in 1924 in the total of member bank credit in use is shown by a comparison of the condition of all member banks at the end of 1923 and 1924.

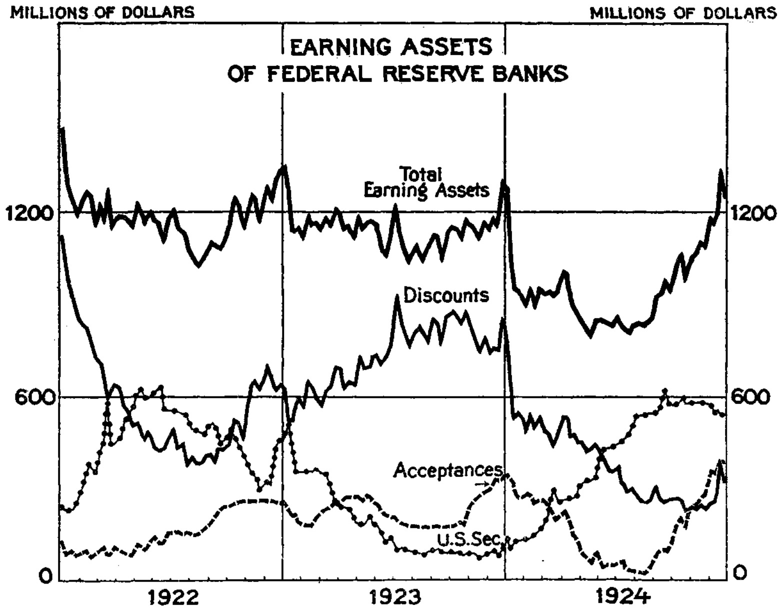
ALL MEMBER BANKS

[In millions of dollars]

	End of—		Increase
	1923	1924	
Loans	19,052	20,181	1,129
Investments	7,686	8,845	1,159
Total loans and investments	26,738	29,026	2,288
Demand deposits	16,086	17,766	1,680
Bankers' balances	3,512	4,548	1,036
Time deposits	8,651	9,805	1,154

VOLUME OF FEDERAL RESERVE BANK CREDIT

In contrast with this growth in the loans and investments of member banks, the amount of Federal reserve bank credit outstanding was no larger at the end of 1924 than at the end of the previous year. The demand for reserve bank credit, however, fluctuated much more widely during 1924 than in the two preceding years. Earning assets of the reserve banks after decreasing by $400,000,000 during the first five months of the year to $800,000,000—the lowest level since 1917—remained near that level for two months, and then increased again by $450,000,000 to $1,250,000,000 at the end of the year. The decline in the volume of reserve bank credit outstanding during the first half of the year was due to a decrease in the amount of currency in circulation of $280,000,000 and to gold imports of $240,000,000. During the last five months of the year the increase in earning assets of the reserve banks reflected seasonal growth of $330,000,000 of money in circulation, and the further facts that during these months net gold imports were only $16,000,000 and that during December, for the first time since 1920, there was a net outward movement of gold. Thus in 1924 gold and currency movements exerted their combined effect during the early part of the year toward a reduction in the use of reserve bank credit, and during the latter



part of the year toward an increase in the demand for reserve bank credit. In this respect the year 1924 differed from 1923, when a gradual growth in currency demand was continuous throughout the year, as were gold imports, with the consequence that the demand for currency was currently met by member banks out of the balances created at the reserve banks through the deposit of imported gold, and the volume of reserve bank credit in use remained throughout the year at a relatively constant level.

Changes in the total volume of reserve bank credit outstanding and in its composition for the first seven and for the last five months of 1924 and for the year as a whole are shown in the following table, and the course of the different classes of earning assets during the past three years is presented in the chart above.

EARNING ASSETS OF FEDERAL RESERVE BANKS

[In millions of dollars]

	Dec. 31, 1923	July 30, 1924	Dec. 31, 1924	Increase (+) or decrease (−)		
				First 7 months 1924	Last 5 months 1924	Year 1924
Total earning assets [1]	1,211	825	1,249	−386	+424	+38
Discounts	723	294	314	−429	+20	−409
Acceptances	355	24	387	−331	+363	+32
United States securities	133	505	540	+372	+35	+407

[1] Including other classes of earning assets, which on Dec. 31, 1924, aggregated $8,000,000.

During the first seven months of 1924 purchases of United States Government securities in the open market steadily increased and carried the holdings of these securities by the reserve banks from $133,000,000 at the close of 1923 to over $505,000,000 at the end of July. The funds thus placed in the market were used by member banks in the repayment of their borrowings and resulted further in a reduction of the acceptance holdings of the reserve banks. Total holdings of discounted and purchased bills, which at the beginning of the year were about $1,078,000,000, declined almost continuously to $318,000,000 at the end of July. During this period of open-market purchases in considerable volume, the total of reserve bank credit outstanding, as measured by earning assets, declined by nearly $400,000,000, and at the same time there was a considerable change in its composition. The proportion of United States securities, which at the opening of the year constituted about 11 per cent of total earning assets, increased to 60 per cent at the end of July, while the proportion of discounts declined from 60 per cent to 36 per cent. The decline in total earning assets during this period, as has been pointed out earlier, is accounted for by the inflow of gold and the decreased demand for currency, and the fact that the volume of discounts and acceptances decreased to a larger extent than total earning assets was due chiefly to the security purchases by the reserve banks.

During the last five months of the year there was relatively little change in the holdings of United States securities, and the volume at the end of December was about the same as in the middle of August. During this period, however, total earning assets of the reserve banks increased by over $400,000,000, largely in response to seasonal requirements. In December the growth was principally in discounts, but for the period as a whole the larger part of the increase was in holdings of acceptances, which increased after the middle of August from $18,000,000 to $387,000,000 at the end of December. At the close of 1924 acceptance holdings of the Federal reserve banks were larger than at any time since 1920 and constituted nearly one-half of the total volume of outstanding acceptances. The unusually heavy exports of agricultural products during the autumn of the year were financed in considerable part through the use of acceptance credit, and the total amount of credit extended in this form was larger in 1924 than at any time except during the last part of 1919. The volume of commodities financed through acceptance credit in 1924 was in fact larger than in 1919, when measured in terms of physical volume, because in 1919, with prices at a much higher level, more credit was required to finance the same physical quantity of goods. A large part of the total acceptances purchased by the reserve banks arose out of the financing of export and import trade with many countries covering principally the exportation of cotton and grains, and the importation of coffee, sugar, silk, hides, and wool. With this large volume of acceptances in the market the seasonal tightening of money rates resulted during the last quarter of the year in heavy offerings of bills to the reserve banks, with a consequent growth of acceptance holdings by these banks. A table showing the principal assets and liabilities of the Federal reserve banks for every week in 1924 appears on pages 50–53.

CURRENCY DEMAND AND THE RESERVE BANKS

At the reserve banks, through the large amount of currency of all kinds paid in daily and the large volume withdrawn each day, there is a continuous adjustment between the volume of money in circulation and the public's changing requirements for currency. While the net outflow of currency from the reserve banks during the last five months of 1924 approximately equaled the net inflow during the first part of the year, and there was consequently little change in the total volume of money in circulation, the amount of currency that passed through the reserve banks during the year was in excess of $10,000,000,000, or more than twice the amount currently held by the public. The amount held by the public, about $5,000,000,000, includes the vault cash in banks, the till money of the merchants, and the cash in the pockets of individuals. Since cash in the vaults of member banks does not count as part of their legal reserves, they keep on hand only that amount of currency which experience has shown to be necessary to meet the immediate demands of their depositors; this amount in the aggregate is about $500,000,000, and represents 2 per cent of their gross deposits. Mercantile establishments also limit their holdings of cash to till-money requirements, and the amount of money carried by individuals, though it fluctuates to some extent with the volume of employment and earnings, is determined largely by pocket-money requirements. In this country, where the banking habit is general, where business concerns and individuals deposit with banks any excess of currency in their possession, and banks in turn keep on hand only enough cash for immediate needs, any outstanding currency above actual requirements promptly flows to the reserve banks, and any increased demand for currency is reflected in withdrawals of cash from these banks. It is this responsiveness of the volume of currency in use to the public's requirements and the promptness with which the net volume of inflow or outflow of currency of all kinds at the reserve banks responds to changes in the demand for cash that constitutes the elastic character of the currency under the Federal reserve system.

The elasticity of the currency is in no way affected by changes made by the reserve banks in the relative amount of payments made in Federal reserve notes and in other forms of currency. In 1924 the Federal reserve banks continued the practice, which had begun in the middle of 1922, of increasing the amount of gold certificates in circulation, with the result that the volume of Federal reserve notes outstanding declined further during the year and an equal amount of gold certificates was substituted in their place in the country's circulation. As a consequence of this practice, the reserves of the reserve banks during the first part of the year did not increase to the extent of gold imports during the period, and during the latter part of the year, when the demand for currency was increasing, this demand was met by the reserve banks out of reserves as well as through an increased issue of Federal reserve notes. As a result of this payment of gold certificates into circulation, together with net gold exports of $30,000,000 in December, total reserves at the end of the year had declined to $3,000,000,000, the lowest figure for three years. The extent to which gold certificates have been restored to circulation is indicated by the fact that during the three years since 1922, with net gold imports of about $800,000,000, there has been no net increase in the reserves of the reserve banks, and the volume of gold certificates in circulation has increased by an amount equal to the gold imports.

GOLD AND FEDERAL RESERVE BANK CREDIT

In 1924, as in other recent years, the most important single influence affecting the volume of Federal reserve bank credit in use was the continued inflow of gold. While net imports of gold in 1924 were somewhat less than in 1923, they represented a continuation of a movement which has lasted for over four years, and since their effect upon the relative position of Federal reserve banks and member banks has been cumulative, their influence is clearer when considered in perspective. Gold received from abroad is deposited by member banks with the reserve banks, and its immediate effect is to increase their reserve balances. The use made by member banks of these additions to their reserve balances depends upon the extent of the currency demand and upon the indebtedness of member banks at the reserve banks at the time the gold is received. In 1921, when liquidation was under way, balances arising out of the $667,000,000 of net gold imports, as well as the currency returned from domestic circulation were used to reduce indebtedness at the reserve banks. In 1922, when the volume of member bank borrowing was at a low level and there was an increased demand for currency, the larger part of the additions to reserve balances due to gold imports of $238,000,000 were used to meet the currency demand, though a part remained as a basis for the growth in deposit liabilities of member banks which occurred during the first half of the year. In 1923 practically the entire amount of net gold imports of $294,000,000 was used by member banks in lieu of additional borrowing at the reserve banks to meet demands for currency, and the earning assets of the reserve banks remained practically unchanged. In 1924, though the volume of earning assets of the reserve banks and the volume of money in circulation fluctuated considerably during the year, at the end of the year they were both at about the same levels as at the beginning, and the $258,000,000 of net gold imports are reflected in a growth of member bank balances. For the entire four-year period the net gold imports and the net decline in currency in circulation have been reflected in a decrease of nearly $2,000,000,000 in the earning assets of the Federal reserve banks and a growth of $3,000,000,000 in the loans and investments of member banks. This divergence in the movement of Federal reserve bank credit and member bank credit since 1920 is shown in the following table:

RESERVE BANK AND MEMBER BANK CREDIT, 1920-1924

[Amounts in millions of dollars]

	End of—					Change	
	1920	1921	1922	1923	1924	1920-1924	1923-24
Federal reserve banks:							
Total earning assets	3,235	1,524	1,326	1,211	1,249	−1,986	+38
Member bank reserve balances	1,780	1,753	1,934	1,898	2,220	+440	+322
All member banks:							
Total loans and investments	25,888	23,644	25,769	26,738	29,027	+3,139	+2,289
Deposits on which reserves are computed	17,616	16,816	18,066	19,505	21,985	+4,369	+2,480
Ratio of earning assets of reserve banks to loans and investments of member banks (per cent)	12.5	6.4	5.1	4.5	4.3		
Ratio of reserve balances to deposits on which reserves are computed (per cent)	10.0	10.5	10.2	9.7	10.1		

The large increase in the loans and investments of member banks and the decline in the earning assets of the reserve banks, shown in the table, has reduced the ratio of Federal reserve bank credit to member bank credit in use from 12.5 per cent in 1920 to 4.3 per cent in 1924. The ability of member banks to increase the volume of their own outstanding credit and at the same time to decrease their use of reserve bank credit was due principally to the receipt during the four years of $1,500,000,000 of gold from abroad. While the proportion of the amount of reserve bank credit outstanding to loans and investments of member banks is only a fraction of what it was in 1920, the ratio between reserve balances maintained by member banks at the reserve banks to member bank deposit liabilities, as shown by the table, has remained practically constant at about 10 per cent, which represents on the average the minimum required by law. This constancy reflects the fact that member banks have currently utilized the full amount of credit that could be supported by the increase of $440,000,000 in their reserve balances. Thus, notwithstanding the large addition to their balances, the member banks were obliged in the autumn of 1924 to increase their borrowings at the reserve banks in order to meet the seasonal demand for currency.

DEMAND FOR GOLD AND FOR DOLLAR CREDITS

A factor in the increased demand for reserve bank credit in the latter part of 1924 was the demand for gold for export, most of which was withdrawn by certain European countries to be used in monetary reconstruction. A large part of these exports went to Germany and were made possible by the flotation of a loan under the Dawes plan for reparations. The progress made in the settlement of reparations and the restoration of sound monetary conditions in Europe resulted in increased confidence of American investors in European securities, and, together with the abundance of funds seeking investment, facilitated the placing of a large volume of foreign loans in the United States. The volume of such flotations in 1924 was nearly three times as large as in 1923 and larger than for any other year since the war. While a large part of these loans was used in the purchase of goods in the United States, several countries used dollar credits thus obtained in supporting the exchange value of their currencies. During 1924 the exchanges of three European countries returned to pre-war parity, several other countries adopted new monetary units related to gold, and still other currencies were maintained in a definite relationship to the dollar or to the pound sterling. In the closing months of the year there was a considerable improvement in many leading European exchanges, particularly in sterling exchange, which, after advancing from $4.31 in June to $4.73 at the end of December, was within 2½ per cent of parity. To the extent that dollar credits created in the United States through foreign borrowing were used to withdraw gold, they made it possible to increase the actual gold reserves of foreign countries and to utilize for monetary reconstruction a portion of the gold which during recent years had come to this country as the result of disorganized conditions abroad. Gold received from abroad has been the principal factor in bringing money rates in this country to a low level, and the difference between rates here and abroad, at a time of increased confidence in the European financial situation, facilitated foreign borrowing and thus contributed to making dollar credits and gold available to those countries which have undertaken to reestablish sound monetary conditions. With the actual resumption of gold payments in certain countries and the stabilization of currencies with reference to gold in many other countries, the year 1924 has been one of definite progress toward the reestablishment of the international gold standard.

DISCOUNT AND OPEN-MARKET POLICY IN 1924

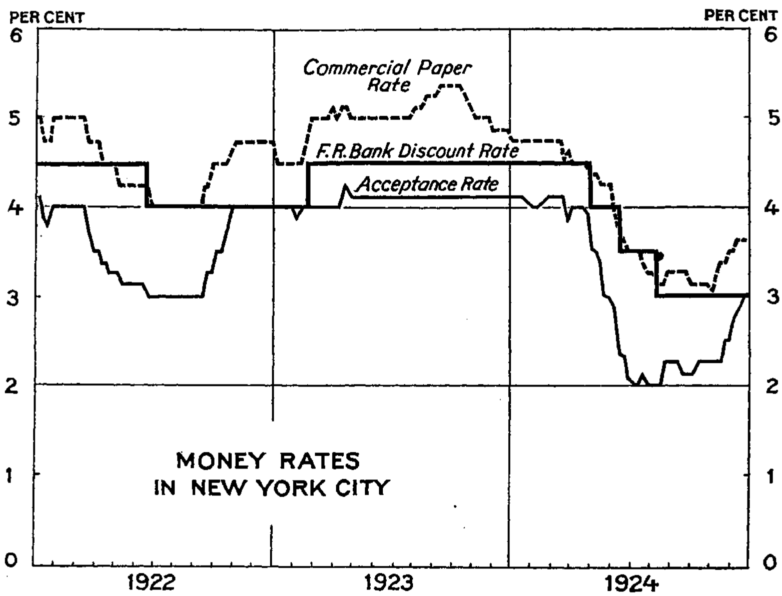
Federal reserve credit policy in 1924, expressed both in changes of discount rates and in open-market operations, was determined with reference to the developments in trade, industry, and credit, which have been outlined in the preceding sections of this report. Discount rates at the Federal reserve banks, which had been uniformly 4½ per cent at all the reserve banks since the early months of 1923, were reduced between May and the middle of October, 1924, to a level ranging at the different banks from 3 to 4 per cent. These reductions were made at a time of a recession in industrial activity, decreasing factory employment, slackened demand for commodities, and unusual ease in the money market. Money rates by the middle of the year, as the result of the less active demand for credit, and the abundance of funds arising out of the inflow of currency and of gold, had declined to the lowest level in a decade, and discount rates at the reserve banks were adjusted to prevailing credit and business conditions. At the Federal Reserve Bank of New York the discount rate was reduced on May 1 from 4½ to 4 per cent, on June 12 to 3½ per cent, and on August 8 to 3 per cent, and continued at that level to the end of the year. At the Federal Reserve Banks of Boston, Philadelphia, Cleveland, and San Francisco the rates were reduced to 3½ per cent, and to 4 per cent at the other reserve banks. The rates prevailing at the beginning and at the end of the year at each of the Federal reserve banks and the dates on which rate changes were made are shown in the following table:

CHANGES DURING 1924 IN FEDERAL RESERVE BANK DISCOUNT RATES

	In effect Jan. 1, 1924	Reduction		In effect Dec. 31, 1924
		Date	Rate	
Boston	[1] 4½	June 12	3½	3½
New York	4½	May 1	4	3
		June 12	3½	
		Aug. 8	3	
Philadelphia	[1] 4½	June 19	[2] 3½	3½
		June 26	[3] 3½	
Cleveland	4½	June 2	4	3½
		Aug. 15	3½	
Richmond	4½	June 14	4	4
Atlanta	4½	June 18	4	4
Chicago	4½	June 14	4	4
St. Louis	4½	June 19	4	4
Minneapolis	4½	Oct. 15	4	4
Kansas City	4½	July 1	4	4
Dallas	4½	July 16	4	4
San Francisco	4½	June 10	4	3½
		Aug. 25	3½	

[1] Five per cent on 6 to 9 months agricultural and livestock paper.
[2] Four and one-half per cent on 91-day to 6-months, and 5 per cent on 6 to 9 months agricultural and livestock paper.
[3] On all classes of paper.

The relationship between the discount rate at the Federal Reserve Bank of New York and the rates on commercial paper and on acceptances for a period of three years is shown in the chart. After a



continuous decline from the high point of the autumn of 1923, money rates in the New York market in the summer of 1924 were at a considerably lower level than during the preceding period of low money rates in the summer of 1922. Though rates on commercial paper advanced in November and December, they were at the end of the year about 1 per cent lower than at the beginning and somewhat lower than in the middle of 1922. The rise in open-market rates on acceptances, which began in the middle of the year, together with the considerable increase in the volume of acceptances offered to the reserve banks, led to a gradual advance of the buying rate on acceptances at the New York Reserve Bank from 2 to 3 per cent, and in December the rate on 60 to 90 day bills was at the same level as the discount rate.

Open-market operations in 1924, as in the two preceding years, played an important part in the general credit policy of the reserve banks. The purchase of United States Government securities by the reserve banks placed funds in the market which were used by member banks, together with funds arising from other sources, to reduce their indebtedness at the reserve banks. During the period when reductions in discount rates decreased the cost of reserve bank credit to member banks, security purchases, by facilitating the repayment of borrowings by member banks, were an influence in reducing the amount of their indebtedness to the reserve banks. This general credit policy was the adjustment made by the reserve banks to the trend in business and credit. At the time when the open-market purchases were made there was a recession in industrial activity, the attitude of the business community was hesitant, and there was no evidence of the growth of speculation. Open-market purchases during this period served to build up a portfolio of securities and to increase the proportion of outstanding reserve bank credit under the direct control of the Federal reserve banks. By these purchases the reserve banks placed themselves in a position, through the subsequent sale of securities in case it should become desirable, to cause member banks to discount and to bring a larger part of the outstanding reserve bank credit under the influence of the discount rate. Thus during 1924 both the discount and open-market policies pursued by the Federal reserve banks, taken as a whole, were approved by the Federal Reserve Board with regard to the broader aspects of the credit situation and "with a view of accommodating commerce and business," the basis provided in the Federal reserve act for discount policy and adopted by the board as the principle for the conduct of open-market operations.

EARNINGS, EXPENSES, AND VOLUME OF OPERATIONS OF THE FEDERAL RESERVE BANKS

Gross earnings of the Federal reserve banks in 1924 were $38,340,000, or 25 per cent less than in 1923 and 1922, when they were about $50,000,000. The lower earnings resulted from a decline of about one-fifth in the average daily holdings of earning assets, together with a decrease from 4.33 to 3.83 per cent in the annual rate of return. Earnings on bills discounted for member banks and on bills bought in open market declined from $42,300,000 in 1923 to $21,600,000 in 1924, while earnings on Government securities increased from $7,400,000 in 1923 to $14,700,000 in 1924. Miscellaneous earnings, consisting largely of profits on current purchases and sales of United States securities, of income from rented space in bank buildings and of penalties for deficient reserves, were $1,975,000 in 1924, compared with $937,000 in 1923. Income from space rented was $436,000 in 1924, profits on transactions in United States securities were $750,000, and penalties for deficient reserves $382,000. Average daily holdings of each class of earning assets, earnings thereon, and annual rates of earnings in 1924, compared with the two preceding years, are shown in the following table:

HOLDINGS OF EARNING ASSETS, EARNINGS THEREFROM, AND ANNUAL RATES OF EARNINGS

[Amounts in thousands of dollars]

	Bills discounted	Bills bought in the open market	United States Government securities	Other earning assets	Total
Daily average holdings:					
1922	573, 247	159, 207	454, 750	66	1, 187, 270
1923	738, 114	226, 548	185, 823	85	1, 150, 570
1924	374, 834	172, 428	401, 365	1, 690	950, 317
Earnings:					
1922	26, 523	5, 629	16, 682	4	48, 838
1923	32, 956	9, 371	7, 444	4	49, 775
1924	15, 943	5, 710	14, 712	61	36, 426
Average rates of earnings (per cent):					
1922	4. 63	3. 54	3. 67	5. 40	4. 11
1923	4. 46	4. 14	4. 01	4. 50	4. 33
1924	4. 25	3. 31	3. 67	3. 61	3. 83

Current expenses in 1924, exclusive of those fiscal agency department expenses which are reimbursable by the Treasury Department, amounted to $28,432,000, a reduction from the 1923 total of about $1,340,000, or 4.5 per cent. Most of this reduction was in salaries paid to the clerical staff, which aggregated $13,289,000, as against $14,026,000 the year before, and in the cost of Federal reserve currency, including redemption charges, which amounted to $1,433,000 in 1924, as compared with $1,992,000 in 1923.

The Federal reserve banks in 1924 handled a larger volume of operations than during any previous year in rendering free services to member banks, such as the clearing and collection of checks, the collection of other items, and the receipt and payment of cash, including such currency and coin operations as were formerly performed by subtreasuries. In the cash department, for instance, the number of bills received and counted aggregated 1,838,000,000, compared with 1,723,000,000 in 1923, an increase of 115,000,000 pieces, and the number of coins received and counted was 2,187,000,000, compared with 2,076,000,000 in 1923. Checks handled by the transit departments of the Federal reserve banks also increased materially, the number handled in 1924 (743,000,000) being about 45,000,000 in excess of the number handled during the preceding year. Thus, while the earnings of the Federal reserve banks have declined materially, the volume of free services rendered to member banks has continued to show substantial increases. On the other hand, the number of notes discounted and of bills purchased in open market fell off from 961,000 in 1923 to 726,000 in 1924. While the income of the banks is derived almost wholly from paper discounted for member banks and from acceptances and securities bought in the open market, operating expenses connected with these discount and open-market operations are very small when compared with operating expenses in the cash and transit departments.

Notwithstanding the increase in the volume of operations the Federal reserve banks, through increased efficiency, were able to reduce during the year the amount paid as clerical salaries. The total number of employees of the Federal reserve banks at the end of 1924, excluding those in the fiscal agency departments, was 9,964, compared with 10,704 at the end of 1923. The number of employees in the fiscal agency departments decreased from 957 at the end of 1923 to 478 at the end of 1924. The volume of operations in the principal departments of the Federal reserve banks during the past three years is shown in the following table:

VOLUME OF OPERATIONS IN PRINCIPAL DEPARTMENTS

	1924	1923	1922
NUMBER OF PIECES HANDLED			
Bills discounted:			
Applications	129,000	168,000	(1)
Notes discounted	583,000	782,000	841,000
Bills purchased in open market for own account	143,000	179,000	142,000
Currency received and counted	1,838,279,000	1,722,877,000	1,424,849,000
Coin received and counted	2,186,737,000	2,076,075,000	1,945,453,000
Checks handled	742,878,000	697,502,000	638,634,000
Collection items handled:			
United States Government coupons paid	50,471,000	64,662,000	81,694,000
All other	6,113,000	5,732,000	4,722,000
United States securities—issues, redemptions, and exchanges by fiscal agency department	16,097,000	[2] 114,409,000	24,753,000
Transfers of funds	1,503,000	1,413,000	1,190,000
Envelopes received and dispatched	40,050,000	44,932,000	(1)
AMOUNTS HANDLED			
Bills discounted	$15,419,155,000	$38,379,926,000	$22,082,887,000
Bills purchased in open market for own account	2,172,142,000	2,547,010,000	1,954,688,000
Currency received and counted	10,777,306,000	10,306,411,000	8,602,185,000
Coin received and counted	293,924,000	308,051,000	221,871,000
Checks handled	219,832,179,000	207,719,529,000	160,472,450,000
Collection items handled:			
United States Government coupons paid	719,784,000	761,731,000	759,124,000
All other	5,509,093,000	5,900,520,000	4,768,971,000
United States securities—issues, redemptions, and exchanges by fiscal agency department	6,708,272,000	8,433,891,000	14,135,914,000
Transfers of funds	98,359,028,000	78,867,108,000	70,553,465,000

[1] Data not available.
[2] Large increase due to redemption of war-savings securities which matured Jan. 1, 1923.

As a consequence of the larger decline in gross earnings than in current expenses, current net earnings of the Federal reserve banks declined by more than one-half and amounted to $9,908,000 in 1924, as against $20,938,000 in 1923. As is shown in the profit and loss statement, the Federal reserve banks charged their current net earnings with net deductions of $6,190,000, made up principally as follows: Depreciation allowances on bank premises, $4,035,000; reserves for probable losses on paper held under discount for member banks, $1,067,000; and cost of furniture and equipment purchased during the year, $1,075,000. After these charges were made, net earnings available for dividends, surplus, and franchise taxes amounted to $3,718,000, as against $12,711,000 in 1923. Earnings of two of the reserve banks—Cleveland and Kansas City—were not sufficient to cover current expenses, depreciation charges, reserves for probable losses, etc., or any part of the dividends accrued during the year, while the earnings of four other banks—Boston, New York, St. Louis, and San Francisco—though in excess of current expenses, depreciation allowances, reserves, etc., were not sufficient to meet full dividend requirements. As a result these six banks withdrew $3,266,000 from their surplus accounts built up in previous years. Of the six Federal reserve banks that had earnings sufficient to cover current expenses, depreciation charges, reserves and dividends, only four had an excess of earnings remaining after such charges. Of these, the Philadelphia, Richmond, and Dallas banks, whose subscribed capital was in excess of their surplus accounts, transferred all of such excess earnings, aggregating $175,732, to surplus account, as is authorized by law, while the Minneapolis bank transferred $12,628 to surplus account and paid $113,646 to the United States Government as a franchise tax. Gross and net earnings of each Federal reserve bank during the year, dividends paid to member banks, and amounts transferred to or withdrawn from surplus account are shown in the following table:

FINANCIAL RESULTS OF OPERATION OF THE FEDERAL RESERVE BANKS DURING 1924

Federal reserve bank	Gross earnings	Net earnings available for dividends, surplus, and franchise tax	Dividends paid	Surplus account: Transfers to	Surplus account: Withdrawals from	Franchise tax paid United States Government
Boston	$2,559,016	$470,422	$477,798		$7,376	
New York	8,569,350	616,852	1,796,530		1,179,678	
Philadelphia	2,915,846	747,092	615,135	$131,957		
Cleveland	3,770,689	[1] 473,153	756,152		1,229,305	
Richmond	2,210,240	379,791	351,251	28,540		
Atlanta	1,907,121	272,656	272,656			
Chicago	5,202,169	909,123	909,123			
St. Louis	1,688,143	203,937	304,976		101,039	
Minneapolis	1,609,070	329,102	202,828	12,628		$113,646
Kansas City	2,262,910	[1] 253,182	265,697		518,879	
Dallas	2,157,964	265,024	249,789	15,235		
San Francisco	3,487,931	250,516	480,561		230,045	
Total	38,340,449	3,718,180	6,682,496	188,360	3,266,322	113,646

[1] Deficit in earnings before payment of dividends.

A comparison of gross and net earnings and the disposition made of these earnings for the years 1920–1924 is shown in the table below:

GROSS AND NET EARNINGS OF FEDERAL RESERVE BANKS, 1920–1924

	Earnings		Disposition of net earnings		
	Gross	Net	Dividends	Transferred to surplus	Franchise tax paid to United States Government
1920	$181,296,711	$149,294,774	$5,654,018	$82,916,014	$60,724,742
1921	122,869,940	82,087,225	6,119,673	15,993,086	59,974,466
1922	50,498,699	16,497,736	6,307,035	[1] 659,904	10,850,605
1923	50,708,566	12,711,286	6,552,717	2,545,513	3,613,056
1924	38,340,449	3,718,180	6,682,496	[2] 3,077,962	113,646

[1] Withdrawn from surplus. On the basis of 1922 operations there was $2,740,158 transferred to surplus, but $3,400,062 was withdrawn in connection with an adjustment of franchise taxes paid in previous years.
[2] Withdrawn from surplus.

The table brings out the fact that transfers to surplus, which were large in 1920, when the surplus at none of the banks was as large as subscribed capital, declined rapidly, and in 1924 there were net withdrawals from surplus. The franchise tax paid to the United States Government also decreased with the decrease of net earnings and during 1924 was only $113,646, compared with about $60,000,000 in 1920 and 1921.

Owing to the substantially reduced earnings in 1924, the ratio of current net earnings to average paid-in capital declined to 8.9 per cent from 19.2 per cent in 1923. If current net earnings are related to paid-in capital and surplus combined, the ratio works out at 3 per cent in 1924, as compared with 6.4 per cent in 1923. The highest rate of current net earnings on paid-in capital and surplus in 1924, 7 per cent, was reported by the Federal Reserve Bank of Dallas and the lowest ratio, 1.6 per cent, by the Federal Reserve Bank of St. Louis. In 1923 the highest ratio, 10.4 per cent, was reported for the Federal Reserve Bank of Atlanta and the lowest ratio, 4.7 per cent, by the Federal Reserve Bank of Chicago. The table below shows current net earnings, daily average paid-in capital, and surplus of each Federal reserve bank during 1924, and the ratios of current net earnings to paid-in capital and to paid-in capital and surplus for 1923 and 1924. Detailed figures of both earnings and expenses of each Federal reserve bank appear on pages 112–116.

RATIO OF CURRENT NET EARNINGS TO CAPITAL AND TO CAPITAL AND SURPLUS COMBINED

Federal reserve bank	Current net earnings	Daily average		Ratio of current net earnings to average			
		Paid-in capital	Surplus	Paid-in capital		Paid-in capital and surplus	
				1924	1923	1924	1923
				Per cent	*Per cent*	*Per cent*	*Per cent*
Boston	$585, 515	$7, 963, 300	$16, 389, 563	7. 4	17. 1	2. 4	5. 6
New York	2, 218, 529	29, 942, 173	59, 928, 967	7. 4	15. 5	2. 5	5. 1
Philadelphia	762, 010	10, 252, 250	19, 927, 329	7. 4	23. 7	2. 5	8. 1
Cleveland	1, 105, 839	12, 602, 533	23, 691, 138	8. 8	17. 4	3. 0	5. 9
Richmond	672, 406	5, 854, 183	11, 672, 483	11. 5	23. 3	3. 8	7. 8
Atlanta	660, 109	4, 544, 260	8, 950, 309	14. 5	31. 5	4. 9	10. 4
Chicago	1, 255, 733	15, 152, 050	30, 425, 575	8. 3	14. 2	2. 8	4. 7
St. Louis	246, 795	5, 082, 933	10, 071, 743	4. 9	25. 9	1. 6	8. 8
Minneapolis	543, 903	3, 380, 467	7, 484, 219	16. 1	18. 8	5. 0	6. 1
Kansas City	396, 823	4, 428, 284	9, 495, 540	9. 0	23. 2	2. 8	7. 6
Dallas	826, 302	4, 163, 150	7, 577, 160	19. 8	23. 0	7. 0	8. 3
San Francisco	634, 547	8, 009, 350	15, 301, 038	7. 9	23. 1	2. 7	7. 8
Total	9, 908, 511	111, 374, 933	220, 915, 064	8. 9	19. 2	3. 0	6. 4

FISCAL AGENCY OPERATIONS

Fiscal agency operations of the Federal reserve banks during 1924 included the sale and delivery of newly issued bonds and notes, the redemption of securities called for payment or matured, denominational exchanges, interchanges of coupon and registered bonds, exchanges of temporary for permanent bonds, conversions, transfers of ownership, purchases of securities in open market for Government account, maintenance of Government deposit accounts with designated depositaries, and the custody of Government securities. While the volume of transactions is smaller than during the war and the immediate post-war period, it is nevertheless still considerable, as may be seen from the following table giving the number and amount of the principal transactions during 1924:

	Number of items	Amount
New securities issued	260, 000	$1, 452, 793, 000
Redemptions	579, 000	2, 458, 222, 000
Exchanges (securities received for exchange)	4, 831, 000	2, 738, 126, 000
Treasury savings certificates issued or received for redemption	56, 000	13, 573, 000
War savings and thrift stamps redeemed, including redeemed stamps received from post offices	10, 370, 000	45, 557, 000

In addition to the purely fiscal agency operations, the Federal reserve banks, acting as depositaries for the Treasury, pay Government checks, warrants, and coupons, collect checks and noncash items for the account of the Treasury, withdraw Government deposits from depositary banks, transfer funds by telegraph, and carry on the former subtreasury operations, comprising principally the replacement, exchange, and redemption of United States paper currency and coin. During 1924 the Federal reserve banks paid 50,471,000 Government coupons amounting to $719,784,000 and 34,289,000 checks and warrants drawn on the United States Treasurer amounting to $4,160,286,000. Coin received and counted aggregated 2,187,-000,000 pieces, amounting to $294,000,000. While some of this coin would no doubt have been handled by the Federal reserve banks even if the subtreasuries had not been discontinued, a large part of this work prior to 1921 was performed by the subtreasuries. On December 31, 1924, the Federal reserve banks held $414,500,000 of securities pledged by depositary institutions as collateral for Government deposits, which on that date amounted to $228,000,000, and in addition $2,269,000,000 of securities were held in safekeeping for the account of the Treasury.

During the war and until June 30, 1921, the Federal reserve banks were reimbursed by the Treasury for practically all expenses incurred in the discharge of their fiscal agency functions, but at present they receive reimbursement for only those expenses incurred directly in connection with the issue of new securities, all other operations being conducted at the expense of the Federal reserve banks. Reimbursable fiscal agency expenses of the Federal reserve banks during 1924 were $444,000 and the amount of expenses absorbed was approximately $868,000. These figures do not, however, include the cost of handling Government coupons, checks, and warrants and other depositary operations, or the cost of handling coin.

BUILDING OPERATIONS OF FEDERAL RESERVE BANKS

Construction was begun in 1924 of a building for the Little Rock branch of the Federal Reserve Bank of St. Louis and of an addition to the building occupied by the Louisville branch of that bank. The building for the Jacksonville branch was completed during the year and construction on the New York and Minneapolis buildings, although not completed, progressed sufficiently so that the New York bank was able to occupy its building in October and the Minneapolis bank to begin moving into its building in December. Work has also progressed on the St. Louis building, and on the San Francisco building which was occupied near the end of 1923.

Eleven of the Federal reserve banks, including Minneapolis, and ten of the Federal reserve branch banks are now housed in their own buildings, while buildings are under construction for the other reserve bank, St. Louis, and for the Little Rock branch. Building sites have also been acquired for six other branches, two of which were acquired in 1924, a site for the Birmingham branch by purchase and one for the Omaha branch by exchange for a building purchased in 1920. Construction of buildings for the Denver and Omaha branches was authorized by the Federal Reserve Board in 1924. All Federal reserve bank branches, except those at Buffalo, Memphis, Seattle, Spokane, Los Angeles, and Portland, now have their own buildings or building sites for such buildings. Tables showing the cost of building operations at each Federal reserve bank and branch are printed on pages 110 and 111.

BRANCHES AND AGENCIES OF THE FEDERAL RESERVE BANKS

No additional branches or agencies of Federal reserve banks were authorized during the year, although the Federal Reserve Bank of Richmond applied to the board for permission to establish a branch to serve the southwestern portion of the fifth Federal reserve district. This application, however, has not yet been acted on by the board. There has been no change in the character of business transacted by the existing branches and agencies.

Effective January 1, 1925, the board adopted revised rules and regulations with respect to the appointment of directors of Federal reserve branch banks. The new rules provide that each branch shall have seven directors, appointments being made for designated terms.

As in the case of the parent banks, the volume of work handled by the branches and agencies in their principal operating departments has continued to increase, as may be seen from the following comparison for 1923 and 1924:

	1923	1924
Checks handled:		
Number of items	207,187,000	222,622,000
Amount	$53,197,150,000	$54,763,840,000
Currency received and counted:		
Number of pieces	397,973,000	433,582,000
Amount	$2,415,356,000	$2,468,886,000
Coin received and counted:		
Number of pieces	353,158,000	387,200,000
Amount	$55,633,000	$60,199,000

Current expenses of the 23 branches and 3 agencies during 1924 were $5,747,000, as compared with $5,730,000 in the year preceding. The average number of officers and employees was reduced from 2,557 in the last quarter of 1923 to 2,384 in the corresponding quarter of the year just closed.

BRANCH BANKING

In respect to branch banking the administrative policy of the board has been developed in its actions upon individual applications of member banks for permission to establish branches. Under that provision of the Federal reserve act which authorizes it to prescribe conditions of admission to membership in the Federal reserve system, the board has generally required State banks and trust companies applying for membership to agree that they will not establish any branch, agency, or additional office except after applying for and receiving the board's permission. During the past year the board has taken occasion to give formal statement to the principles by which it will be guided in acting upon such applications. These principles are incorporated in the revised form of Regulation H.[1]

The board has announced further that the establishment of each branch must be separately approved, and that no blanket authority will be granted to any member bank to establish branches under a contemplated program of extension.

A survey of branch banking developments in the States has been undertaken by the board during the year, and a preliminary statement of the results of this survey was published in the Federal Reserve Bulletin for December, 1924. Reports to the board for June show that 681 banks located in 29 States—including 108 national, 191 member State, and 382 nonmember instituitions—were operating a total of 2,233 branches. Of these banks, 371 were operating only branches located in the home city of the parent bank and 310 were operating branches outside the home city. More than one-half of the banks, 376 out of 681, were operating one branch only; 235 were operating 2 to 4 branches, and 90 were operating 5 or more branches. Of the branches reported, 1,463 were located in the home city of the parent bank and 770 outside the home city. During the first six months of 1924 a total of 213 branches were established, of which 154 were home-city and 59 were outside branches, and very nearly this proportion of home-city to outside branches is shown for the 280 branches established during the calendar year 1923. It may be noted that comparatively few banks located in the larger cities report outside branches, only 43 of the institutions reporting such branches being located in cities of 100,000 or more population, while a large majority of the banks operating only home-city branches are located in these larger cities. Recent growth in the number of home-city branches represents an effort on the part of banks located in the larger cities to extend their banking facilities to outlying districts for the accommodation of their customers. State banking codes and administrative practice, as is well known, vary from State to State—from absolute prohibition of branch banking in any form in some States to free authorization of the practice on a state-wide basis in other States. Branch banking territory may, of course, be either extended or diminished in the future by modification of State banking codes or administrative practice. During the past year Illinois by referendum vote approved a statute (enacted in 1923) prohibiting branch banking. Since, however, no banks were operating branches in this State, the effect of the en-

[1] See page 260.

actment is to provide specific legislative authority for an administrative policy continuing present conditions. Two other States have during the year amended the branch banking provisions of their laws—Maryland, by providing that a bank or trust company establishing a home-city branch shall conform to the capital requirement for a bank or trust company located in such city or town; and Mississippi, by providing that the consent of the superintendent of banks (instead of the consent of a majority of State bank examiners) shall be obtained before a bank located in a city of 10,000 or more population establishes a branch within the corporate limits of the city.

CHANGES IN MEMBERSHIP IN FEDERAL RESERVE SYSTEM BETWEEN DECEMBER 31, 1923, AND DECEMBER 31, 1924

On December 31, 1924, there were 9,587 member banks in active operation in the Federal reserve system, as indicated by the required reports of condition which were submitted by the banks as of that date. Of this number 8,043 were national banks and 1,544 were State banks and trust companies, the number of both classes of banks being smaller than a year earlier. The reduction was 136 for national banks and 51 for State banks, a total of 187. Despite the decline in the number of banks, the total resources of both classes of member banks show increases for the year.

On December 31, 1924, the aggregate resources of all member banks were $38,987,000,000, the resources of national banks amounting to $24,369,000,000 and those of State member banks to $14,618,000,000. For the year resources of all member banks show an increase of nearly $3,800,000,000, of which about $2,000,000,000 was for national banks and $1,800,000,000 for member State banks and trust companies.

The decline in membership during the year was the net result of 171 additions and 359 losses, omitting from these figures compensating changes between national and State members which affected membership in the two classes of banks without changing membership in the system as a whole. These gains and losses to membership are classified in the following table, by class of member banks. Tables showing changes in membership, by Federal reserve districts, during the period 1919–1924, appear on pages 147–153.

Changes in Active Membership in the Federal Reserve System, December 31, 1923, to December 31, 1924

	Member banks			
	Number			Resources (in thousands)
	National	State	Total	
Active membership Dec. 31, 1923	8,179	1,595	9,774	$35,238,606
ADDITIONS TO MEMBERSHIP				
Primary organization of national banks	90		90	20,308
Conversion of nonmember banks to national	19		19	21,345
Admission of State banks		42	42	61,805
Resumption, following suspension	17	2	19	10,863
Conversion within the system[1]	6	3	1	
Total additions	132	47	171	114,321
LOSSES TO MEMBERSHIP				
Merger of member banks	65	18	83	
Absorption of member banks by nonmembers	44	7	51	42,304
Voluntary liquidation (terminal)	29	5	34	51,752
Withdrawal		26	26	66,879
Suspension or insolvency	127	36	163	146,892
Conversion within the system[1]	2	6		
Others, losses	1		1	1,347
Total losses	268	98	358	309,174
Net change during the year	−136	−51	−187	[2]+3,748,261
Active membership Dec. 31, 1924	8,043	1,544	9,587	38,986,867

[1] Compensating items, except for 1 member State bank which succeeded a national bank that did not report on Dec. 31, 1924, and was therefore not counted among losses in 1924.
[2] Includes, in addition to increases classified above, those due to growth and reorganizations.

BANKS ON PAR LIST

The following table shows the number of banks on the par list, that is, of banks which have agreed to pay without deductions for collection charges such checks drawn upon them as are presented by the Federal reserve banks in connection with the operation of the Federal reserve clearing system. The table also shows the number of banks not on par list. The number of banks on the par list on December 31, 1924, was 25,127, and included, in addition to the member banks, 15,445 nonmember banks. This total was 1,494 below that for the end of December, 1923, and 3,657 below that for December 15, 1920, when the number of par collecting banks was highest. The number of nonmember banks collecting at par was smaller at the end of December this year than last in all except the Boston, New York, Philadelphia, Cleveland, and Atlanta districts. It was larger than in December, 1920, only in the New York and Philadelphia districts.

NUMBER OF MEMBER AND NONMEMBER BANKS ON PAR LIST AND NOT ON PAR LIST, DECEMBER, 1924 AND 1923

Federal reserve district	Member banks						Nonmember banks[1]			
	Total		National		State		On par list		Not on par list	
	1924	1923	1924	1923	1924	1923	1924	1923	1924	1923
Boston	420	424	384	388	36	36	234	228		
New York	859	839	714	695	145	144	381	360		
Philadelphia	743	725	671	659	72	66	519	514		
Cleveland	872	880	753	762	119	118	1,075	1,071	10	5
Richmond	624	631	560	564	64	67	743	865	715	637
Atlanta	516	535	383	389	133	146	383	380	1,105	1,127
Chicago	1,419	1,435	1,059	1,064	360	371	3,927	4,105	218	114
St. Louis	628	630	495	501	133	129	2,225	2,373	332	233
Minneapolis	906	979	802	861	104	118	1,498	2,085	853	445
Kansas City	1,086	1,146	1,051	1,108	35	38	2,747	2,858	204	196
Dallas	838	863	655	670	183	193	862	958	153	95
San Francisco	771	809	586	611	185	198	851	928	57	44
System	9,682	9,896	8,113	8,272	1,569	1,624	15,445	16,725	3,647	2,896

[1] Incorporated banks other than mutual savings banks.

BANK SUSPENSIONS

During 1924 there were 759 bank suspensions reported to the Federal reserve banks. Of this number 595, or nearly 80 per cent, were nonmember banks and the remaining 164 were member banks, 129 of these being national banks and 35 State banks or trust companies. The capital and surplus of the suspended banks for which information was available (all member banks and all but four of the nonmember banks) aggregated $41,704,000. The capital and surplus of closed nonmember banks amounted to $24,636,000, or 59 per cent of the aggregate for all closed banks. The capital and surplus of the national banks amounted to $13,713,000 and that of the State banks and trust companies to $3,355,000. There were 39 banks, previously closed, which reopened during the year.

Although bank suspensions occurred in all except the Cleveland district, there were only seven in the Boston, New York, and Philadelphia districts combined as against 537 in the Chicago, Minneapolis, and Kansas City districts. The banks closed in the latter districts were equivalent to more than 70 per cent of the total number of suspensions and had capital and surplus amounting to 63 per cent of the total for all closed banks, while those in the eastern districts mentioned were less than 1 per cent of the total number and had capital and surplus of about 6 per cent of the total. The largest number of suspensions in any one district was 299 in the Minneapolis district. Although figures for closed banks represent, so far as could be determined, banks which were closed by order of supervisory authorities, it is not known how many of these institutions may ultimately prove to be solvent. Banking suspensions for the year are shown, by districts and by class of bank, in the following table:

BANKS CLOSED DURING 1924 [1]

Federal reserve district	All banks		Member banks		Nonmember banks (number) [2]
	Number [2]	Capital and surplus (in thousands of dollars)	National (number)	State (number)	
All districts	759	41,704	129	35	595
Boston	1	250	1		
New York	7	2,415	2		5
Philadelphia	1	79	1		
Cleveland					
Richmond	34	1,817	3	1	30
Atlanta	44	2,670	4	9	31
Chicago	104	6,461	6	10	88
St. Louis	55	2,600	1	2	52
Minneapolis	299	12,925	50	9	240
Kansas City	134	6,877	32	2	100
Dallas	52	3,908	19	2	31
San Francisco	28	1,702	10		18

[1] Includes all banks, incorporated and unincorporated, which were reported closed or insolvent during the year.
[2] Includes 3 nonmember banks in the Chicago district and 1 in the Richmond district for which no information regarding capital is available.

Suspensions were more numerous at the beginning of the year than during the summer and fall. During the first quarter of the year there were 302 closed banks, nearly half the total number for the year. Banks closed during 1924 are shown, by months, in the following table:

BANKS CLOSED DURING 1924, BY MONTHS [1]

	All banks	Member		Nonmember
		National	State	
1924				
Year	759	129	35	595
January	136	23	11	102
February	90	19	6	65
March	76	19	2	55
April	71	9		62
May	82	9		73
June	44	11	1	32
July	50	8	1	41
August	29	5	1	23
September	35	2		33
October	37	8	1	28
November	49	8	5	36
December	60	8	7	45

[1] Includes all banks, incorporated and unincorporated, which were reported closed or insolvent during the year.

CHECK CLEARING AND COLLECTION

Atlanta par clearance case.—During the year a new par clearance suit was instituted against the Federal Reserve Bank of Atlanta, the Federal reserve agent at Atlanta, and the Federal Reserve Board. This suit differs from the former par clearance cases in that it involves a national bank rather than a nonmember bank, and also raises certain questions dealing with check collection transactions which have not been adjudicated before. It is anticipated that a final decision in this case by the Supreme Court will go a long way toward settling the par clearance controversy. A brief statement of the case is given herewith.

On August 9 the Pascagoula National Bank of Moss Point, Miss., filed a bill of complaint in the United States District Court for the Northern District of Georgia against the Federal Reserve Bank of Atlanta, Joseph A. McCord as Federal reserve agent, and the Federal Reserve Board. In general, the bill charged the several defendants with having ignored and violated various provisions of the Federal reserve act, and prayed for an injunction against the Federal Reserve Bank of Atlanta which, if granted, would in effect—

(1) Require the Federal Reserve Bank of Atlanta to give immediate credit and availability to the plaintiff for all its deposits of checks and drafts drawn on other member banks in the Atlanta district, no matter at what distance from Atlanta the drawee bank may be;

(2) Permit the plaintiff to charge exchange on checks drawn upon it and presented for payment by or through the Federal reserve bank; and

(3) Prohibit the Federal reserve bank from handling checks for any banks other than its own members and, for its own members, any checks which are not payable within the Atlanta district.

The bill also asked that the Federal Reserve Board and Joseph A. McCord be enjoined from promulgating and enforcing the provisions of the board's Regulation J, and further asked for an accounting and recovery from the Federal reserve bank of the amounts of exchange charges and interest of which the plaintiff alleged it had been illegally deprived.

In response to this bill the Federal Reserve Board entered a special appearance solely for the purpose of pleading its exemption from the suit in the Northern District of Georgia and filed a motion to be dismissed from the suit on the ground that it is not an inhabitant of the Northern District of Georgia and, therefore, is not suable in that district without its consent, because of the provision of section 51 of the Judicial Code that "no civil suit shall be brought in any district court against any person by any original process or proceeding in any other district than that whereof he is an inhabitant."

On behalf of the Federal reserve bank and the Federal reserve agent, answers were filed showing cause why the relief prayed for in the bill should not be granted and also going into the merits of the case at some length.

Arguments on the board's motion to be dismissed from the suit and on the plaintiff's prayer for a preliminary injunction were heard by the court on October 2 and 3; and, at the conclusion of the argument, the court handed down an oral decision from the bench upholding both of defendant's contentions. Subsequently, brief written decrees were signed dismissing the board from the litigation and denying a preliminary injunction, but no written opinion was rendered by the court.

On December 15 the case was argued on its merits, and on December 29 the court rendered a decision holding that there was nothing unlawful in any of the acts of defendants complained of and authorizing a decree dismissing the bill. The court's decision, therefore, was a complete victory for the Federal reserve system.

The opinion of the court, which is published on pages 231–234, holds in effect that:

(1) The Federal reserve banks are not required to give depositing member banks immediate credit and availability for checks and drafts drawn on other member banks in the Atlanta district and are justified in refusing to permit the amount of said checks to be counted as reserves or to be withdrawn by check or otherwise until they actually have been collected;

(2) Under the terms of the so-called "Hardwick amendment" to section 13 of the Federal reserve act, member banks have not the right to make an "exchange charge" for remitting payment to a Federal reserve bank for checks drawn on themselves, although such checks are not the property of the Federal reserve bank but are handled for collection.

(3) That, under the terms of section 13 of the Federal reserve act, the authority of a Federal reserve bank to collect checks is not limited to checks sent to it by its own members and checks payable within the district of such Federal reserve bank; and, therefore, a Federal reserve bank may collect checks on its own member banks and nonmember clearing banks which come to it from other districts, and may handle checks payable on presentation sent to it by its member banks or nonmember clearing banks whether payable within its own district or not; and

(4) That the provision in the "Hardwick amendment" which has the effect of requiring member banks to pay without deduction checks drawn on them when presented by Federal reserve banks, whether paid over the counter or by the more convenient means of checks on their deposits elsewhere, does not deprive member banks of property without due process of law and, therefore, is not contrary to the fifth amendment to the Constitution.

The plaintiff has appealed the case directly to the Supreme Court of the United States, on the ground that it involves the constitutionality of an act of Congress.

Cleveland and San Francisco par clearance cases.—The preliminary aspects of the par clearance litigation affecting the Federal reserve banks of Cleveland and San Francisco are discussed in the board's annual report for 1922, where it was noted, among other things, that the Brookings State Bank of Brookings, Oreg., following its suit for an injunction against the Federal Reserve Bank of San Francisco, had brought an action for damages to compensate it for the loss alleged to have been occasioned it by the collection methods employed by the reserve bank. This damage suit has not yet reached a hearing on the merits and no further action has been taken with regard to the injunction proceedings.

In June, 1923, the Farmers & Merchants Bank of Catlettsburg, Ky., also followed its suit for injunction against the Federal Reserve Bank of Cleveland by bringing an action at law for compensatory and punitive money damages. This action was brought in the United States District Court for the Eastern District of Kentucky. The Federal reserve bank filed a special demurrer to the complaint objecting to the jurisdiction of that court over the defendant on the ground that the Federal Reserve Bank of Cleveland was an inhabitant of the Northern District of Ohio and, because of section 51 of the Judicial Code, could be sued only in the courts of that district. In March, 1924, the plaintiff brought a new action for damages against the Federal Reserve Bank of Cleveland in the United States District Court for the Northern District of Ohio. This action has not yet come to trial, and there are no important developments to report in connection with the injunction suit against the Cleveland Reserve Bank.

TRUST POWERS OF NATIONAL BANKS

During the year 1924 two important court decisions were handed down affecting the right of national banks to exercise trust powers. In the first of these cases, *State of Missouri ex rel Burnes National Bank* v. *Duncan*, 265 U. S. 17, the Supreme Court of the United States, in an opinion rendered April 28, 1924, upheld in all respects the right of national banks in Missouri to exercise trust powers. The court construed the grant of power contained in section 11 (k) of the Federal reserve act to mean "that whatever may be the State law, national banks having the permit of the Federal Reserve Board may act as executor if trust companies competing with them have that power," and further held that it was within the constitutional authority of Congress to confer upon national banks the right to act in fiduciary capacities, saying in this connection, "The State can not lay hold of its general control of administration to deprive national banks of their power to compete that Congress is authorized to sustain." The effect of this decision, therefore, is to establish conclusively the right of national banks to exercise trust powers in any State whose laws authorize or permit the exercise of similar powers by competing State institutions. The preliminary stages of this case, including the decision of the Supreme Court of Missouri which had denied the right of the Burnes National Bank to exercise trust powers, are discussed in the board's annual report for 1923 on page 55 and a footnote on that page records the fact that the decision of the Missouri Supreme Court was reversed by the United States Supreme Court The full texts of the opinions of both courts are also published in the 1923 report on pages 307 and 314. For convenience of reference, the opinion of the United States Supreme Court is republished in this report on pages 234–237.

In the board's annual report for 1922 a brief statement is made of a decision of the Supreme Court of Rhode Island which in effect denied the right of national banks in Rhode Island to exercise trust powers. This case, however, was not conclusive on this question, because the decision was based primarily on the ground that the State treasurer could not be compelled by mandamus to accept a tender of bonds from a national bank as security for the performance of its fiduciary functions. For this reason it was felt that the case was not a proper one in which to test out finally the right of national banks in Rhode Island to exercise trust powers and no appeal was taken from this decision. Subsequently, however, a proceeding was brought against the same national bank—the Aquidneck National Bank of Newport—by the Attorney General of the State of Rhode Island for the purpose of determining definitely the right of the national bank to continue to exercise trust powers in conformity with the provisions of section 11 (k) of the Federal reserve act. In an opinion rendered July 9, 1924, the Supreme Court of Rhode Island followed the decision of the United States Supreme Court in the Burnes National Bank case and held that in view of this authoritative construction of section 11 (k) of the Federal reserve act, national banks in Rhode Island may continue to exercise trust powers. The full text of the opinion of the Rhode Island Supreme Courts is published on pages 237–239.

Permits to exercise fiduciary powers.—During the past year the board has approved 154 original and 20 supplemental applications by national banks for permission to exercise fiduciary powers under the provisions of section 11 (k) of the Federal reserve act. The total number of banks holding permits to exercise trust powers on December 31, 1924, was 1,802, a list of which, with the powers granted, is published on pages 193–210.

ADMINISTRATION OF CLAYTON ACT

In each of the board's annual reports to Congress since 1921 attention has been called to the desirability of amending section 8 of the Clayton Act. After several years' experience in administering this provision of law the board has found that the present law is not adapted to carrying out the intention of Congress in regulating interlocking bank directorates. In its present form section 8 of the Clayton Act in operation often defeats the purpose for which it was enacted; it discriminates against national banks, and in many cases its enforcement results in unnecessary hardship to individuals and to the disadvantage of the banking and credit situation in certain communities. The board has repeatedly recommended the enactment of an amendment to the Clayton Act to overcome these defects.

During the closing weeks of the first session of the Sixty-eighth Congress two bills were introduced to amend section 8 of the Clayton Act—S. 3299 in the Senate on May 13, 1924, and H. R. 9344 in the House on May 20, 1924. The Senate bill proposed to amend it by the addition of a clause which would authorize the board to grant permits for interlocking directorates between a member bank and not more than two other banks if, in the board's judgment, no restriction of banking credit or lessening of interbank competition would result. The House bill proposed to redraft the so-called Kern amendment to section 8 of the Clayton Act in simpler form. This bill would have authorized the board to permit interlocking directorates between any three banks or trust companies if, in its judgment, it was not incompatible with the public interest, thus giving the board somewhat wider discretion than contemplated by the Senate bill and removing the requirement in the law as it now stands that one of the banks involved be a member bank. The fundamental purpose of both bills, however, was to give the board more latitude in the matter of permitting interlocking directorates and thus enable it to administer the Clayton Act more effectively and more nearly in harmony with the apparent purpose and intent of Congress in regulating interlocking directorates. The Senate bill was introduced at the board's request and the House bill with the board's approval. Both bills are reprinted in full on page 240. No action, however, was taken with regard to either of these bills and the first session of the Sixty-eighth Congress terminated without any amendment to the Clayton Act.

During the past year the board has received and considered 238 applications presented to it for permission to serve in interlocking directorates. It has also investigated 65 alleged violations of section 8 of the Clayton Act reported to it by the Comptroller of the Currency. Thirty-four of these were found to be actual violations of the law and the bank directors involved were required to comply with the law.

LEGISLATION AFFECTING THE FEDERAL RESERVE SYSTEM

During the past year no amendments were made to the Federal reserve act, but certain legislation affecting the operation of the Federal reserve system was passed.

By an act approved February 20, 1924, the life of the War Finance Corporation was extended until January 1, 1925, thus continuing the various functions performed by Federal reserve banks in connection with the operations of the War Finance Corporation.

Section 502 of the World War adjusted compensation act, enacted on May 19, 1924, authorizes Federal reserve banks, subject to regulations to be prescribed by the Federal Reserve Board, to rediscount for member or nonmember banks promissory notes of veterans secured by their adjusted service certificates and with maturities not in excess of nine months. The rate of interest for such rediscounts is fixed at the same rate as that charged for the discount of 90-day commercial paper. It is further provided that no such loan may be made to a veteran until after the expiration of two years after the date of his adjusted service certificate, so that Federal reserve banks will not be called upon for the present to rediscount this class of paper. The relevant portions of the World War adjusted compensation act are reprinted on page 240.

AMENDMENTS TO REGULATIONS OF FEDERAL RESERVE BOARD

Under date of August 15, 1924, the board published a new issue of all its regulations applicable to member banks. Earlier in the year Regulations H and J of the 1923 series had been materially amended and the prime purpose of the new issue was to provide a complete edition of all the board's regulations under one cover. The changes made in the regulations may be briefly summarized as follows:

Regulation A was amended so as to provide expressly for the rediscount of paper secured by bonds or notes of the War Finance Corporation, and also so as to require that whenever the makers of notes offered for rediscount have closely affiliated or subsidiary corporations or firms, separate financial statements of such corporations or firms must accompany the financial statement of the borrower which is required to be filed with the member bank under certain circumstances.

Regulation D was rewritten under a new title, "Reserves of member banks," and there was transferred to it that part of Regulation J which deals with penalties for deficiencies in reserves. Certain other material was also added to provide a more complete regulation on the subject of reserves.

Regulation H is in the form adopted on April 7, 1924. The principal change in the new regulation was the incorporation therein of various conditions of membership to which all banks thereafter becoming members of the Federal reserve system will be subject and of a statement of the principles which will govern the establishment of branches by State member banks and trust companies. The sections of this regulation were also rearranged with a view to greater clarity.

Regulation J is in the form adopted on May 9, 1924, except that the section which dealt with penalties for deficient reserves was transferred to Regulation D. Regulation J, series of 1924, supersedes the corresponding regulation of the 1920 series. It is completely rewritten and rearranged with a view to clarification and the incorporation of the principles governing the collection of checks laid down by the Supreme Court in the Atlanta and Richmond par clearance cases, decided in 1923. The terms upon which Federal reserve banks will handle checks are also prescribed with greater detail and precision so as to define more clearly the rights, duties, and liabilities of Federal reserve banks as collecting agents.

Regulation L was amended by the addition thereto of a new paragraph with reference to the burden of proving the absence of substantial competition in connection with applications for interlocking directorates under the Clayton Act.

No material changes were made in Regulations B, C, E, F, G, I, or K.

This issue of the board's regulations became effective on September 1, 1924, and the full text thereof is printed on pages 241–275.

MEETINGS OF FEDERAL ADVISORY COUNCIL

Four meetings of the Federal Advisory Council were held in Washington during 1924 on the following dates: February 19, May 13, September 25, and November 24.

CONFERENCES HELD BY THE FEDERAL RESERVE BOARD

The Federal Reserve Board, as usual, conferred with the Federal Advisory Council on the occasion of each of its meetings during the year.

The governors of the Federal reserve banks met in Washington on May 5–7 and the governors and chairmen of the Federal reserve banks conferred, separately and jointly, on November 10–14. At both conferences special sessions were held at which the board was in attendance.

ORGANIZATION, STAFF, AND EXPENDITURES

During the year 1924 there were several changes in the organization and staff of the Federal Reserve Board. Hon. D. R. Crissinger, whose term as governor of the Federal Reserve Board expired on

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April 30, and Hon. Edmund Platt, whose term as vice governor expired on August 10, were redesignated by the President.

Hon. Adolph C. Miller, of California, whose term of office as member of the board expired August 9, was reappointed for a term of 10 years.

On December 17 Hon. Henry M. Dawes resigned as Comptroller of the Currency and ex officio member of the board, and was succeeded on December 20 by Hon. J. W. McIntosh, of Illinois.

Mr. Morris Jacobson, statistician in the division of research and statistics, resigned on July 31. Later the office of statistician was discontinued and Mr. E. A. Goldenweiser, who had been serving as associate statistician, was appointed assistant director of the division of research and statistics.

On December 31 Mr. Edgar W. Freeman resigned as assistant counsel.

The total cost of conducting the work of the board during the year 1924 was $720,039.61.

Two assessments were levied against the Federal reserve banks aggregating $663,239.90, or approximately one-fifth of 1 per cent of their average paid-in capital and surplus for the year.

By direction of the Federal Reserve Board.

D. R. Crissinger, *Governor*.

The Speaker of the House of Representatives.