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The FEDERAL RESERVE BULLETIN is the Board's medium of communication with member banks of the Federal Reserve System and is the only official organ or periodical publication of the Board. It is printed in two editions, of which the first contains the regular official announcements, the national review of business conditions, and other general matter, and is distributed without charge to the member banks of the Federal Reserve System. Additional copies may be had at a subscription price of \$1.50 per annum.

The second edition contains detailed analyses of business conditions, special articles, review of foreign banking, and complete statistics showing the condition of Federal Reserve Banks. For this second edition the Board has fixed a subscription price of \$4 per annum to cover the cost of paper and printing. Single copies will be sold at 40 cents. Foreign postage should be added when it will be required. Remittances should be made to the Federal Reserve Board.

No complete sets of the BULLETIN for 1915, 1916, 1917, or 1918 are available.

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REVIEW OF THE MONTH.

Credit developments during the past month have further emphasized the fact that current

Business expansion and the reserve banks. Business expansion is being financed independently of reserve bank credit. In these circumstances, the weekly statement of the reserve banks is not indicative of changes in credit conditions. Changes in reserves, in earning assets, and in Federal reserve note circulation have been relatively slight since last summer and have not reflected the considerable growth in bank credit. The reserve ratio, as was pointed out last month in a discussion of the effect of gold imports on our credit situation, has at present little value as an indicator of credit movements. It was these gold imports that enabled member banks to meet the increased credit and currency demands of their customers without obtaining a corresponding amount of accommodation at the reserve banks. Thus, under immediately prevailing conditions, it is the changes in member bank loans and investments rather than any item in the reserve bank statement that roughly measure the rate of increase in the use of bank credit. This rate of growth for bank credit, compared with the rate of expansion for production and trade, affords, in the absence of such a test as the reserve ratio which is dependent upon free gold movement, an important indicator of changes in credit conditions. The fact that the recent growth of credit has been accompanied by a further increase in the physical volume of production is favorable evidence of the economic effectiveness of the credit in use.

Comparative stability in the volume of reserve bank credit while member bank credit increased has characterized credit develop-

ments during the past 15 months. Since the middle of 1922, when renewed demand for credit was first reflected in larger commercial loans, total loans and investments of member banks in leading cities have increased by \$1,300,000,000, while earning assets of the reserve banks have increased by less than \$100,000,000. At the present time the total of member bank credit is nearly as large as in 1920 and the volume of goods being produced and marketed exceeds the peak reached in that year, yet the volume of reserve bank credit is \$2,200,000,000 less.

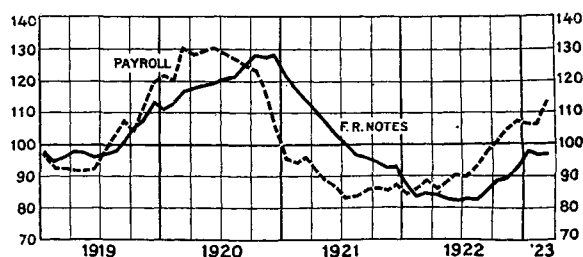
During the past two months Federal reserve note circulation has declined slightly and the growing demand for currency has been met by an increase in other forms of money in circulation. In fact, the total money in circulation is now \$242,000,000 larger than a year ago, while Federal reserve notes during this period have increased by only \$52,000,000 and Federal reserve bank notes have declined by \$58,000,000. Gold and gold certificates in circulation have increased by \$127,000,000, silver and silver certificates by \$100,000,000, national-bank notes by \$11,000,000, and United States notes by \$10,000,000. More than three-fifths of the year's increase in circulation occurred between February 1 and April 1 of this year. A part of this additional currency has been supplied out of the cash reserves of the reserve banks, which declined slightly during the past two months. But, like the additional demand for credit, the recent demand for additional currency has been met without substantial increase in the use of reserve bank credit.

While increases in other forms of money in circulation have largely supplied the recent demand for more currency, the fact is that the

present volume of currency is much less than in 1920, even though production, trade, employment, and member-bank credit are now at or near 1920 levels. On April 1, 1923, the total volume of money in circulation was nearly \$1,000,000,000 less than at its peak in November, 1920, and over \$600,000,000 less than on the corresponding date of 1920. Changes in the demand for hand-to-hand currency arise chiefly from the pocket-money and till-money requirements of retail trade, from pay-roll needs, and from the habit of accumulating and holding currency as savings. The volume of retail trade, taking the country as a whole, is approximately the same now as at this season in 1920, though retail prices are lower. In certain agricultural sections, however, where hand-to-hand currency is largely used and where business recovery has been slow and incomplete, the volume of business is still much below the 1920 level, and it is probable that in those sections there is a smaller demand for currency. There is also at present a much reduced amount of currency held as savings. The extent of such holdings depends less upon the current volume of employment than upon the duration of the period of full employment; in 1920 such holdings were doubtless at a record figure, since full-time employment and high wages had continued for several years. During the subsequent period of slack employment much of the currency held as savings was spent, and the present period of fuller employment has not yet continued long enough to result in similar accumulation.

Of the various fluctuating demands for currency the pay-roll requirement is probably the most important because it includes the seasonal demand at harvest time and because it influences other currency demands arising from retail trade and from savings. The accompanying chart shows for recent years the relation between the total pay roll of reporting industrial establishments in the State of New York, which may be taken as fairly representative of changes in factory pay rolls for the entire country, and the volume of Federal reserve notes in circulation. The range of

fluctuation in pay roll and in currency has been similar, though the changes in the volume of currency have lagged behind the changes in pay roll. The chart shows that while the pay roll increased since the beginning of 1922, it is still much lower than at the peak in 1920. This, taken together with the lower level of retail prices, is probably the most important single fact in accounting for the smaller volume of currency now in circulation. This lesser demand for currency, together with the gold imports which have supplied member banks with a basis for loans without additional borrowings from the reserve banks, accounts for



Pay roll of representative factories in New York State. Federal reserve note circulation of 12 Federal reserve banks combined—daily average figures by months. Relatives with 1919 monthly average as 100.

the present reduced volume of reserve bank credit compared with 1920.

If the relation between pay roll and Federal reserve notes which held during previous years continues, the rapid increase in the pay roll since the middle of 1922 will soon result in a substantial increase in demand for currency, and in order to secure the additional currency member banks will seek accommodation at the reserve banks.

The increased use of credit, which is reflected in the larger loans and investments of member

banks, but not in the earning assets of Federal reserve banks, has been primarily in response

to the increased volume of production. Thus far business expansion has been characterized by a rapid increase in the output of basic commodities. In fact, the growth in the physical volume of production since the middle of 1921 indicates a rate of industrial recovery almost without parallel in American business. Within a year and a half after recovery began the

monthly output of 21 basic commodities, as measured by the Federal Reserve Board's index of production, increased over 67 per cent. The volume of goods produced and consumed during the first quarter of 1923 probably exceeds that of any similar period in the history of the country. Fuller employment of equipment and of labor has produced the additional income from which profits and wages were realized. In fact, profits in many lines of industry have been dependent upon quantity production, the lower production cost per unit more than offsetting the increased cost of materials. It is partly in consequence of larger output that the prices of manufactured goods have not more fully reflected the increases in prices of raw materials. Larger pay rolls also until quite recently have resulted chiefly from increased employment rather than from advances in wage rates. These increases in production and employment have thus far economically justified the increases in the total volume of bank credit. For credit extension does not result in overexpansion so long as the additional credit yields proportionate results in the larger production and marketing of goods.

The current volume of wholesale and retail trade indicates that the goods now being produced are moving satisfactorily

Credit conditions, 1923 and into the channels of distribution. About 700 firms engaged in various lines of wholesale trade and representing practically all sections of the country are now reporting their monthly sales to the Federal reserve banks. Since the opening of the year the total volume of sales by these concerns has been about 18 per cent larger than during the corresponding period a year ago. In retail trade the sales of 306 department stores located in 100 cities throughout the country have also exceeded the sales of last year by 15 per cent. In March, 1923, sales of these stores were above the level of March, 1920, in spite of the lower retail prices now prevailing. Department-store sales are at present relatively higher in the industrial districts of the East than in the agricultural

sections of the South and West. The volume of merchandise buying in rural districts is further indicated by the sales of mail-order houses, which during recent months have been approximately 37 per cent above the sales of a year ago, though the present dollar volume of their buying is still much below the level of 1920.

The extent to which various sections of the country have shared in the current growth of business and credit may be shown in a general way by the changes in the volume of check payments and of member bank credit. For this purpose a comparison is made of the total volume of bank debits during the first quarter of 1923 with the corresponding period in 1920, and a comparison of the total loans and investments of member banks at the end of the year 1922 with similar figures for November, 1920. This comparison in the form of percentages, with 1920 figures taken as 100, is shown below, by Federal reserve districts.

Federal reserve district.	Check payments.	Member bank credit.	Federal reserve district.	Check payments.	Member bank credit.
	<i>Per cent.</i>	<i>Per cent.</i>		<i>Per cent.</i>	<i>Per cent.</i>
Boston.....	105.5	105.0	St. Louis.....	96.9	105.0
New York.....	99.6	99.2	Minneapolis.....	88.2	90.5
Philadelphia.....	100.6	101.4	Kansas City.....	81.6	87.5
Cleveland.....	97.8	105.4	Dallas.....	87.8	84.6
Richmond.....	85.6	96.4	San Francisco....	101.9	104.0
Atlanta.....	80.9	90.7			
Chicago.....	94.6	95.9	System.....	97.5	98.6

Both in volume of business and in bank credit the more recent figures, taking the country as a whole, show but a slight reduction compared with 1920. When considered by reserve districts there is a close correspondence in the changes since 1920 in credit and in business volume. With but few exceptions, business activity in the industrial East and on the Pacific coast either approximates or exceeds that of 1920 and has been accompanied by corresponding increases in credit. In marked contrast are conditions in the South and Middle West, where both business volume and bank credit are considerably below the 1920 level.

This regional comparison emphasizes the fact that, while the total volume of business

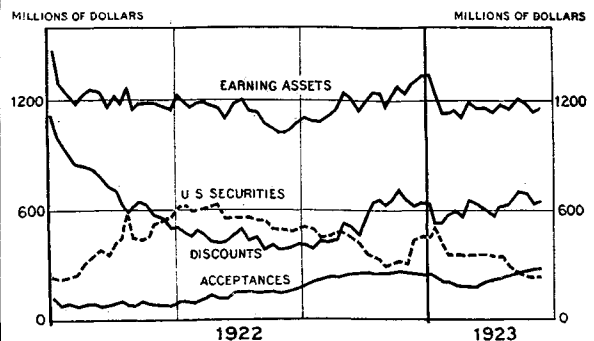
and bank credit is nearly as large as in 1920, there are important differences between the situation at that time and now. In 1920 credit expansion was more pronounced in agricultural than in industrial communities, while at the present time it is in the large cities that the volume of credit is relatively larger. Thus the reserve banks in the South and West in meeting the demands of their member banks in 1920 were obliged to rediscount large amounts with the banks in the industrial sections, while at present there are no interbank rediscounts and no Federal reserve bank approaches the limit of its lending capacity.

The lesser dependence of the member banks upon the reserve banks is reflected in the much smaller total volume of reserve bank earning assets and in the smaller proportion which paper discounted for member banks constitutes of that total. On October 15, 1920, of the total earning assets held by reserve banks, discounts for member banks constituted 81 per cent, while on April 18, 1923, the percentage was 58, and in the middle of 1922, when discounts were at low ebb, the percentage was as low as 35 per cent.

Total earning assets of the 12 Federal reserve banks combined measure the volume of reserve bank credit in actual use and are continuously in process of adjustment to the demand for such credit. It is this total rather than any single class of assets which indicates at a given time the extent to which reserve bank credit is being utilized as a basis of member bank credit and as a source of currency. The relationship between the open-market operations of the Federal reserve banks and the demand for discount accommodation on the part of the members has been brought out clearly by the experience of 1922 and the first quarter of 1923. The chart shows for each week in 1922 and in 1923 to date the volume of discounts, open-market purchases, and total earning assets.

Since the middle of January, 1923, the increase in discounts at reserve banks has been accompanied by a decline in holdings of open-

market purchases, with a consequent stability in the total volume of earning assets. This is in contrast to the situation in the early part of 1922, when member banks were rapidly liquidating their indebtedness at the reserve banks. At that time, also, the volume of earning assets remained relatively constant, because the decline in discounts was accompanied by a corresponding increase in the holdings of Government securities. Thus, for a period of more than a year the total of reserve bank credit has fluctuated around \$1,200,000,000 and has remained within a range of \$1,000,000,000 to \$1,350,000,000. During that period discounts have fluctuated between \$1,000,000,000 and



Weekly figures for 12 Federal reserve banks combined.

less than \$400,000,000, and Government security holdings between \$600,000,000 and \$225,000,000. Acceptances have shown an upward trend beginning with June, 1922, and recently have exceeded the Government security holdings. Thus, during the period covered by the chart, fluctuations in the volume of discounts and in the holdings of open-market purchases have offset each other and consequently have not resulted in corresponding changes in the total volume of reserve bank credit in use.

The relation between open-market purchases and discounts has not held true for reserve banks considered individually. There have been large purchases of Government securities by reserve banks in the interior without a corresponding decline in the discounts for their member banks. But the fact that for the 12 banks combined earning assets have

remained comparatively constant indicates that a corresponding liquidation has taken place at other reserve banks.

A recognition of the desirability of coordinating more closely the open-market operations of the several reserve banks led to a discussion of open-market policy at the recent conference of the Federal Reserve Board with the governors of the reserve banks. The Federal Reserve Board's position in the matter is indicated by the adoption of the following principle with respect to open-market investment operations of the Federal reserve banks: "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."

By providing that open-market investment operations are to be governed "with primary regard to the accommodation of commerce and business," the principle rests upon the same general considerations as those provided in the Federal reserve act for the determination of discount rates. Since in open-market operations the initiative can be taken by the reserve banks rather than by member banks, these operations may be used as a gauge of the degree of adjustment between the requirements for reserve-bank credit and the volume of it in actual use. The sale of an investment by a reserve bank is a means of testing the demand for credit by placing the initiative for and the cost of such credit directly upon borrowing member banks.

To what extent the member banks will be able to finance a further growth of business without additional accommodation from the reserve banks depends mainly upon the size of gold imports in the immediate future and the further possibilities of shifting from investments and loans on securities to loans for commercial and industrial purposes. Gold imports have recently been small, the net imports for February being \$7,000,000 and for March, \$5,500,000, com-

pared with a monthly average of \$20,000,000 for 1922 and of \$55,000,000 in 1921. If the gold movement continues at the present reduced scale, the imported gold will not be sufficient to form a basis for any considerable increase in credit extension by member banks and also to meet a growth in the demand for currency. Furthermore, while member banks since the opening of the year have been able in part to increase their loans for commercial purposes by the use of funds withdrawn from investments and from loans on securities, the extent of such transfer is limited since the sale of securities in excess of current savings indirectly leads to a demand for bank credit. Since the opening of the year the monthly rate of growth in commercial loans at member banks in leading cities has been nearly 2 per cent. A continuance of this credit trend must soon result in increased borrowings by member banks at the reserve banks.

The relation between the expansion of bank credit and the expansion of business, as well as the responsibility of the banking community for the economic use of credit, is clearly set forth in a recent report of a committee on unemployment and business cycles, appointed by Secretary Herbert Hoover, as chairman of the President's Conference on Unemployment, held in September, 1921. The report states: "Expansion of bank credit is a necessary condition of expansion of business operations. * * * But an overexpansion of credit may so increase the purchasing power of business men that it will merely result in enabling them to bid against one another for limited supplies of goods and materials so as to force prices above what consumers are willing and able to pay. Bank credit often expands so rapidly that it lifts the buying or investment power of business men out of line with the general buying power of the community. Because of their strategic position the banks have an unusual duty and an exceptional opportunity to give sound information and counsel to business men. * * * While the relationship between the volume of credit and

the volume of business and the movement of prices is not always simple to interpret, it appears to be sufficiently close to make it a matter of first importance that the volume and the flow of credit should at all times be tested by the contribution which additions to the volume of credit make to the total of economic production. Additions to credit which can not be economically validated by a commensurate effect in actual production are speculative, and as such should be subjected to control, so that business and industry can be maintained in a healthy state."

The present lending capacity of the country's banking system, in view of the great growth of the reserves at the reserve banks, is now far in excess of the credit needs of the country's productive capacity. In such a situation it is the available supplies of labor and equipment and not the potential supply of credit that in the end must fix the limit which may be attained by aggregate national production. As these limits are approached credit policy must be increasingly influenced by careful consideration of the continued effectiveness of further additions to the total volume of credit in contributing to increased productivity.

NOTES.

Minutes of 1920 conference with Class A directors.

A stenographic transcript of the conference held by the Federal Reserve Board with the Federal Advisory Council and the Class A directors of the Federal reserve banks on May 18, 1920, has been issued as a Senate Docu-

ment (No. 310, 67th Cong., 4th sess.). Copies may be obtained from the Superintendent of Documents, Government Printing Office.

Report of committee on business cycles and unemployment.

The committee appointed by Secretary Hoover, as chairman of the Conference on Unemployment, which met in Washington in September, 1921, has recently submitted its report and recommendations. This report has been published with a foreword by Secretary Hoover, and copies may be obtained from the Superintendent of Documents, Government Printing Office.

Congress of International Chamber of Commerce.

The Second Congress of the International Chamber of Commerce was held at Rome, Italy, between March 17 and 25. In addition to discussing questions of industry and trade and transportation, the Congress dealt with the following important financial topics: Reparations, interallied debts, Government budgets and inflation, international credits, foreign exchange, and stabilization.

Federal intermediate credit banks.

Under the authority of the agricultural credits act of 1923, the 12 Federal intermediate credit banks, each with an initial paid-in capital of \$1,000,000, have been chartered and were formally opened for business on May 1. These banks are located in the cities in which the Federal land banks are located and, like the latter, are under the supervision of the Federal Farm Loan Board.

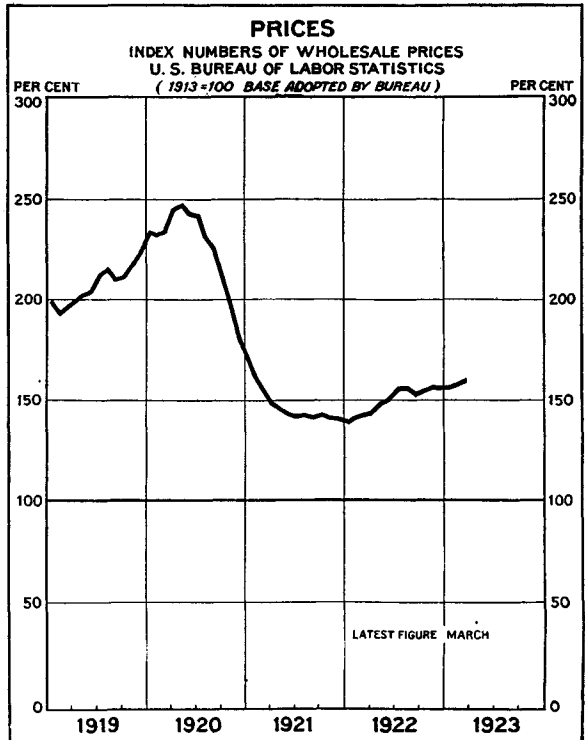
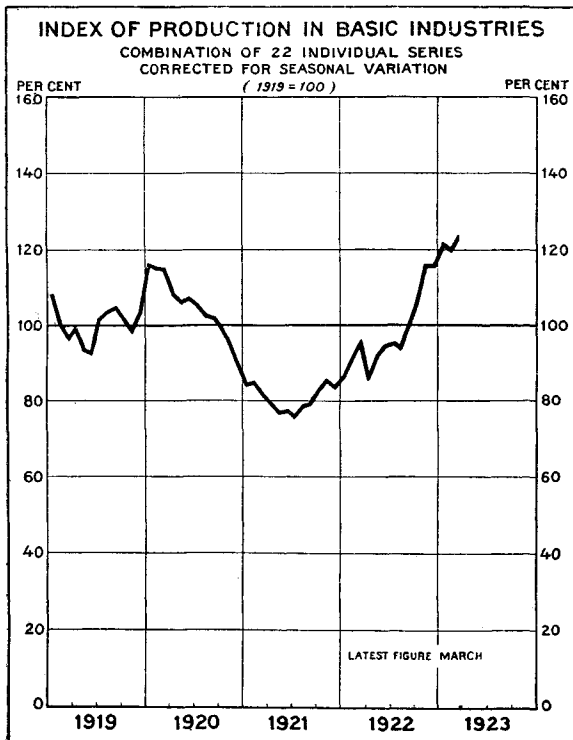
BUSINESS CONDITIONS IN THE UNITED STATES.

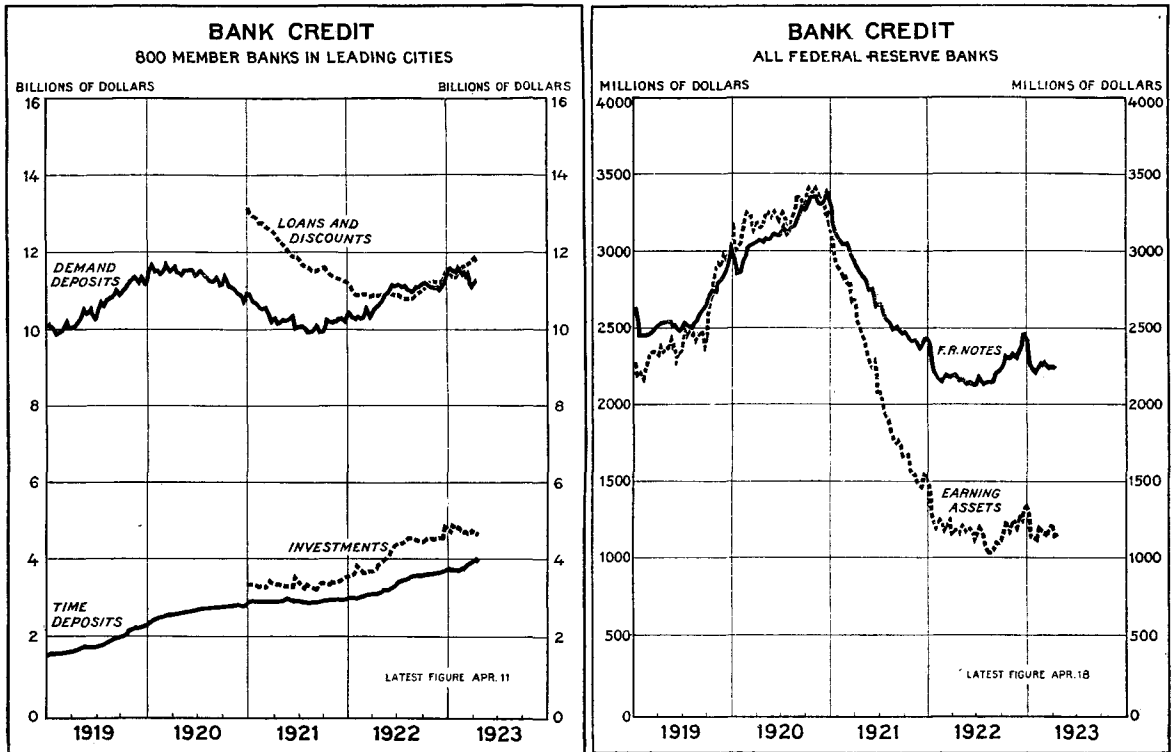
Further increases in the production of basic commodities, in wholesale prices, employment, wage rates, and wholesale and retail trade took place in March.

Production.—Production in basic industries, according to the Federal Reserve Board's index, increased 4 per cent in March to a level 8 per cent higher than at the 1920 peak and 69 per cent above the low point of 1921. The output of pig iron, steel ingots, automobiles, and crude petroleum, and the mill consumption of cotton exceeded all previously reported monthly totals. Building operations showed a further large expansion, and the value of contracts let for residences in March was the highest on record. Railroad freight shipments have been larger every week this year than in the corresponding weeks of the past four years. Car shortage has been reduced to the lowest point since September, chiefly as a result of the addition of new equipment, a decrease in the number of bad-order locomotives and cars, and a concerted effort to increase the average loadings.

Employment in the building trades and in many lines of manufacturing continued to increase in the Eastern States. The surplus of unskilled labor in the West reported in earlier months is being gradually absorbed by the seasonal increase in farm work. A number of leading textile mills, steel mills, and packing plants announced general wage advances ranging between 11 and 12½ per cent, and numerous wage advances in other industries also were reported.

Trade.—March sales by department stores reporting to Federal reserve banks were 22 per cent above those of March a year ago, partly because Easter purchases were made in March this year, whereas last year such purchases were largely deferred until April. Stocks of goods held by department stores were 6 per cent larger than those held a year ago, but this increase





was not as large as the increase in sales, and hence the rate of stock turnover has been somewhat more rapid. Sales of mail-order houses were larger than for any month since November, 1920, and 35 per cent larger than in March, 1922. Wholesale trade in all reporting lines was larger than in March a year ago.

Wholesale prices.—Wholesale prices, as measured by the Bureau of Labor Statistics index, advanced 1.2 per cent during March and were 15 per cent above the low point of January, 1922. As in recent months, the prices of metals and building materials showed the greatest increases, while fuel prices showed a further decline from recent high levels. Compared with a year ago, metals were 37 per cent and building materials 28 per cent higher. The cost of living increased slightly more than 1 per cent during March to a level of 3 per cent higher than a year ago.

Bank credit.—During the month prior to April 11 a more moderate growth in the demand for credit from member banks in leading cities resulted in an increase of about \$48,000,000 in their loans made largely for commercial purposes, as compared with an increase of \$235,000,000 in the preceding month. Through withdrawal of funds from investments and a further inflow of gold, member banks have been able to meet demands of their customers for increased credit and currency independently of the reserve banks.

Consequently, the total volume of Federal reserve bank credit, as measured by total earning assets, has remained relatively constant during the past month, and, in fact, since the seasonal liquidation at the turn of the year. The volume of Federal reserve notes in circulation has also changed but little, as the larger demand for hand-to-hand money has been met chiefly by an increase in other forms of money in circulation.

There has been little change in money rates from those prevailing in March.

AGRICULTURE.

During the early weeks of March weather conditions were generally favorable in the agricultural and live-stock sections of the country. Crops made considerable progress after having been retarded by unsatisfactory weather conditions in February. However, the later weeks in March and the early periods of April were accompanied by excessive precipitation and abnormally cold weather, both of which were retarding factors in all Federal reserve districts. Due to these conditions little advancement was made during the early weeks of spring, but as the winter was extremely favorable for both winter growing crops and the preparations for spring plantings, farm progress is only slightly delayed as compared with the corresponding period one year ago. Spring seedings of small grains have been delayed in sections of the Chicago, St. Louis, and Kansas City districts, but the weather was not generally unfavorable for outdoor work. The truck season is gradually extending northward, although plantings were somewhat retarded in the districts of St. Louis, Richmond, and Philadelphia. In the Carolinas and sections of the Atlanta district truck crops made considerable progress, but in some sections they were somewhat damaged by the low temperatures and late frosts in the early weeks of April. The continued industrial expansion has attracted agricultural labor from the farms in all Federal reserve districts, but the shortage of farm labor is greatest in the industrial districts of Boston, Philadelphia, Cleveland, and Chicago. According to estimates by the Department of Agriculture, on April 1 the supply of farm labor was sufficient to provide for only 88.4 per cent of the demand.

Prices of principal agricultural products continued their upward movement in March, increasing slightly more than 3 per cent, but were approximately 20 per cent higher on April 1 than on the same date one year ago. The principal crops of the United States, with the exception of potatoes, which decreased in value in 1922, showed increases in value over 1921. The values and relative importance of the leading crops are shown in the following table:

VALUE OF PRINCIPAL CROPS.

	1922	1921
Corn.....	\$1,900,000,000	\$1,302,670,000
Cotton (lint and seed).....	1,370,000,000	751,905,000
Hay (tame and wild).....	1,332,000,000	1,090,776,000
Wheat.....	864,000,000	737,068,000
Oats.....	479,000,000	321,540,000
Tobacco.....	306,000,000	213,846,000
Potatoes.....	265,000,000	398,000,000
Apples.....	202,000,000	167,631,000

According to reports by the Department of Agriculture of the intended plantings in 1923 of the principal spring crops, increases in acreage as compared with the previous year are noted for all crops except spring wheat and Irish and sweet potatoes. The increases vary from 26 per cent for corn and oats to 89 per cent for flax.

Grain.

While weather conditions have been generally unfavorable to the progress of the growing grain crops, the movement of grain to market showed improvement over the preceding month. In some sections, however, receipts at primary markets were somewhat retarded on account of the unseasonal weather. The movement of grain during March, as indicated by receipts of all grains at 17 interior centers, amounted to 74,078,000 bushels, a decrease of 2,924,000 bushels over February and an increase of 21,000 bushels over March one year ago. Increases were noted in all grains except corn and rye, where seasonal declines were evident.

After having been almost dormant during the winter, export demands for wheat were more active during the early weeks of spring, but American wheat in the export markets of the world is still higher than that from other grain-producing countries, a factor which is unfavorable to American exporters.

According to estimates by the Department of Agriculture, as indicated by the condition report on April 1, the production of winter wheat will be 572,317,000 bushels, as compared with the estimated production of 586,204,000 bushels in 1922, and 600,316,000 bushels in 1921. The condition of winter wheat was lower on April 1 than on December 1, 1922, or April 1,

1922, and considerably lower than the 10-year average on April 1. The detailed figures are given in the following table:

CONDITIONS OF WINTER WHEAT AND RYE IN THE UNITED STATES.

	April 1.		10-year average.	December 1, 1922.
	1923	1922		
Winter wheat.....	75.2	78.4	84.1	79.5
Rye.....	81.8	89.0	88.6	84.3

Cotton.

The weather during March and the early weeks in April was instrumental in retarding advancement in the cotton crop. Winter plowing and early preparation, combined with a few favorable days in early March, induced considerable early planting in the southern sections of the Atlanta and Dallas districts, but the cold waves occurring in the later weeks of March and early April delayed further plantings and killed considerable amounts of the early planted crop. Dry warm weather following the middle of April enabled work and seeding to be carried forward and the early plants to progress. In the Richmond district the planters are not discouraged over the lateness of the crop, as the cold weather has delayed the emergence of the boll weevil from its hibernation. Efforts are being made to concentrate on intensive cultivation on a moderate acreage. Planting has advanced rapidly in the districts of Atlanta and St. Louis, while in the Dallas district seeding has been practically completed and in many localities the young plants have been growing nicely since the temporary setback caused by the low temperatures. In the cotton areas of the San Francisco district increased planting is reported, and the increases have been made largely in medium staple cotton, partly because of the greater market prevailing for this cotton and because of larger profits realized for its culture than for American-Egyptian or Pima cotton.

The movement of the old cotton crop to market generally declines during the spring months, but sight receipts during March were larger than those in February, though less than in March one year ago. Likewise, spinners' takings increased in March over the previous month and the corresponding month in 1922. Stocks at mills and warehouses decreased from 4,826,000 bales in February to 4,413,000 bales in March and were 896,000 bales less than in

March, 1922. Stocks in consuming establishments continued greater in March than in the corresponding month a year ago, but stocks in warehouses were less, accounting for the decrease in total stocks at mills and warehouses. Exports during March were 140,000 bales less than during the corresponding month in 1922, and likewise total exports for the season were considerably lower than for the previous season, amounting to 4,057,000 bales, as compared with 4,384,000 bales one year ago. Upland spot cotton prices have undergone considerable reactions since the high figure of 31.30 cents reached in New York on March 17. The market has fluctuated around .30 cents, but the low figure of 27.60 cents was reached on April 20.

Tobacco.

The marketing of last year's tobacco crop has been practically completed, and many markets in the bright tobacco sections have closed. The dark markets will close during April. During the closing months of the season much tobacco of lower quality was handled in the markets, and the prices were somewhat lower. The average price received by the growers in the Virginia markets in March for bright tobacco was \$23.50 per hundred pounds, compared with \$26.17 per hundred in February and \$8.35 in March, 1922. Dark tobacco prices were also lower than in February, but remained higher than in March a year ago. The tobacco season has been successful from the standpoint of the growers, as the crop was larger and higher prices were received for the product, yielding the producers greater returns than in 1921. Up to April 1 the tobacco sold in the Virginia markets, including the receipts of the Tobacco Growers' Cooperative Association, amounted to 160,918,000 pounds, compared with 96,634,000 in the 1921-22 season. In the tobacco districts of Cleveland and St. Louis approximately 250,000,000 pounds of burley tobacco were sold by the growers, and the marketing season is nearing a close. Cooperative marketing associations functioned in most of the tobacco sections during the past season, and reports indicate that they have been very successful, despite the fact that many of them were recently organized and operated for the first time. In the Richmond district tobacco beds have been prepared and some plants are up. Transplanting is being done in the southern sections of the district. Cold weather has delayed transplanting in some sections of the St. Louis district, but with mild

weather in April the young plants will develop rapidly, and transplanting will be completed with but little delay.

Owing to the greater number of working days in March than in February, production of all tobacco products increased as compared with the preceding month, but only large cigars were produced in greater quantities than in January. Output of large cigars and cigarettes increased, as compared with March, 1922, but small cigars and manufactured tobacco decreased. In the Philadelphia district the demand for cigars improved during the early weeks of April, after a dull season lasting for several months. Cigar manufacturers report that the demand for their products is greater than in the corresponding period one year ago. The average of the operations of the district is approximately 80 to 85 per cent of capacity, although some small factories are operating at near capacity. Prices of cigars have remained firm and unchanged, while tobacco leaf prices are advancing slightly.

Fruit.

The early fruit crops in the Richmond, Atlanta, St. Louis, and Dallas districts were damaged by the cold and unsettled weather in March. In the Atlanta and Dallas districts the greatest damage was apparent in the peach sections, and estimates are approximately 50 per cent for Dallas and 37 per cent for Georgia. Losses in the St. Louis district were greater in the small fruit areas. In the fruit sections of the Philadelphia and Cleveland districts damages were less pronounced, as the season is later. Recent rains in Florida were beneficial to the citrus fruit groves, which are in bloom in all sections. A shortage of refrigerator cars was a retarding factor in the movement of both oranges and grapefruit during March, but the shipments were greater than in March, 1922, and the season's shipments of oranges and grapefruit were 34,414 cars, as compared with 28,053 cars during the previous season. Approximately 2,000,000 boxes of grapefruit and 15 per cent of the orange crop remained at the end of March in the State. In the San Francisco district stocks of apples were more than three times as large as they were at the same date a year ago. Apples that remained in storage amounted to 5,286 cars, as compared with 1,521 cars last year. Prices paid to growers continued downward and are approximately 4.4 per cent lower than they were a year ago. Shipments of oranges since Novem-

ber 1 were 20,529 cars, as compared with 19,113 in the corresponding season one year ago. Lemon shipments were slightly smaller than during the preceding season. Estimates of the final yield of the orange crop are 9,516,000 boxes. The lemon crop is estimated to be slightly in excess of 4,000,000 boxes. On account of cold weather which persisted in the eastern markets and a sluggish foreign demand, markets for California citrus fruits were depressed during March, and prices received by orange growers were approximately 46 per cent below prices received in March, 1922.

Live stock.

During March the marketing of live stock continued the downward movement which began in November. Although March contained more business days than February, the total receipts of all live stock were smaller than in February, but greater than in March, 1922. Slight increases were noted for all stock as compared with February, except sheep, which declined more than 40 per cent. Receipts of cattle, calves, and sheep were smaller than in March, 1922, but hogs, horses, and mules were greater. Detail figures for March, 1923, February, 1923, and March, 1922, are given in the table on page 170.

Live-stock prices during March showed slight changes from the preceding month. Prices for hogs increased; cattle remained fairly steady and lambs declined.

Although the cold waves in March were somewhat unfavorable to young pigs and lambs in sections of the Kansas City district, ranges and pastures were generally unaffected. Warmer weather, accompanied by rains in April, invigorated the grass, and sheep and cattle are beginning to show improvement. In the Dallas district grazing conditions have reacted well to the warmer weather and abundant precipitation occurring in April. Both live stock and ranges were in satisfactory condition. In the San Francisco district much of the damage suffered by pastures and ranges during the drought of February and March was repaired by the rains of early April. Lambing has been practically completed in California and Arizona and is progressing rapidly in the northern States of the district. Shipments of spring lambs from California and Arizona to both local and eastern markets increased during March, and the peak of the movement is expected in May.

MINING.

Coal.

Mine output of anthracite coal and manufacture of coke reached very high levels in March, while daily average production of bituminous coal has shown a slight downward-tendency, and in the week ending April 21 reached the lowest level for the current year. This decrease in bituminous-coal production has followed a steady decline in prices since last summer, which has reduced the average price of soft coal by one-half. Shortage of shipping facilities is still claimed as the main check on production by fields in Pennsylvania, West Virginia, and Kentucky, but all the more western fields complain of lack of demand. The Philadelphia district reports the closing of some high-cost mines, while active demand is confined to steel and certain other industrial plants. Railroads and public utilities are buying cautiously. Commercial stocks of bituminous coal amounted to 36,000,000 tons on March 1, which was 2,000,000 tons less than on February 1.

Sales and shipments of domestic sizes of anthracite coal continued to be heavy in March and the first half of April. Production amounted to 9,382,000 tons, which was 21 per cent larger than in February and the largest monthly total during the past five years. Prices of steam sizes of anthracite are declining, as they are compelled to compete with bituminous coal. Coke prices also declined during April, the range for Connellsville furnace being from \$6 to \$7 on April 19, as compared with \$7.50 to \$8 on March 29. Output of by-product coke reached a new maximum rate in March, while beehive production was the largest since September, 1920.

Petroleum.

Crude petroleum output continues to break previous records and to exceed consumption by a substantial margin. The increase in stocks of both crude and refined products resulted late in March in a series of price reductions. Declines in crude-oil prices have been announced by a number of producers, but they have as yet been small when compared with the rapid rise earlier in the year. The output of heavy crude in California has been particularly great, and shipments of this oil to the East are more than sufficient to take care of the reduction in the imports of Mexican oils. The markets for refined products have likewise been weak, and some tank-wagon prices of gasoline have been reduced.

Both the total and the average daily output of crude petroleum during March exceeded that for all previous months. The number of new wells completed totaled 1,248, as compared with 1,094 during February. The daily average production in the Dallas Federal reserve district was below that for February, but the number of new wells completed was larger in both the Kansas City and Dallas districts. The increase in the daily rate of output during March for the country as a whole was chiefly due to the greater production in California fields, where there was an increase of 7 per cent over the February daily output.

Metals.

Mine output of all nonferrous metals in March reached the highest level since 1919. This was followed by a moderate reaction in prices during April, but prices of copper and lead are still substantially higher than at the beginning of 1923. An important factor in the mining situation during the past two months has been the approach of the termination of the Government purchases of silver. As the United States has now purchased at the fixed price of \$1 an ounce most of the silver for which provision was made by the Pittman Act, and the market price of silver is only 67 cents per ounce, the silver mines have accelerated their operations in order to market as much as possible at the former price. This resulted in a production of 6,110,000 ounces in March, an increase of 29 per cent.

Copper production in March totaled 122,194,000 pounds, which was about twice as large as that a year ago and the highest monthly total since January, 1919. The price of refined copper reached a maximum on March 22, and has receded about one-half a cent in the past month. This decline in price has been accompanied by a marked decrease in orders booked, but this seems a natural reaction from the heavy wave of buying during the first quarter of the year. Shipments to domestic and foreign consumers during those three months amounted to about 600,000,000 pounds, which was considerably in excess of domestic production and imports.

The price of zinc at St. Louis receded more sharply than the copper price during the first three weeks of April, but lead prices showed only a slight tendency to soften. Zinc production increased 15 per cent over February, while the output of lead increased 16 per cent. Shipments of zinc were larger than production, which resulted in a decline of stocks to about

six days' supply at the current rate of consumption. Operations in the Joplin district reached record proportions in March, and much prospecting has been done in search for additional lead ores.

MANUFACTURES.

Food products.

Production of wheat flour during March increased over the preceding month and over the corresponding month in 1922, amounting to 10,607,000 barrels, the highest March output on record. The increase was 1,182,000 barrels over February and 949,000 barrels over March, 1922. Activity in the milling industry varied from 45 per cent of capacity in the Chicago district to 59 per cent of capacity in the Kansas City district, as compared with 52 per cent and 67 per cent in the respective districts in March, 1922. The domestic flour market during March was again characterized by the inactivity which has been prevailing in the trade for several months. Increased production, accompanied by small shipments, caused increases in stocks on hand as compared with the same date last year in most districts from which reports were received. Little export demand was evident during March, but the upturn in the wheat market during the early weeks of April resulted in increased domestic and foreign trade.

Meat-packing activities, as indicated by the number of animals slaughtered under Federal inspection, increased during March as compared with February, but decreased slightly from the high points reached in December and January, when the greatest number since December, 1919, were slaughtered. The number of animals slaughtered in March was 6,871,000, compared with 5,997,000 in February, 7,252,000 in January, and 5,243,000 in March, 1922. Sales by 45 meat-packing companies reporting to the Chicago Federal Reserve Bank showed a seasonal decline during March and were 3.7 per cent less than in February, but were 5.4 per cent greater than in March a year ago. Since the lenten season improvement has been noted in the domestic trade, but European demand tended to slacken after the middle of March. Lard and fats, however, continued to go abroad in volume about equal to that of February and January. Meat exports have shown a downward trend since the war, and the volume of meat exported in 1922 only totaled 1,785,967,000 pounds, as compared with 1,945,610,000 pounds in 1921.

Textiles.

Although buying of textile products fell off to some extent during March and early April, productive activity continued unabated for the purpose of filling orders booked earlier in the year. Many plants were running overtime and new production records were established. The upward movement of prices proceeded at a slower rate and some recessions occurred. Wage increases have been announced in practically all branches of the industry, and reports of labor shortages are common.

In cotton textile manufacturing, production, as measured both by the consumption of raw cotton and by the number of active spindles, was the largest ever recorded. Dullness generally prevailed in the Philadelphia cotton-yarn market in March and April, owing to the fact that customers had previously covered their requirements and were awaiting further developments in the raw-cotton market. Carded yarns, after holding firm for several weeks, declined in price during the second week in April. Yarn manufacturers reporting to the Federal Reserve Bank of Atlanta gave statistical evidence of continued good business during March, as shown by increases in production, shipments, and orders, but stated that the market had become rather dull. The weakness in raw cotton also affected the goods market in Philadelphia, but demand continued to be fairly good. Manufacturers of cloth in the Atlanta district reported declines in shipments and orders as compared with February, but production was well maintained. The industry in the Richmond district continued full-time operations, but a distinct falling off in orders was noted in March and early April. Finishers of cotton fabrics throughout the country reported rather substantial increases in business during March as compared with February. The rise in prices of cotton goods, which had continued steadily since last summer, was checked during the latter part of March, and in April all of the gray cloth markets eased off some.

In the woolen industry, plants operated during March about 90 per cent of all machinery in place, and many establishments were running overtime during March and April. Worsteds spindle hours active, for example, totaled in March over 100 per cent of maximum single-shift capacity. All of the woolen and worsteds machinery has not been so active at the same time since early in 1920. Consumption of raw wool was over 10 per cent greater in March

than in February. The buying season for heavyweight men's wear is now practically over and sufficient orders were taken to insure operations for some months to come. Many orders had to be limited in size. High-grade worsteds were in greatest demand, and the call for overcoatings was particularly heavy this year. The trend of prices is upward, under the influence of higher raw material costs and advancing wages. The worsted yarn market is rather dull now, as weavers have practically covered their requirements, but yarn prices have been stronger. The raw-wool clip in the West is now being marketed, and some large clips have been contracted for at about 50 cents a pound, as compared with 40 cents last year. A better demand for fine wools is developing in all markets.

Although deliveries of silk to mills during March were the smallest since December, mill operations continued at a fairly high rate of activity. Plants are still operating at considerably under capacity—about 70 per cent in Pennsylvania and above 60 per cent in the Paterson and North Hudson section, but they are much more active than they were a year ago. Ribbon looms are less active than the others. Monthly sales, according to reports received by the Philadelphia Federal Reserve Bank, are running in many cases 100 per cent of those at this time last year, and from 30 to 50 per cent of the orders are for future delivery. Raw-silk prices during April reached the highest point since January, 1920. As a result, manufacturers have curtailed purchases of raw materials and the market has become inactive. Despite reduced takings by mills during March, stocks of raw silk fell off during that month and reached the lowest figure since October 1. March imports were smaller than those of any month since last July.

Fall lines of clothing were opened by the leading manufacturers during March and April at prices generally higher than those prevailing at the last opening. Rough comparisons indicate that the new prices are about equal to those of 1921, are under the maximum quotations of 1920 by about 40 per cent, and exceed those of all previous years. The advance over last year reflects higher cloth prices and recent increases in wage rates. The demand for overcoats, so far as can be determined this early, is excellent. According to the Federal Reserve Bank of Philadelphia, manufacturers in that district are operating their plants at about 84 per cent of capacity. In April they were engaged chiefly in filling late orders for spring suits. Whole-

sale clothing dealers in the New York Federal reserve district reported substantial increases in sales during March as compared with February. Women's clothing sales were 13 per cent above sales for last March and those of men's clothing increased 52 per cent in the same period. Tailors to the trade in the Chicago district report that March business was 90 per cent above that of February and 50 per cent above March, 1922.

Knit-underwear production during March was well above the February output, but considerably below that of last March. Shipments and new orders received were likewise greater than the corresponding figures for February, but as shipments exceeded orders, the volume of unfilled orders fell off during the month. Although production was less than during last March, shipments and unfilled orders were somewhat larger. Production of summer underwear showed a greater increase than did the output of the heavy-weight garments, and according to reports from mills in the Philadelphia Federal reserve district, orders for winter underwear fell off substantially during the month, whereas purchases of summer garments increased. Manufacturers in the Philadelphia district reported that a considerable majority of orders for next fall have been booked, and the demand was so heavy that in some cases allotments were necessary. Prices are now higher than those prevailing at the opening of the season.

Conditions in the hosiery industry are somewhat spotty and demand is good for only certain grades. The call for full-fashioned silk hosiery is poor and the mixtures of wool, silk, fiber, and the like are less active. Cotton hosiery, however, is in excellent demand, according to reports from manufacturers in the Atlanta Federal reserve district, and statistics of orders, shipments, and production during March were well above corresponding figures for February and for last March. In the Philadelphia district, also, increases in these items were reported, but they were relatively smaller than for the southern mills.

Iron and steel.

Demand for both pig iron and steel products has been quieter during April than in the earlier months of 1923. The price composite of the Iron Trade Review, however, continued to advance slightly each week and was 4 per cent higher on April 19 than on March 22. Most of the advances were in the prices of finished steel products. Pig iron, however, was firm in spite

of a considerable reduction in the price of coke. Railroads, automobile companies, and building contractors have continued to be the most important purchasers of steel, and large future orders for rails, plates, and structural shapes have accumulated. In fact, manufacturers of sheets and plates in the Philadelphia district will only accept certain orders at the present time, and most mills are unable to handle further rail tonnage. Premiums are now paid for early delivery on almost all products. Unfilled orders of the United States Steel Corporation increased 119,343 tons during March and amounted to 7,403,332 tons at the end of the month.

Output of pig iron and of steel ingots both reached maximum levels in March. Pig-iron production totaled 3,521,000 tons, an increase of 18 per cent over February, while steel-ingot production aggregated 3,402,000 tons, which was 17 per cent higher than in February and 1.5 per cent above the record output of October, 1918. Additional blast furnaces have been blown in during April, and an increase of 11 per cent in wages has been announced by all leading companies in order to maintain the size of their forces and the present high level of production.

Automobiles.

Automobile production in March was much the largest of any month on record. The output of passenger cars totaled 319,527, which was 23 per cent larger than in February and 22 per cent more than in June, 1922, the month of largest output in the past. Truck production also reached a new high level and aggregated 34,063 in March, which was 59 per cent higher than in February and 34 per cent higher than in June, 1922. The demand for closed cars continues to increase, except in the case of the lowest priced machines, and over one-half of the current output have closed bodies. This has resulted in great activity for the body building industry, and manufacturers of automobile bodies are receiving orders for immediate delivery in excess of their capacity.

Tire manufacturers continue to maintain the high level of production reached in March, but have not attempted to increase further their rate of output. Production has been somewhat in excess of consumption, as dealers have increased their stocks in anticipation of a heavy summer demand and in the belief that prices were likely to be higher. The price advance thus far this spring has averaged between 10 and 12 per cent.

Leather and shoes.

Leather and shoe markets within recent weeks have been only moderately active. These industries have been generally lagging behind others, both as to increase in business and as to price advances. Prices of hides, leather, and shoes are firm, but only a few increases have been effected.

Calfskins and packer green hides were more active at Chicago during March, and packers have sold at unchanged or higher prices the balance of their winter hides. Prices had not been established on April hides up to the middle of the month. Leather markets were generally quiet during March and early April. Sole-leather production increased during March by more than a seasonal amount and was well in excess of that of last March. Stocks of leather showed practically no change during the month. Reports from the Philadelphia reserve district indicate that sales of nearly all kinds of leather decreased during April, as shoe factories had in most cases covered their current needs and had not started ordering for fall.

Shoe production during March increased in all districts and for the country as a whole exceeded that of February by 17 per cent, and was likewise well above the output for last March. Manufacturers in the Philadelphia district report that a great majority of their orders are for delivery within the next six weeks, although some firms have secured business up to October. Factories, however, reduced operations somewhat in April. Shipments and orders received during March by manufacturers in the Philadelphia and Chicago districts increased as compared with February and with March, 1922, but fewer unfilled orders were on the books at the end of the month than a month previous. Wholesale shoe sales showed enormous increases during March in all districts, and retail sales were likewise very large during that month.

Paper.

Production of all grades of paper continues at a high rate under the impetus of a good demand. Reports from the Philadelphia Federal reserve district indicate that many mills making book and magazine papers, manila papers, building paper and boards, and cardboards were running at capacity. Prices of some grades have recently been advanced, but no general increases have occurred. Paper boards, however, which have risen considerably

in recent months, declined in price at the beginning of April. Chemical pulp prices have advanced recently, whereas mechanical pulp has declined. Newsprint production and shipments during March were at a high rate and exceeded the figures for any other March on record. Stocks declined slightly and were rather low for this season. Output and shipments of all other grades of paper and of wood pulp were well maintained during February, the latest month for which statistics are available. Stocks of wood pulp at the end of February were at the lowest point recorded within the last four years.

Lumber.

Lumber markets for the last two months have been characterized by a check in demand from dealers, an increasing rate of production, moderate decline in the volume of shipments from mills, and a slight retardation in the advance of prices. Orders received weekly by mills reached a peak late in January and have tended lower since that date, until now they are slightly below the weekly cut of the same mills. Shipments, however, continue to exceed cut, and manufacturers' stocks are decreasing. In fact, the supply of dry lumber is so low that green material has been shipped in many cases. The greatest demand in recent weeks has been for building lumber, but railroads, automobile producers, furniture manufacturers, and other industrial users have been active buyers. Prices on some grades of softwood fell off slightly during April, but hardwoods continued to advance, though at a somewhat slower rate.

Lumber cut during March by 587 mills reporting to the National Lumber Manufacturers' Association totaled 1,355,082,000 feet, the largest monthly figure since 1918 and the greatest ever recorded for March. Shipments were even larger and equaled 1,479,044,000 feet, as compared with 1,132,320,000 feet by 569 mills in February. Many complaints of a car shortage are reported, but such shortage, except in a few districts, is due to the unusually large demand, as statistics of car loadings of forest products for the country as a whole show that loadings each week of this year have exceeded those of the corresponding weeks for all years since 1920. Reports from the Philadelphia Federal reserve district indicate that retailers have curtailed buying, as bad weather has prevented them from moving their heavy stocks. Buying from mills in the Atlanta district, and likewise in the St. Louis district, was

checked some during March and April, but in the Chicago district the demand continued heavy. Receipts of lumber at St. Louis during March was the largest in history. Retail yards in the Minneapolis district reported greater stocks at the end of March, although sales were large during the month. Manufacturers in that district increased cut and shipments and diminished their stocks. Many sawmills in the San Francisco district are operating on a double-shift basis, and both production and shipments have increased considerably. Both domestic and foreign markets have been exceedingly active.

BUILDING.

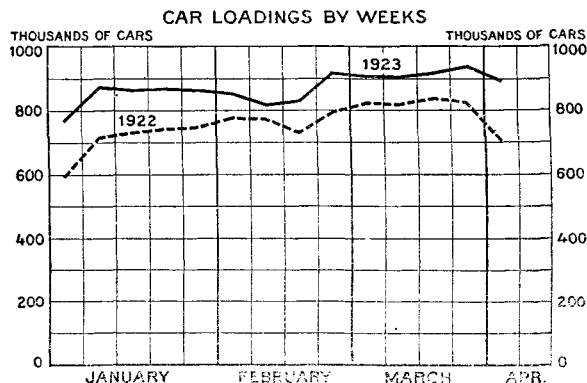
Operations of building contractors expanded substantially during March and April, while both production and prices of building materials showed large increases. Contracts awarded in 10 Federal reserve districts (compiled from statistics collected by the F. W. Dodge Co.) totaled \$367,599,000 in March, which was 33 per cent higher than in February. March awards in the seven districts for which figures are available since 1919 were 18 per cent larger than a year ago and reached the third largest monthly total on record. All the northern districts showed pronounced increases in value of contracts awarded during March as compared with February, but the Atlanta, St. Louis, and Kansas City districts reported decreases ranging from 27 per cent to 10 per cent. Residential contracts during March reached the highest dollar value ever recorded, and amounted to almost one-half of all new contracts, as compared with one-third in February. Building of homes increased in all districts except Atlanta and Minneapolis, but most of the gain occurred in the industrial sections of the East. The value of building permits at 168 cities in March was 50 per cent larger than in March, 1922, the previous record month. Statistics of number and value of building contracts and building permits are published on page 622.

Prices of building materials advanced 3 per cent in March and were 28 per cent above the low point of March, 1922. Production of oak flooring, clay fire brick, and silica brick reached the largest monthly totals since 1920. Stocks of most kinds of building material continued to decline and there was a further accumulation of unfilled orders. A comparison of stocks at the end of March with those of a year ago indicates that the supply of building

materials has been about sufficient to meet the demand during the past year and that there is as yet no evidence that the rapid rise in prices has resulted in overproduction of materials.

TRANSPORTATION.

The shortage of railroad equipment was materially reduced during March and April, due to the efforts of the railroads to secure more efficient loading of cars and trains, the delivery of much new equipment from factories, and a further substantial reduction in the number of cars and locomotives awaiting repairs. Freight-car shortage totaled 58,237 cars for the week ending April 7, as compared with 79,270 cars for the week ending March 8. During this 30-day period the shortage of coal cars was reduced 29 per cent, while the shortage of box cars was reduced 26 per cent. In the first quarter of this year 935 new locomotives and 39,172 new freight cars were put into service on United States railroads, and orders were outstanding on April 1 for 1,974 locomotives and 107,453 freight cars. The number of bad-order cars amounted to 206,312 on April 1, which was only 9 per cent of the cars on line and the lowest aggregate awaiting repairs since January, 1921.



The chart indicates the consistently heavy railroad loadings during the first 14 weeks of 1923. It may be noted that the loadings in each week of the current year have not only been larger than a year previous, but have also been larger than in the corresponding week of any earlier year. March loadings reached a total of 4,124,214 cars, which was 22 per cent more than in February and 12 per cent more than in March, 1922. Loadings of forest products and coke were larger than in any previous month on record, while live-stock loadings were exceptionally large for a spring month. Load-

ings of southern railroads were particularly heavy and reached the highest aggregate ever recorded in a single month.

TRADE.

Wholesale trade.

Wholesale distribution during the quarter of the year ending March 31 showed considerable improvement as compared with the same period in 1922. Sales by wholesale firms in all lines and in almost all Federal reserve districts have surpassed each month the levels reached in corresponding months in 1922. The improvements reflect the increased purchasing power of the consuming public, as has been evidenced by demands made upon retail distributors in all sections of the country. Sales during March were greater for all lines of goods in all Federal reserve districts from which reports were received than in February, with the exception of grocery sales in the Kansas City and San Francisco districts and dry-goods sales in the St. Louis and Dallas districts. Declines in the latter of 10.8 per cent were indicated in St. Louis and 5.7 per cent in Dallas. The greatest improvements over February were in the sales of shoes, where increases ranging from 17.6 per cent in the St. Louis district to 115.3 per cent in the Philadelphia district were noted. Compared with March a year ago the greatest activity was indicated in the sales of farm implements, which ranged from an increase of 27.9 per cent in the San Francisco district to 187.8 per cent in the Dallas district. As compared with February, activity in dry goods was less pronounced than in other lines, which was due largely to active buying in earlier months and to a hesitancy to place additional orders pending developments of the new cotton crop and price movements of the old crop. Collections of wholesale firms are from "fair" to "good" throughout all districts, but deliveries were somewhat retarded, as shipments were slow and in many cases delayed. The table on page 624 gives detailed figures of wholesale trade.

Retail trade.

Retail trade maintained a high rate of activity during the first quarter of the year, each month showing improvements over the corresponding month in 1922. While the unseasonal cold weather during the last two weeks of March was a retarding factor to retail distribution in many sections, the early date of Easter accentuated the trade and March department-store sales throughout all sections

of the United States were 22 per cent greater than in March, 1922, and 38 per cent greater than in February. The greatest gains over February were in the Philadelphia, Richmond, and New York districts, and ranged from 52 points in Philadelphia to 41 points in New York.

Mail-order houses and chain stores showed considerable increases in sales in March as compared with February and also with March, 1922. Mail-order house sales increased 34 per cent over February and 35 per cent over March, 1922. The greatest chain-store gain was noted in the case of shoe chains, which increased 105 per cent as compared with February and 40.1 per cent as compared with March, 1922.

Stocks of department stores continued to increase during March and were greater than any month since November, 1922. Increases were noted in all Federal reserve districts, and for the country as a whole the index number of department-store stocks on a 1919 base stood at 124.9 at the end of March, as compared with 115.2 at the close of February and 118.2 in March, 1922. Detailed figures of retail trade are given in the table on page 625.

PRICES.

Wholesale prices increased in March at a more rapid rate than in February. The general level of prices rose 3 points according to the Federal Reserve Board's index and 2 points according to the index of the Bureau of Labor Statistics. All groups in the board's index have risen, but the increase in the prices of imported goods is more pronounced than that of produced or exported goods, and the prices of producers' goods have risen much more sharply than raw materials or consumers' goods.

In the raw materials group of the Bureau of Labor Statistics index, as subdivided by the Federal Reserve Board, mineral products declined 3 per cent in March, the same rate as in February, while agricultural products increased, though at a less rapid rate than in the month before. Forest products continued the steady increase that began in March of last year.

The most striking price increases during the month occurred in iron and steel products and nonferrous metals, which rose 12 per cent as a group, with steel billets and copper products leading.

Among consumers' goods, prices of cloths and clothing moved upward as did foods, while

prices of fuel and lighting declined. Granulated sugar advanced 18 per cent, in comparison with 9 per cent in February.

Retail prices have not as yet shown any consistent tendency to follow the upward course of wholesale prices. Retail food prices, after a rise toward the end of last year, fell again in January and February and did not change in March. The cost of living index, computed by the Massachusetts Special Commission on the Necessaries of Life, was stationary from November through January at the same level at which it stood in January, 1922.

EMPLOYMENT.

Demand for labor continues to be strong, with advancing wages at industrial establishments, in the building trades, and at western metal mines. On the other hand, the demand for farm labor is as yet only moderate and there continues to be a surplus of clerical workers. Reports received by the Bureau of Labor Statistics from 5,453 manufacturing establishments in all parts of the United States indicate that there was a 2 per cent increase in number of employees and a 3 per cent increase in average weekly earnings during March. The largest increases in number of workers were reported by fertilizer plants, brick kilns, and shipbuilding yards. The brick and shipbuilding industries also reported increases of over 5 per cent in per capita earnings, but the millinery and lace goods industries led in this respect with an advance of 9.6 per cent. During April a number of horizontal wage advances have been reported by important industries—most woolen mills which had not previously this year changed their schedules announced increases of 12½ per cent, all leading steel companies increased wages of unskilled workers 11 per cent, cotton mills at Fall River and other important centers announced increases of 12½ per cent, and meat packers at Chicago and other western cities advanced all schedules by about 11 per cent.

Investigations of employment conditions by Federal reserve banks and State departments of labor agree closely with the results of the Bureau of Labor Statistics. Reports to the Massachusetts Department of Labor and Industry indicate that industrial employment in that State increased 0.6 per cent during March. The men's clothing, electrical machinery, and textile machinery plants reported the largest increases in their forces, while jewelry and hosiery factories made the greatest curtail-

ment. The New York State Department of Labor reports a 2 per cent increase in factory employment during March, while average weekly earnings increased about 4 per cent. The most important increases of employment occurred at metal and machine plants. Reports from 501 establishments in the Philadelphia district showed an increase in number of employees of 2 per cent during March, and the number on pay rolls was 17 per cent greater than the average in 1922. The Chicago Federal Reserve Bank reports the number employed by 198 concerns increased 3 per cent in March, and that the number of man-hours was 8 per cent more than in February. Steel mills and building contractors made the largest additions to their forces.

COMMERCIAL FAILURES.

Although the number of commercial failures was greater in March than in February, the total reported during the first three weeks in April was slightly less than for the same period in March. As compared with corresponding periods of last year, the number of insolvencies during March showed a decrease of 32 per cent, and those during the first three weeks of April were fewer by 30 per cent. The liabilities involved in the March failures were also greater than those of February and only slightly less than the January figures, but were 33 per cent below those reported for last March. The volume of failures are still rather large, particularly when compared with the years of wartime prosperity. In making comparisons with years prior to the war allowances must be made for growth in the volume of business and for higher prices, which affect liabilities.

Failures, by Federal reserve districts, are shown in the table on page 615. The number of failures during March were smaller than during the same month last year, except in the San Francisco district, but liabilities were greater in the Philadelphia, Cleveland, and Dallas districts. In fact, the liabilities in the Philadelphia district were the largest on record, totaling \$10,622,911, whereas the monthly average for that district during 1921 and 1922 equaled only about \$2,600,000. By branches of business, the liabilities among the miscellaneous group of manufacturers were unusually large. The indebtedness of the manufacturing group as a whole was larger than that of last March, whereas liabilities involved in failures among traders were smaller than during both February, 1923, and March, 1922.

FOREIGN TRADE.

According to the reports of the Department of Commerce, imports of merchandise into the United States have been growing steadily for some months past. To some extent the larger totals recently reported are due to higher commodity valuations, but at the same time the quantities of certain classes of goods imported have considerably expanded. This is particularly true of raw materials and semifinished products entering into manufacture, for which there has been a growing demand as a result of the activity of domestic industry. The latest import figures are for January and show an inward movement of merchandise totaling \$319,000,000. In December, 1922, imports amounted to \$293,000,000, and in January a year ago they were only \$217,000,000.

Exports also are higher than they were either a year ago or in most months recently, but the increase during the last three or four months has not been pronounced, and exports have fallen as compared with the high level of last November. The result has been to reduce very materially the amount of our favorable merchandise trade balance, so that in January it amounted to only \$17,000,000, in contrast to \$51,000,000 in December and \$88,000,000 in November. In March preliminary estimates place the value of our export trade at \$350,000,000, a moderate increase over January and February of the present year and some \$20,000,000 in excess of the March, 1922, total. The figures made public in the past few months thus indicate the maintenance of exports somewhat above the levels 6 to 12 months earlier. There is no evidence, however, that foreign demand for American goods has had much connection with the great expansion of production which has recently taken place in this country.

GOLD AND SILVER MOVEMENTS.

Net gold imports for the month of March totaled \$5,559,000, marking a further decline from the unusually low total of \$6,984,000 for the preceding month. Both imports and exports of gold proceeded in larger volume than in February, the decrease in net imports being due to the considerable increase in the gold exports for the month under review. Gross imports of gold totaled \$15,951,000, of which 35 per cent came from the Netherlands and about 25 per cent each from Canada and France. About two-thirds of the total of \$10,392,000 of gold exported during March was consigned to India, about 25 per cent to France, and over 5 per cent to Mexico.

Net imports of gold since August 1, 1914, totaled \$1,817,275,000, as shown in the following exhibit:

(In thousands of dollars.)

	Imports.	Exports.	Excess of imports.
Aug. 1, 1914, to Dec. 31, 1918.....	1,776,616	705,210	1,071,406
Jan. 1 to Dec. 31, 1919.....	76,534	368,185	1,291,651
Jan. 1 to Dec. 31, 1920.....	417,068	322,091	94,977
Jan. 1 to Dec. 31, 1921.....	691,248	23,891	667,357
Jan. 1 to Dec. 31, 1922.....	275,170	36,875	238,295
Jan. 1 to Mar. 31, 1923.....	57,154	20,263	36,891
Total.....	3,293,790	1,476,515	1,817,275

¹ Excess of exports.

Silver imports during March, \$4,626,000, while higher than in February, continued at a low level as compared with the average monthly imports for the past calendar or fiscal years. Over 90 per cent of the total imported during the month came from Mexico, Peru, and Canada. Silver exports for the month, \$4,732,000, were slightly in excess of the imports and in the main showed about the same distribution as in February, i. e., about 90 per cent going to China, British India, and England.

Net silver exports since August 1, 1914, totaled \$434,651,000, as is seen from the following table:

(In thousands of dollars.)

	Imports.	Exports.	Excess of exports.
Aug. 1, 1914, to Dec. 31, 1918.....	203,592	483,353	279,761
Jan. 1 to Dec. 31, 1919.....	89,410	239,021	149,611
Jan. 1 to Dec. 31, 1920.....	88,060	113,616	25,556
Jan. 1 to Dec. 31, 1921.....	63,242	51,575	11,667
Jan. 1 to Dec. 31, 1922.....	70,807	62,807	8,000
Jan. 1 to Mar. 31, 1923.....	14,243	13,844	399
Total.....	529,354	964,216	434,862

¹ Excess of imports.

FOREIGN EXCHANGE.

Foreign exchange rates during April showed unusual stability. The pound sterling continued to decline slowly and stood at \$4.63 on April 27, compared with \$4.72, the peak figure reported on February 21. French and Belgian francs and Italian lire showed little change. The rate on the French franc, after its rapid rise in March, ranged between 6.49 and 6.78 cents in April; that on the Belgian franc between 5.62 and 5.88 cents, and that on the Italian lira between 4.92 and 5.02 cents.

The German mark, after being stabilized at 48 and 47 cents per ten thousand since the early part of March, dropped on April 18 to 32 cents per ten thousand, but rallied to 38 cents on April 20. At the end of the month the rate was 34 per ten thousand.

Other European currencies as well as those of South American and oriental countries, remained fairly constant.

State Banks and Trust Companies.

The following list shows the State banks and trust companies which were admitted to membership in the Federal reserve system during the month ending April 28, 1923, on which date 1,644 State institutions were members of the system:

	Capital.	Surplus.	Total resources.
<i>District No. 1.</i>			
Union Trust Co., Ellsworth, Me. ¹	\$100,000	\$100,000	\$2,506,858
<i>District No. 2.</i>			
Long Branch Banking Co., Long Branch, N. J.	150,000	100,000	2,418,711
Amherst Bank, Williamsville, N. Y.	50,000	15,000	65,000
<i>District No. 4.</i>			
Farmers State Bank, Lyons, Ohio.....	25,000	2,000	203,172
<i>District No. 6.</i>			
Evangeline Bank & Trust Co., Ville Platte, La.	75,000	37,500	764,272
<i>District No. 8.</i>			
Grant State Bank, St. Louis, Mo.	200,000	50,000	674,413
<i>District No. 11.</i>			
Slaton State Bank, Slaton, Tex.	25,000	10,000	453,193
First State Bank, Idalou, Tex.	25,000	.....	156,669
First State Bank, Rochester, Tex.	25,000	6,000	305,769
<i>District No. 12.</i>			
Yakima Trust Co., Yakima, Wash.	200,000	50,000	1,692,490

¹ Admitted Jan. 8, 1923, but not previously published.

Correction.—In the April BULLETIN the capital and surplus of the Wat-
singing Bank, Bloomfield, N. J., was given as \$1,000,000 each. This
should have read \$100,000 in each instance.

Absorbed by national bank.—Bank of Eufaula, Ala.; Bank of Fergus
County, Lewistown, Mont.

Bank closed.—First State Bank, Clyde Park, Mont.

Bank reopened.—Edgar State Bank, Edgar, Mont.

Change of name.—Commercial Trust Co., Philadelphia, Pa., to Bank
of North America and Trust Co.; Morton Park State Bank, Cicero, Ill.,
to Cicero Trust and Savings Bank.

Consolidation.—Beaverhead State Bank, Dillon, Mont., and Security
State Bank, Dillon, Mont., member banks, have consolidated. Illi-
nois Trust & Savings Bank, Chicago, Ill., and Merchants Loan &
Trust Co., Chicago, Ill., both member institutions, have consolidated
under the name "Illinois Merchants Trust Co."

Converted into national bank.—Southwest State Bank, Wichita, Kans.

Withdrawals.—Moline Trust & Savings Bank, Moline, Ill.; Peoples
Savings Bank & Trust Co., Moline, Ill.; State Savings Bank & Trust Co.,
Moline, Ill.; Polk County Trust Co., Lakeland, Fla.

Insolvent.—First State Bank, Malone, Tex.

New National Bank Charters.

The Comptroller of the Currency reports the following increases and reductions in the number and capital of national banks during the period from March 24 to April 20, 1923, inclusive:

	Number of banks.	Amount of capital.
New charters issued.....	23	\$3,275,000
Restored to solvency.....	0	0
Increase of capital approved.....	24	3,130,000
Aggregate of new charters, banks restored to solvency, and banks increasing capital....	47	6,405,000
Liquidations.....	12	760,000
Reducing capital ¹	2	60,000
Total liquidations and reductions of capital....	14	820,000
Consolidations of national banks under act of Nov. 7, 1918.....	1	300,000
Aggregate increased capital for period.....	.....	6,405,000
Reduction of capital owing to liquidations, etc. ....	.....	820,000
Net increase.....	.....	5,585,000

¹ Includes one reduction in capital of \$25,000 incident to a consolidation under act of Nov. 7, 1918.

RULINGS OF THE FEDERAL RESERVE BOARD.

Nonnegotiable paper ineligible for rediscount by Federal reserve banks.

The board has been requested to rule upon the eligibility for rediscount of nonnegotiable paper. The note in question contained a clause giving the payee the right to confess judgment before maturity, and it was stated that the highest court of the State in which the question arose had held such a note to be nonnegotiable. For the purpose of the ruling, therefore, the board assumed that the note was nonnegotiable and ruled substantially as follows:

Although negotiability is not required in specific terms by the Federal reserve act or by the board's regulations as a condition of the eligibility of notes, drafts, or bills of exchange for rediscount, it has always been contemplated by the board as one of the primary requisites of eligibility. A promissory note is defined by the board's Regulation A as follows:

A promissory note, within the meaning of this regulation, is defined as an unconditional promise in writing, signed by the maker, to pay, in the United States, at a fixed or determinable future time, a sum certain in dollars to order or to bearer.

This definition incorporates substantially the requirements of a negotiable promissory note as set forth in the negotiable instruments law; in fact, the definition of a note eligible for rediscount is, with certain additional limitations, an adoption of the definition of a negotiable promissory note. A note eligible for rediscount must not only meet the requirements of a negotiable promissory note, but must also possess the additional characteristics required by the definition in Regulation A as above. Notes eligible for rediscount are thus merely a restricted class of negotiable promissory notes as defined in the negotiable instruments law. The definition of a draft or bill of exchange contained in the board's Regulation A is substantially the same as the definition of a bill of exchange set forth in the negotiable instruments law, thus indicating clearly that these instruments also must be negotiable in order to be eligible for rediscount.

All nonnegotiable notes, drafts, and bills of exchange, therefore, are ineligible for rediscount at Federal reserve banks.

Government deposits in member banks as exempt from the reserve requirements of section 19 of the Federal reserve act.

The board has recently had occasion to pass upon the question as to whether certain deposits made in member banks should be considered as Government deposits and therefore exempt from the reserve requirements of section 19 of the Federal reserve act.

Section 7 of the first Liberty bond act and corresponding sections of the second and third Liberty bond acts provide that the reserve requirements of the Federal reserve act "shall not apply to deposits of public moneys by the United States in designated depositories." In construing this provision the board, after consultation with the Treasury Department, has ruled that the following classes of deposits are not "deposits of public moneys by the United States," and are therefore not exempt from the reserve requirements set forth in section 19 of the Federal reserve act:

- (1) Deposits of Philippine funds made by the Philippine Government and carried under the title "Treasurer of the Philippine Islands currency reserve fund account."
- (2) Deposits of Porto Rican funds made by the Porto Rican Government.
- (3) Deposits of Indian funds under the control of the Department of the Interior.
- (4) Deposits of States, counties, or municipalities.
- (5) Deposits of the United States Shipping Board and deposits of the Emergency Fleet Corporation. (See FEDERAL RESERVE BULLETIN for November, 1919, page 1054.)

In the same connection, however, the board has held that deposits made by United States postmasters of Government funds, other than postal savings deposits, collected by them or which have come into their possession by virtue of their official position, should be deemed to constitute "deposits of public moneys by the United States," and, when made in designated depositories, such deposits are exempt from the reserve requirements specified in section 19 of the Federal reserve act.

LAW DEPARTMENT.

Exercise of fiduciary powers by national banks located in Pennsylvania.

There is printed below the opinion of the Supreme Court of Pennsylvania, rendered April 9, 1923, in the case of the Estate of Edna Frisbie Turner upholding the right of national banks to act in fiduciary capacities in the State of Pennsylvania. This decision affirms that of the Superior Court of Pennsylvania, which was published in the FEDERAL RESERVE BULLETIN for January, 1923 (page 23 of the first edition and page 20 of the final edition).

IN THE SUPREME COURT OF PENNSYLVANIA, EASTERN DISTRICT.

In the matter of the Corn Exchange National Bank of Philadelphia. No. 272. In the matter of the petition of Estate of Edna Frisbie Turner, deceased. Nos. 273 and 274, January term, 1923. Appeals of Commonwealth of Pennsylvania. Appeal from the decision of the Superior Court of Pennsylvania, reversing decree of the Orphans' Court of Philadelphia County.

OPINION.

FRAZER, J.: These three appeals involve the same question, namely, whether a national bank has the right to act as a fiduciary under the laws of Pennsylvania; they were argued together and will be decided in a single opinion.

In settling the account of executors of the estate of Edna F. Turner a fund was awarded to minor children, beneficiaries under the will of decedent. The court appointed The Rittenhouse Trust Company, of the city of Philadelphia, guardian of their estate and before the account was called for audit that company was converted into a national bank and consolidated with the Corn Exchange National Bank, with power granted by the Federal Reserve Board to transact a fiduciary business. The latter applied for and secured a certificate from the State banking department authorizing it to do fiduciary's business in Pennsylvania and presented a petition asking that funds belonging to the minors be paid to it. This the court refused to do until the bank secured the approval of the Orphans' Court of Philadelphia County, under rule 21 of that court relating to approval of fiduciaries. Accordingly, a petition was presented for that purpose setting forth the fact of petitioner's incorporation under the national banking laws and its subsequent consolidation with The Rittenhouse National Bank, formerly The Rittenhouse Trust Company, stating it was authorized by the Federal Reserve Board to transact a fiduciary business and had complied with the law of Pennsylvania governing the transaction of such business; had conformed with the acts of May 9, 1889, P. L. 159, and May 20, 1921, P. L. 991, agreeing to be subject to supervision and examination by the banking department of Pennsylvania in the same manner as corporations of Pennsylvania; and stipulated, pursuant to requirements of the before mentioned rule of court, that "securities and other property received by the corporation both in a fiduciary capacity and from the person or persons for whom it is surety, shall not be taken out of the jurisdiction of the court and shall be kept separate and apart from all moneys, securities and property of the said bank, so that the same can, at all times, be easily

identified as belonging to the estate of the person for whose account the same has been received, and that trust funds received by said bank, either as fiduciary or for the person or persons for whom it is surety shall be deposited in a separate account" in another bank or trust company of good standing. This application was refused by the Orphans' Court, whereupon the bank filed a petition, as guardian of the minors, asking that, notwithstanding the refusal to approve its application to act as fiduciary, the funds in question be awarded to it as guardian. This petition was also dismissed and an appeal taken to the Superior Court which reversed the court below and from that decree we have the present appeals.

The act of Congress, approved December 13, 1913, (38 Stat. 251), gave the Federal Reserve Board power, inter alia, "to grant by special permit to national banks applying therefor, when not in contravention of State or local law, the right to act as trustee, executor, administrator or registrar of stocks and bonds under such rules and regulations as the said board may prescribe." It was thus left to the courts to ascertain whether in any given case, the exercise of the powers granted would be in contravention of State or local law. Difficulties arose in the construction of the act, resulting in its amendment in 1918 (act September 26, 1918, 40 Stat. 867) by permitting national banks to act as executor, administrator, trustee, guardian, etc., in all cases where State banks, trust companies or other corporations "which come into competition with national banks are permitted to act under the laws of the State in which the national bank is located," and also providing that "whenever the laws of such State authorize or permit the exercise of any or all of the foregoing powers by State banks, trust companies or other corporations which compete with national banks, the granting to and exercise of such powers by national banks shall not be deemed to be in contravention of State or local law within the meaning of this act." The statute contained a further provision that banks exercising fiduciary powers should "segregate all assets held in any fiduciary capacity from the general assets of the bank and shall keep a separate set of books and records showing in proper detail all transactions engaged in under authority of this section * * * but nothing in this act shall be construed as authorizing the State authorities to examine the books, records and accounts of the national bank which are not held in trust under authority of this subsection." It also required that "funds deposited or held in trust by the bank awaiting investment shall be carried in a separate account and shall not be used by the bank in the conduct of its business, unless it shall first set aside in its trust department, United States bonds or other securities approved by the Federal Reserve Board." Numerous other administrative provisions are found in the Federal act that need not be referred to here.

The contention of the Commonwealth is that, to permit a Federal bank to act in a fiduciary capacity in this State, under the statutory provisions referred to, would amount to a violation of our laws. The act of May 21, 1919, P. L. 209 provides, inter alia, that the banking department shall have supervision of all corporations or persons receiving money on deposit for safe keeping, including banks incorporated under the laws of the United States, which shall, pursuant to Federal law or regulations, be permitted to act in any fiduciary capacity and makes all such corporations subject to inspection and examination by the banking commissioner. By act of May 20, 1921, P. L. 991, it was provided that no person should have the right to appoint, in a fiduciary capacity any corporation other than a corporation organized and doing business under the

laws of Pennsylvania and subject to the supervision and examination of the banking department of the State, or a corporation organized under the laws of the United States and doing business in Pennsylvania by resolution of its board of directors agreeing to place itself under and subject to the supervision and examination of the State banking department "in the same manner and to the same extent as corporations organized and existing under the laws of this State."

A comparison of the foregoing Federal and State acts shows the main points of difference are that the Federal statute allows inspection of the books and records of only that part of the assets of national banks as are received in a fiduciary capacity and requires them to segregate all assets held in a fiduciary capacity and prohibits commingling them with other assets in its business, unless it shall first set aside in the trust department United States bonds or other securities approved by the Federal Reserve Board, while on the other hand the State acts authorize the supervision by the banking department of all assets of the corporation and forbids substitution of securities for the funds, but requires the companies, in all cases, to keep trust funds separate from its other assets and to indicate all investments made as fiduciaries, so that the trust to which the investment belongs shall be clearly known. It is argued this difference in the two provisions produces a conflict, making the Federal reserve act in direct violation of State law by permitting uninvested funds to be mingled with the general assets and removing such funds from the inspection and supervision of State authorities. The Corn Exchange National Bank has complied with every provision of the State rules, regulations and laws, by consenting to the examination of all its assets by the State bank examiners and agreeing to keep trust securities on deposit in a separate bank. This voluntary compliance with State rules would, in itself, seem to render unnecessary a further discussion of the questions raised. Appellant contends, however, that the national bank can not, validly, agree to be bound by State law or by local rule of court, which is contrary or inconsistent with the Federal law and that, consequently, the question still remains whether it was not beyond the power of the bank to agree to comply with the State regulations where they are in conflict with Federal practice.

The answer to this contention is that insofar as the State law is inconsistent with the Federal act, the former must yield to the latter, even though the result may be to place upon Federal banks a benefit or burden not received or assumed by the State banks and trust companies.

The definition given in the Federal act as to what constitutes a violation of the State law takes no cognizance of the fact that certain administrative details in the regulations of Federal banks were different from those governing State institutions. The existence of these differences, however, is not sufficient to deprive a national bank of the enjoyment of its powers under the Federal law. The establishment of the Federal reserve bank was a matter within the scope of Federal power and a State can not, in any way interfere with the powers of such banks, except insofar as Congress has permitted it to do so. When the Federal act was passed Congress had knowledge of the fact that various States had adopted different laws and systems governing persons or corporations acting in a fiduciary capacity. Having this knowledge, they gave to the Federal Reserve Board power to prescribe regulations for the government of Federal banks. Regulations thus established are paramount to State rules and the latter must yield whenever a conflict arises. It was with knowledge of this situation and the existing difference between rules governing State and Federal banks that Congress undertook to define, by the act of 1918, what would be considered "in contravention of State law." It will be observed the definition refers

to "powers" only and not the rules governing the exercise of such powers. It is the right itself, not the rules governing the exercise of the right, to which reference is made. Concede the existence of the right in the State banks and trust companies and we have the same right bestowed upon national banks. Had Congress intended the latter to be governed by State laws in the exercise of the right given, surely expression of that intention would be found in the statute. In the absence of such utterance, we must assume Congress was satisfied with the rules already prescribed by the Federal Reserve Board. If these rules happen to conflict with State regulations on the subject, the latter must yield to the former because the right being conceded the power to regulate the exercise of the right would follow as a necessary incident. We believe this view is fully supported by the opinion in *First National Bank v. Union Trust Company*, 244 U. S. 416, and cases therein cited.

The decrees of the Superior Court are affirmed.

Fiduciary Powers Granted to National Banks.

During the month ending April 28 the Federal Reserve Board approved applications of the national banks listed below for permission to exercise one or more of the fiduciary powers named in section 11 (k) of the Federal reserve act as amended, as follows:

1. Trustee.
2. Executor.
3. Administrator.
4. Registrar of stocks and bonds.
5. Guardian of estates.
6. Assignee.
7. Receiver.
8. Committee of estates of lunatics.

9. In any other fiduciary capacity in which State banks, trust companies, or other corporations which come into competition with national banks are permitted to act under the laws of the State in which the bank is located.

The numerals opposite the name of each bank indicate the power or powers it is authorized to exercise, as given below:

Place.	District No.	Name of bank.	Powers granted.
Boston, Mass.....	1	Federal National Bank....	1 to 9.
Newport, R. I.....	1	Aquidneck National Bank	5 to 9.
Rockville, Conn.....	1	Rockville National Bank..	1 to 9.
Rutland, Vt.....	1	Clement National Bank...	1 to 3, 5 to 7.
Kingston, N. Y.....	2	State of New York National Bank.	1 to 9.
Long Beach, N. Y.....	2	National Bank of Long Beach.	1 to 8.
Middletown, N. Y.....	2	First National Bank.....	1 to 9.
Utica, N. Y.....	2	First National Bank.....	1 to 9.
Carlstadt, N. J.....	2	Carlstadt National Bank..	1 to 9.
Jersey City, N. J.....	2	Bergen National Bank.....	1 to 9.
Summit, N. J.....	2	First National Bank.....	1 to 9.
Orange, N. J.....	2	Brick Church National Bank.	1 to 9.
Chester, Pa.....	3	Pennsylvania National Bank.	1 to 9.
Philadelphia, Pa.....	3	National Bank of North Philadelphia.	1 to 9.
Cynthiana, Ky.....	4	The National Bank.....	1 to 5, 7 to 9.
Mount Vernon, Ohio....	4	The Knox National Bank.	1 to 7 and 9.
Parkersburg, W. Va....	5	Second National Bank.....	1 to 9.
De Funiak Springs, Fla..	6	First National Bank.....	5 to 8.
Gallatin, Tenn.....	6	First & Peoples National Bank.	1 to 9.
Sycamore, Ill.....	7	Citizens National Bank...	1 to 9.
Rising Sun, Ind.....	7	The National Bank.....	1 to 9.
Little Falls, Minn.....	9	American National Bank..	1 to 9.
Houston, Tex.....	11	The Union National Bank.	1 to 9.
Santa Ana, Calif.....	12	First National Bank.....	1 to 9.

VELOCITY OF BANK DEPOSITS.¹

For 40 years bank clearings have been used as an index of business activity. They were among the earliest of the statistics of business to be compiled on a monthly basis and for this term of years they have furnished perhaps the most accurate single index available of the comparative volume of business transactions at different periods.

These bank clearings figures have had, however, a number of limitations to their usefulness, especially when one considers them as an index of changes in the banking and credit situation. In the first place their scope has left room for question as to their meaning. They include only checks passing through clearing houses and do not include counter checks. They include drafts drawn by bankers against their own balances, which do not reflect business activity as directly as do checks drawn by individuals. These defects in the returns were corrected in the middle of 1918, when the Federal Reserve Board and banks inaugurated a series of weekly reports, from the banks of clearing-house centers, of the total amount of checks drawn and other debits to individual accounts. The actual change in the magnitude or movement of the figures reported as compared with clearings was smaller than might have been anticipated, but the inauguration of the new form of report gave us much more clearly defined figures.

A second hindrance to a complete interpretation of clearing-house figures from the banking point of view is found in the fact that clearings and the new debits reports also reflect two different elements—changes in the amounts of bank deposits and changes in the velocity or rate of turnover of such deposits. When we wish to consider the possibility of credit expansion existing in any situation it makes a good deal of difference whether a high figure for bank clearings is due to large bank deposits, or whether it is due to an exceptionally rapid turnover of deposits. The distinction becomes of still greater importance when the subject under consideration is the relation of the volume of credit to the price level.

The desirability of measuring velocity more accurately may be gathered from the following quotation from an address to the stockholders of his bank made in January, 1922, by the Hon. Reginald McKenna, chairman of the London Joint City and Midland Bank:

If it were possible accurately to measure the velocity of circulation of money in 1921, as compared with 1920, I think it would be found that there was a decline last year of at least 40 per cent, a diminution which, while it did not affect the total of bank deposits, caused a fall in prices and was largely responsible for the great reduction in trade and trade profits.

Until recently there has been no instrument for measuring currently the velocity or rate of turnover for bank deposits. The most comprehensive study of the subject is contained in Prof. Irving Fisher's "Purchasing Power of Money." On the basis of the incomplete data available at that time, Professor Fisher made an estimate of the velocity of deposits in the United States in the years 1896 and 1909, and on the basis of these figures interpolated data for the intervening years and in later articles extrapolated the figures for a number of succeeding years. This study was entirely on an annual basis, however, and depended on a number of hypotheses which were not at that time verifiable.

A more precise and more current measure is now made possible by the comprehensive statistical returns received each week by the Federal reserve banks from a selected group of 800 member banks in principal centers. Utilizing these figures, a computation has been made of the velocity of deposits for several groups of banks.

METHOD OF COMPUTATION.

The final figure desired was the annual rate of turnover of deposits or the following fraction:

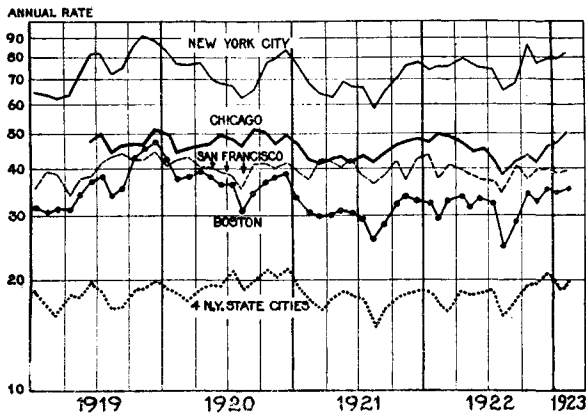
$$\frac{\text{Annual amount of debits to individual accounts}}{\text{Average demand deposits of individuals}}$$

The first step in the computation was to select groups of banks which reported to the Federal reserve banks both the figures for debits to individual accounts and net demand deposits. Reports of debits to individual accounts are made by members of clearing houses in the different cities, while the available reports of net demand deposits are for selected member banks in the different cities. The banks in these two groups are not identical, and hence it was necessary to deal with the figures for individual banks.

¹This article, by W. Randolph Burgess, of the Federal Reserve Bank of New York, presents the results of a study made by the reports department of the Federal Reserve Bank of New York, with the help of the statistical offices of the Federal reserve banks of Boston, Chicago, and San Francisco. Acknowledgment is made to Prof. Irving Fisher and Prof. E. W. Kemmerer for counsel, to Mr. J. H. Riddle, and to Mr. Clark A. Warburton. Summary results of the study have been reported currently in the Monthly Review of the Federal Reserve Bank of New York.

In order to secure a comparable series of figures showing changes from time to time, it was desirable to have these figures on a monthly basis. Two major steps were necessary to yield the equation given above for each month. In the first place, debits to individual accounts are reported by weeks and have to be converted to an annual rate for each month, taking account of holidays and the length of the month. In the second place, certain subtractions had to be made from both the debits and the demand deposits in order to make them strictly comparable with each other. Figures for debits include withdrawals of time deposits and also Government withdrawals. An estimate was made of the amount of withdrawals against time deposits each week by securing from six New York City banks, for a number of different periods, records of their withdrawals of time deposits. It was found that time deposits in these banks were turning over about twice a year. The debits were corrected on the assumption that about this rate of withdrawal of time deposits is maintained consistently. Figures for Government withdrawals were secured from the records of the Federal reserve banks and these figures subtracted from the debits.

RATE OF TURNOVER OF BANK DEPOSITS.



The adjustments necessary in the debits to individual accounts figures were comparatively small in size, and fluctuations one way or the other have but little effect on the final results. There is considerably more room for differences of opinion and for error in computing the figure to be used for demand deposits. The figure desired to compare with debits to individual accounts is the amount of individual deposits, and for the purpose of the current computation the figure has been limited to demand deposits. There is no figure reported currently showing segregated the demand deposits of individuals.

The figure which comes nearest is that for net demand deposits. The make-up of this figure is best shown by quoting the method of computation from the weekly condition report:

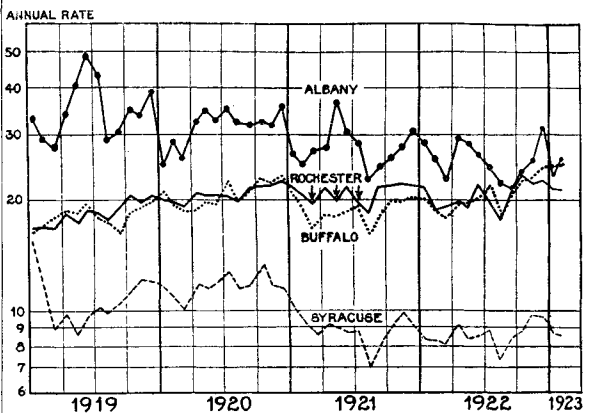
7. Net demand deposits on which reserve is computed.....

- Individual deposits subject to check, certificates of deposit due in less than 30 days, dividends unpaid, State and municipal deposits, and other deposits subject to notice of less than 30 days, exclusive of United States Government deposits.
- Plus excess of total of—
 - (a) Balances due to all banks other than Federal reserve bank, foreign banks included.
 - (b) Amount due to Federal reserve bank—Deferred credits.
 - (c) Cashier's, secretary's, or treasurer's checks on own bank outstanding.
 - (d) Certified checks outstanding.
- Over the total of—
 - (e) Balances due from banks other than Federal reserve bank and foreign banks.
 - (f) Items with Federal reserve bank in process of collection.
 - (g) Exchanges for clearing house.
 - (h) Checks on other banks in the same place.

NOTE.—In case the sum of items (e) to (h), inclusive, is in excess of the sum of items (a) to (d), disregard items (a) to (h) in making up total of net demand deposits.

Since debits to individual accounts do not include checks drawn against bank balances, such figures must be excluded from the de-

RATE OF TURNOVER OF BANK DEPOSITS.



posits as well. The amounts due to banks and due from banks are reported separately; so that a deduction can be made for these items.¹ No adequate allowance, however, can be made for items b, c, and d, and f, g, and h, which are used in computing net demand deposits. The procedure has been to deduct from net demand deposits the net amount due to banks—that is, the excess, if any, of due to banks over due from banks. No attempt has been made to

¹ In the case of New York City these figures were available for individual banks. For other centers they were estimated from the percentage of the net amounts due to banks to net demand deposits for all the banks reported.

correct for the items *b*, *c*, *d*, and *f*, *g*, *h*, but a study of the results of not making any such correction indicates that in those cities where the amount due to banks exceeds the amount due from banks, the adjusted net demand deposits figure which is used for this computation tends to be slightly lower than the true figure for demand deposits of individuals. The amount by which it is lower is the excess of items *f*, *g*, and *h* over items *b*, *c*, and *d*, or, to put it another way, demand deposits are reduced by a part of the uncollected checks and other similar items which the bank holds or has presented for collection. This reduction may be justified by the fact that such uncollected checks may not in theory be drawn against and hence are a proper deduction from deposits subject to check. The practice of different banks in this matter is so varied that no safe estimate can be made of the proportion of uncollected items which should be deducted from deposits, but the deduction made in this computation appears to be a reasonable one.

In cities where the item "Due to banks" is not as large as the item "Due from banks," the figures for net demand deposits are under ordinary circumstances the same as total demand deposits. This condition held in only two of the cities studied, Rochester and Syracuse, and tends to make the velocity figures computed for these cities slightly smaller than they would be if the computation could be made on exactly the same basis as the figures for the larger centers.

The various steps in the computation of velocity are shown in the accompanying working sheet for 42 New York City banks.

VELOCITY IN EIGHT CITIES, 1919-1922.

The annual rate of turnover of individual demand deposits for representative groups of banks in eight cities is shown in the accompanying diagram and table. The diagrams are drawn on a logarithmic scale in order that the percentage fluctuations in the lines representing velocity in different cities may be directly comparable. The use of this scale tends to distort somewhat the contrast in rate of velocity between the different cities, but shows more truly the relative size of fluctuations.

It is notable that the rate of turnover in New York City is much more rapid than in any other city reported, ranging from about sixty times a year to about ninety times a year. Chicago ranks second among the cities reported, with a rate of turnover of deposits between forty and fifty times a year. San Francisco, Boston, and four up-State New York cities follow in the order named. Syracuse shows the slowest rate of turnover, reaching, in August, 1921, a rate as low as seven times a year. It is clear that the rate of turnover bears some relation to the size of the city and its population, although there are a number of cases in which the order of ranking of the cities in velocity is different from their order in size of population. The population of Boston, for example, is considerably larger than that of San Francisco and the population of Buffalo is practically as large as that of San Francisco. The velocity of deposits in both Boston and Buffalo is less than in San Francisco. There are clearly other influences affecting the rate

WORKING SHEET FOR COMPUTING VELOCITY OF BANK DEPOSITS IN 42 NEW YORK CITY REPORTING BANKS.

[000 omitted, except columns 6 and 12.]

Week ended.	1 Debits to individual accounts; total for each week.	2 Time deposits +26 (to be subtracted).	3 Government withdrawals each week (to be subtracted).	4 Revised debits for each week.	5 Total debits each month.	6 Number of working days in each month.	7 Average daily debits.	8 Annual rate of debits, col. 7×302 (working days in year).	Date.	9 Net demand deposits.	10 Net due to banks (to be subtracted).	11 Revised demand deposits (average).	12 Annual rate of turnover of deposits (col. 8÷col. 11).
1922.									1922.				
Jan. 4	\$4,529,355	\$7,120	.....	\$4,522,235	.....	.....	.....	.....	Jan. 4	\$3,866,822	\$304,960	.....	.....
Jan. 11	4,592,367	7,370	\$5,884	4,579,113	.....	.....	.....	.....	Jan. 11	3,850,902	799,187	.....	.....
Jan. 18	4,766,247	7,196	16,884	4,742,167	.....	.....	.....	.....	Jan. 18	3,788,338	781,546	.....	.....
Jan. 25	3,933,296	7,367	6,233	3,919,696	\$18,571,486	25	\$742,859	\$224,343,418	Jan. 25	3,754,903	782,753	\$3,023,130	74.2
Feb. 1	4,233,272	7,333	.....	4,225,939	.....	.....	.....	.....	.....	.....	.....	.....	.....

COMMENTS.—Column 2: An investigation in 6 New York City banks showed that time deposits turned over on an average about twice a year. Checks drawn against time deposits each week therefore amount to about $\frac{2}{52}$, or $\frac{1}{26}$, of the amount of time deposits.

Column 5: In arriving at the monthly figures, the debits for weeks at the beginning and end of the month are included in proportion to the number of working days falling within the month. For example, $\frac{4}{7}$ of the debits of the week ended January 4 and $\frac{3}{7}$ of the debits of the week ended February 1 are included in January.

Column 10: This column is the excess of "Due to banks" over "Due from banks." If there is no excess, no correction is made.

of turnover besides size of population. Among the most important of these factors should probably be listed the size of the population in the immediate environment of the city and the character of the city as a financial center. The factor which correlates most closely with velocity is the amount of bank deposits. This relationship will be presented more fully later in this paper.

A second striking feature of the figures is the distinct seasonal movement in the velocity of deposits. In New York, for example, deposits turn over most rapidly in November and December, accompanying the heavy volume of retail trade preceding Christmas. In most years there is a secondary peak early in the summer, at the time when summer purchases are being made. The seasonal movement in Boston is closely similar to that in New York. In Chicago and San Francisco there is apparently no distinctive seasonal movement. The four up-State New York cities combined show a movement somewhat like that in New York City, but with less violent fluctuations. The diagram, which segregates the figures for these four different cities, indicates that the most striking fluctuations are in the case of Albany, which appears to experience a high peak of velocity in May or June of each year and a secondary peak in December.

The fluctuations shown in the diagrams for the past two years are clearly the result not simply of seasonal changes, but also of changes in the business situation. In most of the cities for which figures are available, velocity was at its highest in the latter part of 1919 or in the latter part of 1920. The figures for 1921 were almost universally low, and the greatest inactivity appears to have been reached in mid-summer of 1921. A considerable recovery has taken place since that time, particularly in the past few months.

VELOCITY IN THE UNITED STATES AS A WHOLE.

From the figures which have been computed for the velocity of deposits in eight cities it is possible to learn something of the velocity of deposits in the country as a whole, although the eight cities are not sufficiently representative to give a basis for anything more than an approximate figure for the country.

For the eight cities the average velocity, weighted by the amount of total bank deposits as reported in the Bankers' Encyclopedia, was 61 for the year 1920 and 56.9 for the year 1921. Even a casual inspection of the figures, however, makes it clear that this average is too high

to be representative of the country as a whole. The cities included in the computation are mostly large cities, which are to a considerable degree financial centers, and it is clear that the rate of deposit turnover tends to be more rapid in large cities and financial centers than in smaller communities.

In an effort to discover some general relationship, the rate of turnover in these eight cities has been compared with other factors, such as population, bank deposits, and bank deposits per capita. Of these three factors, the one showing the highest correlation with velocity was bank deposits. For seven of the cities (excluding Albany, which appears to be an exceptional case) the correlation between velocity and deposit figures was very close.

On the basis of the data for the seven cities (excluding Albany), an attempt has been made to estimate the velocity of deposits in other cities for which the only available data are those for bank deposits. The largest group of cities for which we have these figures is that published in the Bankers' Encyclopedia including 282 clearing-house centers and giving deposit figures for about December, 1921. The list includes 107 of the 134 cities of 50,000 or more inhabitants and includes also 175 cities of less than 50,000 inhabitants. Any average velocity computed from this list would undoubtedly be too large to be representative of the country as a whole, but it would be one step nearer to a country-wide figure than the weighted average computed simply from the eight cities.

On the assumption that velocity in these 282 clearing-house centers bears the same relation to deposits as in the seven cities studied, velocity figures have been estimated. The 24 cities reporting bank deposits over \$100,000,000 were treated individually. The remaining cities were divided into seven groups and a velocity figure for each group estimated. An average velocity for all the 282 cities was then computed, weighting the velocity of each group in accordance with the total amount of bank deposits in the group. The resulting figure is 36. The large amounts of bank deposits in such centers as New York, Chicago, and Boston give a weight to the high velocity in those cities which offsets in considerable degree the very low velocity for cities with deposits under \$100,000,000.

The 282 clearing-house centers used in this computation showed on December 31, 1921, total deposits of about \$26,000,000,000, as compared with total deposits for the country as a whole reported in the Bankers' Encyclo-

pedia at \$40,600,000,000. A minimum estimate of velocity for the country as a whole may be secured by assuming that the velocity in all centers not included in our tabulations was zero. The computation on this basis gives a velocity figure of 23.6.

On the basis of the foregoing computations it is probable that in 1920 and 1921 the velocity of circulation of individual demand deposits was at a rate somewhere between 25 and 35 a year.

SUMMARY.

(1) Figures now collected by the Federal reserve banks make it possible to separate the two elements entering into the volume of checks drawn, changes in the amount of individual bank deposits, and changes in the rate of turnover of deposits.

(2) The rate of turnover of deposits computed for groups of banks in 8 cities, for each month since January, 1919, ranges from a minimum of seven times a year in Syracuse to ninety times a year in New York City.

(3) Different cities reflect quite differently changes in seasonal demands for funds and cyclical changes in business.

(4) Velocity for the country as a whole in 1920 and 1921 is estimated at somewhere between twenty-five and thirty-five times a year.

ANNUAL RATE OF TURNOVER OF BANK DEPOSITS.

Year.	New York City.	Al-bany.	Buf-falo.	Roch-ester.	Syra-cuse.	Total 4 up-State cities.	Bos-ton.	Chi-cago.	San Fran-cisco.
	39 banks.	3 banks.	10 banks.	3 banks.	6 banks.	22 banks.	11 banks.	14 banks.	6 banks.
1919.									
January.....	64.7	33.0	16.5	16.7	15.3	18.8	31.7	.....	35.5
February.....	63.6	29.1	17.0	17.0	11.4	17.1	30.5	.....	39.6
March.....	62.1	27.4	17.8	16.7	9.0	16.0	31.4	.....	39.0
April.....	63.7	34.2	18.8	18.4	9.8	18.2	31.2	.....	34.0
May.....	72.4	40.6	18.4	17.5	8.6	18.0	34.2	.....	38.0
June.....	81.2	49.0	19.4	18.9	9.7	19.8	37.3	47.8	38.5
July.....	81.3	43.1	17.9	18.5	10.2	18.6	38.2	50.2	41.9
August.....	72.6	28.9	17.5	17.7	9.9	16.6	33.8	44.3	43.1
September.....	74.5	30.3	16.5	19.2	10.4	16.8	35.4	46.4	44.2
October.....	85.4	35.0	18.4	20.6	11.5	18.7	42.9	47.0	42.8
November.....	91.3	33.8	19.0	19.6	12.2	18.8	45.1	46.5	42.5
December.....	89.5	39.2	19.7	20.4	12.1	19.7	47.6	51.3	44.9
1920.									
January.....	83.1	24.6	21.0	20.0	11.6	18.9	42.5	50.0	40.9
February.....	77.0	28.7	19.4	19.6	10.8	18.5	37.4	44.1	42.6
March.....	76.6	25.7	18.6	19.2	10.0	17.4	38.0	45.3	43.1
April.....	77.3	32.2	18.8	20.9	11.7	18.9	39.4	46.3	40.3
May.....	70.6	34.6	19.9	20.5	11.4	19.5	38.0	47.0	40.7
June.....	68.7	32.9	19.4	20.6	11.7	19.2	36.1	49.7	39.4
July.....	67.1	35.0	22.3	20.4	12.8	21.0	36.2	48.2	38.5
August.....	62.7	32.1	19.9	19.8	11.4	19.0	30.8	46.3	35.4
September.....	66.0	31.8	21.1	21.4	11.6	19.9	34.4	51.5	41.6
October.....	77.5	32.6	22.8	21.9	13.2	21.2	37.0	50.8	41.6
November.....	79.1	31.8	22.2	21.9	11.6	20.5	38.0	46.9	40.2
December.....	83.8	35.9	23.1	22.5	11.5	21.3	39.0	49.4	41.8

ANNUAL RATE OF TURNOVER OF BANK DEPOSITS—Con.

Year.	New York City.	Al-bany.	Buf-falo.	Roch-ester.	Syra-cuse.	Total 4 up-State cities.	Bos-ton.	Chi-cago.	San Fran-cisco.
	39 banks.	3 banks.	10 banks.	3 banks.	6 banks.	22 banks.	11 banks.	14 banks.	6 banks.
1921.									
January.....	76.3	26.4	20.9	21.7	10.1	19.1	33.5	46.4	39.4
February.....	68.0	24.8	19.2	20.3	9.2	17.8	30.9	42.4	37.7
March.....	64.1	27.0	16.9	19.3	8.6	16.7	30.0	41.3	42.8
April.....	62.9	27.4	18.2	21.5	8.9	17.9	30.0	42.7	42.1
May.....	68.7	36.8	18.0	19.8	8.6	18.6	31.1	43.3	40.2
June.....	66.2	30.5	18.3	21.4	8.6	18.0	30.4	42.0	42.3
July.....	66.2	28.1	19.2	19.6	8.8	17.8	29.3	43.6	38.9
August.....	58.7	22.5	16.1	18.3	7.0	14.9	25.9	41.5	36.6
September.....	65.7	24.4	17.8	21.4	8.1	16.7	28.2	44.1	38.6
October.....	70.4	26.0	19.9	21.8	9.0	18.1	32.8	46.6	42.2
November.....	75.7	37.7	19.9	22.0	9.8	18.5	33.6	47.4	37.4
December.....	77.1	30.5	20.2	21.8	9.1	18.8	32.8	48.4	42.8
1922.									
January.....	74.2	28.5	20.1	21.7	8.3	18.6	32.4	47.3	43.9
February.....	75.2	25.4	18.9	18.9	8.2	17.3	29.6	49.7	37.7
March.....	75.4	22.4	18.0	19.2	8.1	16.4	32.7	49.3	41.2
April.....	79.9	29.4	19.5	19.9	9.2	18.6	33.6	47.1	39.1
May.....	77.8	28.6	19.7	19.1	8.4	18.1	31.4	44.5	37.3
June.....	75.7	26.2	20.2	22.0	8.5	18.3	33.4	45.6	37.6
July.....	74.2	24.3	21.9	19.7	8.3	18.7	32.3	41.7	37.1
August.....	65.2	22.1	18.3	17.8	7.3	15.9	24.7	38.4	34.4
September.....	68.6	21.6	20.4	21.1	8.4	17.5	28.6	41.9	40.7
October.....	86.3	24.0	22.6	23.6	8.8	19.3	34.3	43.7	37.4
November.....	77.4	25.8	23.0	22.3	9.7	19.6	35.5	41.4	39.7
December.....	79.9	31.4	24.5	22.7	9.6	21.0	32.4	45.9	39.9
1923.									
January.....	79.9	23.5	24.6	21.4	8.7	19.2	34.7	47.0	39.0
February.....	82.3	26.0	25.1	21.4	8.6	20.0	35.7	50.3	39.7
March.....	84.0	23.9	24.2	21.4	9.7	19.8	38.0	46.4	42.6

COTTON FINANCING.

IV. FINANCING AMERICAN COTTON EXPORTS.¹

Methods of financing the production of cotton and its marketing within the United States were described in previous sections of this study. It is the purpose of this article to analyze the importance of cotton in American foreign trade; to describe the methods of financing the exporter and of supplying credit in the importing country as the cotton awaits consumption; and to discuss the changes that were introduced during and since the war to facilitate the movement of cotton to foreign consumers.

A. COTTON IN AMERICAN FOREIGN TRADE.

The United States produces on the average about 60 per cent of the world's cotton crop. Approximately 35 per cent of the cotton pro-

¹ This is the fourth of a series of articles describing the methods of financing the production and distribution of cotton. The preceding articles appeared in the BULLETINS for February, March, and April, 1923.

Data upon which this study is based were obtained largely from information furnished by banks in the leading cotton-exporting cities, cotton-exporting firms, sections of the reports of the World Cotton Conferences, New Orleans, 1919, and Liverpool and Manchester, 1921, and reports of Government agencies. To all of the contributors acknowledgment is due, especially to Mr. John J. Sample, of the Guaranty Trust Co. of New York, whose cooperation was very valuable.

duced within the United States prior to 1913 was consumed by domestic mills and 65 per cent was exported. Since the beginning of the war domestic consumption has increased and the average consumption for the nine years, 1913-1922, was approximately one-half of the cotton produced and the remainder was exported.

Raw cotton has been one of the chief exports from the United States since the beginning of the producing industry. Small quantities had been sold to foreign countries from time to time before the Revolutionary War, but regular commerce did not begin until 1784. In that year 8 bags were exported to England. The development of the cotton-manufacturing industry in Great Britain during the last decades of the eighteenth century caused an increased demand for cotton, and exports increased gradually from 1784 to 1793, when more than 3,000 bales were exported. The invention of the cotton gin in 1793, combined with inventions and improvements in the cotton-manufacturing industry in England, gave a renewed impetus to the cotton-producing industry, and since that time cotton has been one of the chief commodities in American foreign trade. In 1800 the value of cotton exported was \$5,000,000, or 15.7 per cent of the total American exports; in 1913 cotton constituted 22.5 per cent of the value of all exports, but in 1921 the percentage exported, due mainly to disturbed economic conditions in Europe and to a rapid shrinkage in the value of raw cotton, was only 12.2 per cent. The value of all exports, cotton exports, and percentage of cotton to total exports, for selected years 1800-1921, are shown in the following table:

VALUE OF COTTON EXPORTS, ALL EXPORTS, AND PERCENTAGE OF COTTON TO TOTAL, SELECTED YEARS 1800-1921.¹

Year.	Value of cotton exports (000 omitted).	Value of all exports (000 omitted).	Percentage of cotton to total.
1800.....	\$5,000	\$31,841	15.70
1810.....	15,108	42,367	35.66
1850.....	71,985	134,900	53.36
1870.....	227,028	376,616	60.28
1900.....	241,833	1,370,764	17.64
1910.....	450,447	1,710,084	26.34
1911.....	585,319	2,013,549	29.07
1912.....	565,849	2,170,320	26.07
1913.....	547,357	2,428,506	22.54
1914.....	610,475	2,329,684	26.20
1915.....	376,218	2,716,178	13.85
1916.....	374,186	4,272,178	8.76
1917.....	543,075	6,227,164	8.72
1918.....	665,025	5,838,652	11.39
1919.....	1,137,371	7,749,816	14.68
1920.....	1,136,409	8,080,481	14.06
1921.....	534,242	4,378,928	12.20

¹ Fiscal years to and including 1918; subsequently, calendar years.

While the domestic cotton-manufacturing industry has developed rapidly and is consuming yearly large quantities of domestic cotton, foreign markets are still the principal consumers of the American crop and, therefore, are important in determining the economic situation of the cotton producers of the Southern States. The cotton-producing industry has expanded to meet the increased demand from cotton manufacturers, and the economic welfare of both is closely interwoven. The early expansion of the industry and the development until the beginning of the Civil War were to meet the increased demand from abroad. From 1870 to 1913 exports were approximately 65 per cent of the annual production, but since 1913 domestic consumption has been increasing and total exports have been slightly smaller. The importance of foreign markets to the cotton-producing industry is indicated in the following table, which shows the yearly production, exports, and percentage of cotton exported for selected years from 1800 to 1921:

AMERICAN COTTON PRODUCTION, EXPORTS, AND PERCENTAGE OF COTTON EXPORTED, SELECTED YEARS 1800-1921.¹

[Including linters.]

Year.	Production (000 omitted.)	Exports (000 omitted.)	Percentage.
	<i>Bales.</i>	<i>Bales.</i>	
1800.....	73	42	57.5
1810.....	178	124	69.7
1850.....	2,136	1,854	86.8
1870.....	4,025	2,923	72.6
1900.....	10,266	6,807	66.3
1910.....	12,006	8,206	68.8
1911.....	16,250	10,681	68.1
1912.....	14,313	9,199	64.3
1913.....	14,795	9,256	62.5
1914.....	16,992	8,931	52.5
1915.....	12,123	6,406	52.8
1916.....	12,781	5,964	46.6
1917.....	12,428	4,587	36.9
1918.....	12,970	5,664	43.7
1919.....	12,029	6,761	56.2
1920.....	13,880	6,026	43.4
1921.....	8,351	6,476	77.5

¹ Statistical Abstract, Bureau of Foreign and Domestic Commerce; and Cotton Production and Distribution Bulletins, Bureau of the Census.
² The high percentage in 1921 is due largely to the small crop of that year, as total exports showed an increase over the preceding year.

As foreign spinners were the most important consumers of American cotton prior to the World War, customary methods of exporting had their inception in the early days of the industry, and the machinery for handling the exports was gradually developed to meet the needs. The yearly exporting period had closely followed harvesting and movement to markets within the United States. A study of the periods of exporting for the 10 years, 1912-13

to 1921-22, shows that prior to the war more than 65 per cent of the cotton was exported during the months of September, October, November, December, and January; that during the war the percentage exported in these months was approximately 55 per cent, and since the war the exports have tended to become more regular, as 45 per cent was exported during the five corresponding months. The percentage of cotton exported, by months, from 1912-13 to 1921-22, inclusive, is shown in the following table:

PERCENTAGE DISTRIBUTION OF COTTON EXPORTS, BY MONTHS, 1912-13 TO 1921-22.
[Linters included.]

	1912-13	1913-14	1914-15	1915-16	1916-17
August.....	2.84	2.81	0.25	2.62	7.41
September.....	8.30	10.17	1.47	8.10	9.40
October.....	17.24	18.59	5.82	10.91	13.88
November.....	19.73	16.40	8.91	8.47	12.78
December.....	15.82	13.45	14.07	9.02	13.34
January.....	10.24	11.50	16.06	8.71	10.47
February.....	6.04	8.21	17.57	11.37	6.23
March.....	4.23	7.60	14.14	7.49	6.19
April.....	6.08	4.35	7.87	8.44	4.74
May.....	5.33	4.31	7.20	8.24	6.55
June.....	2.55	3.23	3.78	8.88	4.28
July.....	1.60	1.38	2.86	7.75	4.73

	1917-18	1918-19	1919-20	1920-21	1921-22
August.....	10.27	5.08	7.26	2.53	6.70
September.....	10.14	6.47	3.59	3.93	8.26
October.....	11.86	6.78	5.34	10.07	13.85
November.....	9.35	6.18	14.01	11.79	10.27
December.....	10.66	10.33	13.29	13.62	10.13
January.....	10.33	11.62	14.09	10.44	7.53
February.....	8.04	7.94	9.70	8.51	5.36
March.....	6.96	8.90	12.04	6.47	7.31
April.....	4.87	7.27	8.28	5.52	9.47
May.....	6.52	7.85	5.53	8.24	7.43
June.....	6.11	12.18	3.66	8.55	7.78
July.....	4.89	9.34	3.21	10.33	5.91

Principal export markets.—The principal export markets for American cotton before the war were England, Germany, France, Italy, Austria, and Spain. Other countries of Europe were important consumers of cotton, but the ones mentioned were the most important and the South looked to them to consume her surplus of raw material. At the outbreak of the war the regular channels of commerce were disorganized and central Europe, including Germany, was almost entirely cut off from the American markets, and since then new markets have been sought to take the surplus that was formerly taken by Germany and Central Europe. Although Japan did not begin taking American cotton until the last decade of the nineteenth century, she gradually increased her takings until 1910, but it was during the years 1910 to 1922 that her American cotton imports

increased from 95,000 bales to 895,000 bales. The increased exports to Japan since the beginning of the war have partly offset the reduced demands of Germany and central Europe. In addition, larger quantities of cotton were taken by the neutral countries of Europe during the war than before that period, a factor which further tended to reduce the surplus caused by decreased consumption in belligerent Europe.

In spite of the fact that Germany has increased her cotton imports since the war, almost all countries of Europe are suffering from disturbed economic conditions, and as a result cotton has been imported and financed under conditions which are quite different from those in pre-war years. Since 1920 exports to the United Kingdom have decreased from 3,445,000 bales in that year to 1,787,000 in 1921 and 1,807,000 bales in 1922. This has been due partly to the decreased demand from Europe for English yarns and cloth resulting from reduced purchasing power of continental consumers, and also to increased imports of cotton into English markets from other producing countries of the world.

Methods of shipping cotton abroad.—Methods of distributing cotton abroad have developed with the growth of the producing and manufacturing industries. Prior to the Civil War, when cotton was grown by large planters, consignments for sale were often made to English merchants who had extended credit to the producers. The planter would thereby liquidate his obligations to the merchant and receive additional supplies or build up credit with the merchant, to be used in producing the next crop. The plan was similar to that in use in some sections by planters and factors in marketing and financing the crop under present conditions. Cotton was also distributed through factors who consigned it to agents abroad, who in turn disposed of it to spinners. After the war between the States the cotton exchanges of Liverpool, New York, and New Orleans were organized, and as new methods of marketing cotton in the United States developed changes in the methods of exporting were evolved.

The English spinners procure their cotton through channels similar to those by which the raw fiber makes its way into the hands of American spinners. Cotton is shipped to Great Britain by three classes of dealers: (1) By American shippers, who consign it to Liverpool merchants; (2) by buyers sent out from Liverpool and Manchester houses; or (3) by Ameri-

can firms which have branch offices in England.²

The importing merchant does not always deal directly with the spinner. The customary method of disposing of cotton in Liverpool is through a selling broker. The spinner usually employs a buying broker, who assembles samples of the required grade to be inspected by the spinner on his weekly visit to Liverpool. The spinner who purchases cotton in this manner usually has one or two buying brokers with whom he deals. The selling broker, representing the importer, and the buying broker, representing the spinner, each receive a commission, generally of one-half of 1 per cent of the value of the cotton. In Manchester the importers, who have head offices there, usually serve as merchants and deal directly with the spinners. Importers of Liverpool often have agents at Manchester and the method of dealing with spinners is similar to that used in Liverpool. While some merchants sell several kinds of cotton, others handle only a special type, such as long-staple cotton from the Mississippi Delta, or some other special grade.

Unless the market is very favorable the English spinner seldom buys a large stock of cotton early in the season. He usually buys to cover yarn sales, and few mills have warehouse accommodations for more than one or two months' consumption. Importers and merchants maintain large warehouses at Liverpool and Manchester, where cotton is held pending delivery. Spot cotton is usually bought by the spinners for immediate delivery, although contracts for future deliveries of so much per month are often made. These contracts for future delivery often extend over several months. Price for spot cotton is generally determined by the current quotations, but for future deliveries it is often arranged that the spinner shall pay a certain number of points "on" or "off" the Liverpool cotton exchange quotation at the time he receives the cotton or at whatever time he designates. The actual payment for the cotton may not be made until 60 days after delivery, but shorter terms are more commonly used.

Formerly European spinners obtained large quantities of cotton through Liverpool, but the markets of Bremen and Havre have become important distributing points on the Continent. The German and central European mills are supplied mainly through Bremen,

while the French mills purchase most of their cotton through Havre. While prior to the war some German spinners bought part of their material directly in America and some was consigned to Bremen by American shippers to be sold on commission, the bulk of the cotton was handled by Bremen importers and merchants who disposed of it through agents located in the manufacturing centers. French spinners also formerly bought part of their supply directly from American shippers, but the bulk of the American cotton is now bought from Havre merchants through agents residing in the mill districts. Havre merchants buy the cotton from importers and American shippers, generally through the medium of brokers. In view of the disturbed financial conditions which have prevailed in Europe since the war, the old-established methods of importing and financing cotton have been changed. Some cotton is still consigned by American shippers to agents and importers, but mills have been unable to take large quantities of cotton, and consequently new methods of selling and distributing cotton have been introduced, with which the problem of financing is closely interwoven.

B. FINANCING COTTON EXPORTS.

The problem of financing American cotton that enters international trade can be divided into two parts—(1) that which relates to the handling of the transaction in the exporting country, and (2) that which deals with the credit arrangement that is used by the importer in establishing credit to make cotton purchases and financing the shipment until it reaches the spinner. Shipments from the United States follow demands from abroad and the initial steps in arranging credits are taken by the importer with his bank in the importing country. But, as the problem is largely one of exports from the standpoint of the United States, it is advisable to analyze, first, the steps in financing exports and, second, the methods used by importers in establishing financial connections to make their purchases and to finance the cotton after it arrives and while it awaits consumption. In order to discuss the problem from the standpoint of the exporter it must be assumed that the initial steps for financing the transaction have been taken by the importer.

As England is the greatest consumer of American raw cotton the methods of financing exports have developed from practices that had their inception in the London discount

² This description of the methods of distributing cotton in Great Britain and on the Continent is based in part upon "The Cotton Manufacturing Industry of the United States," Chapter XXI, p. 354, by M. T. Copeland.

market and the Liverpool cotton market. Formerly three principal plans were used in financing cotton to the United Kingdom and to the Continent, namely, (1) bankers' commercial credits; (2) importers' acceptances; and (3) spinners' acceptances. These methods are still used in financing sales to England and to a large extent to some countries on the Continent, but new methods have been established to finance sales to the countries of Europe that have been undergoing disturbed financial conditions resulting from rapidly depreciating currencies.

Bankers' commercial credits.—Bankers' credits are still the universal system of financing sales to the United Kingdom and are the most important methods used. Under this method the importer arranges with his bank in England to accept drafts drawn on it by the American cotton exporter for the account of the importer. The importer and exporter then enter into a sales contract concerning a given number of bales of cotton of specified grade. At the same time the importer notifies the exporter of the name of the bank upon which the draft is to be drawn. The exporter prepares the cotton for shipment; if it is at a port he delivers it to the steamship company and secures an ocean bill of lading, insurance policy, and other shipping documents, but if the cotton is at an inland city the exporter delivers it to the transportation company and secures a "through" bill of lading. The cotton is then moved to the port and loaded on the steamship.

The exporter then draws a sterling draft at 60 or 90 days' sight upon the importer's bank and discounts his sterling bill with a bank. In many cases, however, where the exporter's local bank does not deal in foreign exchange, he draws a dollar draft on a bank in New York which has consented to buy the sterling draft. If the shipment is made from a southern port the exporter presents the New York dollar draft to his southern bank, accompanied by the sterling draft, bill of lading, marine insurance certificate, and other documents. The southern bank applies the amount of the draft in repayment of the advances, in case some were made in purchasing the cotton, and credits the remainder to the account of the exporter. The dollar draft, accompanied by the sterling bill and documents, is forwarded to the southern bank's correspondent in New York, who presents it to the bank that has contracted to purchase the exchange and upon payment of same surrenders to it the sterling draft and accompanying documents.

The bank that has bought the sterling draft sends it forward immediately to its agent in London, who presents it to the importer's bank for acceptance. The accepting bank retains the bill of lading and insurance certificate as security against its acceptance, which is then held until maturity for account of the American bank with its agent or correspondent in London. If funds are needed the acceptance is disposed of in the London discount market. Under this method of financing cotton the entire transaction, from the standpoint of the English importer and his bank, is based entirely on credit, as no funds are advanced by either of them.

Importers' trade acceptances.—While the bulk of cotton going to the United Kingdom is financed largely in the manner outlined, some cotton is moved on bills drawn directly on the importers. The original steps in preparing the shipment are taken in the same manner as in the case of bankers' commercial credits, except that the foreign buyer notifies the American exporter at the time the cotton is ordered to draw a sterling draft on him (the importer) covering the shipment. The draft, accompanied by the shipping documents, is then forwarded to the correspondent of the southern bank in New York and the same method of procedure as in the case of bankers' credits in handling the exchange is followed. The bank which has purchased the draft sends it forward to its agent in London, and the agent presents it to the importer for acceptance. The banking agent presenting the draft is generally requested to retain the shipping documents until the cotton arrives in England. In case the importer takes up the acceptance before its maturity a rebate is allowed, but if the bank advances funds to take up the acceptance under rebate or at maturity the bank generally holds the documents as security for the advance.

Spinners' acceptances.—Some cotton is exported directly to spinners, the shipments and bills arising in the same manner as those described for importers, but this method is only used to a limited extent. Spinners generally prefer to purchase cotton through cotton merchants or importers, but on account of disturbed financial conditions a few American exporters have exported some cotton to Europe in this manner. Exports to continental spinners under spinners' acceptances are usually insured against loss through indemnity insurance companies making a specialty of this type of business. They usually insure the pay-

ment for about 75 per cent of its amount, and the American exporter carries the remaining 25 per cent. Some of these bills have been discounted by American banks, but this method of exporting has not made much progress and is not considered a very favorable method of financing cotton exports by American bankers. The extent to which they have been willing to discount such acceptances has depended upon the financial standing of the American exporter, the drawer of the bill.

Currencies used in drawing bills.—Before the war interrupted the machinery used in financing exports, it was customary for the exporter to draw his reimbursement draft in foreign currency. This was due to the lack of a discount market in the United States and to the fact that American banks, with few exceptions, had no authority to grant acceptance credits. The pound sterling was the principal currency used for the drawing of cotton bills, and these were sold in the London discount market, where they were considered generally as credit instruments of the highest type. In addition, franc and mark bills were used freely in financing sales to the Continent. This custom continued mainly in the trade with Great Britain and with the principal cotton-consuming countries on the Continent. However, during the war France found it necessary to purchase large quantities of cotton, but as the franc and pound sterling had become unstable, the French commission in charge of purchases arranged for reimbursement in United States dollars for cotton purchased in the United States.³ Since the war this method has been followed by most continental countries, as the continued fluctuations of continental exchanges have made it desirable for American exporters to do business with Europe on a dollar basis. Cotton is quoted in cents per pound landed at a European port. The European importer, when he contracts by cable for an order of cotton, contracts in his country for dollars in New York in order to meet the draft drawn in dollars by the American exporter. Some cotton is sold to England and reimbursement made by way of New York bank credit in dollars, but the extent to which exports to England are financed on this basis is very small; the old basis of sterling credits has continued.

C. FINANCING COTTON IMPORTING.

The problem of financing cotton imports concerns primarily the importer and his bank in financing cotton after it arrives in the im-

porting country and as it awaits sale to the spinners.

Arrival of cotton in England.—Having traced the movement of cotton, the origin of the documents in the United States, and the methods used by the exporter and the American banks in handling the sterling drafts, the next problem that arises is the handling of the cotton after it arrives in England. When the cotton arrives the importer receives the shipping documents from the bank that accepted the draft, or holds them for his account, with instructions to claim the cotton from the steamship company and warehouse it in the name of the bank or hold it in trust for the bank pending sale. The importer gives a trust receipt to the bank on receiving the bill of lading and becomes the trustee for the bank in handling the cotton, which is generally held by the importer, properly insured, in warehouses at Liverpool or Manchester for the account of the bank. If the goods are sold to a spinner immediately, the proceeds are surrendered to the bank in liquidation of the acceptance or to reimburse the bank for advances that were made to the importer to enable him to take up the acceptance under rebate.

Unlike the American manufacturer, the English spinner does not purchase large quantities of cotton in advance. On the other hand, the importers of Liverpool and Manchester usually keep large quantities of raw cotton in warehouses in these cities in order to meet the demands from the spinners. In order to keep the necessary supplies of raw cotton on hand the importers must sometimes hold it for long periods of time, varying from several months to a year. This necessitates financing over long periods.

Financing stored cotton in England.—Most of the cotton shipped to England is financed by means of acceptance credits furnished either by banks in England or by cotton importers of strong financial standing. These bills are made to mature generally within 60 to 90 days, but as cotton is often stored for longer periods, additional financing is necessary. Acceptances under which cotton is moved from the United States are usually discounted in the London money market at a comparatively low rate, but it is customary to liquidate the bills at maturity and use other methods for carrying the cotton.⁴

³ FEDERAL RESERVE BULLETIN, September, 1921, p. 1066.

⁴ This and the following paragraphs are based upon "Finance of the Cotton Trade," prepared by Peter Forrester, managing director, Union Bank of Manchester (Ltd.), and director of Barclays (Ltd.), and printed in Oldham and District Journal of Commerce, April, 1920.

If the importer has ample means of his own, he provides the bank with funds to meet the acceptance when due and carries the cotton himself until it is sold. But, as few importers are thus situated, one of the following three plans is used: (1) A bill is drawn by the importer on an "accepting house," and the cotton is stored in a warehouse in the name of the "accepting house." The bill accepted by the "accepting house" is discounted by the importer with his bank, or elsewhere. This is the cheapest form of financing, practically controlling the charges on all other methods, and is used generally for large operations. The cost of this method is, accepting commission (usually one-fourth to three-eighths of 1 per cent for 3 months' bill), plus bill stamp (equal 4 s. per 100 pounds per annum), plus cost of discounting the bill. (2) The importer draws a bill, generally at 3 months, on the broker to whom he intrusts the cotton for sale, and discounts this bill with his bank and stores the cotton to the bank's order as security for the payment of the bill. The importer who is financing the cotton is willing to pay a little more to the bank for this accommodation than he would have to pay under method (1), as the broker does not charge a commission for accepting. Also it is more convenient, as it can be carried out locally without the intervention of the London "accepting house." In cases where the importer is selling cotton himself, and does not employ a broker, he can not avail himself of this method. (3) The importer goes to his bank and takes a loan for 3 months and stores the cotton in the bank's name, and thus avoids the intervention of any third party, and he will usually pay a little more for this than he would under methods (1) and (2), as it is less troublesome and is entirely between him and his bank.

In all three cases the cotton, or some of it, will usually be sold before the period of the advance has elapsed, and it is customary for the bank to receive these payments and make an interest allowance for them.

Hedging.—While the marketing and distribution of cotton is a gigantic financial task for the financial institutions in the United States and those of all the principal cotton-consuming countries of the world, the ease and effectiveness with which the crop is handled is due in a large measure to the organized cotton exchanges of the world and the facilities which they offer for insuring against the risks which accompany fluctuations in the cotton market, resulting from daily price changes. Use is made of exchanges in the United States and Liverpool

in buying and selling futures throughout the year. When a cotton merchant buys a lot of 100 bales of cotton during the marketing season he either sells it immediately to another merchant, spinner, or exporter, or sells in one of the principal cotton markets a future contract for the same number of bales of cotton in order to protect himself as far as possible in the event of a decline in the value of his purchased cotton. If cotton is bought in October the merchant may immediately sell a January or any other future-month contract against it. This transaction is known as a "hedge" and serves as a method of protecting the merchant against losses in case of a decline in the market. If the cotton is sold in the meantime the merchant cancels the "hedge" by buying in the future contract.

In the United States two future-contract markets—New York and New Orleans—are used by merchants, brokers, exporters, and others, but the principle of hedging is of even greater importance to the importers in England and on the Continent. When an importer buys cotton in the United States in 100-bale lots he immediately sells a future contract in the Liverpool market covering the amount purchased to protect himself against price declines while the cotton is en route from the exporting country. Thus, if an importer buys cotton in October or November in the United States, he usually sells a January or March future contract against it in Liverpool, the future month being determined by the approximate date of arrival or sale of the cotton.

The problem of hedging is of great importance to the banks that extend credit to the merchants who handle cotton in the United States as well as to the banks that finance its importation. If the American cotton merchant keeps his cotton hedged through the sale of future contracts the loans are more secure and business can be transacted on a much narrower margin than on cotton that is unprotected. In England the banker is primarily interested in keeping cotton hedged, because he has accepted the bills under which it is moving, and if it was not thus protected the margin maintained on cotton loans would have to be much larger to insure the bank against loss.

Payment of differences.—An important problem in connection with hedging is that of the payment of "differences." As cotton rises in value the seller of a future contract is required to pay "differences" for the protection of the buyer of the contract. In New York payment of such differences may be called for daily,

but in Liverpool it is called for once a week, and the banker holding the actual cotton that has been hedged often has to furnish the importer with money required to meet the differences. Oftentimes the bank is called upon to provide differences for a greater number of bales of cotton than the number against which it has made advances or given acceptances. Differences may even represent cotton that has been shipped to England but not yet arrived. In such cases the bank is less eager to provide money to meet the differences than when the cotton is actually in its possession.

In a falling market the opposite conditions prevail, and the importer will receive differences in respect of hedges. Such differences enable him to keep up the margin which his banks require in the value of the cotton held by them as a security.

D. CHANGES BROUGHT ABOUT BY THE WAR.

At the close of the war the established practices of distributing and financing cotton were found to be in many respects impracticable, partly because they had grown up during a period when the United States was a debtor country and cotton exports had been an important means of settling international balances. As a consequence of changes brought about by the war, which have made the United States into a creditor nation, the burden of financing American cotton for export has been largely shifted to financial institutions within the United States.

Consignment of cotton abroad.—As has been indicated, cotton is often consigned to Europe by American exporters and held in storage in the ports to meet the demands from the spinners. This method, although not an entirely new departure, is used extensively in distributing cotton to continental consumers. Such cotton is consigned to a representative of the American exporter located in one of the principal European ports and is financed entirely in dollars. The exporter contracts with an American bank, generally in New York, to finance his transaction. At the time of consignment the exporter usually draws a sight draft of 90 days with documents attached, on the New York bank for 80 per cent of the value of the cotton. The draft is accepted, documents detached, at an agreed commission, and the drawer (the exporter) then discounts it in the open market and obtains dollars, with which he reimburses the bank in the South that financed the cotton up to the port. The New

York bank then forwards the documents to its correspondent in the European port, with instructions to receive and warehouse the cotton on arrival and hold the warehouse receipts under control. The receipts are delivered against sales contracts made by the agent or representative of the American exporter, but documents are delivered to the purchaser only against payment. The proceeds are remitted by the European bank direct to the bank in New York that accepted the original draft. The funds are then held pending maturity of the exporter's obligation and finally used for liquidating the original loan, the excess being credited to the account or paid to the exporter. During the last few years this method has been used extensively and has been a great relief to the European spinners who have been unable to finance their requirements as formerly. The plan has necessitated the keeping of stocks of cotton by American exporters in the principal European ports in order to supply the spinners who have been forced to purchase their consumption requirements weekly or monthly. The furnishing of cotton in this manner to Europe and, of late, also to Japan, has necessitated the development of efficient organizations by export concerns for handling cotton in the importing country.

Dollar credits.—In view of the disturbed financial conditions existing in Europe since the war, many American exporters who are still selling cotton on the pre-war plan demand that their reimbursement credits be opened with New York banks, to which they may deliver the shipping documents and receive the amount of their invoice in dollars. In some cases the exporter draws on the New York bank in dollars at 60 or 90 days' sight against delivery of the documents. The exporter then has a prime New York bank acceptance which he can sell in the open market at favorable rates. Such credits are generally opened in New York by European banks for due payment, so that when drafts are paid or accepted the New York bank forwards the documents direct to the European bank, which disposes of them to the importer.

Within the last few years many European importers have been buying cotton in dollars, payment to be made at the foreign port on arrival of the vessel carrying the cotton. Exporters doing business on this basis have been financed by New York banks and a large volume of business has been handled in this manner. The banks generally depend upon the exporter and the documents covering the

shipments, which are hypothecated for their security. Banks report that the plan has worked very satisfactorily, and it is estimated that approximately 65 per cent of the total American cotton exports are financed by means of dollar credits.

Insurance.—In connection with the methods that have been introduced in financing cotton under present conditions the problem of insuring cotton that is consigned abroad has likewise undergone changes. Before the war all risks affecting cotton were covered by foreign insurance companies, and such methods continued for a time after the beginning of the war. However, when the American banks, on account of the violent fluctuations in foreign currencies, began to finance exports on a dollar basis, it became necessary for the cotton to be insured in dollars, so as to protect those making advances on it. American companies began to enter the field, and now practically all of the cotton stored abroad is insured immediately after discharge from the steamer against loss by fire, civil riots, strikes, lockouts, and general disturbances. The risks are carried in dollars. In addition, American companies are also insuring against marine risks, but a large volume of these risks are still carried by British companies.

Banking legislation.—While the war was instrumental in causing changes to be made in methods of exporting and financing cotton, American banking laws have been amended and changed to permit greater participation by American institutions in handling the transactions. Through the passage of the Federal reserve act acceptances were introduced into American banking practice, but later legislation was enacted that permitted the establishment of additional institutions to facilitate American foreign trade.

Edge law banks.—While national banks were permitted under the Federal reserve act to grant acceptance credits, additional institutions to facilitate foreign trade were provided for through the Edge Act, which was approved in December, 1919. According to the Federal Reserve Board's regulations, Edge law banks were empowered, under certain conditions, to accept drafts or bills of exchange growing out of transactions involving the importation and exportation of goods, and having a maturity not in excess of six months except with the approval of the Federal Reserve Board. Several of these corporations have been organized and have aided in financing cotton exports along new lines required by post-war conditions.

The Federal International Banking Co. of New Orleans, organized about the close of 1920 under the Edge Act, for the accommodation of southern foreign commerce, has been instrumental in facilitating the export of more than 700,000 bales of cotton.⁵ In order to use the facilities offered by the Edge corporations the exporter establishes his credit with the corporation, and the bank agrees to finance the transaction within certain limits and upon certain terms. Having established a credit, the exporter sends to the Edge bank his "documentary drafts" (the draft or bill on the foreign customer with consular invoice, ship's bill of lading, and insurance contract attached), which the bank sends to a foreign correspondent bank to collect. The exporter then draws a draft upon the bank payable on the date agreed upon (usually the date when the money from the foreign collection will reach the Edge law bank) for the amount which the exporter wants advanced against the shipment. The second draft is accepted by the bank and discounted by the exporter in the open market.⁶

War Finance Corporation.—In the autumn of 1920, when the collapse of commodity markets became acute and likewise exports failed to move in the usual manner, emergency legislation appeared necessary to relieve the situation. The War Finance Corporation was revived in January, 1921, after having suspended its activities in May, 1920, "with the view of assisting in the financing of the exportation of agricultural and other products to foreign countries." Cotton being the country's greatest agricultural export, attention was given immediately to the conditions affecting its export.

Financing cotton through the corporation.—In order to aid the exportation of cotton, the first step taken by the corporation was to make advances to finance the carrying of stocks of American cotton in foreign warehouses. This did not seem sufficient to meet the needs at the time and the corporation then began to make advances on cotton stored in the United States, but under contract for sale abroad. Under its export powers the corporation financed cotton and other agricultural commodities for export under the following conditions:⁷

- (1) For prompt shipment against deferred payments.
- (2) For future shipment within a reasonable time, against either prompt or deferred payments, where the products are under a definite contract of sale.

⁵ Federal International News, February, 1923.

⁶ Todd, Frederick, "The First Year of Edge Law Banking." Economic World, Feb. 26, 1921.

⁷ Annual report of War Finance Corporation, Nov. 30, 1921.

(3) For prompt shipment to warehouses in foreign distributing points, to be held there for account of American exporters and bankers for marketing out of warehouses.

(4) For shipment within a definite period, the products to be held in warehouses in this country until they can be marketed abroad in an orderly manner, the applicant to give definite assurance that the agricultural products pledged as security for the advance will be exported before the maturity of the advance, to an aggregate amount (including insurance and freight if paid by the exporter to domestic insurers and carriers) not less than the amount of the advance.

Loans were made to exporters who were engaged in the business of exporting domestic products to foreign countries and to banks that were engaged in the financing of exports. The corporation from January, 1921, to November, 1922, inclusive, advanced \$38,654,000 for export purposes, of which advances for the exporting of cotton totaled \$26,561,000. Of the total loans for exports purposes \$7,547,000 were advanced to exporters, \$2,638,000 to cooperative marketing associations, and \$28,469,000 to banking and financing institutions.⁸

While the corporation originally offered to make advances for cotton exports under certain conditions, it soon became evident that applications for advances were not being made on a sufficiently large scale to become an important factor. A further step became necessary. Early in July, 1921, the corporation agreed to advance funds to cooperative associations to finance the carrying of cotton until it could be exported. Methods used by cooperative associations in financing their cotton transactions will be described in a subsequent article.

Finishing credits.—In addition to the plans which were introduced to extend credits to aid the financing of the exportation of cotton, other methods were developed for shipping cotton abroad. At the Brussels Financial Conference in September, 1920, a "finishing credits" plan was adopted. Under this plan it was thought that cotton could be exported to Europe by American firms to be manufactured into yarns and cloth and be sold in the world's markets, and the proceeds distributed to the original owners of the cotton.

Operation of plan.—The plan was an entirely new departure in American export methods, and necessitated the working out of considerable details in the methods of handling the transaction. The plan adopted and put

into operation was known as the "toll plan" of exporting and financing. The owner who desired to dispose of his cotton under this plan shipped it to the company handling the transaction at the nearest American port. The cotton was inspected and classified and all that was suitable for manufacture under the contract was accepted irrevocably for account of the foreign mills by an agent of the mills. The owner received in return for his cotton a trust receipt and participation certificate, and his particular cotton was combined in lots of 100 or more bales with other cotton of like staple and grade. The cotton was then exported to Hamburg, where it was received by the agent of the mills, principally in Czechoslovakia. The mills received the staple under a trust receipt, guaranteeing to manufacture the cotton into such yarns and cloth as directed. Thus, the cotton was held and manufactured by the mills as trustees for the owners, and the banks in Prague and Vienna guaranteed the transaction.

The yarns and cloth made from the cotton were redelivered by the mills to the warehouses of the company, usually at Hamburg or other European ports, where it was sold. The proceeds of the sales, after deducting the cost of manufacture, handling, shipping, commission for services both in America and abroad, were distributed in proportion to the amount and value of the cotton shipped by each individual owner.

In order to complete the cycle of manufacture and to resell the goods it was estimated that from 6 to 9 months would be required. Funds for financing the process during this period were obtained through the agencies handling the cotton. The documents representing the cotton during the entire period were pledged with banking companies against which acceptances were issued. Loans were made to the owners of the cotton up to a certain percentage of its value, against which the company had a first lien on the cotton. From the proceeds borrowed it was estimated that approximately \$20 per bale (1921) were needed to meet expenses arising from handling the cotton. This was retained and the remainder was advanced to the owner of the cotton.

More than 20,000 bales of cotton have been exported in this manner, and a considerable part of such cotton was of very low grade. The returns are reported to have been profitable. The plan has been reasonably satisfactory and the yield to the owners was more than could have been received for the cotton in the domestic market at the time the shipment

⁸ Annual report of War Finance Corporation, Nov. 30, 1922.

was made. However, the continued demoralized conditions in Europe have caused delays in final liquidation recently, though it is stated that such liquidation will be made within a few months and on a satisfactory basis. The rise in the spot-cotton market in the United States has made it attractive for owners to sell in local markets, and further efforts at the present time to export cotton for fabrication have not been attempted.

CONDITION OF STATE BANKS AND TRUST COMPANIES ON JUNE 30 AND DECEMBER 29, 1922.

Since the publication in the April FEDERAL RESERVE BULLETIN of the consolidated statement of condition as of the middle and end of 1922 of State banks and trust companies, figures have been received from the Missouri State Banking Department showing the con-

dition on December 6 of the past year of the banks subject to State supervision.

In the following table are shown comparative figures of the principal assets and liabilities of the Missouri State banks and trust companies (including 3 private banks) on April 3, as given in the report of the Comptroller of the Currency and on December 6, the date of the most recent condition report published by the State Banking Department, also amended middle and end-of-year figures for State banks and trust companies in the Middle West section of the country and in the United States as a whole. The inclusion of figures for over 1,500 additional banks does not cause sufficient changes in the totals to call for new comment or discussion. In making comparisons between developments in Missouri and elsewhere one should remember, however, that the interval between the two condition statements for the Missouri banks in the following tabulation is about 9 months, as against 6 months for the banks in most of the other States.

PRINCIPAL RESOURCES AND LIABILITIES OF STATE BANKS AND TRUST COMPANIES IN MISSOURI AS OF APRIL AND DECEMBER, 1922, ALSO TOTALS FOR MIDDLE WESTERN STATES AND GRAND TOTALS FOR THE UNITED STATES.

[In thousands of dollars.]

	Missouri.		Total Middle Western.		Total United States.	
	Apr. 3.	Dec. 6.	June.	December.	June.	December
RESOURCES.						
Number of banks reporting.....	1,516	1,501	8,267	8,271	20,894	20,901
Loans and discounts.....	544,673	620,106	4,536,466	4,724,766	13,280,121	13,489,420
Overdrafts.....	984	1,204	6,216	8,962	21,421	30,702
United States Government securities.....			313,441	358,702	731,302	739,502
All other securities.....	116,731	192,000	1,211,915	1,361,882	4,278,447	4,969,872
Total investments.....	116,731	192,000	1,525,356	1,720,584	5,009,749	5,709,374
Banking house, furniture, and fixtures.....	18,920	21,035	177,559	188,063	572,559	611,326
Other real estate owned.....	4,241	4,740	37,952	41,706	118,811	120,086
Due from banks.....	109,947	139,938	488,895	547,571	1,272,337	1,357,918
Reserve with Federal reserve or other banks.....			299,956	247,421	1,174,624	1,137,384
Checks and other cash items, including clearing-house exchanges.....	13,734	10,605	125,972	165,353	674,067	688,833
Cash on hand.....	16,137	21,653	154,837	213,448	449,966	597,849
Other resources.....	26,398	34,720	167,738	177,709	540,424	589,754
Total.....	851,765	1,046,001	7,520,947	8,035,583	23,114,079	24,332,646
LIABILITIES.						
Capital stock paid in.....	72,551	80,517	543,513	557,016	1,591,816	1,623,695
Surplus.....	41,507	45,990	303,046	311,041	1,171,740	1,230,337
Undivided profits.....	12,691	16,298	137,335	131,487	341,110	344,241
Due to all banks.....	53,472	65,418	213,967	239,207	715,294	839,885
Certified and cashiers' checks.....			45,055	65,192	109,414	106,791
Individual deposits, including dividends unpaid and postal savings.....	¹ 615,182	¹ 775,115	5,886,152	6,296,494	18,049,332	18,943,205
United States deposits (exclusive of postal savings).....			4,764	15,917	24,375	17,892
Notes and bills rediscounted.....			47,981	25,653	151,264	107,443
Bills payable.....	² 21,441	² 26,414	138,073	167,185	396,006	433,790
Other liabilities.....	34,921	36,249	201,061	226,391	572,728	685,367
Total.....	851,765	1,046,001	7,520,947	8,035,583	23,114,079	24,332,646

¹ Includes cashiers' checks.

² Includes rediscounts.

BUSINESS AND FINANCIAL CONDITIONS ABROAD.

Great Britain.—Employment continued to increase in March, the percentage of insured persons out of work falling from 11.8 to 11.1 per cent. The improvement was most marked in iron mining, shipbuilding, and the metal trades, while in cotton manufacturing the number of unemployed increased nearly 4 per cent. Coal and iron production has been expanding as a result of the lowered output in Germany and France, but the British textile trades are feeling the effect of heavy cancellations of continental orders. Prices of iron and steel and other metals have risen sharply since the beginning of the year and have been reflected in a 5-point advance in the Federal Reserve Board index for March to a level of 175 (1913=100). Food prices, on the other hand, have declined and prices of textiles have changed but little.

Money rates in the London market continue low. The slightly tighter credit situation during February and March—largely due to heavy tax payments—became easier in April through Government disbursements for interest and maturing treasury bills. With the further easing of short-term money rates, the yield of high-grade bonds has become lower. During April sterling exchange dropped to \$4.63, the lowest point since the opening of the year. The decline of the pound has been attributed chiefly to the larger adverse trade balance in the first quarter of 1923, to recent increases in British commodity prices, and to the transfer of funds from London to New York.

France.—No general decrease in employment seems to have occurred in France, although unemployment resulted in the French steel industry on account of the interruption in the usual supply of coke obtained from Germany. For some months unemployment in Paris has been declining slightly, and the shortage of labor throughout the country is shown by the steady increase in the weekly reports of the number of situations vacant. The latest business statistics available for France continue to show great activity, except in the metal industry. Freight-car loadings rose from a daily average of 54,432 in January to 56,528 in March, an increase of 14 per cent over March, 1922. Receipts from the turnover tax in March have been exceeded only once since October, 1920, and average daily clearings in Paris continued high.

Deposits, bank notes, and discounts of the Bank of France showed further reduction during April. Open-market rates in Paris have remained slightly above 4 per cent for several months past. The recovery of French exchange during March and April checked the rise in the prices of numerous imported commodities and consequently the rapid rise in the general level of prices.

Germany.—The decrease of business activity in Germany following the occupation of the Ruhr continued during March and April. Coal and coke output has been reduced to small proportions, and unemployment throughout the country has further increased. As a result of the stabilization of the mark and reduced consumption of most commodities, wholesale prices as measured by the Frankfurter Zeitung index declined from 715,881 (July, 1914=100) on February 1 to 677,000 and 639,300, respectively, at the beginning of the two following months. Prices of domestic commodities, however, which previously had been considerably lower than those of imported articles, showed much smaller declines than did those of foreign goods, so that the difference between the prices of the two classes of merchandise was narrower in March than in any recent month.

With the decline in business activity the demand for credit has diminished. The rate of increase in note circulation has been reduced, the output of paper notes during the first three weeks of April being 578 billion marks, as compared with 1,442 billion marks in the corresponding weeks of March. The German mark, which up to April 17 had been stabilized for over two months at about 21,000 to the dollar, declined to 32,000 to the dollar at the end of April. Following the break in mark exchange, the Reichsbank on April 23 raised its discount rate from 12 to 18 per cent in order to further its program for the support of the mark, and also to bring the bank rate closer to the far higher rates prevailing in the open market.

Scandinavia.—Credit and banking in the Scandinavian countries have been affected by the depressing influence of the recent bank failures, which in Denmark assumed a character so serious that Parliament on April 26 adopted the Government's proposal to guarantee the liabilities of such solvent banks as were in distress. In view of the situation the Bank of Denmark and the Bank of Norway raised their discount rates from 5 to 6 per cent.

THE TREND OF BUSINESS ABROAD.¹

Items.	United Kingdom.	France.	Germany.	United States.	Items.	United Kingdom.	France.	Germany.	United States.
I. CREDIT.²					III. PRODUCTION AND TRADE.				
CENTRAL BANK LOANS:					PIG IRON PRODUCTION (relatives⁵):				
1921—March	1,145	13,058	.....	12,599	1921—March	45	69	.....	62
1922—March	1,097	12,558	.....	10,842	1922—March	46	86	.....	80
June	1,070	13,876	.....	10,783	June	43	99	.....	92
September	1,007	13,354	.....	10,988	September	50	107	.....	79
December	1,031	13,268	.....	11,329	December	62	118	.....	121
1923—January	1,046	13,361	.....	11,425	1923—January	66	112	.....	126
February	1,023	.....	.....	11,639	February	64	70	.....	117
March	992	.....	.....	11,783	March	74	.....	.....	138
COMMERCIAL BANK DEPOSITS:					COAL PRODUCTION (relatives⁵):				
1921—March	1,715	12,775	.....	10,186	1921—March	74	87	79	76
1922—March	1,747	12,374	.....	10,309	1922—March	89	112	93	126
June	1,755	13,583	.....	11,124	June	72	100	63	56
September	1,660	13,167	.....	11,085	September	93	109	70	99
December	1,685	13,250	.....	11,255	December	94	112	67	117
1923—January	1,693	13,744	.....	11,537	1923—January	96	123	12	126
February	1,644	.....	.....	11,525	February	101	.....	(a)	106
March	1,596	.....	.....	11,082	March	100	.....	(a)	117
CENTRAL BANK DISCOUNTS:					UNEMPLOYMENT:⁷				
1921—March	113	3,052	67	2,287	1921—March	11.0	43,037	188	81
1922—March	98	2,914	149	636	1922—March	14.6	3,546	113	86
June	76	2,332	191	469	June	12.7	958	103	88
September	71	2,104	400	420	September	12.0	410	122	91
December	78	2,401	1,607	630	December	12.2	414	165	98
1923—January	66	2,662	2,306	597	1923—January	12.7	684	195	99
February	79	2,684	4,777	596	February	11.8	666	.....	101
March	80	2,685	6,924	700	March	11.1	588	.....	103
CENTRAL BANK NOTE ISSUES:					BANK CLEARINGS (actuals⁸):				
1921—March	454	38,435	68	2,931	1921—March	2,941	556	74	16,526
1922—March	404	35,528	131	2,182	1922—March	3,452	455	170	16,535
June	399	36,039	169	2,124	June	2,917	474	191	17,173
September	390	36,603	317	2,243	September	2,690	484	474	16,553
December	405	36,359	1,280	2,464	December	2,769	630	2,079	19,538
1923—January	381	36,780	1,984	2,204	1923—January	3,262	726	3,828	19,666
February	381	37,055	3,513	2,247	February	3,006	792	7,444	16,905
March	388	37,188	5,518	2,232	March	3,315	755	.....	19,567
CENTRAL BANK DISCOUNT RATE (per cent):					SHIPPING ACTIVITY (relatives⁵):				
1921—March	7	6	5	7	1921—March	52	73	56	100
1922—March	4½	5	5	4½	1922—March	85	89	82	108
June	3½	5	5	4	June	88	114	109	126
September	3	5	8	4	September	101	108	102	145
December	3	5	10	4	December	91	109	88	107
1923—January	3	5	12	4	1923—January	93	99	97	102
February	3	5	12	4½	February	91	.....	89	92
March	3	5	12	4½	VALUE OF EXPORTS (actuals⁸):				
April	3	5	18	4½	1921—March	66,809	1,712	.....	386,680
II. PRICES AND EXCHANGE.					1922—March	64,581	1,877	324	329,980
WHOLESALE PRICE INDEX (relatives³):					June	52,146	.....	428	335,117
1921—March	213	345	.....	152	September	62,511	1,741	291	313,197
1922—March	168	287	5,420	147	December	58,883	2,779	423	344,328
June	169	304	7,851	161	1923—January	66,939	1,696	311	335,539
September	165	294	29,116	164	February	57,510	2,329	361	307,194
December	166	315	166,495	164	March	60,921	2,474	.....	341,162
1923—January	167	324	205,417	165	VOLUME OF EXPORTS (relatives⁵):				
February	170	355	715,881	166	1921—March	54	64	.....	93
March	175	372	677,000	169	1922—March	67	85	35	107
RETAIL PRICE INDEX (relatives⁴):					June	62	98	31	107
1921—March	241	358	1,028	153	September	67	142	26	96
1922—March	186	294	2,639	136	December	70	132	29	97
June	180	307	3,779	138	1923—January	73	103	21	96
September	179	291	11,376	137	February	.....	135	18	84
December	180	305	61,156	144	March	75	99	.....	87
1923—January	178	309	103,400	141	VALUE OF IMPORTS (actuals⁸):				
February	177	316	240,800	139	1921—March	93,794	1,743	.....	251,969
March	176	321	262,700	139	1922—March	87,879	1,932	563	256,178
FOREIGN EXCHANGE (per cent of par):					June	84,298	1,851	565	260,461
1921—March	80.37	36.45	6.696	.....	September	76,944	1,893	422	298,497
1922—March	89.92	46.05	1.505	.....	December	94,912	2,923	590	293,810
June	91.48	45.41	1.870	.....	1923—January	99,700	2,144	564	329,844
September	91.04	39.68	.287	.....	February	83,855	2,343	446	296,000
December	94.73	37.46	.062	.....	March	90,022	2,487	.....	.....
1923—January	95.65	34.60	.031	.....	VOLUME OF IMPORTS (relatives⁵):				
February	96.39	31.84	.016	.....	1921—March	71	81	.....	170
March	96.49	32.77	.020	.....	1922—March	80	120	44	207
April	95.66	34.54	.017	.....	June	92	117	66	191
					September	87	112	80	197
					December	86	132	71	224
					1923—January	.....	112	78	242
					February	.....	105	52	.....
					March	95	111	.....	.....

¹ A full explanation of this table, including a list of the sources employed, appears in the BULLETIN for February, 1923, pp. 182-185.

² Amounts stated in millions of pounds sterling, millions of francs, billions of marks, and millions of dollars.

³ Monthly average in 1913 is taken as 100, except for Germany, where July, 1914, is used.

⁴ United Kingdom and France—July, 1914=100; Germany—Oct. 15, 1913-June 15, 1914=100; United States—1913 average=100.

⁵ 1913=100.

⁶ Official figures not available.

⁷ United Kingdom—percentage of unemployed in insured trades; France—number of unemployed in the city of Paris; Germany—number of applicants for every 100 available positions; United States—an index of employment in 12 representative trades, 1919 being taken as 100.

⁸ Amounts stated in thousands of pounds sterling, millions of francs, millions of gold marks, and thousands of dollars.

⁹ 1913=100. Figures for United Kingdom refer to quarterly period.

AGRICULTURAL CREDIT IN GREAT BRITAIN.

The recent agricultural credit legislation in the United States lends unusual interest to the report of the parliamentary committee on agricultural credit in Great Britain. British farmers, like those in the United States, have been suffering from the protracted decline of agricultural prices, and relief is sought in both countries through improvement of credit facilities. The present strike of agricultural laborers in the northeastern counties of England aggravates the depression there. It is generally agreed that the wages of these laborers, commonly 25s. a week, are too low, but that the farmers are in no position to raise them. In order to understand the critical conditions which British farmers face and the relation of agricultural credit to these conditions, it is necessary to survey briefly the agricultural situation and the Government's agricultural policy during and since the war.

Unlike the case in this country, agriculture does not rank among the most important British industries from an economic point of view, but the vital necessity of the home-grown food supply in case of any interference with foreign trade gives it a peculiar political significance. It is estimated by the London Joint City and Midland Bank that the following percentages of farm products consumed in the United Kingdom were imported in 1922:

	Per Cent.		Per Cent.
Wheat.....	73	Beef and veal.....	57
Barley.....	37	Mutton and lamb.....	63
Oats.....	18	Pig meat.....	58

The desire to minimize the nation's dependence upon foreign food and the consequent governmental responsibility for past and future encouragement of agriculture have undoubtedly influenced the proposals now brought forward with regard to agricultural credit.

AGRICULTURAL PRICES AND PRODUCTION IN UNITED KINGDOM, 1914-1922.

It will be remembered that as foreign supplies of food became more and more difficult to obtain during the war, every effort was bent toward an increase in food production in Great Britain itself. While agricultural prices had been rising in the preceding decade with the general rise in prices, and farmers were relatively prosperous, the cultivated acreage in England and Wales had been decreasing, and in 1916 was actually less than in 1914. The wages of agricultural laborers were still low

and their number was continually depleted by the attraction of high wages in munition factories, as well as by army enlistments.

With the corn-production act of 1917, the Government began a definite policy of encouraging cereal production. The cultivation of unused land was enforced, minimum wages for farm labor were established, and minimum prices for wheat and oats were guaranteed by law. In addition, temporary minimums were fixed for these and other farm products from time to time by the Government. These guaranties were not effective, however, because market prices were above the minimum, and it was the maximums established by the food controller which determined prices until March, 1920. The significance of the guaranties up to the fall of 1920 lay in whatever assurance of protection against future price declines farmers drew from them. For wheat sold after November, 1920, however, farmers were paid by the Government the difference between the price received and a fixed minimum; and the agriculture act, which went into effect on January 1, 1921, continued the system of statutory guaranties for wheat and oat acreage on a sliding scale based on relative costs. The act included a provision that four years' notice should be given of its repeal. On October 1, however, the corn-production (repeal) act annulled the legislation of 1917 and 1920 and substituted a flat payment of £3 and £4 an acre, respectively, of wheat and oats produced in 1921. The steady fall in English grain prices since that time has outrun the general price decline and has not been definitely checked yet. The prices of sheep, cattle, and hogs have been rising for the last six months, however, so that live-stock farmers are somewhat better off recently.

The effect of the course of prices upon agricultural production in the United Kingdom may be seen in the increase of the acreage of arable land from 11,058,000 acres in 1913 to 12,309,000 in 1919 and its fall to 11,311,000 acres in 1922. The numbers of live stock decreased after 1916 when grain acreage was increasing, and although they later increased, they have never reached their pre-war position.

AGRICULTURAL LAND OWNERSHIP.

The financial difficulties in which English farmers have been involved by the fall of agricultural prices have been aggravated in England even more than in the United States by the transfer of land at peak prices during the war. The tendency toward the sale of

estates which had been evident since 1911 grew with the rise in the price of land without equivalent increases in rents and the development of opportunities for more remunerative investments with the rise in interest rates. Land prices rose about 50 per cent above their pre-war value and landowners, burdened by war taxes and high costs of maintaining their estates, took advantage of the situation to put their land on the market. Farmer-renters often faced the alternative of purchasing their holdings or leaving them, and the relatively high prices of farm products encouraged them to buy. To what extent the expectation of continued Government protection for agriculture actuated them, it is impossible to say. At any rate, over 21,000 more holdings, amounting to 2,250,000 acres, were owned by their occupiers in England and Wales in 1921 than in 1914 according to the statistics of the Ministry of Agriculture. By June, 1922, this number had been reduced to 13,500 holdings (1,700,000 acres).

According to the findings of the committee on agricultural credit, in order to buy their holdings, these men obtained loans from banks, individuals, solicitors (as an investment for trustee funds), the vendors themselves, insurance companies, and the Farmers' Land Purchase Company after its incorporation in 1920. The amount borrowed was various but often equaled two-thirds of the value of the property, at interest rates ranging from 4 per cent, in the case of some individual loans, to 7 per cent, sometimes charged by solicitors. Since 1920 the value of agricultural real estate has fallen from 15 to 30 per cent, and except for those who paid off a large proportion of the purchase price before the slump in prices, these farmers are obligated for a considerable part of the value of their farms. The committee finds that banks have not pressed for repayment of principal, even though the period of the loans was often 6 to 12 months, but their right to do so and their need of liquid funds in case of reviving industrial demand puts the farmers in a precarious position. Their indebtedness and consequent lack of capital of course fetters their productive and employment-giving capacity, to the general social detriment in a time of general unemployment.

AGRICULTURAL CREDIT.

The committee has not confined its recommendations to the subject of credit for land purchase, although the situation of these new owner-occupiers has evidently received the

most careful consideration. The report discusses the existing facilities and unsatisfied requirement of long-time credit for improving as well as buying land, and for intermediate and short-time credit.

Credit for permanent improvements.—The requirements of British agriculturists for long-term credit to be used for productive capital works, such as drainage, farm buildings, and water supply, have been met in the past by two companies established about 70 years ago under statutory authority—the Land Improvement Co. and the Scottish Drainage and Improvement Co. These companies advance money to landowners after the issue of a provisional order by the Minister of Agriculture or the Board of Agriculture for Scotland and are protected by certificates issued by one of these departments which make the loan a charge on the property prior to existing mortgages. According to the statute these original loans are repayable by an annuity running from 15 to 40 years, with a maximum interest rate of 5 per cent after deduction of the tax. A 5 per cent commission to the company and one-half per cent fee to the department is added to the principal borrowed. The companies have found their mortgages readily assignable to insurance companies, so that they have not lacked for resources. Thus in Great Britain these land companies, with the aid of insurance companies, have performed the functions which are in the United States assigned to the Federal land banks and joint stock land banks created under the act of 1916. They differ from our Federal land banks in being private companies, while their loans are more directly subject to governmental approval, and the terms prescribed by statute are somewhat similar. About 7 per cent of the loans made by the Federal land banks since their organization have been made for permanent improvements, such as are covered by the two British companies.

The English company described above has advanced some £13,000,000 since its existence, but after the rise in interest rates during the war period its business was hampered, as was that of our land banks, by the legal restrictions on its charges. The American maximum rate on loans is 6 per cent and the maximum rate on bonds put out by the banks 5 per cent, raised last year to 5½ per cent in the case of the joint stock land banks. A modification of the restriction was obtained in the case of the English company in 1920, allowing it to charge such rates as the Minister of Agriculture should approve, and the committee's chief recommendation as to this sort of credit is that this

modification be extended to other similar companies. Otherwise, it considers that this method of meeting the demand for credit for capital improvements is satisfactory and only suggests that the companies be urged to encourage the wider use of their facilities.

Credit for land purchases.—No special agencies have existed in England for the purpose of extending credit for the purchase of land, except the Farmers' Land Purchase Co., a private concern organized in 1920, which has advanced £500,000 and was obliged to refuse applications amounting to £5,000,000 or £6,000,000, owing to lack of resources. The lack of previous development of this sort of business may be attributed partly to the prevalence of tenancy in Great Britain, and the committee hesitates actively to encourage ownership at the expense of the older system of land tenure. It restricts its recommendations concerning this type of credit to provisions for loans to farmers who purchased their holdings between the passing of the corn-production act in 1917 and the repeal act of 1921. It recommends that special State aid be extended to approved mortgage societies loaning to such farmers, both by the advancement of capital, in the first instance, through the Public Works Loan Board and by the guarantee of issues of debentures which are to be put out by these societies as soon as the amount of their loans is sufficient to justify such an issue. The supposition seems to be that the societies may later extend their loans to other purchasers without the State guarantee, if they so desire. Loans are to be made up to 75 per cent of the present value of holdings at an interest rate not more than one-half per cent above the rate at which the society can borrow, and the loan is to be repaid in half yearly installments on an annuity basis, while the debentures are to be redeemed by drawing as the mortgages are repaid. One-half of the one-half of 1 per cent margin is to go to the State as a reserve fund against its guarantee until all debentures have been redeemed, and the other half is to be used to defray the expenses of the society.

Thus the English Government would have a more direct financial interest in these societies than has the Federal Government in our Federal land banks, but unlike the latter they would be organized as private institutions under private management, with the proviso that the treasury must approve the constitution and capitalization of the society and the rate of interest or dividends payable on its bonds or stock. The committee estimates that these

societies would be able to loan at not over 5 per cent, which is 1 per cent below the maximum which our Federal land banks may charge, and that an annual charge of £6 8s. 3d. for 40 years would repay the loan with interest. Those farmers who are in debt to more than 75 per cent of the present value of their holdings would not be helped by the plan, but the others would thus be given an opportunity to substitute for debts, which are callable at any time, obligations bearing a relatively low interest rate, on which definite payments may be spread over a long period.

Short-term credit.—The committee also deals with short-term and intermediate credit to agriculturists, the subject of recent Federal legislation in the United States. These requirements have been met in England by the joint stock banks and by auctioneers, merchants, and dealers who sell cattle, seeds, fertilizer, etc., to farmers, as well as by merchants who buy their crops from them in advance. The committee approves these sources of credit, in general, and does not consider that the banks have been backward in extending aid to farmers so far as the canons of sound banking permit. The complaint that the branches of the large joint stock banks controlled from London, which have taken the place of the old country banks, are less sympathetic and adaptable to the needs of farmers than their predecessors is held to be without foundation. It is pointed out that there is keen competition among the banks for agricultural business, that relatively more agricultural loans are outstanding now than in the days of country banking, and that through the spreading of risks the branch banks are better able to carry their customers through a period of depression than were the country banks. No less than £46,500,000 are out on loan to farmers by the banks at present and £20,000,000 of this represents loans for current needs. The arrangements for such loans are elastic and are governed by custom and the circumstances of the individual case rather than by law. The usual form of current loans is the overdraft, unspecified as to purpose, bearing an interest rate of 1 per cent above the bank rate, but not less than 5 per cent. With many farmers the overdraft is a routine arrangement, being reduced or extended with the fluctuations of their receipts and expenditures. It is true that the applications for such loans are supposed to be referred to the head office for approval, but experienced managers have considerable freedom of action and so far as pos-

sible they are retained permanently in the districts with which they are familiar. Nevertheless, the committee recognizes that commercial banks can not be entirely adapted to agricultural credit needs, and points out certain directions in which further facilities are required.

Further credit facilities required.—In the first place farmers who are out of close touch with banks, either because they do not have bank accounts or live in thinly populated areas, are unable to obtain loans on personal credit. The banks are not possessed of the technical knowledge necessary to appraise the value of a farmer's business, particularly in the absence of accurate accounts, while the credits granted by merchants and dealers are inadequate in periods of depression.

In the second place the banks have been reluctant to advance money for the purchase of seasonal stock, and credit is granted by dealers during periods of depression on very unfavorable terms.

Finally, facilities are lacking for meeting the farmer's need of intermediate credit—loans running for a few years—for the purchase of equipment, including machinery, permanent breeding stock, fencing, etc. The treasury regulations relating to the land settlement facilities act of 1919, which encourages the taking up of small holdings by ex-servicemen, provides for advances up to three years for such purposes, but otherwise such loans are difficult to obtain on easy terms. This is like the gap in agricultural credit facilities in the United States, which the new Federal intermediate credit banks and national agricultural credit corporations are expected to fill.

The committee recommends that both short-term credit and intermediate credit be supplied in Great Britain by local cooperative credit societies, formed in accordance with Government regulations under the general direction of the Department of Agriculture, and aided by Government capital to the extent of £1 for every £1 of share capital raised by the society. It is further suggested that the State funds loaned should be raised by the sale of savings certificates in the rural districts, thus applying the savings of the rural population to rural needs. In the opinion of the committee, the societies should be left free to make loans for any agricultural purpose, with the hope, however, that they would be specially directed toward increasing the food supply. The precise details of the

plan are left for future consideration, but it is evident that these societies would differ from the agricultural credit corporations contemplated by recent American legislation chiefly in their cooperative character, the lack of statutory limitations on their powers, and their receipt of State financial aid.

Summary.—In brief, the proposals of the agricultural credit committee for the relief of English agriculture consists of direct State advances to private mortgage societies aiding farmers who purchased land during the war period, and to cooperative credit societies extending short-term and intermediate credit to any farmers or landowners. The former is expected to bring some immediate relief to a certain class, but, in general, the proposals are for permanent but slow improvement of agricultural credit facilities, whose usefulness will be largely dependent upon the initiative of farmers and landowners themselves. The fundamental difficulty with agriculture is believed to be the uncertainty of the economic outlook, and a change in this outlook can not be made by the creation of credit.

There is some dissatisfaction with the small extent of the relief thus offered, and a Scotch member of the committee makes a reservation in favor of some special arrangement to enable the farmers to meet their wages bills. The counterpart of unemployment in towns in the country is too low wages, and it is suggested that some form of mutual insurance should meet the difficulties of the agricultural laborer in times of depression as it does those of the industrial employee.

A tribunal of agricultural experts, appointed by the Government to consider not only agricultural credit but the whole question of the means to agricultural prosperity, has just issued an interim report which approves the proposals outlined above. It especially urges the extension of these credit facilities to cooperative marketing or buying associations of farmers, and emphasizes the importance of encouraging cooperation among farmers, as various investigating commissions in this country have done. In addition, the tribunal proposes the reduction of railway rates on farm produce, even at the expense of the State, the reduction of local taxes on farm property, and certain restrictions upon trade.

The reports of neither of these committees has yet resulted in definite action, but they will probably form the basis of whatever agricultural legislation the Government brings forward during the present session of Parliament.

COMMODITY PRICES IN ITALY.

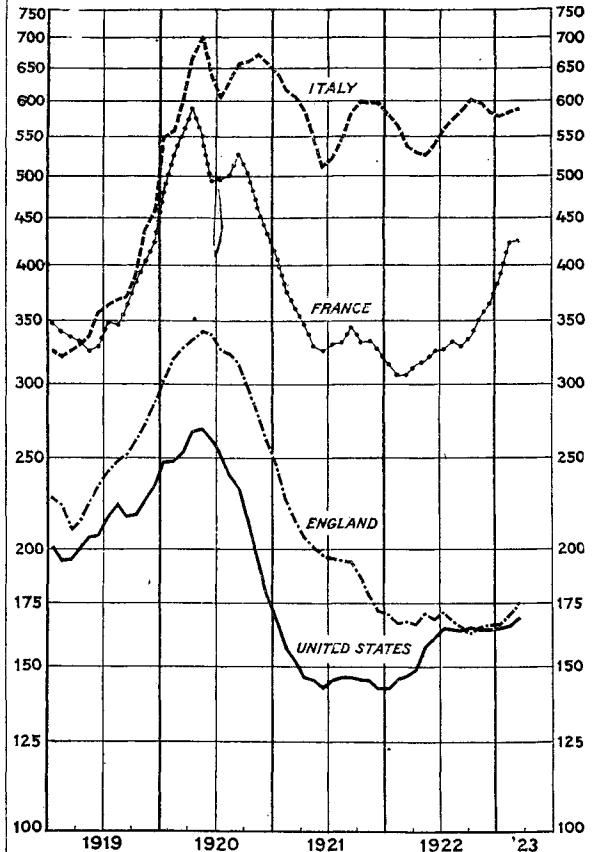
In Italy the movement of wholesale prices since the war has been quite different from that of other leading countries. Italy did not experience the severe and prolonged decline in prices which proved so difficult for business in the United States, England, and France; nor, on the other hand, have her industries been stimulated, as in Germany, by the uninterrupted rise in prices which accompanies a continuous depreciation of the currency. Yet, through the decline of the exchange, Italian prices have now been brought nearly to the level of gold prices in the United States and England. Further, in Italy the prices of commodities and groups of commodities have drawn closer to the relationships of 1913 than in the United States. From these observations the conclusion can be drawn that, at least temporarily, a working adjustment of commodity prices is quite possible not only within a country whose currency has considerably departed from a gold basis, but also between such a country and others which are on a gold basis. At the same time, while Italy has effected such an adjustment of wholesale prices, a study of the cost of living in comparison with pre-war years raises the question whether or not the people of Italy can purchase commodities either at home or abroad in amounts equal to those before the war.

THE COURSE OF ITALIAN PRICES SINCE 1919.

In Italy, as in the United States, England, and France, prices rose until April, 1920; but whereas in the United States and England prices dropped rapidly to a lower plane, in Italy they remained at a high level, moving within comparatively narrow limits and showing a continued tendency toward stability. (See Chart I.) It is most natural to contrast price movements of Italy and France, because of numerous similarities in the two countries, and particularly because before the war they had equivalent monetary units. In January, 1919, the price levels in the two countries were close together, Professor Bachi's index for Italy standing at 324 and that of the Statistique Générale for France at 348. In 1919 and early 1920 prices in the two countries moved upward, though the rise in prices was much sharper in Italy than in France, reaching, in April, 1920, an index of 664 for Italy against 588 for France. From that date prices in France have passed through two major movements—

a violent decline to February, 1922, followed by a sharp rise to March, 1923—while in Italy there has been relative stability within a limited range where prices have moved in a series of short fluctuations, evidently seasonal.

CHART I. INDEX NUMBERS OF WHOLESALE PRICES. [1913=100.]



Italy—Riccardo Bachi. France—Statistique Générale. England—Federal Reserve Board. United States—Federal Reserve Board.

Seasonal fluctuations of Italian prices.—For three successive years Italian prices have regularly declined in the spring and risen in the fall. This phenomenon appeared imperfectly in 1920, and recurred in 1921 and 1922; but the course of prices so far in 1923 raises a question as to the probability of its repetition this year. As this is almost exactly parallel to the course of exchange, there is evidently a close relation between the two. The price index is an expression of the internal depreciation of the currency in terms of goods; the exchange measures the depreciation in foreign currencies and gold. Both are expressions of the same thing,

namely, the value of the lira. (See Chart II.) While the internal depreciation of the lira preceded its external depreciation, since the index had risen to 324 in January, 1919, with exchange "pegged" near par, it is now a question whether the fluctuations of the exchange occasion the fluctuations of prices, or vice versa. An element in determining the exchange value of the lira is the direction and size of the current trade balance, in which seasonal influences play an important part.

CHART II. ITALIAN PRICES AND EXCHANGE.



The rate of the lira depends on the supply of and demand for Italian bills of exchange. The principal effective source of these bills is in the visible and invisible trade of the country. The visible balance is heavily against Italy, but this is offset by invisible items, of which the chief are the purchases by tourists, the remittances of emigrants, and the receipts of the carrying trade. For a considerable time past the trade balance of Italy has been virtually in equilibrium. Italy has not only met the enormous visible

adverse balance without resort to foreign loans, but also without the loss of gold. On the contrary, the gold imports of Italy, though small, have exceeded her gold exports. But, although the balance, considered over a period of time, is evidently in equilibrium, the exchange market has not been free from seasonal influences. In the fall Italy makes heavy purchases of raw materials, such as cotton and wheat, which cause the dollar to appreciate in terms of lire, carrying prices up in Italy. In the spring a contrary movement sets in.

A study of the exchange over a period of months offers strong evidence of the very small influence of speculation in determining the movements of the exchange. As there has been, in months past, an enormous volume of speculative trading in lire, it has been popular to consider speculation as a major factor. The bulk of exchange speculation concerns itself with the day-to-day fluctuations, and in these it certainly exercises no little influence. But in the long run these minor fluctuations are so inconsequential that they are not reflected in a chart covering an extended period.

While the seasonal fluctuation of prices and exchange appeared during 1920, 1921, and 1922, in the current year there has not appeared the usual rise of Italian exchange, with its attendant decline of prices. Until the trade figures for the first quarter are available, it is impossible to state positively the cause of this stability. It is probably due to the necessity of purchasing abroad larger quantities of raw materials, notably coal, required by the revival of Italian industry. While the increased demand for foreign bills may have been instrumental in preventing a repetition of the rise of the lira this spring, it has not been sufficient to depress the rate, though political considerations may also have strengthened it. Whether or not this is the cause of the stability of the lira, the fact is that the lira has for many weeks been notably steady in foreign exchange. At the same time its domestic purchasing power has remained equally steady, and commodity prices have remained practically unchanged for the past three months.

RELATION OF ITALIAN PRICES TO WORLD PRICES.

The general level of the price index in Italy measures the depreciation of the paper lira in terms of gold plus the depreciation of gold in terms of commodities. But prices derive their chief significance from their relation to other prices both at home and abroad. The general

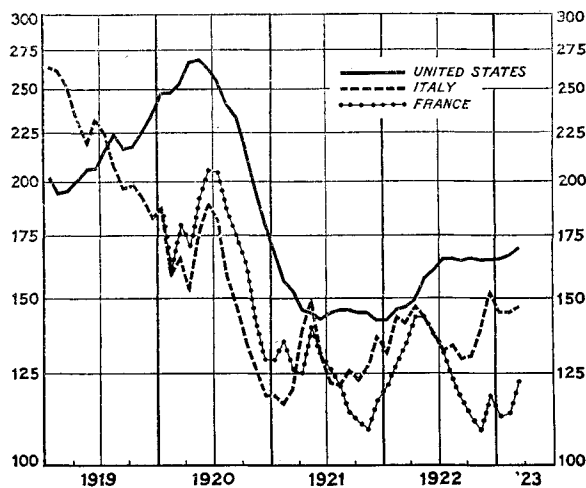
price level in Italy, whose currency is at present inconvertible, should be compared with prices in the United States which has a gold currency. A gold index of prices is obtained by multiplying the commodity index by the rate of exchange, expressed in per cent of its parity. From a study of gold prices (see Chart III), it is apparent that the purchasing power of the gold dollar is nearly the same in the United States and Italy, and, conversely, that the purchasing power of the lira is about equal in both countries. Gold prices are somewhat higher in the United States, in March about 15 per cent, if the Bachi index for Italy is compared with the Federal Reserve Board index for the United States. This spread is greater than that between American and British prices, but far less than that between French and American prices at the same time. In March the Federal Reserve Board index for the United States was 169, the gold index for England the same, for Italy 147, and for France, only 122.

So close a relation exists for Italy because the rate of exchange is fairly well adjusted to the respective price levels obtaining in Italy and the United States. This is demonstrated by comparing the purchasing power parity with the rate of exchange. The purchasing power parity is the rate of exchange at which a given number of lire will buy the same amount of commodities in the United States as in Italy. In January the purchasing power parity was \$0.0554, the average rate of exchange for the month, \$0.0488; in February, \$0.055 and \$0.0482; in March, \$0.0556 and \$0.0485. Considering that the two indexes employed—that of the Federal Reserve Board for the United States and that of Professor Bachi for Italy—are widely different in construction, it would not be expected that the figures representing the purchasing power parity and the actual rate of exchange would be identical, even if actual prices in the two countries were the same.

The close relation between the internal value of the lira and its external value is also demonstrated by reducing them both to percentages of the pre-war purchasing power of the lira. In March, 1923, the lira in New York had 14.9 per cent of its pre-war purchasing power, in Italy it had 17 per cent of its pre-war purchasing power. The external and internal purchasing power of the lira are much closer together than are the external and internal value of the franc, but not so close as the external and internal values of the

pound sterling, which in March were identical so far as the board's index numbers show.

CHART III. WHOLESALE PRICES IN TERMS OF GOLD. [1913=100.]



It is clear that the internal and external purchasing power of a currency tend to draw together, if not to coincide, as they actually did in England in March. So long as they are materially apart, the process of adjustment causes fluctuations of commodity prices or exchange rates, or both. The further apart, the more violent are likely to be the fluctuations; but as they draw nearer these fluctuations will diminish, provided always that no extraneous factor is introduced. As the fluctuations diminish, speculation in the exchanges becomes less and less profitable. When speculation in exchanges no longer affords much expectation of profit to the casual speculator, it will be reduced to mere arbitrage and cease to be a factor in causing material variations in the rate. For the past three months the opportunities for profitable speculation in Italian exchange have been very small.

THE RELATIONS OF PRICE GROUPS WITHIN ITALY.

With the exchange at present rates, commodity prices in general are approximately at American levels. As for the prices of various commodities within Italy, the degree of disparity when compared with 1913 relationships, while considerable, is less than in the United States.

The index compiled by the Milan Chamber of Commerce shows the relation of certain groups of commodities to each other and to the general price level. This index includes

125 commodities, divided into ten groups. In March, 1923, the general index number stood at 547.47, taking 1913 as 100. The following table shows the position of the groups for that month and their relation to the general average.

GROUP INDEX OF THE MILAN CHAMBER OF COMMERCE
IN MARCH, 1923.

[125 commodities, 1913=100.]

Group.	Index number.	Relation to the general index.	
		Per cent above.	Per cent below.
1. Vegetable food products (21).....	560.57	2.4	.....
2. Animal food products (16).....	559.08	2.1	.....
3. Textile materials (18).....	672.95	22.9	.....
4. Chemical products (20).....	424.38	.....	22.5
5. Minerals and metals (23).....	558.15	2.0	.....
6. Construction materials (8).....	518.51	.....	5.3
7. Miscellaneous vegetable products (17)...	610.30	11.5	.....
8. Miscellaneous industrial materials (12) ..	537.33	.....	1.9
Average of groups 1 and 2—Foods.....	559.92	2.3	.....
Average of groups 3 to 8—Industrial materials.....	542.31	.....	1.0
General index.....	547.47	.....	.....

This is more nearly a return to 1913 relationships than has been experienced in the United States. Several of the groups composing the Bureau of Labor Statistics index are comparable to groups in the index of the Chamber of Commerce of Milan. For instance, in March, when the Bureau of Labor Statistics general index stood at 159, the index of "foods" was 143, or about 10 per cent below the general index; the index of "cloths and clothing" was 201, or 26 per cent above; of "building materials," 198, or 24.5 per cent above; and chemicals, 135, or 15 per cent below.

The two groups in Italy which are furthest removed from the general index are the textiles, 23 per cent above the average, and chemicals, 22 per cent below it. This phenomenon is not peculiar to Italy; it is general. The same relationship exists in the United States, as the Bureau of Labor Statistics index shows. There is, however, no reason for a general assumption that the relationships which existed in 1913, the year upon which the index numbers are based, are those toward the reestablishment of which development must necessarily tend.

THE COST OF LIVING.]

While wholesale prices of commodities in Italy are well adjusted both to each other and

to the prices prevailing in other countries, the items which go directly into the cost of living still show less harmony. It is a question if the increase in wholesale prices since 1913 has yet been completely communicated to the cost of living. In December, 1922, the wholesale index of Prof. Riccardo Bachi stood at 580. For the same month, the retail food index of the Municipal Labor Office of Rome (1914=100) was only 475. The Rome cost-of-living index, which represents the food, clothing, lodging, heat, light, and miscellaneous items of a family of five, was 439. For the same month the cost-of-living index of Milan was 504.

This Milan index represents the cost of living of a workman's family of five, and is based on the prices of the first half of 1914. In February, 1923, this index stood at 497. Inasmuch as the wholesale index computed by the Chamber of Commerce of Milan for that month was 534, it seems upon first examination that the cost of living is in general harmony with the wholesale price index.

Analysis of the composing items, however, raises some doubts on this point. The index for the item of food was 500, and it is estimated that the worker must allot 62 per cent of his budget for food—the same proportion as before the war. The index of clothing, however, was 653, and for miscellaneous items 672, both over 150 points above the general index and above the item of food. "Light and heat" stood at 548, but these items account for only 4.98 per cent of the family budget, against 4.51 in 1914. The widest discrepancy occurs in the items of "housing," which stood at only 208, requiring 4.77 per cent of the budget, against 11.40 per cent before the war. In other words, the Milan family is paying proportionately for its rent about half as much as in 1914, and is spending the amount saved in this manner on clothing and miscellaneous items. The reason for the relatively low rents is to be found primarily in legal restrictions. But, with the index of construction materials at 519, such relatively low rents evidently not only retard new construction, but even discourage repairs to existing dwellings. The conclusion is therefore reached that as far as consumers' prices are concerned, there are possibilities of further readjustments. Food prices are low compared to those of the manufactured articles which the worker buys, and his rent is low even in proportion to his food. As this rent situation is so anomalous, it may

not prove lasting, and an adjustment of rents toward the general price level would reduce the general purchasing power of the population.

CONCLUSION.

The observations made in this article lead to four conclusions. First, though Italian prices have remained very near the high levels reached in 1920, the decline of the rate of exchange has effected an adjustment to world prices. With prices in Italy and the United States at or near their present levels, the rate of exchange is almost exactly representative of the mutual price relation existing between the two countries; or, conversely, with the exchange near present rates, gold prices are nearly the same in the United States, England, and Italy. Consequently the rate of exchange, at or near present levels, offers little obstacle to the free purchase of goods abroad.

The adjustment is not quite perfect, for while gold prices in England and the United States are statistically identical, they are somewhat lower in Italy. In part, this spread may be due to shortcomings in the indexes used; more likely, it is the result of a still imperfect adjustment between Italian prices and the rate of exchange. If so, it may be expected eventually to be corrected by a movement of prices, or of the exchange, or both. The present relation, however, is so close that there is no reason to apprehend that this process of adjustment by itself would cause very wide fluctuations in either prices or exchange.

Second, although Italy has taken no definite steps toward a restoration of a gold basis for her currency, in recent months both prices and exchange rates have achieved a very high degree of stability. The fluctuations have been very slight. This is due to an almost perfect balance of payments. Since a decline in the exchange would impede the importation of raw materials, while a rise in the exchange would precipitate a domestic price decline, a continuance of stability near present levels seems likely to facilitate Italian foreign commerce.

Third, commodity prices in Italy seem to be well adjusted to each other. They are nearer 1913 relationships than are prices in the United States. The United States has achieved great business activity and prosperity with commodity price relationships very different from 1913; it remains to be seen whether the different regrouping of prices in Italy will persist during the present period of greater business activity.

Fourth, the items of the cost of living index are not in harmony with each other, owing to the fact that rentals do not yet reflect the increases in construction costs. But it is possible that the remaining necessary adjustments in retail prices will be accomplished without great friction, especially as so small a fraction of the family income is normally needed for rent.

With the exchange at present rates, Italian prices are almost equal to American and British prices, or stated the other way, the present rate of exchange is almost exactly representative of the prices prevailing respectively in Italy and the United States. This fact gives promise of continued stability. Within Italy, the prices of various groups of commodities seem to be fairly well adjusted to each other, though individual commodities show considerable variation in their percentage of increase over 1913. On the whole, while the adjustment of commodity prices in Italy may not be perfect or final, it has proceeded far enough to offer little hindrance to normal trade, whether foreign or domestic.

MEXICO.

REVIEW OF THE YEAR 1922.

Economic conditions in the Mexican Republic during 1922 continued unsatisfactory because of the political uncertainty and the serious impairment of the credit structure necessary to the financing of industry and farming. The curtailment of agricultural expansion was due to the uncertainty created by agrarian reform laws. No signs of improvement appeared at the close of the year. It is hoped in Mexico, however, that the situation may be improved by the establishment of a central bank of issue, the capital for which has been authorized but as yet not subscribed, and by the proposed changes in the constitution of 1917, affecting the property rights of foreigners.

Industrial conditions.—The precarious situation of the farming and mining industries, the effects of which were felt throughout the entire country, has been given as the principal reason for the unsatisfactory economic progress made during the year. Notwithstanding the fact that the crop estimates for 1922 made by the Mexican Department of Agriculture indicate in some cases marked increases over 1921, general conditions affecting farming changed but little. The following table compares the

1922 crop estimates of the Mexican Government with the 1921 crop:

[In thousands of kilos.]

Products.	1921 crop.	1922 crop estimate.
Corn.....	1,550,000	2,127,674
Wheat.....	138,508	233,342
Rice.....	7,198	21,148
Beans.....	71,034	137,374
Sugar.....	1,274,133	2,328,417
Barley.....	9,930	88,157
Chick peas.....	18,336	59,805
Potatoes.....	42,261	22,971
Pepper.....	40,730	29,643
Coffee.....	.....	29,263
Tomatoes.....	23,520	11,959
Bananas.....	54,641	26,829
Hemp ¹	565,424	461,515
Cotton ¹	126,000	99,548

¹ In bales of 250 kilograms.

It is of importance to note that the sisal hemp crop, practically the only industry on the peninsula of Yucatan, has been gradually and substantially decreasing from year to year. In 1920 the crop amounted to 936,136 bales as compared with 565,424 bales in 1921, and 461,515 bales estimated for 1922. The political uncertainty during the last decade has undoubtedly handicapped the Mexican hemp industry. A considerable number of plantations were abandoned last year following the confiscation of lands for purposes of agrarian reform. The sugar industry of the country as elsewhere was likewise depressed during 1922. The industries of the State of Morelos, which in prerevolutionary years was the largest producer of sugar in the country, showed no signs of revival in 1922, and the labor disturbances in the State of Veracruz brought about a considerable reduction in the sugar production of that State. The 1922 production of wheat was estimated by the Government about 85 per cent higher than for the previous year, but even if the actual crop should come up to the expectations of the estimators, a considerable amount of wheat must still be imported from foreign countries to supply the needs of the country, estimated at 293,642,500 kilos per annum. Conditions in the cotton industry remain unsatisfactory, and a substantial decrease in production is expected because of the lack of adequate financial help for the planters, and on account of the damages caused by the recent appearance of the boll weevil in some of the most productive sections.

The mining industry in Mexico appeared to be in a more favorable condition during 1922 than during the previous three or four years. It was noted, however, that the increase in production was due to the enlarged activities

of the larger enterprises, while a substantial decrease in production was shown by the small concerns. Prices of silver were maintained during the year at prices which, in spite of periodical labor disturbances, rendered its production in Mexico quite profitable.

According to information from official Mexican sources, on December 31, 1922, there were in the country 21,686 mines legally authorized to operate, which yielded the Government 2,473,216 pesos in taxes. The production of silver in Mexico in 1922 amounted to 2,521,832 kilos. This is an increase over that of the previous year of 516,289 kilos, or 25 per cent. Gold production in 1922 has been placed at 23,276 kilos, an increase over the 1921 production of 2,001 kilos, or 9.4 per cent. Production of lead was given as 110,455,912 kilos, against 60,513,332 in 1921, and that of copper at 26,977,786 kilos, against 15,228,075 kilos in the previous year. The following table shows the total production* of the principal metals in Mexico during 1922, and their value:

	Kilograms.	Value, in pesos.
Gold.....	23,275	31,034,322
Silver.....	2,521,832	112,961,418
Lead.....	110,455,912	27,661,976
Copper.....	26,977,786	16,385,305
Zinc.....	6,141,937	1,749,490
Mercury.....	41,826	140,669
Molybdenum.....	3,153	11,193
Graphite.....	2,054,279	124,993
Arsenic.....	271,718	99,686
Antimony.....	463,842	94,681

Operations of the Mexican oil fields in 1922 were limited in the greater part to fields already proven, not so much being accomplished in new districts, most of which are located far from the old fields. Many test drillings were made in an endeavor to locate extensions of the old fields, and some of these proved successful. During 1922, the fields of Pánuco and Topila of the Pánuco River region were joined and these fields were also extended to the north and south. Other important sections such as Tuxpan, Cerro Azul, Toteco, etc., were likewise extended during the year. Outside of these zones experimental work was carried on in other parts of the country, indicating the possibility that further new discoveries may be made in 1923. The field operations in 1922 may be summed up in the following figures: By December, 31 1922, there had been completed a total of 251 wells, of which 61 per cent were productive and 39 per cent were abandoned. The productive wells drilled were 154 with a total initial daily

production of 1,410,319 barrels, or an average per well of 9,158 barrels. Abandoned wells numbered 97, of which 70 had become dry. Twenty-six were abandoned because of the invasion of salt water and one because of excessive expense involved in its exploitation.

Considering the fact that most of the activity was in oil fields previously exploited, some of which had begun to decline, the results obtained during the year were considered as satisfactory by the Mexican Department of Industry, Commerce, and Labor. The total amount of all classes of oil in storage in Mexico on January 1, 1922, was 28,840,000 barrels as compared with 19,445,000 barrels on January 1, 1923. Production during 1922 totaled 185,712,000 barrels, of which the Panuco district furnished 46,978,000 barrels and the southern district 138,734,000 barrels, including the output of the Isthmus fields. Shipments from the Tampico district during the year totaled 185,049,079 barrels, of which shipments to Vera Cruz amounted to 1,841,334 barrels, other coastwise shipments for domestic consumption 794,035 barrels, and ships' bunkers 5,892,952 barrels, leaving a net export for the country, including reexports of coastwise shipments of 176,520,768 barrels. The total quantity of oil in storage on January 1, 1923, was 19,445,000 barrels, leaving a balance of 12,693,280 barrels representing the domestic consumption for the year. During the period from January 1 to March 13, 1923, in all the oil sections of Mexico, 39 productive wells were drilled. From these wells there was obtained a total daily production of 129,442 barrels, or an average production per well of 3,319 barrels per day. The total number of wells drilled was 66, of which 27 were abandoned, 19 being dry wells, 7 containing salt water, and 1 producing only a very small quantity of oil.

According to a statement of the Secretary of Commerce of Mexico, more than \$500,000,000 United States currency has been invested in oil development in Mexico, of which it is estimated that 58 per cent has been American capital. A résumé of the figures published by the Mexican Government follows:

Source of capital.	Amount invested.	Per cent.
American.....	\$303,021,619	57.7
English.....	177,388,099	33.8
Dutch.....	35,598,654	6.7
Mexican.....	5,791,703	1.1
All other.....	3,496,641	.7
Total.....	525,296,716	100.0

Oil-production taxes paid to the Government of Mexico during 1922 amounted to 58,374,156 pesos, as against 50,604,049 pesos in 1922. Export duties amounted in 1922 to 27,605,989 pesos, as compared with 12,280,911 pesos during the previous year.

The past year has not been satisfactory to the manufacturing industries of Mexico, with the exception of shoe manufacture. Labor troubles and political disturbances have been mainly responsible for the situation prevailing. The textile industry reached a state of almost total inactivity at the end of the year, which was due not only to labor troubles but also to the scarcity of raw material. The railroad industry showed signs of improvement during the year, which were especially pronounced in the case of the privately owned systems. Signs of railroad development on the west coast have appeared in the first months of 1923. A special Federal tax of 10 per cent on the gross receipts of railways, including express, Pullman, and other services connected with railroad operation, was created by virtue of a decree published on January 22, 1923.

Foreign trade and foreign exchange.—Complete Mexican foreign-trade figures for 1922 have not yet been issued. For the first nine months of last year exports were placed at 144,753,898 pesos. Imports into that country were estimated substantially lower than those of 1921. Decreases were more noticeable in the imports of foodstuffs, due to the improvement in the farming industries. In 1921 Mexico imported about \$5,000,000 worth of corn, whereas in 1922 this amount was reduced to about \$1,000,000. Imports of wheat and flour continue at a high level, notwithstanding the high tariff established by the Government in order to encourage domestic production. This has been explained by the necessity of mixing the foreign flour with the domestic product in order to produce a good quality of bread. Imports of the principal foodstuffs into Mexico during 1922 were as follows:

	Pesos.
Lard and greases.....	6,135,159
Corn.....	2,472,512
Flour.....	1,546,205
Eggs.....	2,039,734
Rice.....	39,066
Hams.....	315,662
Milk.....	404,272
Butter.....	381,683
Cheese.....	286,861

United States exports to Mexico in 1922 were considerably reduced. Exports, valued at \$109,884,917, were \$112,000,000 or 51 per cent

below those in 1921. On the other hand, imports into the United States showed remarkable improvement. The value of imports during 1922 was placed at \$132,000,000, as compared with \$119,000,000 for the previous year. This increase was due principally to larger shipments of coffee, hides, and crude petroleum. Trade between the United States and Mexico was facilitated by the inauguration of through bills of lading from United States ports to Mexico City through the port of Vera Cruz and over the Mexican Railway. The same arrangement is in operation through the port of Tampico and over the National Railway of Mexico.

Exchange fluctuations during 1922 were within narrow limits. The embargo on gold exports is still in force, but the increasing supply of silver currency gave rise to a gold premium on silver. The average value of the Mexican gold peso in terms of American currency for the year was 48.715 cents.

Banking.—The two outstanding features during 1922 in the banking activities in Mexico were the banking crisis in November and the approval by the Mexican Congress of the establishment of a single bank of issue. It is generally understood that the privately owned banks of the country conducted their affairs during the year in a careful and conservative manner. Nevertheless, the difficulties under which the banks had to labor, due to the uncertain economic and political conditions, as well as other factors, such as the scarcity of circulating media and the discount on silver, gave rise in November to a banking crisis which extended all over the country. Of considerable importance was the failure of the Banque Française de Mexique, which occurred on November 15, 1922. A detailed account of these banking difficulties was given in the January (1923) issue of the BULLETIN (page 73).

The establishment of a central bank of issue, to be called the Banco de México, was approved by the legislative bodies of Mexico on January 20, 1923. This step became apparently necessary ever since the total breakdown of the Mexican banking system during the Carranza administration. The few privately owned institutions left to operate were without any connection with the Government. This fact, coupled with the absence of an elastic circulating medium issued by a central bank, since the present monetary system is metallic only, called for the establishment of an official

banking institution. Scarcity of gold for circulation, depreciation of the silver currency, absence of rediscount facilities, the uncertain political situation, lack of supervision and large reserves necessitated by public distrust, emphasized the evident necessity for a bank of this character.

The bank as proposed will be chartered for a period of 15 years, subject to renewal by legislative decree. It will operate with an initial capital of 50,000,000 pesos, which may be increased to 100,000,000 pesos. The Government will subscribe to 51 per cent of the capital stock and the profits are to be distributed in a like proportion. The board of directors will be elected by the private stockholders, but the Government will appoint the managers, and the Secretary of the Treasury will act as chairman of the board regarding transactions involving 5 per cent or over of the bank's capital when the transaction is of such a nature that it may affect the economic status of the country and also in matters entailing new issues of bank notes. The Government will be responsible for the notes issued by the bank and is to have the right to purchase all shares in the hands of private individuals after 15 years of operation. The total amount of notes issued, added to deposits payable on demand or at 3 days' sight, is not to exceed twice the amount of cash and bullion on hand. As a compensation for the privilege of note issue, the proposed Banco de México is to pay the Government interest on deposits at an annual rate equal to one-third of the discount rate fixed by the bank whenever such rate does not exceed 12 per cent per annum. In case the rate exceeds 12 per cent, the Government will be entitled to receive one-third of the profit obtained by the bank in any transaction made at such rate.

The opinions expressed about the establishment of the new bank have been of a very contradictory nature. A commission was sent from Mexico to Europe to make arrangements for securing the initial capital, but no definite advices have been received as to the final outcome of the matter. A difficult banking situation still prevails in Mexico, and outside of the opening of branches of the Bank of Montreal in Veracruz and Puebla, no new banks were opened during 1922.

Public finance.—According to official statements, the total receipts of the Mexican National Government for 1920 and 1921 amounted to 238,243,127 pesos and 279,832,933

pesos, respectively. These amounts were made up as follows:

[In Mexican pesos.]

Items.	1920.	1921.
Foreign commerce and navigation.....	78,969,612	98,301,882
Internal revenue taxes.....	134,010,216	138,094,325
Public services.....	13,277,050	16,862,212
Federal real property.....	1,033,992	1,807,593
Other Federal property.....	216,571	203,911
Miscellaneous.....	10,735,686	24,563,009
Total.....	238,243,127	279,832,933

Official data published by the comptroller's office of Mexico show that Federal revenues, not including those from petroleum, decreased considerably in 1922. In the first five months of that year such revenues amounted to only 76,000,000 pesos, equal to an average monthly income of 15,000,000 pesos, or 180,000,000 pesos for the year, against an estimated revenue of 255,000,000 pesos for the year 1922. The revenues of the Republic in 1923 have been estimated at about 260,000,000 pesos. Discrepancies exist in reports as to the amount and distribution of disbursements. Total expenses of the Federal Government of Mexico for the fiscal year 1922 were 226,246,243 pesos, according to the annual report of the comptroller general. In a statement credited to the minister of foreign affairs, total expenditures for 1921 are given as 277,043,852 pesos.

The total amount of the Mexican public debt as of July 10, 1922, was calculated at 528,287,000 pesos, of which 333,232,416 pesos constituted the amount of the foreign debt and 166,857,000 the total of the internal indebtedness of the country.

The outstanding feature of the year with regard to the Mexican foreign debt was the agreement entered into between the Mexican Government and the International Committee of Bankers for resumption of payments in cash on account of current interest on Mexican obligations. This plan, drawn up on June 16, 1922, and approved by President Obregon on August 7, 1922, provides that a minimum fund, to be increased annually, be set aside by the Mexican Government for each of the five years beginning January 2, 1923. At the end of this period full payments in cash of the service on all obligations are to be resumed and all provisions of the contracts under which the various bonds in question were issued are to be restored. The plan further provides that the Mexican Government shall set aside toward payment of such current interest coupons on bonds as mature after January 2, 1923, the entire proceeds

of the oil export tax, 10 per cent of the gross revenues of the National Railways of Mexico, and the entire net operating revenues of these railways.

The Mexican Government agreed to provide for such current interest no less than 30,000,000 pesos during the calendar year 1923; and an additional 5,000,000 pesos each year for the ensuing four years, bringing the fund up to 50,000,000 pesos in the fifth year. These cash interest payments on coupons maturing after January 2, 1923, were during the first year to have been made on a scale varying from 50 per cent to 100 per cent on the external loans; at the rate of 25 per cent on the internal 3 and 5 per cent bonds; 50 per cent on the State bonds, and, in general, from 50 to 65 per cent on the railway loans, except that the railway notes secured by Government bonds were to receive 100 per cent. After 1923 the increases in the minimum fund provided by the Government for current interest should permit an increase in the scale of cash payments on all bonds receiving less than 100 per cent in the first year, and should permit payment of full current interest in cash in the fourth year upon all bonds, except the internal 3 and 5 per cent bonds and the State issues guaranteed by the Mexican Government. At or prior to the completion of the five-year period beginning January 1, 1923, the interest coupons maturing on or before January 2, 1923, are to be detached and lodged with special depositaries against the issue of receipts of certificates to an equivalent face amount. Such receipts or certificates are to be purchased or redeemed by the Government from a fund sufficient to retire them in full, extending over a period of forty years, beginning January 1, 1922. Certificates for arrears of interest will be of two kinds—class "A" and class "B"; class "A" to be completely retired prior to class "B." All sinking funds are to be postponed for a period not to exceed five years from January 1, 1923.

The plan of adjustment deals with all external Mexican debts, direct or guaranteed, the National Railway debt, and certain so-called internal Government debts largely held outside of Mexico. The total face value of the securities covered is more than 500,000,000 pesos, on which the interest in arrears amounts to approximately 200,000,000 pesos. A detailed report in connection with the railway obligations of the Mexican Government was given in the November, 1922, BULLETIN (page 1323), containing also the text of the agreement in connection with the reorganization of the National Railway system.

GOVERNMENT CONTROL OF BANKING AND FOREIGN EXCHANGE IN BRAZIL.

The monetary system of Brazil, although nominally on a gold basis, has been since 1918 composed principally of inconvertible paper currency. In order to provide for the conversion of paper currency into gold at a fixed rate the Government in 1906 established the Conversion Office, which was empowered to redeem Brazilian paper notes at the rate of 15 pence gold per paper milreis. This rate was changed to 16 pence per milreis in 1910. The successful operation of the Conversion Office was interrupted at the outbreak of the war, when a sudden demand for a great quantity of gold was made upon that office, with the result that its operations were suspended. This suspension is still in force. A law enacted in April, 1918, authorized the National Treasury to issue against the gold transferred from the Conversion Office five times its value in inconvertible notes. As a consequence of this procedure and of the emission of large amounts of inconvertible notes for various purposes on the authority of different decrees, the amount of inconvertible paper currency increased from a total of 601,488 contos in 1913 to 1,679,176 contos in 1918, 1,730,000 contos in 1920, and 2,226,276 contos on November 30, 1922. The Institution for the Permanent Protection of Coffee and Other Produce is also empowered by law to issue paper currency guaranteed by that part of the gold reserves held as security for paper currency, under certain conditions, as well as by 80 per cent of the value of coffee purchased by the commission, or by warrants in favor of other parties. The gold reserves of Brazil amounted in 1922 to about 85,203 contos. Thus the ratio of gold reserve to total circulation amounts to about 4 per cent. It is clear, therefore, that the fluctuations in the value of the Brazilian currency are to a very large extent affected by the total amounts of paper outstanding, which in turn change according to the condition of trade and exchange.

According to statements from official sources, the principal reason for Government control over bank operations in Brazil was that certain banks were responsible for the speculation in exchange which started soon after the declaration of war, and which was accompanied by rapid fluctuations in the rates of exchange. Before the enactment of the final law of March 16, 1921, providing for permanent official control of banking and exchange in

Brazil, several laws had been passed directed toward the governmental regulation of bank transactions in foreign exchange. The most important of these laws went into effect on December 18, 1917, soon after the declaration of war between Brazil and Germany. Under the terms of that law banking transactions in exchange were subject to the daily inspection of commissions composed of officials of the Treasury in Rio de Janeiro and of officers of the Banco do Brasil in the different States of the Union.

Although speculation in exchange was partially checked after the enactment of the above law, its effect upon the value of the milreis does not seem to have accomplished the results expected by the promulgators of the law. The table on pages 594-595 indicates that, while the value of the Brazilian milreis rose slightly in January, 1918, one month after the first official control law was enacted, a downward trend started in February and continued even after the enactment of a new decree on July 19, 1918. This decree prohibited the exportation of securities and remittances to foreign countries except when payments were intended to cover obligations contracted by the Federal Government, the States, municipalities, or corporations, or when used as coverture for merchandise of free importation or when destined for the support of Brazilians or non-enemy aliens who possessed property in Brazil.

As a means of properly enforcing the provisions of the above laws, the Government imposed a certain number of rules for the regulation of exchanges, several of which gave rise to considerable criticism on the part of bankers, on the ground that their operations were hampered thereby to a great extent. Some of the most important of these rules were: (1) All contracts for the sale or purchase of foreign exchange were to contain the names of the purchaser and the seller and this information was to be transmitted to the proper supervising committee; (2) all time exchange transactions were prohibited; (3) bank to bank exchange operations were suspended; and (4) remittances of securities were considerably curtailed by the committee and shipments were strictly controlled by it.

The close of the year 1918 marked the beginning of a period of exceptional commercial activity and speculation in Brazil. Demands made by the buying nations for Brazil's staple products had a considerable effect upon the value of the currency, the milreis rising from a low quotation of 23 cents in September,

1918, to a high mark of 33 cents in December of the following year.

After the close of the war the Minister of Finance considered it expedient to continue the official control of banking and exchange operations, and on January, 1920, a commission was appointed to frame a law having for its object the permanent official regulation of foreign exchange. In May, 1920, a draft of the bill was submitted to the Minister. The framers of this bill reported that permanent control was deemed necessary for the following reasons: That the banking establishments in Brazil were under no official supervision whatsoever; that it was a difficult task to ascertain whether or not the credit institutions were duly complying with the tax laws; that domestic institutions were organized in accordance with requirements of law, while the foreign banks were established by virtue of Executive concessions granted them, and that no measures were taken to determine whether either were complying with the laws under which they operated. With regard to foreign exchange, the commission reported that official control was necessary in order to prevent the circulating media of Brazil from being subject to speculative fluctuations, and to place the domestic currency in a position where economic forces would be the only ones to affect its value in terms of foreign currencies.

After a series of parliamentary discussions and amendments of the original project of the banking control law, it was finally approved on March 16, 1921. The Banco do Brasil, the semiofficial bank of the country, was given by the provisions of the law full control over foreign exchange.

The principal provisions of the official banking control law may be summarized as follows:

Banks and banking houses, agencies of banks, domestic and foreign, to be under the supervision of the Inspector General of Banks under the Ministry of Finance.

Establishment of banks permitted only by authorization of the Government upon application.

Application of banks must prove: Organization according to law of Brazil or of the country of head office. Foreign establishments must present their by-laws, a complete list of shareholders, and certificate containing a declaration of amount of capital.

Obligations imposed on foreign banks: To maintain a representative in Brazil; to be subject to the Brazilian law; to conduct transactions only as authorized by the approved by-laws; to realize within a maximum of two years from date of published authorization at least two-thirds of their capital; the opening of other agencies in Brazil besides those named in decree of authorization to be dependent on permission of the Government; to contribute annually to the expenses of supervision; to submit to cancellation of their authorization in case of violation of the country's laws; capital and assets of branch not to be

liable for obligations contracted by agencies in other countries; the decree of authorization may institute for the foreign establishment the principle of reciprocity, and may grant it in the Republic the same advantages and privileges as are granted to Brazilian banks in the country of origin; minimum capital of 9,000 contos of reis required for establishment of branch of foreign banks; deposit of 50 per cent of the capital in Bank of Brazil required before authorization, money to be returned after authorization.

No money in form of precious metals coined, in dust, bars, or any form may be exported without a permit viséed by the office of the inspector.

Banks, domestic and foreign, dealing in exchange required to deposit currency in the treasury for each city where they operate; deposits to be in gold or Brazilian gold securities; amount of deposit shall equal one-tenth per cent of total exchange transactions, purchases and sales combined, of the previous year and calculated according to the official average of exchange for the preceding year, and shall not be in excess of 1,000 contos for the principal establishment, its agencies and branches jointly, and not less than 100 contos. In places where volume of exchange transactions is less than 1,000 contos of reis annually, deposit may be reduced; establishments beginning operations shall deposit 100 contos of reis.

Whenever required by public interest, the Ministry of Finance shall have the right to suspend the previous authorization of the inspector's office for all remittances such as drafts, checks, letters of credit, bills of exchange, etc.—all of which have for their purpose the export of securities or the transfer of funds abroad; all transactions connected with the purchase of exchange; to prohibit exportation of securities and remittances abroad other than: Payments of obligations of the Government, etc.; charitable remittances; support of Brazilians or foreigners abroad; payment of goods of unrestricted importation; to suspend or postpone exportation of securities to avoid depreciation in price or fluctuations in exchange; to prohibit or restrict purchase or sale of exchange and time export bills and exchange transactions among banks of the country.

The enactment of the permanent official law was immediately followed by a sharp fall in the value of the milreis, which dropped 1½ points in terms of United States currency during the course of the month following that in which the law was passed. The downward trend thus started was not checked until July, when the milreis had reached the lowest mark since its par value was fixed at 32.45 cents in 1910.

During 1922, with the exception of a slight improvement in the value of the milreis in March, the downward trend of the Brazilian exchange continued unchecked. In September the milreis declined to 11 cents during the short-lived prohibition of interbank exchange transactions provided for by a law enacted about the middle of that month. This law was rescinded by the Minister of Finance early in the following month, because of a protest filed by the local banks and the commercial associations of Rio de Janeiro. The withdrawal of the above law was followed by a rise in the rate of exchange, which may be taken as an indication that the present exchange situation

in Brazil is considerably affected by the official control laws. Those who condemn the policy of official control contend that official speculation has been substituted for private speculation with the result that legitimate commercial operations have been seriously hampered. Were the Banco do Brasil in a position to satisfy the market requirement for exchange, it is said, the general situation would be likely to present a different aspect, but at times the Banco do Brasil itself requires more exchange for its own operations than it can sell.

It appears that the official-control law directed to curb speculation in exchanges has resulted in limiting the supply and demand of exchange necessary for the requirements of the importers and exporters, but its provisions are not sufficiently broad to regulate the supply and demand at times of seasonal need. Under present conditions, in certain periods several millions in sterling bills are offered monthly and no takers are to be found in Brazilian exchange markets, except for remittances against imports or payments for account of the Government. At such times the efforts directed toward disposing of the large surplus of bills force rates on milreis up, but in other periods, bills being scarce, demand for foreign bills forces Brazilian exchange downward, and the fall is always more violent than the rise. Such violent fluctuations have most harmful effects upon the general economic status of the country. In the case of Brazil, it is very difficult to maintain a fixed relation between gold and paper currency, since the paper money of the country is largely secured not by gold but only by domestic products, such as coffee, the value of which may fluctuate widely. In consequence, the value of the milreis rises and falls largely in accordance with the variations of the trade balance. The function of the Brazilian banks in this connection would seem to be to use part of their resources and those of their clients to keep the supply of and the demand for exchange bills fairly well balanced. To attain this end, it is evident that the purchase and sale of "futures" in exchange would have to be widely practiced. The laws providing official control, on the other hand, place heavy restrictions on operations of this character since they are considered highly speculative. The conclusion reached by a number of prominent Brazilian authorities is that in the case of Brazil it seems necessary to find some means of placing a check upon exchange speculation by credit institutions, perhaps by rigid inspection,

but that the total elimination of speculation could not be effected without seriously hampering the country's trade.

The profits realized by the Banco do Brasil during the first 18 months of permanent official control have been very considerable. In a recent report of the bank the amount is given as about 25,865,000 milreis. An analysis of the situation shows that the shareholders of the Banco do Brasil and consequently the Government, have been highly benefited by the official control.

The attitude of the new administration toward banking and exchange control has not yet become definitely known. However, in order to facilitate exchange transactions, the minister of finance has instructed the inspector general of banks to limit the official control of exchange transactions to compliance with the three following regulations, while consideration is being given to definite modifications of the law in force: (1) the forwarding of statements showing in detail the exchange operations of every bank during the previous day; (2) the legalization of exchange contracts which are to be stamped and signed by the fiscals or inspectors, and, (3) the prohibition of the opening of current accounts in foreign currencies. This has been taken by many as an indication that the present administration is inclined to modify to a great extent the system of official control at present in operation. Notwithstanding the fact that the above instructions would indicate that the present administration is disposed to facilitate exchange transactions, the value of the milreis has not improved during the first quarter of the current year, but, on the contrary, the milreis shows a tendency to fall still further.

MONTHLY RANGE OF BRAZILIAN EXCHANGE IN
NEW YORK, 1917-1922.

[In cents per milreis. Par of exchange: 1 milreis=32.44 cents.]

Month.	1917		1918		1919	
	High.	Low.	High.	Low.	High.	Low.
January.....	23.6	23.2	27.1	26.6	26.8	25.0
February.....	23.5	23.0	26.7	25.8	26.1	25.5
March.....	23.2	22.9	26.4	25.8	26.4	25.8
April.....	24.4	23.0	25.8	25.3	27.0	25.8
May.....	26.8	24.9	25.6	25.2	23.3	27.0
June.....	26.9	25.6	25.6	24.9	23.3	27.6
July.....	26.8	24.7	24.9	23.0	23.8	26.5
August.....	25.6	24.8	24.2	23.5	27.5	24.9
September.....	25.2	24.7	24.0	23.0	25.0	24.5
October.....	25.6	25.1	25.0	23.5	25.7	25.0
November.....	26.3	25.2	27.0	24.8	25.3	25.0
December.....	26.9	25.9	27.2	26.5	33.0	27.8

MONTHLY RANGE OF BRAZILIAN EXCHANGE IN
NEW YORK, 1917-1922—Continued.

Month.	1920		1921		1922	
	High.	Low.	High.	Low.	High.	Low.
January.....	27.8	27.3	15.8	14.4	12.9	12.8
February.....	27.4	25.8	15.6	14.5	13.8	12.8
March.....	27.1	25.8	15.7	13.7	14.3	12.6
April.....	27.1	26.4	14.0	13.1	13.7	13.4
May.....	26.4	26.1	14.1	13.1	13.9	13.6
June.....	26.1	23.8	13.5	10.9	14.1	13.9
July.....	23.8	21.4	11.5	10.0	13.6	13.5
August.....	21.8	17.6	12.5	12.0	13.6	13.2
September.....	19.5	16.4	13.0	12.4	13.6	11.5
October.....	18.4	16.8	13.3	12.9	11.6	11.0
November.....	17.5	15.4	13.0	12.8	12.1	11.3
December.....	16.8	13.9	13.3	12.8	12.2	11.6

From the foregoing exposition of facts it may be concluded that, although there have been in Brazil several causes which have been instrumental in bringing about a gradual depreciation of the Brazilian currency, the official control of banking and exchange has not been successful in preventing the continued fall in exchange and in itself has probably contributed to bring about the decline. In point of fact, the value of the paper milreis stood in the neighborhood of 15 cents when the regulations for permanent supervision of banks and exchange came into force, and later fell to 13 cents, where it was successfully pegged for some time, but finally collapsed to 10 cents during the short-lived prohibition of interbank exchange transactions in September, 1922. A slight improvement was felt, however, during the last two months of that year, but in the first four months of 1923 the quotations of the milreis stood again in the neighborhood of 11 cents. In relating the fluctuations of the milreis to the trade balance, it must be considered that the money of Brazil is not gold or silver, but an arbitrary unit of value termed "milreis," by which all operations of exchange, domestic and foreign, are conducted. Consequently, if a foreign bill of exchange rises in value measured in the currency of the country, the value of that currency appraised by a sterling standard must have depreciated proportionately, as happens to every class of commodity when demand exceeds supply. The factors of value of the milreis are twofold—first, the relation of the supply of the circulating medium to demand or the proportion of the currency actually in circulation to the requirements of the people; and, secondly, the relation of the supply to the demand of foreign bills for the liquidation of

foreign engagements. With regard to the first factor, there has been an emission of 466,338 contos, or about 26 per cent of the currency in circulation since 1920. Such an increase would have naturally tended to depress the value of the milreis, but not to the extent of the present level. The paper money in circulation in Brazil since 1913 and the average annual rate of the milreis in terms of pence follows:

	Milreis.	Average exchange (in pence).
End of—		
1913.....	601,488,303	15.61
1914.....	822,496,018	14.21
1915.....	982,089,527	12.29
1916.....	1,122,559,761	11.59
1917.....	1,389,414,967	12.23
1918.....	1,679,176,058	12.55
1919.....	1,729,061,523	14.15
1920.....	1,730,000,000	14.15
1921.....	1,900,000,000	8.9
1922.....	2,226,276,000	7.5

The relation between the average exchange rates and the amount of paper in circulation appears to be quite consistent from 1913 to 1916. After that date the average quotation rose year by year, notwithstanding the increased amount of paper emissions. In 1920, however, a reaction took place which was not due to increased emissions. This break was due, therefore, to a different cause. That the recent decline in milreis was not due to an unfavorable balance of payments is shown in the following table:

Years.	Balance of trade.	Dis-count on foreign debt. ¹	Balance of pay-ments. ¹	Average ex-change.
				In pence.
In pounds sterling.				
1919.....	+51.908	10.000	+41.908	14.15
1920.....	-17.484	11.500	-28.984	14.1
1921.....	-1.881	13.500	-15.381	8.95
1922.....	+19.000	15.600	+3.400	7.5
Total.....	+51.543	50.600	+943	.....

¹ Estimates.

Since the decline in value of the milreis can not be accounted for adequately either by the growth of circulation or by the balance of international payments, it has been widely held that official control, with its restrictions upon dealings in futures, has had a depressing influence on the Brazilian currency.

PRICE MOVEMENT AND VOLUME OF TRADE.

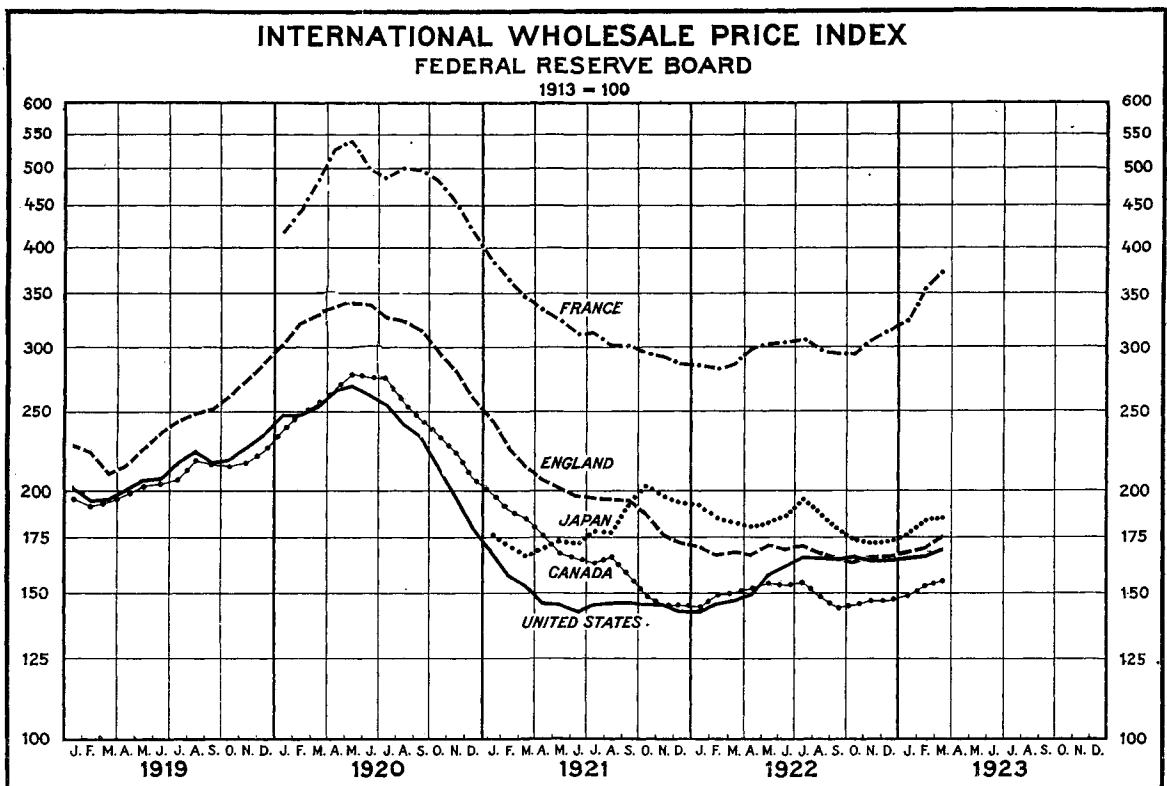
INTERNATIONAL WHOLESALE PRICE INDEX.

Wholesale prices in the United States and foreign countries were still rising in March, according to the board's index numbers, which showed that the increase was more rapid than during February in this country and England, but less rapid in the other three countries, Canada, Japan, and France. The tables on the following page show the movements in number of points.

The gold-basis figures indicate higher levels also, as there were no downward movements of exchange to offset rising prices. In England and the United States gold prices during March were at the same level, showing that between these two countries a close adjustment of foreign exchange and domestic price levels has been attained.

In general, prices of commodities entering into foreign trade moved more noticeably than domestic goods. Particularly in Japan and the United States imported goods rose rapidly. There has been a very general upward trend in imported goods in all countries since March, 1922.

In England minerals and metals took the leading place in the rise of domestic goods, causing raw materials to advance more rapidly than producers' or consumers' goods. Farm products showed very slight changes as compared with February. In Canada both producers' and consumers' goods have shown a parallel upward movement since the fall of last year. During March these trends continued. In France the advance of consumers' goods, which was so great in February, slackened in March. On the other hand, the raw materials group, including minerals and metals, raw textiles, grains, and animal products, and the group of producers' goods, including chemicals and steel products, continued to advance as in February.



The tables below give in full from 1919 to date the all-commodities and group index numbers of wholesale prices in the five countries included in the Federal Reserve Board's index. Figures have not been computed for France prior to 1920, nor for Japan prior to 1921. In the first table the all-commodities index for each country is shown both in terms of the respective currencies and "converted to a gold basis." The latter figures take into account the depreciation of foreign currencies in terms of the American dollar and indicate relative price levels in the several countries when all prices are expressed in dollars.

INTERNATIONAL WHOLESALE PRICE INDEX—FEDERAL RESERVE BOARD.

Year and month.	Based on prices in respective currencies.					Converted to gold basis.				
	United States.	England.	France.	Canada.	Japan.	United States.	England.	France.	Canada.	Japan.
1913 average.....	100	100	100	100	100	100	100	100	100	100
1919 average.....	211	241	207	207	211	211	218	199	199	223
1920 average.....	239	314	478	250	239	239	237	174	223	.....
1921 average.....	148	201	321	167	148	148	159	124	150	175
1922 average.....	157	167	298	149	157	157	152	126	147	175
1919.										
January.....	201	227	.....	196	201	201	222	.....	192	.....
February.....	194	222	.....	191	194	194	217	.....	187	.....
March.....	195	210	.....	193	195	195	203	.....	189	.....
April.....	200	214	.....	198	200	200	205	.....	193	.....
May.....	206	224	.....	202	206	206	215	.....	196	.....
June.....	207	234	.....	204	207	207	222	.....	198	.....
July.....	216	242	.....	207	216	216	220	.....	200	.....
August.....	223	249	.....	218	223	223	218	.....	208	.....
September.....	217	251	.....	216	217	217	215	.....	208	.....
October.....	218	261	.....	214	218	218	224	.....	206	.....
November.....	225	272	.....	217	225	225	229	.....	208	.....
December.....	233	287	.....	223	233	233	225	.....	206	.....
1920.										
January.....	248	305	417	239	248	248	231	183	218	.....
February.....	248	320	441	249	248	248	222	161	215	.....
March.....	253	329	479	253	253	253	252	179	226	.....
April.....	267	334	525	265	267	267	270	170	242	.....
May.....	269	340	537	279	269	269	269	191	251	.....
June.....	262	339	500	276	262	262	275	205	243	.....
July.....	254	326	485	274	254	254	259	204	241	.....
August.....	240	322	500	258	240	240	239	186	223	.....
September.....	232	315	497	244	232	232	228	174	220	.....
October.....	214	297	483	234	214	214	212	163	212	.....
November.....	196	280	456	221	196	196	198	142	197	.....
December.....	179	260	420	208	179	179	187	129	179	.....
1921.										
January.....	168	244	387	199	168	168	188	129	175	172
February.....	157	226	364	189	157	157	180	135	166	167
March.....	152	213	345	184	152	152	171	126	161	163
April.....	146	206	333	177	146	146	166	125	157	164
May.....	145	201	323	168	145	145	164	140	150	168
June.....	142	197	311	165	142	142	153	130	147	166
July.....	145	196	312	163	145	145	146	126	144	171
August.....	146	195	302	166	146	146	147	121	150	172
September.....	146	194	301	158	146	146	149	113	141	186
October.....	145	187	295	149	145	145	149	111	136	193
November.....	145	177	292	145	145	145	144	109	133	189
December.....	142	172	287	145	142	142	147	117	135	186
1922.										
January.....	142	170	286	144	142	142	147	121	137	181
February.....	146	167	283	149	146	146	150	128	145	176
March.....	147	168	287	150	147	147	151	134	145	173
April.....	149	167	299	152	149	149	152	143	148	171
May.....	158	171	302	154	158	158	157	143	152	174
June.....	161	169	304	153	161	161	155	138	151	179
July.....	165	171	307	154	165	165	156	131	152	187
August.....	165	168	298	149	165	165	154	123	149	179
September.....	164	165	294	144	164	164	150	117	144	171
October.....	165	163	294	145	165	165	148	112	145	168
November.....	164	165	307	147	164	164	152	109	147	167
December.....	164	166	315	147	164	164	157	118	146	170
1923.										
January.....	165	167	324	148	165	165	160	112	147	172
February.....	166	170	355	152	166	166	164	113	150	173
March.....	169	175	372	155	169	169	169	122	152	180

UNITED STATES.								ENGLAND.							
[1913=100.]								[1913=100.]							
Year and month.	Goods produced.	Goods imported.	Goods exported.	Raw materials.	Producers' goods.	Consumers' goods.	All commodities.	Year and month.	Goods produced.	Goods imported.	Goods exported.	Raw materials.	Producers' goods.	Consumers' goods.	All commodities.
	(82)	(19)	(39)	(37)	(31)	(33)	(101)		(55)	(42)	(40)	(38)	(35)	(24)	(97)
1919 average.....	214	174	221	209	198	221	211	1919 average.....	238	247	275	226	261	241	241
1920 average.....	242	191	235	235	237	244	239	1920 average.....	315	294	438	291	355	292	314
1921 average.....	148	108	136	141	142	160	148	1921 average.....	207	171	183	197	178	219	201
1922 average.....	154	123	157	166	139	157	157	1922 average.....	169	155	155	168	145	181	167
1919.								1919.							
January.....	203	168	207	195	192	212	201	January.....	221	244	242	210	238	241	227
February.....	196	168	199	190	191	201	194	February.....	215	240	231	208	229	234	222
March.....	198	163	201	196	185	200	195	March.....	202	233	222	206	200	226	210
April.....	203	165	201	201	181	208	200	April.....	208	230	219	207	213	225	214
May.....	208	172	218	209	184	214	206	May.....	220	234	232	211	237	229	224
June.....	209	180	221	208	192	213	207	June.....	231	241	233	216	257	236	234
July.....	219	176	232	217	200	223	216	July.....	240	247	265	222	269	244	242
August.....	226	174	227	217	206	237	223	August.....	250	246	278	234	277	243	249
September.....	220	170	219	211	203	231	217	September.....	253	246	302	239	277	241	251
October.....	221	174	233	213	207	230	213	October.....	262	259	332	250	288	249	261
November.....	228	179	250	220	213	236	225	November.....	273	269	345	255	310	260	272
December.....	235	203	254	229	223	243	233	December.....	283	280	399	261	331	267	287
1920.								1920.							
January.....	250	212	264	245	236	257	248	January.....	302	298	452	270	358	289	305
February.....	250	216	260	242	247	255	248	February.....	316	314	478	281	392	291	320
March.....	255	218	266	246	263	255	253	March.....	327	319	483	287	406	300	329
April.....	269	242	272	263	274	270	267	April.....	332	324	486	292	409	306	334
May.....	270	246	271	263	274	273	269	May.....	341	322	484	306	406	310	340
June.....	265	226	265	258	265	267	262	June.....	344	306	469	308	396	311	339
July.....	258	208	256	249	251	263	254	July.....	330	299	452	307	363	302	326
August.....	244	182	236	237	235	245	240	August.....	322	304	439	307	352	297	322
September.....	237	164	219	233	225	234	232	September.....	319	288	421	301	341	296	315
October.....	220	142	187	211	209	221	214	October.....	301	272	392	290	309	282	297
November.....	202	127	168	192	190	206	196	November.....	285	253	369	282	278	267	280
December.....	184	112	151	176	171	187	179	December.....	266	230	328	265	244	255	260
1921.								1921.							
January.....	172	114	147	164	166	173	168	January.....	252	207	246	233	231	261	244
February.....	160	113	140	152	158	162	157	February.....	234	190	201	213	213	246	226
March.....	155	114	129	146	153	159	152	March.....	219	182	189	202	198	231	213
April.....	148	109	125	136	148	155	146	April.....	211	180	185	201	184	225	206
May.....	148	105	129	139	145	152	145	May.....	209	167	182	198	179	216	201
June.....	140	102	126	133	140	154	142	June.....	206	161	179	196	173	213	197
July.....	143	103	126	134	136	162	145	July.....	204	164	174	192	165	222	196
August.....	144	104	127	133	133	167	146	August.....	202	165	168	193	161	223	195
September.....	144	106	149	138	133	162	146	September.....	199	170	171	195	165	212	194
October.....	143	107	146	140	132	158	145	October.....	192	163	175	187	166	200	187
November.....	142	108	143	141	128	157	145	November.....	182	154	164	177	153	191	177
December.....	140	111	141	140	127	153	142	December.....	176	152	158	173	147	186	172
1922.								1922.							
January.....	139	110	139	141	127	150	142	January.....	174	149	158	171	147	181	170
February.....	143	110	142	145	127	155	146	February.....	171	148	151	168	144	181	167
March.....	144	111	144	147	126	157	147	March.....	172	147	153	170	142	183	163
April.....	146	115	144	150	129	156	149	April.....	171	148	152	167	143	183	167
May.....	155	119	155	164	137	160	158	May.....	175	153	155	169	146	191	171
June.....	158	124	163	167	141	164	161	June.....	172	154	158	167	148	186	169
July.....	162	128	165	177	143	163	165	July.....	172	158	158	168	147	190	171
August.....	162	127	162	184	144	156	165	August.....	170	155	159	170	143	183	163
September.....	161	128	157	181	147	154	164	September.....	165	157	154	166	143	177	165
October.....	161	135	163	179	150	156	165	October.....	160	161	149	165	144	170	163
November.....	160	137	173	177	150	156	164	November.....	161	165	154	166	146	172	165
December.....	160	138	174	177	149	157	164	December.....	164	163	157	166	146	177	166
1923.								1923.							
January.....	162	139	180	182	150	156	165	January.....	165	164	165	167	151	175	167
February.....	162	146	187	182	156	154	166	February.....	168	166	172	171	153	177	170
March.....	164	154	193	184	165	155	169	March.....	174	169	185	178	158	179	175
April.....								April.....	176	170	191	180	161	180	177

FRANCE.
[1913=100.]

Year and month.	Goods produced. (66)	Goods imported. (32)	Goods exported. (34)	Raw materials. (39)	Producers' goods. (36)	Consumers' goods. (23)	All commodities. (98)
1920 average.....	466	536	512	506	433	474	478
1921 average.....	322	313	288	341	248	348	321
1922 average.....	295	310	295	324	235	309	298
1920.							
January.....	401	495	489	455	373	398	417
February.....	419	542	535	483	408	409	441
March.....	458	579	563	510	437	468	479
April.....	498	651	633	549	482	522	525
May.....	512	655	653	559	498	535	537
June.....	484	574	539	518	482	488	500
July.....	477	524	496	503	459	481	485
August.....	494	532	500	523	453	503	500
September.....	493	517	501	520	441	506	497
October.....	481	489	463	508	417	496	483
November.....	454	466	400	496	396	447	456
December.....	422	408	373	452	350	430	420
1921.							
January.....	387	383	352	406	304	422	387
February.....	366	349	330	382	276	444	364
March.....	348	330	305	355	269	384	345
April.....	334	326	280	354	259	361	353
May.....	330	285	269	335	240	368	323
June.....	317	279	256	332	226	347	311
July.....	317	282	261	328	232	348	312
August.....	304	290	261	322	229	330	302
September.....	298	314	276	328	240	309	301
October.....	291	314	291	319	238	304	295
November.....	290	304	294	315	233	305	292
December.....	284	303	283	313	230	294	287
1922.							
January.....	284	295	277	308	229	299	286
February.....	282	286	275	300	227	300	283
March.....	288	282	272	305	229	306	287
April.....	302	282	274	318	228	327	299
May.....	305	288	279	322	226	333	302
June.....	305	295	292	327	231	327	304
July.....	306	308	297	332	237	325	307
August.....	296	309	296	329	238	303	298
September.....	289	320	301	323	238	296	294
October.....	286	333	308	328	238	290	294
November.....	296	362	336	348	248	296	307
December.....	306	361	333	352	253	310	315
1923.							
January.....	312	384	346	366	262	312	324
February.....	342	419	334	396	293	343	355
March.....	359	440	399	418	318	349	372

JAPAN.
[1913=100.]

Year and month.	Goods produced. (62)	Goods imported. (28)	Goods exported. (21)	Raw materials. (18)	Producers' goods. (35)	Consumers' goods. (37)	All commodities. (90)
1921 average.....	186	154	173	154	188	193	181
1922 average.....	187	159	189	165	181	192	182
1921.							
January.....	177	170	175	161	192	179	176
February.....	173	158	173	155	184	174	171
March.....	170	148	167	149	173	174	167
April.....	173	146	167	148	179	177	169
May.....	179	146	165	147	180	185	172
June.....	178	141	163	142	181	185	172
July.....	186	140	166	141	184	197	177
August.....	184	144	166	142	187	193	178
September.....	197	167	175	159	199	207	192
October.....	208	172	185	171	209	217	202
November.....	204	162	183	167	193	215	197
December.....	201	154	192	167	192	209	193
1922.							
January.....	198	153	197	168	191	203	191
February.....	192	151	186	163	183	198	185
March.....	187	153	175	157	183	195	182
April.....	186	151	176	157	183	192	180
May.....	188	157	183	164	182	194	183
June.....	191	166	192	168	191	196	187
July.....	200	167	196	170	195	208	195

JAPAN—Continued.

Year and month.	Goods produced. (62)	Goods imported. (28)	Goods exported. (21)	Raw materials. (18)	Producers' goods. (35)	Consumers' goods. (37)	All commodities. (90)
1922.							
August.....	192	160	189	161	187	202	187
September.....	183	156	189	159	177	190	179
October.....	176	159	195	166	171	179	174
November.....	173	166	194	173	168	173	172
December.....	175	165	192	171	167	177	173
1923.							
January.....	176	175	199	178	176	174	176
February.....	183	184	214	192	186	177	183
March.....	184	193	212	194	190	178	185

CANADA.
[1913=100.]

Year and month.	Goods produced. (63)	Goods imported. (38)	Goods exported. (37)	Raw materials. (34)	Producers' goods. (29)	Consumers' goods. (38)	All commodities. (101)
1919 average.....	207	204	220	197	188	227	207
1920 average.....	249	253	268	235	255	270	250
1921 average.....	168	164	181	155	174	183	167
1922 average.....	147	160	145	138	151	164	149
1919.							
January.....	195	201	209	183	186	219	196
February.....	196	198	207	175	185	216	191
March.....	193	198	209	179	181	219	193
April.....	199	193	211	186	175	224	198
May.....	204	193	213	192	177	226	202
June.....	205	196	216	195	181	225	204
July.....	208	201	226	203	186	220	207
August.....	220	205	226	209	194	239	218
September.....	217	208	228	208	193	236	216
October.....	214	212	226	207	196	230	214
November.....	217	219	230	212	198	232	217
December.....	223	228	233	219	203	237	223
1920.							
January.....	238	245	262	231	226	255	239
February.....	248	254	270	242	231	266	249
March.....	251	263	271	247	234	268	253
April.....	263	276	274	252	253	289	265
May.....	277	288	296	261	268	309	279
June.....	275	283	296	258	276	302	276
July.....	274	273	295	257	274	299	274
August.....	258	255	286	250	268	267	258
September.....	244	247	270	230	266	258	244
October.....	234	231	252	215	267	250	234
November.....	221	218	231	195	260	245	221
December.....	208	208	215	187	242	229	208
1921.							
January.....	200	194	212	182	222	217	199
February.....	190	180	208	174	210	203	189
March.....	186	174	202	170	190	202	184
April.....	178	169	192	162	185	196	177
May.....	169	164	193	159	177	178	168
June.....	166	160	190	157	168	176	165
July.....	164	158	185	153	164	177	163
August.....	167	158	188	155	162	182	166
September.....	158	155	175	147	159	174	158
October.....	148	153	149	136	153	166	149
November.....	144	151	138	131	152	164	145
December.....	144	151	137	131	149	164	145
1922.							
January.....	143	151	139	132	147	161	144
February.....	148	150	152	138	147	164	149
March.....	150	150	151	140	146	166	150
April.....	152	151	153	142	146	169	152
May.....	153	157	154	145	147	168	154
June.....	151	162	149	143	150	168	153
July.....	153	165	154	143	152	171	154
August.....	146	166	144	136	154	166	149
September.....	140	170	133	133	154	157	144
October.....	141	171	134	134	155	158	145
November.....	143	165	138	135	157	160	147
December.....	143	167	138	135	159	161	147
1923.							
January.....	145	170	140	136	160	163	148
February.....	149	170	146	139	164	167	152
March.....	152	173	151	141	169	173	155

COMPARATIVE WHOLESALE PRICE LEVELS IN PRINCIPAL COUNTRIES.

The following series of index numbers covering the last four years are the latest corrected figures available, and have been obtained in most cases directly from the statistical offices computing them. There are many small changes from the figures as previously published.

ALL-COMMODITIES INDEX NUMBERS.¹

Year and month.	EUROPE.													
	Belgium; Ministry of Labor. ²	Bulgaria; General Statistical Bureau.	Czechoslovakia; Central Bureau of Statistics.	Denmark; Finans-tidende. ³	France; General Statistical Bureau. ⁴	Germany; Frankfurter Zeitung. ⁵	Germany; Federal Statistical Bureau. ⁶	Italy; Riccardo Bachì. ⁷	Netherlands; Central Bureau of Statistics. ⁸	Norway (Christiania); Oekon-misk Revue. ⁹	Poland; Central Statistical Office. ⁴	Spain; Institute of Geography and Statistics. ¹⁰	Sweden; Göteborgs Handels-tidning. ¹¹	Sweden; Board of Trade.
	(128)	(38)	(126)	(33)	(45)	(98)	(38)	(100)	(53)	(92)	(58)	(74)	(47)	(160)
1913.....		100			100		¹⁶ 1.0	100	100			100	¹² 100	¹⁷ 100
1914.....	¹⁸ 100	103	¹⁵ 100	¹⁴ 100	101	²⁰ 1.0	1.1	95	105	¹⁶ 115	¹⁷ 1	101	116	
1915.....		137		138	137		1.4	133	145	¹⁸ 159		119	145	
1916.....		¹⁸ 268		164	187		1.5	202	222	¹⁸ 233		141	185	
1917.....		¹⁸ 667		228	228		1.8	299	286	¹⁸ 341		166	244	
1918.....		¹⁸ 830		293	339		2.2	409	392	¹⁸ 345		207	339	
1919.....		¹⁸ 1,166		294	356		4.2	364	297	¹⁸ 322		204	330	
1920.....		1,940		382	510	¹⁹ 19.7	14.9	631	281	382		221	347	359
1921.....		2,006		250	345	¹⁹ 21.3	19.1	578	181	298		190	211	218
1922.....	367	2,473	1,355	179	327	327.2	341.8	562	160	233	1,376	176	162	173
1919.														
January.....				292	348		2.6	324		339			369	
February.....					340		2.7	320					358	
March.....					336		2.7	324					354	
April.....					332		2.9	329					339	
May.....					325		3.0	336					330	
June.....					329		3.1	356		314			324	
July.....				295	349		3.4	361					320	
August.....					347		4.2	368					321	
September.....					360		4.9	370					319	
October.....					382		5.6	388					307	
November.....					405		6.8	436					308	
December.....					423		8.0	455		322			317	
1920.														
January.....		1,739		340	487	19.7	12.6	550	287	333			319	343
February.....		2,025			522		16.9	557	283	342			342	357
March.....		1,842			555		17.1	602	286	351			354	366
April.....		1,401			588		15.7	664	292	354			354	371
May.....		1,824			550		15.1	700	293	368			361	374
June.....		1,828			493		13.8	632	294	382			366	376
July.....		1,947		383	496		13.7	604	296	409			363	376
August.....		2,052		385	501		14.5	625	288	417			365	375
September.....		2,072		394	526		15.0	655	287	425			362	370
October.....		2,086		398	502		14.7	659	283	419			346	358
November.....		2,074		403	461		15.1	670	260	403			331	338
December.....		2,392		374	435		14.4	655	233	377			299	306
1921.														
January.....		2,392		341	407	21.3	14.4	642	213	344		219	267	272
February.....		2,135		290	377		13.8	613	197	319		203	250	256
March.....		2,437		280	360		13.4	604	188	312		193	237	249
April.....		2,006		270	347		13.3	584	176	297		191	229	239
May.....		1,945		257	329		13.1	547	182	294		187	218	230
June.....		1,680		254	325		13.7	509	182	294		186	218	223
July.....		1,721		253	330		14.3	520	176	300		186	211	216
August.....	347	1,730		254	331		19.2	542	180	297		183	198	211
September.....	368	1,758		224	344		20.7	580	180	287		183	182	201
October.....	372	2,052		202	331		24.6	599	169	286		185	175	194
November.....	374	2,051		186	332		34.2	595	165	276		184	174	189
December.....	369	2,155		188	326		34.9	595	165	269		183	172	188
1922.														
January.....	366	2,172	1,675	178	314	42	37	577	161	260	592	180	170	181
February.....	356	2,272	1,520	177	306	46	41	562	162	253	634	179	166	179
March.....	350	2,287	1,552	182	307	54	54	533	161	240	737	177	164	177
April.....	344	2,514	1,491	178	314	67	64	527	161	236	751	180	165	175
May.....	348	2,695	1,471	177	317	74	65	524	165	231	786	178	164	175
June.....	356	2,436	1,471	179	325	79	70	537	167	230	877	178	164	174
July.....	360	2,489	1,464	180	325	91	101	558	162	232	1,016	175	165	178
August.....	360	2,526	1,386	180	331	140	192	571	155	227	1,358	175	163	173
September.....	364	2,531	1,155	178	329	291	287	582	153	225	1,524	174	158	170
October.....	385	2,558	1,059	176	337	432	566	601	156	221	2,013	172	155	169
November.....	408	2,564	1,017	180	352	945	1,151	596	158	221	2,756	174	154	163
December.....	407	2,630	999	182	362	1,665	1,475	580	158	220	3,464	172	155	163
1923.														
January.....	434	2,657	1,003	181	387	2,054	2,785	575	159	220	5,487	170	156	163
February.....	474	2,666	1,028	192	422	7,159	5,585	582	158	224	8,591	170	158	
March.....	482	2,828	1,031	199	424	6,770	4,888	586	164	229	9,885	171	162	
April.....	480			200	415	6,393		588		231	10,589			

See following page for footnotes.

ALL-COMMODITIES INDEX NUMBERS—Continued.

Year and month.	EUROPE—continued.				NORTH AMERICA.		ASIA AND OCEANIA.						AFRICA.	
	Switzerland; Dr. J. Lorenz. ³	United Kingdom; Board of Trade.	United Kingdom; Economist	United Kingdom; Statist. ⁴	United States; Bureau of Labor Statistics.	Canada; Department of Labor. ¹¹	Australia; Bureau of Census and Statistics. ⁴	China (Shanghai); Ministry of Finance. ²⁰	Dutch East Indies; Statistical Bureau.	India (Calcutta); Department of Statistics. ⁴	Japan (Tokyo); Bank of Japan. ⁵	New Zealand; Department of Statistics. ¹¹	Egypt (Cairo); Department of Statistics.	South Africa; Office of Census and Statistics.
	(71)	(150)	(44)	(45)	(404)	(271)	(92)	(147)	(17)	(75)	(56)	(106)	(23)	(187)
1913.....		100	100	100	100	100		²¹ 100			100	100		
1914.....	¹⁵ 100		99	101	98	101	¹⁵ 100		²² 100	²³ 100	95	104	²⁴ 100	100
1915.....			123	126	101	110	141		²² 107		112	97	123	102
1916.....			161	159	127	135	132		²² 139		128	117	134	124
1917.....			204	206	177	177	155		²² 187		147	147	151	168
1918.....			225	226	194	206	170		¹⁸ 232		180	193	175	207
1919.....			235	242	206	217	180	¹³ 281	¹⁸ 281		198	236	178	225
1920.....			307	283	295	226	246	218	¹⁸ 226		204	259	212	299
1921.....	195	197	181	188	147	182	167	145	186		181	200	201	171
1922.....	166	159	159	155	149	165	154	146	164		180	196	145	133
1919.														
January.....			217	224	199	212	172		223		188	209	183	163
February.....			215	220	193	207	168				171	208	179	211
March.....			212	217	196	205	169				180	202	173	214
April.....			214	217	199	206	171				190	202	172	214
May.....			222	229	202	210	172				197	210	171	216
June.....			230	235	203	210	173				199	223	171	224
July.....			239	243	212	218	176		246		215	241	173	228
August.....			241	250	216	223	182				204	245	177	233
September.....			245	252	210	223	185	133			200	251	181	239
October.....			252	264	211	222	200	153			205	266	183	227
November.....			259	271	217	227	199	134			210	280	184	236
December.....			273	276	223	238	197	129	281		214	239	187	246
1920.														
January.....	326	297	288	288	233	243	203	131		218	301	194	318	221
February.....		310	303	306	232	254	206	136		209	313	198	354	220
March.....		319	310	307	234	258	209	141	319	198	321	206	338	230
April.....		325	306	313	245	261	217	142		200	300	209	308	230
May.....		326	304	305	247	263	225	143		210	272	210	293	230
June.....		322	291	300	243	258	233	146	299	206	248	209	292	230
July.....		317	292	299	241	256	234	144		209	239	219	283	240
August.....		313	287	298	231	244	236	141		209	235	219	279	230
September.....		311	284	292	226	241	230	140	292	208	230	220	299	230
October.....		302	266	282	211	234	215	138		206	226	222	300	230
November.....		287	245	263	196	225	208	139		194	221	218	287	230
December.....		264	220	243	179	214	197	139	226	180	206	218	238	230
1921.														
January.....	238	246	209	232	170	208	196	138	214	178	201	216	204	186
February.....	230	225	192	215	160	199	192	142	197	174	195	210	180	180
March.....	219	211	189	208	155	194	181	143	194	175	191	208	171	171
April.....	208	205	183	199	148	187	171	144	188	183	190	205	172	171
May.....	186	202	182	191	145	183	166	145	187	184	191	201	170	170
June.....	185	198	179	183	142	179	162	148	183	178	192	200	161	161
July.....	179	194	178	186	141	176	159	145	183	183	196	200	159	155
August.....	177	190	179	181	142	174	160	149	184	184	199	197	158	158
September.....	181	187	183	175	141	172	160	148	188	187	207	197	169	169
October.....	184	181	170	163	142	169	156	146	175	184	219	195	180	143
November.....	182	173	165	161	141	168	151	144	170	180	214	191	171	171
December.....	178	168	162	157	140	170	148	146	166	180	209	188	160	160
1922.														
January.....	176	164	159	156	138	168	147	149	164	178	206	186	156	135
February.....	171	162	158	155	141	169	147	150	163	179	204	181	152	135
March.....	171	160	160	157	142	166	146	152	164	182	201	180	153	135
April.....	163	160	159	158	143	166	148	148	164	182	197	180	143	132
May.....	161	160	162	159	148	167	155	146	166	187	194	177	141	131
June.....	160	160	163	159	150	165	156	144	167	183	197	175	139	139
July.....	161	160	163	157	155	166	157	145	168	181	201	177	138	131
August.....	163	156	158	152	155	164	155	142	163	178	195	177	139	139
September.....	163	154	156	150	153	163	158	139	159	176	193	174	138	138
October.....	163	155	158	153	154	162	159	143	163	177	190	174	140	133
November.....	169	157	159	153	156	164	162	143	164	178	188	175	144	144
December.....	170	156	158	152	156	165	161	149	163	176	183	172	147	147
1923.														
January.....	175	157	161	153	156	165	163	153		179	184	171	141	135
February.....	181	158	163	155	157	166	161	162		180	192	172	137	137
March.....	186	160	163	156	159	167	163	159		181	196	173	136	136
April.....	187		164					158					133	133

¹ The number of commodities or quotations used in the computation of each index is indicated by figures in parenthesis at head of each column.

² Average of last half of month.

³ First of month.

⁴ End of month.

⁵ Beginning of month—not always the 1st.

⁶ Average for the month.

⁷ 33 commodities prior to 1920; 76 commodities during 1921. End of month.

⁸ Based upon price of 52 commodities during 1920; 53 during 1921.

⁹ End of year and end of month.

¹⁰ 15th of the month.

¹¹ Middle of month.

¹² July 1, 1913, to June 30, 1914=100.

¹³ April, 1914=100.

¹⁴ July 1, 1912, to June 30, 1914=100.

¹⁵ July, 1914=100.

¹⁶ Dec. 31, 1913, to June 30, 1914=100.

¹⁷ January, 1914=1.

¹⁸ December figure.

¹⁹ January figure.

²⁰ As of last Wednesday in month.

²¹ February, 1913=100.

²² As of Jan. 1.

²³ End of July, 1914=100.

²⁴ Jan. 1, 1913, to July 31, 1914=100.

²⁵ July, 1914=1.

²⁶ 1913 average=1.

²⁷ Corresponding month in 1913=100.

The foreign index numbers published on the two preceding pages are constructed by various foreign statistical offices and are sent to the Federal Reserve Board by cable. The Swedish Board of Trade index was described in the July, 1922, BULLETIN, page 816; references to BULLETINS in which other indexes are described may be found in the issue for January, 1923.

Index numbers showing the price levels of separate groups of commodities in the United States and many foreign countries are pre-

sent below and on the following pages. These group index numbers are published only occasionally, but the most recent figures may be obtained from the Division of Analysis and Research at any time upon request.

A comparative summary table showing the board's international index for the United States, England, Canada, France, and Japan appears on page 597. Group index numbers, computed as part of this international series, will be found on pages 598 and 599.

GROUP INDEX NUMBERS—UNITED STATES—COMMODITIES IN BUREAU OF LABOR STATISTICS INDEX REGROUPED BY FEDERAL RESERVE BOARD.

Year and month.	Raw materials.					Producers' goods. (117)	Consumers' goods. (199)	All commodities. (404)
	Agricultural products. (21)	Animal products. (21)	Forest products. (11)	Mineral products. (35)	Total raw materials. (88)			
1913.....	100	100	100	100	100	100	100	100
1919.....	251	221	211	179	217	179	211	206
1920.....	255	186	311	236	228	215	231	226
1921.....	134	110	165	184	142	135	159	147
1922.....	145	125	185	207	158	128	151	149
1922.								
January.....	130	109	167	178	139	123	146	138
February.....	140	121	166	177	146	118	148	141
March.....	141	122	165	178	147	120	150	142
April.....	145	120	167	180	148	122	149	143
May.....	152	122	174	202	157	125	150	148
June.....	146	123	186	211	159	127	151	150
July.....	147	130	188	241	171	129	152	155
August.....	138	127	191	261	173	129	149	155
September.....	136	132	199	236	168	132	150	153
October.....	147	132	204	218	166	135	152	154
November.....	160	129	207	209	166	136	155	156
December.....	161	128	210	208	167	135	157	156
1923.								
January.....	164	125	215	213	168	136	155	156
February.....	170	123	220	207	167	141	155	157
March.....	174	123	227	202	167	148	156	159

GROUP INDEX NUMBERS—UNITED STATES—BUREAU OF LABOR STATISTICS.

Year and month.	Farm products. (56)	Foods. (110)	Cloths and clothing. (65)	Fuel and lighting. (20)	Metals and metal products. (37)	Building materials. (41)	Chemicals and drugs. (43)	House furnishing goods. (31)	Miscellaneous. (25)	All commodities. (404)
1913.....	100	100	100	100	100	100	100	100	100	100
1919.....	231	207	253	181	162	201	169	184	175	206
1920.....	218	220	295	241	192	264	200	254	196	226
1921.....	124	144	180	199	129	165	136	195	128	147
1922.....	133	138	181	218	122	168	124	176	117	149
1922.										
January.....	122	131	176	195	112	157	124	178	117	138
February.....	131	135	174	191	120	156	123	177	117	141
March.....	130	137	172	191	109	155	125	175	117	142
April.....	129	137	171	194	113	156	124	175	116	143
May.....	132	138	175	216	119	160	122	176	116	148
June.....	131	140	179	225	120	167	122	176	114	150
July.....	135	142	180	254	121	170	121	173	114	155
August.....	131	138	181	271	126	172	122	173	115	155
September.....	133	138	183	244	134	180	124	173	116	153
October.....	138	140	188	226	135	183	124	176	120	154
November.....	143	143	192	218	133	185	127	179	122	156
December.....	145	144	194	216	131	185	130	182	122	156
1923.										
January.....	143	141	196	218	133	188	131	184	124	156
February.....	142	141	199	212	139	192	132	184	126	157
March.....	143	143	201	206	149	198	136	185	127	159

GROUP INDEX NUMBERS—BELGIUM—MINISTRY OF LABOR.¹

Year and month.	Food products. (15)	Fuel. (4)	Metals. (15)	Petroleum products. (7)	Pottery. (10)	Glass-ware. (2)	Chemical products. (12)	Fertilizers. (4)	Fats. (7)	Textiles. (21)	Building materials. (13)	Hides and leather. (9)	All commodities. (126)
1922.													
January.....	359	447	330	436	528	415	345	339	303	394	361	301	366
February.....	346	443	311	422	520	386	341	342	302	380	357	295	356
March.....	342	430	306	384	526	360	334	369	292	370	355	286	350
April.....	347	407	313	359	518	325	326	358	279	360	351	282	344
May.....	337	392	318	357	533	325	321	348	283	399	346	282	345
June.....	344	392	319	360	525	337	321	338	293	432	358	282	356
July.....	336	400	329	366	530	337	321	328	307	440	351	286	360
August.....	327	405	334	352	531	337	322	352	298	444	358	286	360
September.....	304	.....	343	347	575	337	322	364	303	444	365	293	364
October.....	326	457	368	333	600	360	339	374	354	477	361	302	385
November.....	349	462	390	349	605	378	358	385	349	523	375	322	408
December.....	339	462	390	337	596	378	377	388	349	521	377	322	407
1923.													
January.....	353	514	467	360	617	378	377	407	379	563	390	317	434
February.....	407	579	525	383	619	522	397	443	422	598	405	334	474

GROUP INDEX NUMBERS—DENMARK—FINANSTIDENDE.²

Year and month.	Foods.	Other commodities.	All commodities.	Year and month.	Foods.	Other commodities.	All commodities.	Year and month.	Foods.	Other commodities.	All commodities.
1920—January.....	285	374	340	1922—June.....	182	178	179	1923—January.....	179	183	181
1921—January.....	319	356	341	July.....	186	177	180	February.....	184	197	192
1922—January.....	175	180	178	August.....	186	176	180	March.....	190	204	199
February.....	172	180	177	September.....	179	177	178	April.....	191	207	200
March.....	174	186	182	October.....	182	172	176	May.....	197	209	204
April.....	172	181	178	November.....	178	181	180				
May.....	176	178	177	December.....	181	183	182				

GROUP INDEX NUMBERS—FRANCE—GENERAL STATISTICAL BUREAU.³

Year and month.	Animal foods. (8)	Vegetable foods. (8)	Sugar, coffee, cocoa. (4)	All foods. (20)	Minerals. (7)	Textiles. (6)	Sundries. (12)	All industrial materials. (25)	All commodities. (45)
1919, April.....	436	277	236	336	243	335	387	330	332
1920, April.....	522	511	447	506	507	953	598	653	588
1921, April.....	396	348	359	372	281	314	371	328	347
1922.									
January.....	309	289	306	302	258	363	350	324	314
February.....	303	288	318	301	242	345	341	311	306
March.....	341	285	326	317	242	326	328	300	307
April.....	362	310	320	335	245	319	324	297	314
May.....	362	310	319	334	249	338	323	303	317
June.....	363	318	334	341	255	372	322	313	325
July.....	359	293	339	330	265	392	326	322	325
August.....	354	292	336	327	275	421	330	334	331
September.....	346	279	333	318	279	418	341	339	329
October.....	341	283	311	313	309	446	347	357	337
November.....	365	289	345	331	305	468	363	369	352
December.....	387	300	364	349	311	473	365	373	362
1923.									
January.....	388	322	412	367	346	533	377	404	387
February.....	420	322	508	402	399	559	410	439	422
March.....	413	333	491	397	426	541	417	447	424
April.....	413	322	498	393	390	530	416	433	415

GROUP INDEX NUMBERS—GERMANY—FEDERAL STATISTICAL BUREAU.³

Year and month.	Domestic goods. (16)	Imported goods. (22)	All commodities. (38)	Year and month.	Domestic goods. (16)	Imported goods. (22)	All commodities. (38)
1919, April.....	287	302	286	1922.			
1920, April.....	1,192	3,441	1,567	August.....	16,545	32,491	19,202
1921, April.....	1,280	1,560	1,326	September.....	25,815	43,113	28,698
1922.				October.....	49,853	90,343	56,601
January.....	3,383	5,075	3,665	November.....	95,290	214,150	115,100
February.....	3,763	5,800	4,103	December.....	128,330	243,230	147,480
March.....	5,027	7,463	5,433	1923.			
April.....	5,985	8,203	6,355	January.....	239,005	475,832	278,476
May.....	6,026	8,617	6,458	February.....	494,200	879,600	558,500
June.....	6,540	9,479	7,030	March.....	450,300	681,600	488,800
July.....	9,300	13,854	10,059				

¹ Apr. 15, 1914 = 100.

² July 1, 1912—June 30, 1914 = 100.

³ 1913 = 100.

GROUP INDEX NUMBERS—GERMANY—FRANKFURTER ZEITUNG.⁴

Year and month.	Foodstuffs and luxuries. (26)	Textiles and leather. (16)	Minerals. (18)	Miscellaneous. (17)	Industrial finished products. (21)	All commodities. (98)
1920, January.....	1,972	2,611	2,749	1,101	1,465	1,965
1921, January.....	2,019	2,325	2,780	1,776	1,704	2,130
1922.						
January.....	3,840	5,789	5,178	3,149	3,347	4,217
February.....	4,300	6,281	5,525	3,492	3,581	4,599
March.....	5,211	6,805	6,810	4,201	4,060	5,420
April.....	6,330	8,551	8,585	5,288	4,972	6,708
May.....	6,649	9,228	9,305	5,961	5,982	7,384
June.....	6,967	9,626	10,141	6,413	6,341	7,851
July.....	8,323	11,001	12,168	6,881	7,292	9,102
August.....	13,691	19,661	18,355	10,993	10,001	13,978
September.....	29,175	32,184	42,648	21,605	22,664	29,116
October.....	38,959	66,157	54,905	32,134	35,025	43,223
November.....	88,980	153,896	128,982	72,038	57,683	94,492
December.....	144,753	266,622	219,395	134,177	118,385	166,495
1923.						
January.....	175,845	320,632	262,212	177,752	151,793	205,417
February.....	555,005	1,413,673	931,239	534,734	476,564	715,831
March.....	536,100	945,000	829,800	694,900	551,400	677,000
April.....	535,000	834,900	782,200	643,400	531,500	639,300

GROUP INDEX NUMBERS—ITALY—RICCARDO BACHI.⁵

Year and month.	Vegetable foods. (25)	Animal foods. (13)	Chemicals. (11)	Textiles. (12)	Minerals and metals. (16)	Building materials. (6)	Other vegetable products. (5)	Sundries. (12)	All commodities. (100)
1920, March.....	93	83	97	116	105	82	102	93	96
1921, March.....	108	117	87	64	72	113	123	104	97
1922.									
January.....	112	114	73	72	64	92	112	94	92
February.....	109	112	73	68	62	91	111	92	90
March.....	107	96	72	65	59	84	103	87	85
April.....	105	103	70	63	58	82	92	88	84
May.....	106	94	67	66	58	79	96	88	84
June.....	109	97	67	74	57	76	105	87	86
July.....	112	100	68	76	61	79	113	91	89
August.....	115	100	69	78	63	81	119	93	92
September.....	112	110	70	80	65	81	120	95	93
October.....	113	114	72	85	69	86	134	96	96
November.....	112	112	71	82	67	88	127	100	96
December.....	110	110	69	78	65	88	129	94	93
1923.									
January.....	109	108	69	81	63	88	125	91	92
February.....	109	108	70	83	64	86	130	92	93
March.....	109	110	70	90	67	85	129	92	94
April.....	111	114	70	83	66	83	128	93	94

GROUP INDEX NUMBERS—NORWAY—ØKONOMISK REVUE.⁶

Year and month.	Animal foods.	Vegetable foods.	Feed-stuffs and fertilizers.	Coal and coke.	Petroleum and benzine.	Iron.	Metals.	Building materials.	Textiles.	Hides and leather.	Pulp wood.	Paper.	All commodities.
1920, April.....	299	301	289	371	196	603	232	386	396	279	295	365	354
1921, April.....	283	304	279	317	343	295	166	329	329	199	289	413	297
1922.													
January.....	244	256	226	279	276	268	183	279	316	219	183	332	260
February.....	236	250	224	279	256	263	165	274	310	219	183	327	253
March.....	222	245	220	279	203	232	161	262	289	190	177	300	240
April.....	213	241	217	263	203	230	150	260	286	185	177	304	236
May.....	209	237	214	250	203	233	160	180	177	245	287	293	231
June.....	227	241	215	250	203	248	165	182	141	242	280	286	230
July.....	248	244	215	267	203	253	165	170	141	240	280	283	232
August.....	238	216	215	258	193	248	162	179	141	239	279	286	227
September.....	238	208	206	258	193	249	161	185	141	242	272	286	225
October.....	223	201	203	258	186	233	166	185	141	234	272	286	221
November.....	222	200	199	258	186	224	157	185	161	244	272	286	221
December.....	220	200	200	250	180	215	157	183	161	245	270	266	220
1923.													
January.....	210	198	198	252	165	225	157	179	177	251	268	264	220
February.....	215	200	199	278	150	270	170	179	179	252	263	264	224
March.....	208	202	202	354	178	275	179	177	179	264	257	264	229
April.....	208	205	205	345	184	272	179	177	179	268	262	264	231

⁴ July, 1914=100.⁵ 1920=100; new series beginning January, 1922.⁶ Dec. 31, 1913-June 30, 1914=100.

GROUP INDEX NUMBERS—SPAIN—INSTITUTE OF GEOGRAPHY AND STATISTICS.⁷

Year and month.	Animal foods. (11)	Vegetable foods. (16)	Liquors. (9)	Total food. (36)	Fuel and lighting. (8)	Textiles and leather. (6)	Metals. (8)	Building materials. (10)	Chemicals. (16)	Total industrial materials. (38)	All commodities. (74)
1920, March.....	219	193	191	200	289	252	184	222	230	238	.....
1921, March.....	197	178	163	180	238	145	178	255	214	210	193
1922.											
January.....	200	168	155	175	188	151	158	247	168	184	180
February.....	204	165	157	175	177	145	158	247	167	181	179
March.....	198	168	158	174	181	141	153	251	164	180	177
April.....	202	170	169	179	188	140	154	249	166	181	180
May.....	200	168	170	178	186	144	149	245	163	179	178
June.....	194	169	170	176	186	148	151	242	163	180	178
July.....	187	166	166	172	179	151	152	244	158	178	175
August.....	203	164	165	175	172	147	151	242	158	175	175
September.....	202	159	163	173	173	148	151	242	156	175	174
October.....	197	158	160	171	173	153	151	230	152	173	172
November.....	207	160	159	174	169	161	151	232	150	173	174
December.....	200	162	158	173	169	161	149	229	144	171	172
1923.											
January.....	192	161	155	169	166	166	149	229	143	171	170
February.....	191	161	152	168	167	165	151	232	144	172	170

GROUP INDEX NUMBERS—SWEDEN—GÖTEBORGS HANDELS OCH SJÖFARTSTIDNING.⁸

Year and month.	Vegetable foods. (6)	Animal foods. (7)	Raw materials for agriculture. (5)	Coal. (2)	Metals. (5)	Building materials. (7)	Wood pulp. (3)	Hides and leather. (5)	Textiles. (5)	Oils. (2)	All commodities. (47)
1919, March.....	276	438	356	814	317	288	323	174	.....	.....	354
1920, March.....	270	304	318	960	291	367	682	268	380	275	354
1921, March.....	238	229	240	279	185	298	510	85	134	268	237
1922.											
January.....	168	173	202	179	131	228	189	104	144	179	170
February.....	170	159	170	186	130	226	178	97	138	179	166
March.....	173	153	168	170	129	225	167	91	140	179	164
April.....	174	156	169	177	128	229	159	90	140	162	165
May.....	176	154	170	179	124	212	147	86	156	154	164
June.....	174	165	170	155	121	209	144	87	172	154	164
July.....	174	164	167	160	121	215	149	88	179	154	165
August.....	168	168	162	167	123	213	149	90	170	154	163
September.....	146	179	160	169	119	215	154	90	171	150	158
October.....	143	166	158	169	117	216	160	91	176	150	155
November.....	132	171	159	175	117	208	178	89	194	150	154
December.....	136	165	162	178	117	209	181	89	198	150	155
1923.											
January.....	137	161	163	184	117	211	185	89	205	150	156
February.....	141	156	159	214	118	206	190	89	213	150	158
March.....	142	147	159	267	130	206	190	89	216	150	162

GROUP INDEX NUMBERS—SWITZERLAND—DR. J. LORENZ.⁹

Year and month.	Consumers goods. (33)	Agricultural products. (12)	Industrial products. (26)	All commodities. (71)	Year and month.	Consumers goods. (33)	Agricultural products. (12)	Industrial products. (26)	All commodities. (71)
1921, April.....	257	166	197	219	August.....	168	148	168	163
1922.					September.....	167	153	166	163
January.....	189	155	170	176	October.....	168	150	166	163
February.....	181	151	169	171	November.....	173	155	175	169
March.....	179	151	173	171	December.....	174	155	176	170
April.....	171	145	165	163	1923.				
May.....	165	148	165	161	January.....	176	162	180	175
June.....	166	140	170	160	February.....	163	181	193	181
July.....	167	141	171	161	March.....	177	206	172	186

⁷ 1913=100.

⁸ July 1, 1913-June 30, 1914=100

July, 1914=100.

GROUP INDEX NUMBERS—UNITED KINGDOM—BOARD OF TRADE.¹⁰

Year and month.	Cereals. (17)	Meat and fish. (17)	Other foods. (19)	Total food. (53)	Iron and steel. (24)	Other metals and minerals. (20)	Cotton (16)	Other textiles. (15)	Other articles. (22)	Total not food. (97)	All commodities. (150)
1920, March.....	266	233	297	265	344	243	612	444	293	353	319
1921, March.....	206	251	230	228	250	192	173	178	204	202	211
1922.											
January.....	150	176	182	169	147	149	180	167	173	161	164
February.....	156	173	188	174	143	145	168	162	168	156	162
March.....	160	166	187	171	140	143	172	158	166	154	160
April.....	157	171	187	172	140	143	173	158	164	154	160
May.....	159	174	181	172	139	142	179	164	162	155	160
June.....	155	172	179	169	138	139	187	165	164	155	160
July.....	156	170	181	169	137	138	191	166	161	155	160
August.....	151	169	161	160	133	142	186	165	160	154	156
September.....	143	174	152	156	132	140	185	168	163	153	154
October.....	145	169	157	157	131	139	184	170	165	154	155
November.....	144	173	162	160	131	139	193	172	168	156	157
December.....	141	174	156	156	131	138	189	172	168	155	156
1923.											
January.....	141	175	156	157	134	138	195	176	167	157	157
February.....	138	165	157	153	140	142	197	177	165	160	158
March.....	138	154	160	151	152	152	200	176	164	166	160

GROUP INDEX NUMBERS—UNITED KINGDOM—STATIST.¹⁰

Year and month.	Vegetable foods. (8)	Animal foods. (7)	Sugar, coffee, tea. (4)	Food-stuffs. (9)	Minerals. (7)	Textiles. (8)	Sundries. (11)	Materials. (26)	All commodities. (45)
1919, March.....	240	205	238	223	154	235	246	213	217
1920, March.....	342	237	393	300	263	360	318	312	307
1921, March.....	214	262	182	232	179	171	221	193	208
1922.									
January.....	160	170	140	162	123	175	159	152	156
February.....	167	173	138	166	117	172	158	149	155
March.....	164	190	147	174	118	162	157	146	157
April.....	168	206	149	183	120	156	152	143	158
May.....	167	199	147	179	123	163	154	147	159
June.....	166	196	154	178	122	167	155	147	152
July.....	165	187	156	174	125	166	151	147	159
August.....	141	186	156	165	124	166	146	144	157
September.....	137	178	151	159	126	166	146	145	150
October.....	143	175	161	161	129	173	146	148	153
November.....	143	175	166	162	127	174	147	148	153
December.....	140	181	164	163	127	171	140	145	152
1923.									
January.....	138	177	167	161	132	172	144	148	153
February.....	134	178	188	163	141	164	147	150	155
March.....	133	173	209	163	146	161	148	151	156

GROUP INDEX NUMBERS—CANADA—DEPARTMENT OF LABOR.¹⁰

Year and month.	Grains and fodder. (15)	Animals and meats. (17)	Dairy products. (9)	Fruits and vegetables. (20)	Other foods. (25)	Textiles. (20)	Hides, leather, etc. (11)	Metals. (23)	Implements. (10)	Building materials, lumber. (14)	Fuel and lighting. (10)	Drugs and chemicals. (16)	All commodities. (271)
1919, April.....	217	210	184	197	213	284	166	162	223	153	206	210	206
1920, April.....	291	200	196	316	264	328	239	214	237	268	246	201	261
1921, April.....	154	169	161	162	189	191	116	145	241	229	226	180	187
1922.													
January.....	133	129	149	186	155	176	99	142	231	180	206	163	168
February.....	145	135	141	204	155	174	97	141	216	179	204	164	169
March.....	149	138	122	204	158	174	96	137	213	174	206	166	166
April.....	152	143	127	203	157	174	95	135	213	174	206	165	166
May.....	153	144	116	202	154	175	95	136	213	173	218	166	167
June.....	143	144	115	185	153	180	99	137	213	173	221	162	165
July.....	143	143	122	178	154	184	100	138	216	178	234	160	166
August.....	127	138	120	156	152	181	105	142	216	179	257	161	164
September.....	121	132	128	137	156	181	105	144	218	179	243	160	163
October.....	119	131	141	139	153	183	103	146	218	180	232	159	162
November.....	126	125	152	155	154	185	106	147	218	181	221	160	164
December.....	127	127	160	159	154	182	102	148	218	184	225	160	165
1923.													
January.....	125	126	151	155	159	184	102	150	218	184	226	159	165
February.....	129	128	150	162	163	185	102	150	218	184	221	159	166
March.....	129	125	151	162	161	186	102	159	213	186	222	158	167

¹⁰ 1913=100.

GROUP INDEX NUMBERS—AUSTRALIA—BUREAU OF CENSUS AND STATISTICS.¹¹

Year and month.	Metals and coal. (14)	Textiles. (10)	Agricultural products. (16)	Dairy products. (9)	Groceries and tobacco. (21)	Meat. (5)	Building materials. (10)	Chemicals. (7)	All commodities. (92)
1919, March.....	200	185	161	136	142	147	261	309	169
1920, March.....	205	281	226	162	160	146	298	280	209
1921, March.....	203	107	176	207	198	178	303	234	181
1922.									
January.....	185	139	140	118	188	92	196	200	147
February.....	184	136	142	119	187	93	195	194	147
March.....	182	137	144	121	186	91	187	190	146
April.....	181	140	144	134	184	92	190	192	148
May.....	179	150	149	155	184	109	180	190	155
June.....	178	159	148	152	183	116	169	188	156
July.....	176	156	153	156	181	119	168	199	157
August.....	172	147	156	144	181	124	168	199	155
September.....	171	157	160	145	180	124	169	192	158
October.....	170	164	156	140	181	132	179	188	159
November.....	169	188	168	134	169	118	191	184	162
December.....	169	181	139	126	170	113	204	184	161
1923.									
January.....	169	190	164	134	170	122	198	188	163
February.....	168	198	157	140	170	116	190	194	161
March.....	165	199	160	151	171	117	185	193	163

¹¹ July, 1914=100.GROUP INDEX NUMBERS—DUTCH EAST INDIES—STATISTICAL BUREAU.¹²

Year and month.	Grains and meats.	Other food-stuffs.	Textiles.	Minerals.	Miscellaneous.	All commodities.	Year and month.	Grains and meats.	Other food-stuffs.	Textiles.	Minerals.	Miscellaneous.	All commodities.
1919, January.....	229	220	252	169	233	223	1922.						
1920, January.....	256	248	380	233	254	281	May.....	185	185	168	145	155	166
1921, January.....	230	225	185	230	211	214	June.....	178	191	177	141	155	167
1922.							July.....	177	188	174	145	157	168
January.....	161	185	166	149	162	164	August.....	156	190	175	141	155	163
February.....	168	181	162	142	164	163	September.....	155	192	174	142	143	159
March.....	174	194	162	143	156	164	October.....	157	197	180	145	142	163
April.....	179	188	157	145	156	164	November.....	153	198	187	143	142	164
							December.....	153	199	185	144	141	163

¹² Jan. 1, 1914=100.GROUP INDEX NUMBERS—INDIA (CALCUTTA)—DEPARTMENT OF STATISTICS.¹³

Year and month.	Cereals.	Pulses.	Tea.	Other foods.	Oil seeds.	Raw jute.	Jute manufactures.	Raw cotton.	Cotton manufactures.	Other textiles.	Hides and skins.	Metals.	Other articles.	All commodities.
1919, March.....	159	155	109	186	150	88	125	202	300	151	159	266	181	180
1920, March.....	151	160	87	192	166	118	150	179	351	159	211	222	218	198
1921, March.....	128	122	71	136	122	81	91	98	301	143	86	255	239	175
1922.														
January.....	139	177	161	150	132	85	110	165	275	156	126	220	236	178
February.....	137	174	146	175	143	82	107	172	266	162	131	193	241	179
March.....	153	173	146	167	148	90	120	189	271	150	126	187	260	182
April.....	145	166	146	172	143	107	133	189	271	147	114	183	259	182
May.....	147	152	144	183	161	120	172	198	296	150	109	178	261	187
June.....	141	149	137	182	156	123	164	206	292	150	110	165	251	183
July.....	142	149	136	191	155	121	165	209	290	163	113	163	225	181
August.....	135	145	154	196	145	109	157	208	284	159	112	164	213	178
September.....	130	141	152	199	146	118	160	187	276	166	110	165	214	176
October.....	133	143	179	200	149	113	138	189	271	174	128	163	218	177
November.....	128	130	204	203	145	130	149	190	270	189	132	162	212	178
December.....	116	121	200	206	142	126	149	188	269	166	133	160	221	176
1923.														
January.....	114	118	209	225	134	119	153	216	272	160	137	171	219	179
February.....	121	112	204	234	138	115	153	216	270	162	136	159	226	180
March.....	119	111	204	224	139	111	151	228	267	160	149	160	229	181

¹³ July, 1914=100.

COMPARATIVE RETAIL PRICES IN PRINCIPAL COUNTRIES.

In the following tables are presented statistics showing the trend of retail food prices and cost of living in the United States and certain other countries. Descriptions of these index numbers were given in the BULLETINS for January and April, 1923. Wherever possible the index numbers have been shifted to a July, 1914, base, instead of being shown on the different bases used in the original computations.

INDEX NUMBERS OF RETAIL FOOD PRICES.

Year and month.	EUROPEAN COUNTRIES.													UNITED STATES AND OTHER COUNTRIES.				
	Austria (Vienna).	Belgium.	Bulgaria.	Czechoslovakia.	France (Paris). ²	Germany (71 cities).	Germany (Berlin).	Italy.	Netherlands (Amsterdam).	Norway.	Spain (Madrid). ²	Sweden.	Switzerland. ²	United States.	Canada.	Australia.	New Zealand.	South Africa.
1914, July.	³ 1	100	100	100	100	³ 1	³ 1	¹ 100	100	100	100	100	100	100	100	100	100	100
1920, July.	459	1,694	.....	.....	373	13	14	452	210	319	191	297	239	215	227	194	167	197
1921, July.	410	1,612	.....	.....	306	15	15	501	180	295	184	232	207	145	148	161	164	139
1922.																		
Jan.	748	417	2,259	1,467	319	25	26	576	148	257	179	190	176	139	149	142	147	121
Feb.	871	399	2,364	1,461	307	30	31	559	149	245	179	189	173	139	143	140	145	119
Mar.	904	382	2,300	1,414	294	36	36	546	143	238	181	185	162	136	142	141	141	119
Apr.	1,043	378	2,456	1,415	304	44	43	524	137	234	190	182	153	136	138	143	144	121
May.	1,374	379	2,632	1,444	317	47	45	530	136	230	188	178	152	136	138	147	145	120
June.	2,421	384	2,379	1,475	307	51	48	.....	137	227	183	179	153	138	137	146	143	118
July.	3,282	381	2,431	1,430	297	68	71	522	140	233	179	179	153	139	138	148	144	116
Aug.	7,224	377	2,475	1,290	289	97	111	531	139	232	178	181	152	136	141	149	141	116
Sept.	13,531	386	2,478	1,105	291	154	176	537	141	228	179	180	153	137	139	149	139	117
Oct.	11,907	406	2,506	1,016	290	266	288	555	143	220	178	178	155	140	138	146	139	119
Nov.	11,145	432	2,520	984	297	550	605	561	136	216	178	170	156	142	139	145	139	120
Dec.	10,519	429	2,575	962	305	807	831	557	137	215	177	168	156	144	140	146	138	118
1923.																		
Jan.	10,718	426	.....	941	309	1,366	1,336	542	140	214	180	166	155	141	142	145	138	117
Feb.	10,784	439	.....	934	316	3,183	3,319	527	.....	214	181	165	154	139	142	144	139	.....
Mar.	.....	439	.....	926	321	3,315	.....	523	.....	211	.....	.....	.....	139	145	.....	141	.....

¹ Average for 1913.² Includes, in addition to foodstuffs, certain items of fuel and light.³ July, 1914=1.

COST OF LIVING INDEX NUMBERS.

Year and month.	EUROPEAN COUNTRIES.												UNITED STATES AND OTHER COUNTRIES.					
	Austria (Vienna).	Belgium.	Finland.	France (Paris).	Germany (71 cities).	Germany (Berlin).	Italy (Milan).	Netherlands (Amsterdam).	Norway.	Poland.	Switzerland.	United Kingdom.	United States (32 cities).	United States (Mass.).	Canada.	India (Bombay).	New Zealand.	South Africa.
1914, July.	¹ 1	² 100	100	100	³ 1	⁴ 1	100	⁵ 100	100	¹ 1	⁶ 100	100	⁷ 100	100	100	100	⁸ 100	⁹ 100
1920, July.	.....	.....	931	341	9	11	441	217	302	.....	.....	252	217	198	190	190	.....	.....
1921, July.	.....	404	1,214	307	11	11	449	208	302	257	205	219	180	158	155	177	.....	133
1922.																		
Jan.	669	418	1,124	.....	18	19	523	.....	.....	469	186	192	.....	154	149	173	157	122
Feb.	770	395	1,120	.....	22	22	522	.....	.....	481	175	188	.....	154	148	165	156	120
Mar.	792	372	1,107	291	26	27	503	192	266	524	170	186	167	152	146	165	153	120
Apr.	875	368	1,109	.....	32	32	490	.....	.....	586	162	182	.....	152	145	162	152	122
May.	1,093	365	1,111	.....	35	35	492	.....	.....	639	156	181	.....	152	145	163	152	122
June.	1,871	373	1,137	302	38	41	488	187	255	684	155	180	167	152	146	163	151	121
July.	2,645	372	1,142	.....	50	61	488	.....	.....	788	159	184	.....	153	146	165	150	120
Aug.	5,932	369	1,159	.....	70	103	491	.....	.....	908	154	181	.....	152	147	164	150	120
Sept.	11,306	384	1,160	289	114	164	498	175	249	1,077	154	179	166	152	147	165	150	120
Oct.	10,363	406	1,178	.....	195	261	504	.....	.....	1,284	155	178	.....	153	147	162	149	121
Nov.	9,701	432	1,169	.....	400	565	505	.....	.....	1,710	158	180	.....	154	147	160	149	122
Dec.	9,375	429	1,158	300	612	868	504	176	238	2,310	158	180	170	154	148	161	148	121
1923.																		
Jan.	9,454	425	1,150	.....	1,034	1,291	505	.....	.....	3,527	158	178	.....	154	149	156	148	120
Feb.	9,601	436	1,149	.....	2,408	2,814	497	.....	.....	5,713	157	177	.....	155	150	155	.....	.....
Mar.	10,238	434	.....	.....	2,627	2,608	.....	.....	.....	.....	158	176	.....	154	152	154	.....	.....
April.	.....	.....	.....	.....	2,764	.....	.....	.....	.....	.....	.....	174	.....	.....	.....	.....	.....	.....

¹ July, 1914=1.² Apr. 15, 1914=100.³ 1913-14=1.⁴ August, 1913-July, 1914=1.⁵ 1910-11=100.⁶ June.⁷ July, 1913=100.⁸ 1909-1913=100.⁹ 1910=100.¹⁰ Average for year.

INDEXES OF INDUSTRIAL ACTIVITY IN FOREIGN COUNTRIES.

UNITED KINGDOM.

Year and month.	PRODUCTION.				Raw cotton, visible supply. ³	EXPORTS.			IMPORTS.			TRANSPORTATION.				Unemployed among 12,000,000 insured persons.	Unemployed among trade unionists.	Net profits of industrial companies.	
	Coal.	Pig iron.	Steel ingots and castings.	Finished steel.		Iron and steel manufactures.	Cotton manufactures.	Coal.	Raw cotton.	Raw wool.	Raw wet hides.	Vessels under construction.	Vessels clearing.	British railways.					
														Net ton-miles.	Total freight receipts.				Per cent.	Per cent.
Monthly average:	Long tons. ¹	Long tons. ¹	Long tons. ¹	Long tons. ¹	Bales. ¹	Long tons. ¹	Square yards. ²	Long tons. ¹	Lbs. ²	Lbs. ²	Lbs. ¹	Gross tons. ¹	Tons. ¹	Ton-miles. ²	£ sterling. ¹	Per cent.	Per cent.	Per cent.	
1913.....	23,953	855	639	646	1,397	414	596	6,117	181	67	7,757	2,003	5,652	1,546	9,074	13.8	15.3	11.7	
1920.....	19,108	670	756	238	1,234	142	244	2,055	98	63	5,368	3,313	3,032	1,108	9,074	13.8	15.3	15.2	
1921.....	18,388	218	302	238	1,234	142	244	2,055	98	63	5,368	3,313	3,032	1,108	9,074	13.8	15.3	10.3	
1922.....	20,996	408	486	349	1,064	283	352	5,350	119	92	5,500	1,810	4,974	1,108	9,074	13.3	15.4	7.0	
1922.																			
March.....	19,921	390	549	369	1,112	296	307	5,201	83	123	5,116	2,236	4,814	1,527	11,143	14.6	16.3	.....
April.....	22,875	394	404	294	1,181	258	305	4,097	101	117	3,543	4,187	1,236	9,198	14.4	14.4	17.0	7.2	
May.....	19,146	408	462	334	1,143	272	345	5,057	120	138	3,353	5,104	1,379	10,442	13.5	16.4	.....	.....
June.....	15,827	369	400	316	1,111	236	315	4,794	127	97	3,105	1,920	4,975	1,160	8,903	12.7	15.7	.....
July.....	23,135	399	473	345	890	252	447	5,064	111	79	8,277	4,828	1,369	9,561	12.3	14.6	5.9	.....
August.....	19,050	412	528	338	864	270	381	6,146	81	107	8,154	5,855	1,455	9,398	12.0	14.4	.....	.....
September.....	25,681	430	556	386	853	279	400	7,083	60	52	8,220	1,617	5,731	1,464	9,204	12.0	14.6	.....
October.....	21,207	482	565	393	882	347	357	6,196	128	60	5,701	5,590	1,545	9,922	12.0	14.0	9.1	.....
November.....	21,712	494	601	410	1,056	372	402	6,571	183	60	6,160	5,653	1,568	9,954	12.4	14.2	.....	.....
December.....	25,841	534	546	407	1,138	341	364	5,955	205	70	5,711	1,469	5,145	1,568	9,954	12.2	14.0	.....
1923.																			
January.....	21,219	568	634	480	1,123	353	404	5,612	130	98	5,041	5,281	4,985	1,568	9,954	12.7	13.7	9.9
February.....	22,247	543	707	.....	1,104	318	346	5,903	135	84	3,955	.....	4,985	.....	.....	11.8	13.1	.....
March.....	27,577	634	803	.....	1,024	.....	.....	.....	.....	.....	.....	1,492	.....	.....	.....	11.1	12.3	.....

¹ In thousands; 000 omitted.
² In millions; 000,000 omitted.

³ Figures for end of the month.
⁴ Expressed in yards.

⁵ Figures for 5 weeks.
⁶ 11 months average.

FRANCE.

Year and month.	PRODUCTION.			Cotton stock at Havre. ²	EXPORTS.		IMPORTS.			TRANSPORTATION.			Unemployed receiving municipal aid in Paris.
	Pig iron.	Crude steel.	Total.		Total.	Raw cotton for consumption.	Raw silk for consumption.	Coal for consumption.	Vessels cleared.	Average daily freight car loadings.	Receipts of principal railways. ³		
												Metric tons. ¹	
Monthly average:	Metric tons. ¹	Metric tons. ¹	Bales. ^{1,4}	Metric tons. ¹	Metric tons. ¹	Metric tons.	Metric tons.	Metric tons. ¹	Tons. ¹	Number.	Francs. ¹	Number.	
1913.....	434	391	274	1,840	3,685	27,428	629	1,558	2,176	.....	165,892	.....
1920.....	286	254	225	1,071	4,211	19,577	390	1,412	1,412	.....	479,894	3,022
1921.....	280	255	169	1,333	3,165	16,666	206	1,472	1,803	.....	516,397	20,671
1922.....	427	373	148	1,885	4,281	21,923	480	1,861	2,229	51,107	557,194	1,679	
1922.													
February.....	323	317	163	1,520	4,126	14,714	467	2,153	1,744	47,741	481,088	4,385	
March.....	386	367	127	1,570	4,434	20,978	408	2,081	1,934	49,676	472,779	3,546	
April.....	383	324	138	1,794	3,787	17,391	207	1,538	2,088	47,225	608,764	2,447	
May.....	442	364	169	1,538	4,396	18,090	404	2,058	2,340	49,055	472,607	1,636	
June.....	416	358	145	1,799	4,307	32,380	391	1,829	2,473	49,585	504,431	958	
July.....	428	369	153	1,936	4,223	26,325	566	1,631	2,523	50,091	651,720	602	
August.....	447	397	135	1,788	4,512	16,291	579	1,767	2,399	50,875	546,310	606	
September.....	462	407	99	2,616	4,138	17,302	550	1,692	2,359	54,431	720,210	410	
October.....	503	430	131	2,034	4,543	27,877	722	1,768	2,336	57,185	563,314	272	
November.....	513	410	158	2,034	4,577	20,387	526	1,965	2,455	56,046	532,152	285	
December.....	513	414	197	2,429	4,930	36,468	436	2,177	2,366	55,848	691,539	414	
1923.													
January.....	486	408	203	1,896	4,111	33,275	238	1,888	2,146	54,432	484,566	684	
February.....	305	290	169	2,490	3,884	.....	.....	.....	.....	55,890	496,581	666
March.....	.....	.....	125	1,822	4,087	.....	.....	.....	.....	56,528	516,463	588

¹ In thousands; 000 omitted.

² End of the month figure.

³ Railways included are: State Railways, Paris-Lyon-Méditerranée, Nord, Orléans, Est, Midi, Alsace-Lorraine, and Guillaume-Luxembourg.

⁴ Bale of 50 kilograms.

⁵ Figures do not include Lorraine.

⁶ Excludes the Alsace-Lorraine and Guillaume-Luxembourg Railways.

GERMANY.

Year and month.	PRODUCTION.		EXPORTS. ¹				IMPORTS. ¹				SHIPPING.		UNEMPLOYMENT.		Business failures during month.
	Coal and coke.	Lignite.	Iron and iron manufactures.	Machinery and electrical supplies.	Dyes and dye-stuffs.	Coal. ²	Raw wool.	Half manufactured silk.	Cotton. ³	Iron ore. ⁴	Arrivals of vessels in Hamburg.	Applicants for every 100 available positions.	Unemployed persons receiving State aid.		
Monthly av.:	Metric tons. ⁵	Metric tons. ⁵	Metric tons.	Metric tons.	Metric tons.	Metric tons.	Metric tons.	Metric tons.	Metric tons. ⁵	Number.	Tons. ⁵	Number.	Number. ⁵	Number.	
1913.....	17,003	7,266	541,475	60,919	21,812	2,881,126	16,608	920	43,424	1,225	1,256	1,182	169	366	331
1920.....	13,043	9,303	145,883	46,772	8,462	608,749	6,025	232	12,490	538	401	374	165	366	744
1921.....	13,664	10,241	203,681	39,037	8,530	518,937	11,860	393	30,894	619	700	794	165	310	744
1922.....	10,863	11,432	220,803	49,147	12,731	421,835	15,910	407	21,483	1,003	907	1,084	77	77	84
1922.															
February.....	13,655	10,091	172,709	45,689	9,332	669,433	26,202	383	17,915	493	461	716	145	203	123
March.....	15,931	12,260	211,979	48,813	12,299	795,200	26,988	440	26,130	810	894	969	113	213	151
April.....	13,800	10,634	200,677	46,112	11,095	795,940	24,091	462	24,070	866	972	1,112	113	116	107
May.....	14,669	11,437	209,432	47,354	12,629	701,941	25,619	486	26,112	1,519	1,143	1,244	107	65	95
June.....	11,416	10,487	213,220	49,347	16,335	528,766	15,723	436	22,037	1,159	1,092	1,287	103	29	91
July.....	11,972	11,411	212,365	44,162	12,671	199,961	14,119	435	26,085	962	793	1,065	106	20	81
August.....	12,780	12,147	198,408	50,978	12,616	121,359	11,011	459	20,915	997	1,005	1,171	109	15	59
September.....	12,623	11,823	244,012	40,150	13,477	110,245	8,708	342	13,959	1,090	945	1,208	122	12	45
October.....	13,329	12,078	246,074	50,699	15,187	125,670	10,023	371	10,584	1,316	1,016	1,272	129	17	46
November.....	12,986	11,896	233,553	41,644	11,110	137,341	9,198	425	20,622	842	877	1,046	155	25	28
December.....	12,251	11,897	285,464	85,350	16,472	123,826	8,828	297	25,942	1,038	936	1,041	165	43	42
1923.															
January.....	1,937	9,104	236,709	42,209	13,651	90,626	11,448	254	26,382	867	993	1,142	195	82	23
February.....	(?)	(?)	209,965	34,438	12,077	120,947	10,240	244	19,035	269	900	1,047	.....	.....	15

¹ Export and import figures for first 4 months of 1921 not available; 1921 averages based on 8 months.

² Not including coal for reparations account.

³ Includes linters.

⁴ Includes manganese ore.

⁵ In thousands; 000 omitted.

⁶ Average based on 6 months.

⁷ Coal-production figures unavailable after January.

SWEDEN.

Year and month.	PRODUCTION.		EXPORTS.		IMPORTS.	TRANSPORTATION.			Unemployed workmen per 100 vacancies.	Business failures during month.
	Pig iron.	Iron and steel ingots.	Unplaned boards.	Paper pulp.	Coal.	Vessels entered.	Vessels cleared.	Freight carried on State railways.		
Monthly average:	Metric tons. ¹	Metric tons. ¹	Cubic meters. ¹	Metric tons. ¹	Metric tons. ¹	Net tons. ¹	Net tons. ¹	Metric tons. ¹	Number.	Number.
1913.....	61	49	328	71	408	1,147	1,147	830	112	317
1920.....	39	37	306	73	234	677	692	991	107	196
1921.....	26	17	162	40	122	519	482	589	276	432
1922.....	22	26	320	87	220	594	642	681	290	388
1922.										
February.....	17	17	25	11	62	285	255	630	479	398
March.....	22	22	63	36	197	617	509	730	381	513
April.....	19	21	66	21	206	524	485	622	368	400
May.....	24	31	99	76	230	600	633	578	257	430
June.....	21	24	500	80	172	596	738	645	215	362
July.....	20	27	608	89	214	625	787	715	203	374
August.....	22	27	539	104	294	694	836	765	172	300
September.....	22	31	508	113	229	684	808	776	155	371
October.....	23	31	494	144	270	699	822	799	177	335
November.....	27	34	465	189	302	705	751	796	269	353
December.....	28	29	384	156	346	655	671	635	321	309
1923.										
January.....	22	15	97	41	227	.....	.....	557	346	387
February.....	6	0.4	45	12	201	.....	.....	669	308	338
March.....	.....	.....	38	9	218	.....	.....	.....	231	322

¹ In thousands; 000 omitted.

CANADA.

Year and month.	PRODUCTION.		Receipts at stock yards in Toronto and Winnipeg.			EXPORTS.				IMPORTS.			Railroad receipts.	Unemployment among trade union members.	Business failures.
	Pig iron.	Crude steel.	Receipts of wheat at Port William and Port Arthur.	Cattle.	Hogs.	Planks and boards.	Preserved fish.	Wood pulp.	Wheat.	Coal.	Raw cotton.	Machinery.			
	Tons. ¹	Tons. ¹	Bushels. ¹	Number.	Number.	Feet. ²	Lbs. ¹	Lbs. ¹	Bushels. ¹	Tons. ¹	Lbs. ¹	Dollars. ¹	Dollars. ¹	Per cent.	Number.
1921 average.....	50	56	14,447	39,904	34,165	85	11,007	87,871	12,238	1,525	7,269	2,292	33,885	12.5	47
1922 average.....	32	41	20,363	49,832	40,473	166	9,488	136,375	17,462	1,085	9,229	1,895	34,021	7.1	74
1922.															
January.....	32	33	7,693	32,105	47,974	82	10,180	124,012	6,103	1,069	11,007	1,685	26,706	13.9	90
February.....	34	42	4,163	25,561	38,205	88	7,140	87,039	5,602	1,148	8,758	1,600	20,053	10.6	80
March.....	35	30	8,993	29,101	41,310	119	8,929	117,543	6,042	1,857	12,538	2,410	31,966	9.6	90
April.....	33	22	6,128	30,845	36,584	84	5,075	62,153	1,940	896	7,320	1,637	26,809	10.4	59
May.....	23	17	11,684	37,367	46,432	156	5,711	105,197	14,207	548	9,788	1,999	30,799	8.8	67
June.....	28	33	5,597	34,856	41,445	214	6,749	168,169	11,760	412	8,438	2,008	30,536	5.3	64
July.....	32	63	5,420	52,473	32,812	215	9,936	155,502	9,487	427	7,518	1,559	32,624	4.1	60
August.....	29	59	3,681	75,212	29,381	213	7,607	169,611	11,587	440	8,459	1,963	34,937	3.6	64
September.....	25	36	36,986	67,579	26,154	191	20,675	180,068	9,233	663	4,276	1,918	39,158	2.8	65
October.....	37	53	65,120	87,092	39,806	239	13,239	154,019	37,593	1,465	4,383	1,931	47,641	3.9	72
November.....	34	51	50,847	80,084	56,328	205	9,995	173,180	55,316	2,127	11,284	2,114	44,259	6.2	76
December.....	36	47	32,044	45,705	49,244	187	8,614	140,001	40,669	1,964	16,980	1,986	36,758	6.4	82
1923.															
January.....	41	48	11,574	42,126	64,219	168	7,325	139,749	9,740	1,876	20,026	1,981	30,686	7.8	88
February.....	44	47	3,176	31,323	45,554	124	7,272	100,929	7,129	1,601	12,425	2,033	.....	6.4	82

¹ In thousands; 000 omitted.

² In millions; 000,000 omitted.

JAPAN.

Year and month.	PRODUCTION. ¹			Raw silk stocks, Yokohama market.	EXPORTS.				IMPORTS.			TRANSPORTATION. ¹		
	Cotton yarns.	Silk fabrics (habutay).	Paper.		Silk raw.	Silk fabrics (habutay).	Cotton yarns.	Sheetings and shirtings, gray.	Raw cotton, ginned.	Wool.	Iron plates and sheets.	Vessels cleared in foreign trade.	Freight carried on State railways.	Receipts of State railways.
	Bales.	Hiki. ²	Pounds.	Bales.	Piculs. ³	Piculs.	Piculs.	Yards. ¹	Piculs. ¹	Piculs.	Piculs. ¹	Tens.	Tens.	Yen.
Monthly average:														
1913.....	126	.....	.....	.....	16,857	2,302	113,374	7,921	537	13,162	132	2,075	2,923	11,723
1920.....	151	.....	.....	53,111	14,557	2,264	74,839	28,465	648	46,918	528	2,216	4,548	27,589
1921.....	151	149	44,538	58,477	21,836	1,702	73,065	23,210	720	22,277	312	2,324	4,342	31,824
1922.....	185	145	52,445	44,832	28,697	1,721	98,516	24,260	716	47,096	545	2,969	4,768	33,864
1922.														
January.....	168	166	46,488	40,561	16,924	1,080	61,414	19,124	1,161	41,724	462	2,749	4,102	23,576
February.....	174	129	46,605	32,213	18,102	1,551	63,719	24,990	1,168	93,411	594	2,817	4,261	28,036
March.....	184	153	49,644	44,701	16,647	2,003	123,605	24,194	1,084	64,865	637	3,094	5,066	36,337
April.....	191	110	52,687	40,777	27,380	1,669	138,226	24,725	707	76,416	582	2,971	4,968	42,074
May.....	194	160	53,975	18,293	35,147	1,977	146,354	25,821	580	24,753	752	3,287	5,225	38,486
June.....	192	173	52,791	18,547	29,569	2,176	139,057	29,713	490	68,415	890	3,024	4,965	32,180
July.....	181	159	53,734	45,848	34,541	1,793	51,660	25,284	433	37,431	872	2,987	4,641	32,977
August.....	179	116	54,553	56,032	36,196	2,017	40,075	22,343	731	29,936	697	3,119	4,489	33,944
September.....	179	120	53,326	48,810	35,959	1,686	68,773	17,668	766	17,559	351	2,849	4,502	32,464
October.....	193	118	54,892	48,472	35,970	1,839	118,431	25,259	330	16,994	332	2,784	4,920	35,374
November.....	199	123	54,340	75,419	26,804	1,253	101,406	22,537	339	47,469	240	2,895	4,884	32,882
December.....	190	117	56,306	68,304	31,133	1,608	129,466	29,463	805	46,182	131	3,049	5,189	33,041
1923.														
January.....	175	116	57,119	47,394	14,985	718	73,769	22,989	885	53,280	152	2,771	.....	.....
February.....	183	.....	.....	30,900	25,399	1,129	54,298	24,431	916	35,093	239	2,589	.....	.....

¹ In thousands; 000 omitted.

² One hiki equals two pieces.

³ A picul varies from 133 to 140 pounds avoirdupois.

FOREIGN TRADE OF PRINCIPAL COUNTRIES.

In the following tables are presented figures from official sources showing the monthly value of the foreign trade of a group of European countries, Canada, Brazil, India, Japan, and the United States.

FOREIGN TRADE OF UNITED KINGDOM.

[In thousands of pounds sterling.]

Year and month.	IMPORTS.					EXPORTS.					Re-exports.	Total exports and re-exports.
	Food, drink, and tobacco.	Raw materials and articles mainly unmanufactured.	Articles wholly or mainly manufactured.	Miscellaneous, including parcel post.	Total.	Food, drink, and tobacco.	Raw materials and articles mainly unmanufactured.	Articles wholly or mainly manufactured.	Miscellaneous, including parcel post.	Total.		
Monthly average:												
1913.....	24,184	23,485	16,134	259	64,061	2,716	5,825	34,281	949	43,770	9,131	52,901
1920.....	63,817	59,196	37,787	254	161,837	4,245	12,128	93,312	1,523	111,206	18,563	129,769
1921.....	47,391	22,598	20,421	268	90,458	3,122	5,297	49,055	1,128	58,600	8,921	67,521
1922.....	39,429	24,853	19,160	261	83,660	3,027	8,501	47,451	1,062	60,041	8,648	68,689
1922.												
March.....	45,261	22,095	20,309	215	87,879	3,270	8,465	51,760	1,085	64,581	10,154	74,735
April.....	40,097	21,404	18,962	199	80,661	3,011	7,376	44,336	785	55,508	9,200	64,708
May.....	43,075	25,358	20,207	176	88,814	3,045	8,757	45,073	1,171	58,045	8,965	67,010
June.....	39,936	25,242	18,857	263	84,298	3,044	7,671	40,556	875	52,146	8,720	60,866
July.....	38,817	24,237	18,579	151	81,784	2,806	8,041	48,455	1,117	60,419	8,317	68,736
August.....	37,762	24,141	20,326	432	82,661	3,105	8,900	47,149	878	60,032	7,504	67,536
September.....	35,555	21,848	19,244	296	76,944	3,154	10,099	48,361	897	62,511	6,381	68,892
October.....	38,617	26,409	19,726	262	85,015	3,066	9,211	47,010	1,112	60,399	8,277	68,676
November.....	45,501	30,223	19,587	290	95,600	3,408	10,101	51,964	1,018	66,491	9,148	75,639
December.....	42,292	32,499	19,838	283	94,912	2,796	9,493	44,932	1,662	58,883	8,479	67,362
1923.												
January.....	47,398	30,288	21,707	307	99,700	3,364	9,372	53,135	1,068	66,939	9,798	76,737
February.....	37,141	26,739	19,462	513	83,855	2,864	9,470	44,324	852	57,510	9,823	67,333
March.....	40,726	27,732	21,226	338	90,022	2,646	11,564	45,935	776	60,921	9,086	70,007

FOREIGN TRADE OF FRANCE.¹

Year and month.	IMPORTS.					EXPORTS.					In thousands of metric tons.	
	In thousands of francs.					In thousands of francs.						
	Food.	Raw materials.	Manufactured articles.	Total.	In thousands of metric tons.	Food.	Raw materials.	Manufactured articles.	Parcel post.	Total.		
Monthly average:												
1913.....	151,465	412,144	138,169	701,778	3,685	69,908	154,841	301,421	47,182	573,351	1,840	
1920.....	989,576	2,096,379	1,072,787	4,158,741	4,211	217,733	509,485	1,413,548	100,479	2,241,245	1,071	
1921 ²	517,158	1,033,170	412,045	1,962,373	3,165	161,031	463,219	1,067,413	104,430	1,796,092	1,333	
1922.....	483,334	1,170,678	337,705	1,991,717	4,281	160,067	453,656	988,349	118,094	1,720,166	1,885	
1922. ³												
March.....	460,765	1,005,463	465,737	1,931,965	4,434	130,595	456,930	1,189,712	99,431	1,876,668	1,570	
April.....	438,000	983,000	323,000	1,743,640	3,787	136,000	461,000	1,231,000	134,000	1,962,997	1,794	
May.....	504,000	996,000	310,000	1,810,125	4,396	132,000	498,000	1,127,000	111,000	1,886,964	1,538	
June ⁴	483,356	1,082,371	285,448	1,851,184	4,307	113,435	374,959	885,029	59,619	1,433,042	1,936	
July.....	476,813	1,200,764	318,169	1,995,746	4,223	179,407	408,005	931,066	157,836	1,676,000	1,788	
August.....	473,000	1,087,000	333,000	1,893,000	4,138	141,000	477,000	1,055,000	68,000	1,741,000	2,616	
September.....	570,395	1,189,564	348,913	2,108,872	4,543	195,467	493,804	1,098,983	149,213	1,937,467	2,034	
October.....	516,588	1,478,424	353,235	2,348,245	4,577	196,112	537,370	856,421	116,596	1,706,499	2,034	
November.....	628,705	1,903,975	390,616	2,923,296	4,930	249,079	1,185,596	1,119,980	224,292	2,778,947	2,429	
December.....												
1923.												
January.....	457,976	1,374,222	312,096	2,144,294	4,111	187,004	434,786	944,740	129,368	1,695,898	1,896	
February.....	551,000	1,445,000	347,000	2,343,000	3,884	242,000	730,000	1,236,000	121,000	2,329,000	2,490	
March.....	614,000	1,508,000	365,000	2,487,000	4,087	243,000	728,000	1,380,000	123,000	2,474,000	1,822	

¹ Not including reexport trade.
² Calculated on 1919 value units.

³ Imports calculated on basis of actual declared value.

⁴ Value of exports not available. Beginning with June, exports calculated on 1921 value units.

FOREIGN TRADE OF DENMARK, ITALY, NETHERLANDS, SWEDEN, CANADA, BRAZIL, INDIA, AND JAPAN.

Year and month.	Denmark. (In millions of kroner.)		Italy. (In millions of lire.)		Netherlands. (In millions of guilders.)		Sweden. (In millions of kronor.)		Canada. (In millions of dollars.)		Brazil. (In millions of milreis.)		India. (In millions of rupees.)		Japan. (In millions of yen.)	
	Im-ports.	Ex-ports.	Im-ports.	Ex-ports.	Im-ports.	Ex-ports.	Im-ports.	Ex-ports.	Im-ports.	Ex-ports.	Im-ports.	Ex-ports.	Im-ports.	Ex-ports.	Im-ports.	Ex-ports.
Monthly average:																
1913.....	71	60	304	210	(²)	(²)	71	68	56	31	84	82	134	205	61	53
1920.....	262	151	1,322	650	278	142	281	191	89	107	174	146	173	272	195	162
1921.....	136	121	1,041	1,657	187	114	106	91	103	101	141	142	280	214	135	104
1922.....	126	103	1,311	775	169	102	97	97	63	74	142	194	201	244	156	136
1922.																
January.....	102	80	1,316	620	152	86	77	61	51	47	92	199	276	232	179	87
February.....	71	76	1,056	720	152	84	49	38	54	47	101	161	189	222	198	101
March.....	103	100	1,311	716	180	113	109	71	79	61	131	172	215	277	208	115
April.....	126	76	1,157	989	167	93	102	60	48	33	127	187	178	239	185	129
May.....	159	113	1,245	592	194	108	97	90	66	70	127	141	191	273	174	155
June.....	142	126	1,662	861	151	101	93	104	62	73	129	149	164	192	157	146
July.....	117	107	1,101	672	164	105	83	113	61	72	109	154	182	244	142	144
August.....	134	90	1,080	732	179	99	105	132	67	74	147	182	212	252	137	146
September.....	134	122	1,236	747	165	116	109	123	60	73	132	202	182	216	135	150
October.....	148	112	1,395	889	187	112	118	122	67	104	226	299	229	216	105	161
November.....	130	120	1,254	1,046	172	104	111	128	76	132	170	237	206	288	116	139
December.....	142	109	1,915	1,014	163	100	110	120	70	112	208	250	192	278	143	158
1923.																
January.....	142	108	1,056	789	173	92	88	65	68	66			214	295	150	95
February.....	155	118	1,571	751	162	95	88	49	65	59					154	122
March.....															197	121

¹ Italian yearly figures for 1921 based on average for six months only.
² Dutch figures for 1913 not comparable with later figures.

FOREIGN TRADE OF UNITED STATES.

[In thousands of dollars.]

Year and month.	IMPORTS.							EXPORTS.								
	Gold.	Silver.	Merchandise.					Total merchandise. ¹	Gold.	Silver.	Merchandise.					Total merchandise. ³
			Crude materials for use in manufacturing.	Food-stuffs in crude condition and food animals.	Food-stuffs partly or wholly manufactured.	Manu-fac-tures for further use in manu-fac-turing.	Manu-fac-tures ready for consumption.				Crude materials for use in manufacturing.	Food-stuffs in crude condition and food animals.	Food-stuffs partly or wholly manufactured.	Manu-fac-tures for further use in manu-fac-turing.	Manu-fac-tures ready for consumption.	
Monthly average:																
1913.....	5,309	2,989	50,414	18,399	16,529	28,354	34,453	149,383	7,650	5,231	64,072	14,132	27,069	33,077	64,998	207,002
1920.....	34,756	7,338	145,995	48,136	103,178	66,871	73,060	439,873	26,841	9,468	155,897	76,499	93,050	79,875	267,071	685,668
1921.....	57,606	5,270	71,090	25,345	30,737	28,672	51,587	209,929	1,991	4,298	82,002	57,681	55,809	33,323	135,450	373,760
1922.....	22,919	5,899	96,841	27,485	32,312	45,932	55,257	259,397	3,073	5,236	81,817	38,198	49,021	36,477	107,692	319,316
1922.																
March.....	33,488	6,953	86,910	28,756	36,014	42,820	59,880	256,178	963	4,302	72,908	34,529	58,953	43,589	112,538	329,980
April.....	12,244	4,800	60,804	25,711	32,482	37,252	50,820	217,023	1,579	5,109	79,497	31,162	47,770	37,999	113,846	318,470
May.....	8,994	5,512	88,088	31,264	34,785	39,398	58,254	252,817	3,407	5,677	64,374	34,151	50,369	40,423	112,161	307,569
June.....	12,969	6,346	91,146	26,170	37,346	46,471	58,439	260,461	1,601	6,004	70,262	40,998	55,472	39,465	121,319	335,117
July.....	42,987	6,957	87,366	27,596	38,513	47,960	49,475	251,772	644	6,289	59,859	41,959	49,225	35,625	109,596	301,157
August.....	19,092	4,944	110,304	22,481	42,404	48,386	55,857	281,376	956	3,861	47,868	61,314	46,071	35,735	104,853	301,775
September ²	24,464	6,370	86,818	18,729	24,023	41,776	54,037	228,795	1,399	3,735	66,611	55,149	43,229	34,964	107,254	313,197
October ³	20,866	3,940	137,651	37,465	30,290	65,674	71,745	345,083	17,592	3,269	133,700	40,798	47,921	32,940	110,190	370,719
November.....	18,308	5,855	111,145	32,650	31,771	56,759	58,309	291,805	3,431	6,599	144,333	33,615	51,471	33,850	110,275	380,000
December.....	26,440	7,848	124,019	31,220	26,546	57,576	52,673	293,810	2,710	6,913	113,343	25,763	49,620	35,867	113,855	344,328
1923.																
January ⁴	32,820	5,825	139,205	28,569	31,264	65,241	63,929	329,844	8,472	6,921	102,073	24,217	50,741	43,245	109,609	335,539
February ⁴	8,383	3,792						296,000	1,399	2,191	77,323	27,169	49,747	39,406	107,775	307,194
March ⁴	15,951	4,626							10,392	4,732	79,916	19,364	55,025	45,877	132,361	341,162

¹ Including miscellaneous merchandise imported.
² Including miscellaneous and foreign merchandise exported.
³ Imports under old tariff law September 1-21, 1922, only.
⁴ Import figures delayed owing to change in tariff.
⁵ Imports for Sept. 21-Oct. 31.

FOREIGN TRADE INDEX.

There are presented below the Federal Reserve Board's series of index numbers designed to reflect relative quantity movements in the foreign trade of the United States. Changes in the level of prices have been allowed for by multiplying the quantities of selected commodities exported or imported each month by fixed 1913 prices.¹

Year and month.	EXPORTS.				IMPORTS.			
	Raw materials.	Producers' goods.	Consumers' goods.	Total.	Raw materials.	Producers' goods.	Consumers' goods.	Total.
	(12)	(10)	(7)	(29)	(10)	(12)	(5)	(27)
1913, year...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1919, year...	88.9	155.1	133.6	115.3	157.5	192.9	147.5	168.4
1920, year...	92.2	158.7	133.6	107.5	135.8	227.5	138.9	163.8
1921, year...	103.1	116.9	124.1	108.9	113.6	162.8	141.4	135.6
1922, year...	89.7	108.9	135.1	101.1	157.6	253.1	143.0	189.1
1922.								
January....	82.6	104.3	129.7	94.5	118.4	228.7	135.2	160.1
February....	68.5	86.0	127.6	82.6	123.3	281.3	133.5	183.4
March.....	89.8	121.7	156.5	106.9	148.1	306.8	161.1	206.5
April.....	90.5	120.9	150.5	106.0	125.5	256.1	152.0	169.1
May.....	78.3	128.8	155.4	99.4	144.6	227.9	168.0	177.9
June.....	86.3	124.3	169.2	107.4	148.7	273.3	137.3	191.0
July.....	79.1	124.0	133.5	95.0	146.9	266.3	137.5	187.7
August.....	88.8	90.0	126.3	96.7	174.2	255.5	120.3	194.2
September..	91.2	98.9	111.5	96.2	183.5	244.0	133.4	196.7
October....	122.9	96.8	121.0	119.8	155.0	241.6	138.8	172.4
November..	112.6	101.6	117.2	112.4	195.1	244.0	144.4	204.1
December..	86.7	109.9	122.8	96.5	219.1	263.0	153.9	224.0
1923.								
January....	78.8	126.5	137.3	95.8	220.4	312.2	155.3	242.3
February....	62.2	133.6	129.6	83.5	.....	.....	.....	.....
March.....	61.9	143.6	144.4	87.3	.....	.....	.....	.....

¹ The list includes 27 of the most important imports the value of which in 1913 formed 49.3 per cent of the total import values, and 29 of the most important exports the value of which in 1913 formed 56.3 per cent of the total export values. The classification of the original list of commodities used was given in the July, 1920, BULLETIN. The classification of 11 additional commodities of imports was given in the April, 1921, BULLETIN, and 2 additional commodities in the November, 1921, BULLETIN. Exports of gasoline have been altered to include naphtha.

The index of the volume of exports for March rose 3 points, from 84 to 87, thus showing only a slight recovery from the decline in export volume during the short month of February. The principal increases occurred in consumers' goods, with larger exports of cotton cloth, lard, and kerosene. Among producers' goods leather and gasoline led in the matter of increased exports. Steel products also acted to offset last month's decline. The March condition in raw materials was not so favorable, due to declines in grain and cotton exports. On the other hand, exports of coal and metals increased.

Figures for volume of imports in January showed small increases in raw materials and consumers' goods, and a large increase in producers' goods, which caused the general index of imports to rise 18 points. Nitrate of soda, manila hemp, burlap, india rubber, and cane sugar all came in greatly increased quantities during January.

Comparing the volume of imports and exports for January with the condition of trade in 1913, it appears that 1923 is beginning with imports 142 per cent greater than in the pre-war year and exports 4 per cent lower.

SAVINGS DEPOSITS.

Savings deposits, as reported by 899 banks distributed throughout all sections of the United States, increased during March in all Federal reserve districts except in the Kansas City district, where a slight decrease was indicated. For the entire country the increase was \$53,456,000, or 0.8 per cent over March 1, 1923, and \$576,407,000, or 9.8 per cent over April 1, 1922. The increases reflect the general industrial expansion and agricultural development in almost all sections of the country, both of which have resulted in improved employment conditions. A comparison of savings deposits on April 1, 1923, with deposits on March 1, 1923, and April 1, 1922, are shown in the following table. The figures for the Boston and New York districts are those of large mutual savings banks, but in all other districts reports of other banks are included to make the figures thoroughly representative.

SAVINGS DEPOSITS, BY FEDERAL RESERVE DISTRICTS.

[000 omitted.]

District.	Number of banks.	Apr. 1, 1923.	Mar. 1, 1923.	Apr. 1, 1922.
No. 1—Boston.....	64	\$1,165,719	\$1,158,610	\$1,085,788
No. 2—New York.....	30	1,825,991	1,809,394	1,699,534
No. 3—Philadelphia.....	80	449,252	446,773	426,470
No. 4—Cleveland.....	18	415,526	412,811	374,773
No. 5—Richmond.....	93	287,828	285,829	255,034
No. 6—Atlanta.....	99	210,955	207,897	185,064
No. 7—Chicago.....	210	834,622	827,691	758,258
No. 8—St. Louis.....	35	126,838	125,774	111,675
No. 9—Minneapolis.....	15	87,987	86,892	79,057
No. 10—Kansas City.....	62	96,619	96,756	86,511
No. 11—Dallas.....	118	89,244	87,175	76,136
No. 12—San Francisco.....	75	885,590	877,113	761,464
Total.....	899	6,476,171	6,422,715	5,899,764

COMMERCIAL FAILURES DURING MARCH.

District.	Number.		Liabilities.	
	1923	1922	1923	1922
No. 1—Boston.....	143	217	\$2,996,492	\$8,066,696
No. 2—New York.....	316	478	8,883,184	14,656,044
No. 3—Philadelphia.....	73	96	10,622,911	6,848,734
No. 4—Cleveland.....	130	202	5,156,589	4,139,463
No. 5—Richmond.....	100	215	2,847,909	3,787,550
No. 6—Atlanta.....	117	221	2,738,463	5,559,986
No. 7—Chicago.....	203	336	5,360,490	13,189,340
No. 8—St. Louis.....	107	173	1,625,844	2,529,541
No. 9—Minneapolis.....	76	108	1,415,434	3,764,502
No. 10—Kansas City.....	97	100	1,365,100	1,720,146
No. 11—Dallas.....	91	107	2,474,504	2,121,725
No. 12—San Francisco.....	229	215	2,977,218	5,204,365
Total.....	1,682	2,463	48,393,138	71,608,192

REPORT OF ASSOCIATED KNIT UNDERWEAR MANUFACTURERS OF AMERICA.

Production of winter and summer underwear, by months, since March, 1922, is given in the following table:

Month.	Number of mills reporting.			Production (in dozens).		
	Total.	Winter.	Summer.	Total.	Winter.	Summer.
1922.						
March.....	54	36	34	756,247	392,595	363,652
April.....	53	38	31	522,035	275,911	246,124
May.....	47	34	28	518,150	298,080	220,070
June.....	47	38	25	564,893	345,605	219,288
July.....	50	41	23	422,872	269,223	153,649
August.....	49	41	24	519,511	341,713	177,798
September.....	52	42	27	513,572	318,220	195,352
October.....	47	38	25	524,486	283,242	241,244
November.....	49	38	28	599,891	321,944	277,947
December.....	52	36	27	461,695	233,459	228,236
1923.						
January.....	49	37	28	558,845	269,026	289,819
February.....	50	38	32	564,708	269,950	294,758
March.....	49	35	32	593,020	275,552	317,468

Forty representative mills which reported for February and March furnished the data for the following table:

	February, 1923.	March, 1923.	Loss.	Gain.
Unfilled orders (end of month).....	1,755,566	1,525,172	230,405	
New orders.....	308,822	395,116		86,294
Shipments.....	565,455	618,567		53,112
Cancellations.....	6,779	6,943		164
Production.....	454,026	530,968		76,942

INDEX OF OCEAN FREIGHT RATES.

The accompanying table shows the monthly fluctuations in ocean freight rates prevailing between United States Atlantic ports and the principal European trade regions. The figures are derived from the actual rates quoted on the following commodities: Grain, provisions, cotton, cottonseed oil, and sack flour. Rates in January, 1920, have been used as a base. For the methods used in constructing the index see the August, 1921, BULLETIN, pages 931-934.

RELATIVE OCEAN FREIGHT RATES IN UNITED STATES AND EUROPEAN TRADE.

Month.	United States Atlantic ports to—					
	United Kingdom.	French Atlantic.	Netherlands and Belgium.	Scandinavia.	Mediterranean.	All Europe.
January, 1920..	100.0	100.0	100.0	100.0	100.0	100.0
January, 1921..	60.7	30.2	34.1	42.9	43.2	43.3
1922.						
January.....	31.7	22.7	23.3	23.4	32.2	27.1
February.....	34.7	25.9	25.2	23.3	31.8	29.1
March.....	33.1	26.5	24.9	23.4	30.1	28.3
April.....	27.3	24.8	22.7	24.0	27.1	25.4
May.....	27.9	25.5	22.8	23.4	27.4	25.7
June.....	27.5	26.1	23.0	23.4	27.4	25.7
July.....	28.8	25.9	22.6	23.0	26.4	25.9
August.....	29.2	23.4	20.7	22.4	24.0	24.6
September.....	27.0	24.1	19.1	22.6	22.2	23.4
October.....	25.3	23.9	18.9	22.9	21.6	22.7
November.....	28.0	23.4	21.3	22.9	21.3	24.0
December.....	27.1	25.6	22.2	22.7	21.8	24.4
1923.						
January.....	25.3	24.7	19.8	22.3	21.2	22.9
February.....	21.8	22.6	18.6	22.3	20.6	21.1
March.....	23.1	23.6	20.0	22.3	19.5	21.9
April.....	22.6	24.2	21.1	22.3	22.0	22.6

PRODUCTION AND SHIPMENTS OF FINISHED COTTON FABRICS.¹

	February, 1923.				March, 1923.			
	White goods.	Dyed goods.	Printed goods.	Total.	White goods.	Dyed goods.	Printed goods.	Total.
Total finished yards billed during month:								
District 1.....	12,781,525	27,458,704	10,397,550	53,886,334	15,191,927	31,431,586	11,304,273	62,078,420
2.....	5,076,248	3,800,797	4,791,188	21,055,176	7,279,971	2,706,942	5,837,900	24,803,738
3.....	8,332,926	6,515,980		14,848,906	9,695,150	8,188,215		17,883,365
5.....	7,069,422	89,897		7,159,319	7,991,994	186,330		8,178,324
6.....	999,168			999,168	1,000,476			1,000,476
8.....				1,501,075				1,511,455
Total.....	34,251,289	37,865,438	15,188,738	99,441,978	41,159,518	42,513,073	17,142,173	115,455,778
Total average per cent of capacity operated:								
District 1.....	58	95	62	73	69	104	72	83
2.....	57	66	46	74	67	79	51	84
3.....	107	80		93	115	92		101
5.....	62			62	68			68
6.....	75			75	76			76
8.....				63				61
Average for all districts.....	67	88	59	74	76	98	69	84
Total gray yardage of finishing orders received:								
District 1.....	13,980,547	29,618,028	9,481,922	56,770,679	14,784,681	35,758,255	14,098,725	68,704,569
2.....	6,298,129	5,480,804	4,698,309	20,779,723	8,364,644	6,586,940	5,321,823	24,637,983
3.....	8,305,886	6,809,102		15,114,988	9,463,354	7,690,597		17,153,951
5.....	7,079,637	355,186		7,434,823	7,259,301	241,072		7,500,373
6.....	991,168			991,168	1,000,476			1,000,476
8.....				1,735,325				1,443,653
Total.....	36,655,367	42,263,120	14,180,231	102,826,706	40,872,500	50,276,864	19,420,548	120,441,005
Number of cases of finished goods shipped to customers:								
District 1.....	5,834	8,537	2,729	29,687	7,247	8,719	2,306	34,377
2.....	3,198	375		11,577	3,285	588		12,574
3.....	6,166	3,223		9,389	6,273	3,346		9,619
5.....	1,654			3,955	1,674			3,884
6.....								
8.....				454				373
Total.....	16,852	12,135	2,729	55,092	18,479	12,653	2,306	60,827
Number of cases of finished goods held in storage at end of month:								
District 1.....	4,153	4,377	2,304	20,817	5,165	4,659	2,621	22,061
2.....	3,803	447		11,446	3,530	633		10,504
3.....	327	374		7,211	327	331		7,018
5.....				1,243				11,353
6.....								
8.....				218				206
Total.....	8,283	5,198	2,304	40,935	9,022	5,623	2,621	41,142
Total average work ahead at end of month (expressed in days):								
District 1.....	5.4	17.2	17.4	13.3	6.6	23	23.9	17.3
2.....	10	9.8	11.9	11.3	11.9	13.6	11.4	9.9
3.....	14.1	13.1		13.6	16.6	14.3		15
5.....	5.3			5.3	4.8			4.8
6.....								
8.....				7				6.8
Average for all districts.....	7.2	15.4	16.5	12.1	8.5	20.1	21.8	14.0

¹ The National Association of Finishers of Cotton Fabrics at the request of the Federal Reserve Board prepares a monthly survey for the industry. The results of the inquiries are herewith presented in tabular form. The secretary of the association makes the following statement concerning the tabulation:

The accompanying figures are compiled from statistics furnished by 32 out of 57 member firms of this association. It is probably fair to state that in the absence of having specific detail at hand, but according to our best estimate, it is probably well within the fact that the figures given for the various classes of work would cover, approximately, the following percentages of the entire industry: White goods, 70 per cent; dyed goods, 62 per cent; printed goods, 30 per cent. The figures given represent reports from exactly the same finishers for the two months, both of the totals and for the subdivisions, and, therefore, are strictly comparable.

NOTE.—Many plants were unable to give details under the respective headings of white goods, dyed goods, and printed goods, and reported their totals only; therefore the column headed "Total" does not always represent the total of the subdivisions, but is a correct total for the district.

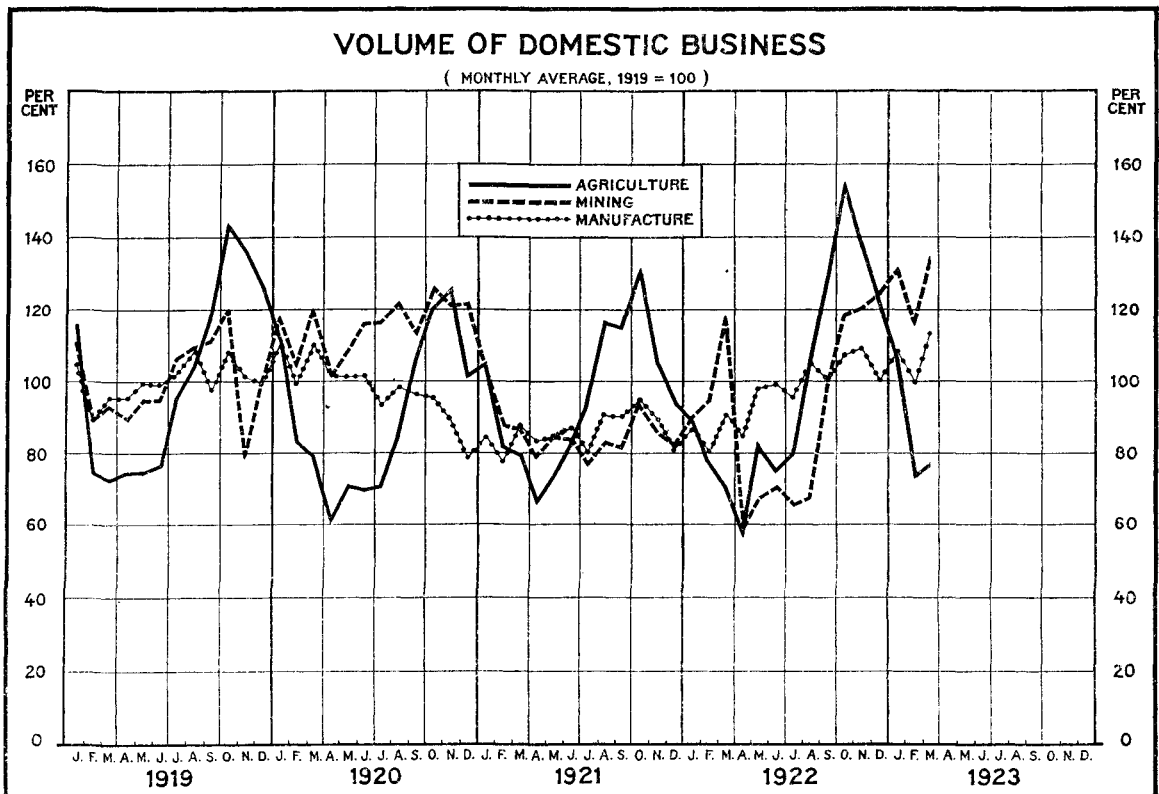
PHYSICAL VOLUME OF TRADE.

Large increases in business activity occurred during March, and many records were broken in the production and movements of goods. Output of manufactured goods, as shown by the index given in the table and on the chart which follow, reached the highest point attained in postwar years. Mineral production, after a seasonal decline in February, continued its upward trend and likewise exceeded that of all previous months covered by the index. Agricultural movements, in accordance with seasonal custom, were at a low point during March, but were on the whole greater than in February, whereas the March movement is usually downward.

Receipts of all the main groups of agricultural products, except tobacco, increased during March as compared with February, and all but cotton and tobacco were greater than during March of the four preceding years. Cotton sight receipts were, in fact, rather low even for this season of the year, as the earlier heavy movement has practically accounted for the greater part of the relatively small crop. Live-stock movements were slightly larger

during March than in February, and receipts of hogs were exceptionally heavy for that month. Grain movements, except corn, were also unusually large during March. Shipments of citrus fruits from California continued to increase in accordance with usual seasonal trends, but the figures indicate that the crop began its movement this season somewhat earlier than in previous years. Tobacco sales at loose-leaf warehouses fell off as compared with February, but were slightly greater than during the same month last year.

Mineral output for March, as indicated by the mining index, was at a maximum, owing to record-breaking production of pig iron and petroleum, accompanied by a high rate of output of the other products. The amount of anthracite coal mined equaled the highest figure previously reported, and copper output was the largest since January, 1919. Mining of bituminous coal was maintained at practically the same rate as during February. Extraction of zinc and lead reached high points during March, but comparable data extend only to January, 1920, in case of zinc, and to January, 1921, for lead.



New maximum figures were also reported in factory output during March. Steel-ingot production, automobile output, and cotton consumption were the most important series which broke all previous records. The amount of lumber cut was the greatest since some time in 1918, and the output of all building materials was maintained at a high rate. The index for textile products, shown in the following table, was also at a high point, owing to the influence of large consumption of both cotton and wool. Sole-leather production increased rather substantially during March and was the largest since December, 1921. The output of food products, although not as great as during November, showed some improvement as compared with January and February, but cigar and cigarette factories continued at about the same rate of activity during March as in the two preceding months.

INDEX OF PRODUCTION IN BASIC INDUSTRIES, WITH ALLOWANCE FOR SEASONAL VARIATION.

[Monthly average, 1919=100.]

	1919	1920	1921	1922	1923
January.....	107.3	115.8	83.9	86.5	120.7
February.....	100.3	114.8	84.3	90.5	120.1
March.....	96.2	114.5	81.0	94.9	125.7
April.....	98.8	107.6	78.6	85.3	.....
May.....	92.9	105.4	76.7	92.1	.....
June.....	92.9	106.8	76.7	94.2	.....
July.....	101.6	104.9	74.1	94.8	.....
August.....	103.4	102.1	78.5	93.9	.....
September.....	104.6	101.7	79.1	99.9	.....
October.....	101.1	99.0	82.7	106.9	.....
November.....	97.9	95.3	85.6	115.5	.....
December.....	103.3	89.6	83.3	115.6	.....

INDEXES OF DOMESTIC BUSINESS UNCORRECTED FOR SEASONAL CHANGES.

[Monthly average of 1919=100.]

AGRICULTURAL MOVEMENTS.

Date.	Total agriculture ¹	Total animals.	Total grains.	Cotton.	Fruit.	Leaf tobacco.
1922.						
January.....	88.9	91.8	83.8	76.8	96.1	113.2
February.....	77.7	76.5	92.3	43.3	55.5	101.2
March.....	70.7	79.2	73.0	42.8	130.4	27.5
April.....	57.4	71.8	49.6	37.0	103.0	5.5
May.....	82.6	90.2	92.5	50.1	105.7	3.9
June.....	75.1	88.7	77.1	43.0	93.8	1.5
July.....	79.8	81.2	106.4	33.4	59.3	12.3
August.....	106.7	96.5	153.8	48.3	43.1	55.2
September.....	128.8	106.6	150.6	139.5	38.0	85.7
October.....	154.2	132.0	135.7	227.8	40.6	144.7
November.....	137.9	122.2	118.2	204.1	49.0	96.3
December.....	121.3	104.6	128.5	139.2	100.1	97.3
1923.						
January.....	106.6	107.7	116.4	80.2	99.7	75.1
February.....	73.3	84.4	75.7	37.4	117.7	45.1
March.....	77.7	88.1	82.6	39.8	158.9	31.0

¹ Combination of 14 independent series.

MINERAL PRODUCTS.

Date.	Total mineral products. ¹	Bituminous coal.	Anthracite coal.	Crude petroleum.	Iron.	Copper.	Zinc.	Lead.
1922.								
January.....	91.3	98.5	85.1	137.1	64.3	24.1	60.3	100.7
February.....	95.4	107.3	92.0	129.7	63.9	34.8	57.3	93.2
March.....	117.5	131.5	119.1	149.1	79.9	58.0	67.5	92.8
April.....	59.5	41.3	.3	141.9	81.3	71.7	65.6	88.7
May.....	67.9	53.1	.6	147.7	90.5	83.7	69.8	88.8
June.....	70.6	58.4	1.1	143.8	92.6	89.0	72.6	88.9
July.....	65.4	44.5	1.6	148.0	94.2	85.0	81.2	88.2
August.....	67.5	58.3	2.2	147.1	71.1	93.9	79.9	96.5
September.....	99.9	107.3	67.7	143.8	79.8	89.8	84.3	95.1
October.....	118.5	118.3	116.1	150.1	103.5	96.2	101.6	108.1
November.....	120.1	118.6	114.1	152.1	111.8	94.6	102.3	113.0
December.....	124.5	121.7	114.7	159.3	121.1	97.5	109.0	108.6
1923.								
January.....	131.5	131.4	118.5	163.5	126.7	104.6	117.8	112.5
February.....	116.6	110.5	105.8	153.8	117.5	95.5	108.0	103.6
March.....	134.2	122.6	127.6	178.3	138.1	113.8	124.0	120.7

¹ Combination of 7 independent series.

PRODUCTION OF MANUFACTURED GOODS.

Date.	Total manufacture. ¹	Steel.	Lumber.	Paper.	Petroleum.	Textiles.	Leather.	Food.	Tobacco.
1922.									
January.....	87.0	63.4	100.7	95.0	119.0	112.2	88.2	91.3	90.6
February.....	80.2	69.3	95.4	90.0	108.6	96.8	78.1	88.5	83.8
March.....	90.9	94.3	102.5	108.4	123.9	107.6	78.5	96.5	98.4
April.....	84.7	97.0	98.1	99.9	124.4	91.3	70.7	84.9	89.6
May.....	98.1	107.8	121.1	112.3	132.2	108.9	70.4	96.8	108.1
June.....	99.1	104.8	104.4	110.6	133.8	107.1	72.4	98.9	119.8
July.....	95.3	98.9	104.3	99.9	146.2	95.0	72.1	97.5	114.8
August.....	104.6	88.1	116.2	110.7	141.2	115.7	80.4	104.5	134.1
September.....	100.3	94.4	101.5	107.8	139.1	110.7	79.5	97.8	121.6
October.....	107.5	114.2	115.3	112.8	147.2	120.0	82.7	106.7	115.0
November.....	109.4	118.9	112.9	113.4	149.7	125.0	79.1	114.0	112.4
December.....	100.0	110.5	103.6	106.8	152.7	113.3	78.5	107.1	89.4
1923.									
January.....	108.7	129.3	105.8	117.3	156.8	128.0	88.9	104.1	115.3
February.....	99.9	116.1	95.8	109.0	140.8	122.0	78.1	95.3	101.3
March.....	112.7	135.3	128.7	120.4	155.5	128.3	91.6	110.5	116.2

¹ Combination of 34 independent series.

COMMODITY MOVEMENTS.

	March, 1923.	February, 1923.	March, 1922.
Grain and flour.			
Receipts at 17 interior centers (000 omitted):			
Wheat (bushels).....	24,230	22,099	20,396
Corn (bushels).....	25,672	31,557	30,651
Oats (bushels).....	21,124	16,041	16,465
Rye (bushels).....	3,679	4,749	3,254
Barley (bushels).....	3,403	2,556	3,291
Total grain (bushels).....	78,108	77,002	74,057
Flour (barrels).....	2,328	1,738	2,054
Total grain and flour (bushels)....	88,584	84,823	83,302
Shipments at 14 interior centers (000 omitted):			
Wheat (bushels).....	13,521	10,936	14,719
Corn (bushels).....	14,677	14,377	22,999
Oats (bushels).....	17,083	13,438	16,826
Rye (bushels).....	945	2,476	882
Barley (bushels).....	1,887	1,747	1,920
Total grain (bushels).....	48,115	42,975	57,346
Flour (barrels).....	4,007	3,055	3,878
Total grain and flour (bushels)....	66,147	56,723	74,797

COMMODITY MOVEMENTS—Continued.

	March, 1923.	February, 1923.	March, 1922.
Grain and flour—Continued.			
Stocks at 11 interior centers at close of month (000 omitted):			
Wheat (bushels).....	37,952	36,096	26,561
Corn (bushels).....	22,974	18,492	29,883
Oats (bushels).....	20,647	24,155	54,041
Rye (bushels).....	13,368	10,711	6,666
Barley (bushels).....	1,778	1,825	1,317
Total grain (bushels).....	96,719	91,279	118,468
Visible supply of grain east of the Rocky Mountains (000 omitted):			
Wheat (bushels).....	48,911	51,500	38,258
Corn (bushels).....	31,011	29,585	50,036
Oats (bushels).....	26,180	29,937	63,920
Receipts at 9 seaboard centers (000 omitted):			
Wheat (bushels).....	14,932	10,767	14,219
Corn (bushels).....	5,848	8,395	21,395
Oats (bushels).....	2,114	1,235	3,931
Rye (bushels).....	2,495	3,794	865
Barley (bushels).....	1,290	1,632	1,296
Total grain (bushels).....	26,679	25,823	41,706
Flour (barrels).....	2,034	1,621	2,090
Total grain and flour (bushels).....	35,883	33,116	51,110
Stocks at 8 seaboard centers at close of month (000 omitted):			
Wheat (bushels).....	8,549	9,601	8,360
Corn (bushels).....	4,131	4,795	10,510
Oats (bushels).....	2,428	1,235	2,087
Rye (bushels).....	4,012	2,559	1,840
Barley (bushels).....	1,902	2,077	1,731
Total grain (bushels).....	21,022	21,823	24,528
Wheat flour production (barrels, 000 omitted).....	10,607	9,425	9,658
Live stock.			
Receipts at 57 principal markets (head, 000 omitted):			
Cattle and calves.....	1,475	1,401	1,581
Hogs.....	4,831	4,393	3,329
Sheep.....	761	1,343	1,390
Horses and mules (42 markets).....	59	52	45
Total.....	7,126	7,189	6,345
Shipments at 52 principal markets (head, 000 omitted):			
Cattle and calves.....	546	550	624
Hogs.....	1,680	1,648	1,156
Sheep.....	637	634	655
Horses and mules (42 markets).....	57	51	45
Total.....	2,920	2,883	2,480
Shipments of stockers and feeders from 33 markets (head, 000 omitted):			
Cattle and calves.....	195	206	278
Hogs.....	61	165	67
Sheep.....	114	50	143
Total.....	371	411	488
Slaughter at principal centers under Federal inspection (head, 000 omitted):			
Cattle.....	688	634	674
Calves.....	368	297	391
Hogs.....	4,838	4,231	3,340
Sheep.....	977	836	837
Total.....	6,871	5,998	5,243
Meats, cold-storage holdings first of following month (pounds, 000 omitted):			
Beef.....	102,811	113,415	73,782
Pork products.....	837,636	686,825	608,747
Lamb and mutton.....	5,758	5,283	2,863

COMMODITY MOVEMENTS—Continued.

	March, 1923.	February, 1923.	March, 1922.
Live stock—Continued.			
Exports of certain meat products (pounds, 000 omitted):			
Beef—			
Canned.....	104	253	280
Fresh.....	348	320	274
Pickled and other cured.....	2,312	1,929	2,798
Hog products—			
Bacon.....	40,549	36,296	31,180
Hams and shoulders.....	25,892	23,192	23,533
Lard.....	109,187	89,055	64,377
Pork, pickled.....	3,325	3,863	2,953
Dairy products.			
Receipts at 5 principal markets (000 omitted):			
Butter (pounds).....	50,409	40,662	44,919
Cheese (pounds).....	15,573	12,575	14,586
Eggs (cases).....	2,124	1,025	1,947
Cold-storage holdings first of following month (000 omitted):			
Creamery butter (pounds).....	8,913	16,121	22,582
American cheese (pounds).....	20,709	26,594	15,006
Eggs (cases).....	14	213	13
Fishery products.			
Fish landed by American fishing vessels, total catch (pounds, 000 omitted):			
Cold-storage holdings frozen and cured fish, on 15th of month (pounds, 000 omitted).....	30,056	12,499	19,215
.....	34,518	50,645	40,112
Other agricultural products.			
Cottonseed (tons):			
Received at mills.....	57,595	92,200	65,107
Crushed.....	200,504	317,182	214,911
Stocks at mills at close of month.....	159,922	302,381	107,058
Cottonseed oil (pounds, 000 omitted):			
Production.....	62,170	110,403	72,237
Stocks.....	60,137	83,667	60,089
Oleomargarine consumption (pounds, 000 omitted).....	19,722	19,722	15,263
Tobacco sales at loose-leaf warehouses (pounds, 000 omitted):			
Dark belt—Virginia.....	2,955	5,541	862
Bright belt—			
Virginia.....	818	3,451	2,712
North Carolina.....	8,514	4,728	4,302
Burley.....	5,256	12,832	4,579
Western dark.....	5,082	8,263	7,189
Sale of revenue stamps for manufacture of tobacco, excluding Porto Rico and Philippine Islands (000 omitted):			
Cigars (large).....	574,515	507,266	529,162
Cigars (small).....	49,955	43,539	59,535
Cigarettes (small).....	5,043,327	4,623,431	3,636,032
Manufactured tobacco ((pounds).....	32,269	29,083	34,395
Fruit shipments (carloads):			
Grapefruit.....	2,686	1,877	2,079
Oranges.....	668	626	925
Lemons.....	8,090	8,009	5,945
Apples.....	5,362	6,257	2,987
Vegetable shipments:			
White potatoes (carloads).....	22,917	13,758	22,104
Onions (carloads).....	1,392	1,398	724
Rice (pounds, 000 omitted).....	15,448	56,178	119,513
Sugar, all ports (long tons):			
Receipts.....	676,245	421,370	652,803
Meltings.....	505,300	383,100	535,200
Raw stock at close of month.....	499,543	434,556	655,280
Forest products.			
Lumber:			
Number of mills—			
National Lumber Manufacturers' Association.....	587	569	480
Southern Pine Association.....	180	179	169
Western Pine Association.....	51	51	54
West Coast Lumbermen's Association.....	127	124	129

COMMODITY MOVEMENTS—Continued.				COMMODITY MOVEMENTS—Continued.			
	March, 1923.	February, 1923.	March, 1922.		March, 1923.	February, 1923.	March, 1922.
Forest products—Continued.				Textiles—Continued.			
Lumber—Continued.				Cotton (bales, 000 omitted)—Continued.			
Production (feet, 000,000 omitted)—				Stocks at mills.....	2,035	2,022	1,557
National Lumber Manufacturers' Association.....	1,355	978	885	Stocks at warehouses.....	2,378	2,804	3,752
Southern Pine Association.....	431	359	395	Visible supply.....	2,335	2,734	3,593
Western Pine Association.....	121	59	67	Consumption by mills.....	623	567	518
West Coast Lumbermen's Association.....	495	303	307	Spindles active during month (number, 000 omitted).....	35,501	35,308	31,873
Shipments (feet, 000 omitted)—				Wool:			
National Lumber Manufacturers' Association.....	1,479	1,132	9,000	Consumption (pounds, 000 omitted)	62,859	57,916	60,368
Southern Pine Association.....	438	336	1,999	Percentage of active machinery to total reported—			
Western Pine Association.....	148	117	17	Looms wider than 50-inch reed space.....	86.3	83.4	65.1
West Coast Lumbermen's Association.....	567	360	280	Looms 50-inch reed space or less.....	86.1	85.7	72.2
Naval stores at 3 southeastern ports:				Sets of cards.....	90.7	88.4	83.6
Spirits of turpentine (casks)—				Combs.....	91.4	87.4	76.3
Receipts.....	5,431	5,814	3,300	Spinning spindles, woolen.....	90.0	87.0	82.5
Stocks close of month.....	14,596	29,238	19,201	Spinning spindles, worsted.....	93.7	91.3	74.7
Rosin (barrels)—				Percentage of active hours to total reported—			
Receipts.....	48,445	46,644	44,000	Looms wider than 50-inch reed space.....	92.9	79.7	63.1
Stocks close of month.....	222,501	282,610	82,469	Looms 50-inch reed space or less.....	85.7	74.3	63.5
Fuel and power.				Sets of cards.....	103.9	95.0	88.4
Coal and coke (short tons, 000 omitted):				Combs.....	117.2	93.3	82.3
Bituminous coal production.....	46,823	42,130	49,976	Spinning spindles, woolen.....	98.6	94.6	85.9
Anthracite coal production.....	9,382	7,773	8,757	Spinning spindles, worsted.....	102.1	95.8	70.8
Anthracite coal shipments.....	7,183	5,952	6,779	Raw silk:			
Coke—				Consumption (bales).....	33,515	36,231	26,651
Beehive coke production.....	1,749	1,482	732	Stocks at close of month (bales).....	39,436	44,615	22,077
By-product coke production.....	3,256	2,810	2,137	Hides and leather.			
Petroleum, crude (barrels, 000 omitted):				Sales of raw hides and skins during month (number, 000 omitted):			
Production.....	56,132	48,413	46,634	Cattle hides.....	2,518	1,697	1,499
Stocks close of month.....	258,738	252,275	221,588	Calfskins.....	702	725	608
Production oil wells completed (number).....	1,248	1,094	1,323	Kipskins.....	156	198	137
Oil refineries:				Goat and kid.....	1,236	1,089	1,230
Production (000,000 omitted)—				Cabretta.....	102	113	69
Crude-oil run (barrels).....	47	43	39	Sheep and lamb.....	3,262	2,902	1,276
Gasoline (gallons).....	631	569	472	Stocks of raw hides and skins at close of month (number, 000 omitted):			
Kerosene (gallons).....	191	180	179	Cattle hides.....	6,749	6,650	5,662
Gas and fuel oils (gallons).....	971	903	849	Calfskins.....	2,689	2,648	2,965
Lubricating oils (gallons).....	91	77	73	Kipskins.....	1,010	1,068	916
Stocks (000 omitted)—				Goat and kid.....	7,779	7,959	8,044
Crude-oil run (barrels).....	31	28	31	Cabretta.....	966	968	361
Gasoline (gallons).....	1,259	1,130	854	Sheep and lamb.....	8,510	9,058	11,941
Kerosene (gallons).....	283	273	321	Production of leather (000 omitted):			
Gas and fuel oils (gallons).....	254	1,277	1,250	Sole leather (sides).....	1,719	1,465	1,539
Lubricating oils (gallons).....	235	239	237	Skivers (dozens).....	41	37	19
Electric power produced by public utility plants (000,000 kilowatt-hours):				Oak and union harness (sides stuffed).....	146	139	78
Produced by water power.....	1,697	1,467	1,470	Boots and shoes output (pairs, 000 omitted):			
Produced by fuels.....	3,013	2,857	2,353	Men's.....	10,713	8,688	7,732
Total.....	4,710	4,321	3,823	Women's.....	11,614	9,576	10,529
				Other.....	14,129	11,008	11,089
				Total.....	35,792	29,272	29,350
Metals.				Building materials.			
Iron and steel:				Brick (000 omitted):			
Pig-iron production (long tons, 000 omitted) ²	3,548	3,521	2,072	Clay fire brick—			
Steel-ingot production (long tons, 000 omitted) ²	3,321	3,402	2,445	Production.....	66,456	56,075	42,626
Unfilled orders, U. S. Steel Corporation (long tons, 000 omitted) ²	7,289	7,403	5,097	Shipments.....	70,624	53,222	38,694
Fabricated structural steel orders (tonnage).....	210	179	139	Stocks, close of month.....	159,180	163,426	149,034
Steel barrels (number)—				New orders.....	99,330	67,164	43,998
Shipments.....	251,573	193,992	168,476	Unfilled orders.....	118,284	88,713	31,537
Unfilled orders.....	627,148	603,774	281,794	Face brick—			
Steel castings—bookings (net tons).....	143,564	90,152	47,893	Production.....	33,522	32,473	42,133
Silver production (troy ounces, 000 omitted).....	6,110	4,729	4,186	Shipments.....	32,674	26,679	37,991
Copper production (pounds, 000 omitted).....	122,194	102,641	62,305	Stocks in sheds and kilns.....	102,741	134,175	156,906
Zinc (pounds, 000 omitted):				Unfilled orders, close of month.....	82,377	91,819	59,852
Production.....	97,462	84,886	53,064	Silica brick—			
Stocks, close of month.....	20,042	21,728	120,524	Production.....	16,793	14,544	9,120
Shipments.....	99,148	96,306	60,788	Shipments.....	17,804	14,418	7,837
Tin (pounds, 000 omitted):				Stocks, close of month.....	44,481	45,492	36,944
Deliveries to factories.....	14,862	13,854	13,507	Cement (barrels, 000 omitted):			
Stocks at close of month.....	9,110	4,601	6,912	Production.....	9,880	8,085	6,685
Textiles.				Shipments.....	10,326	5,963	7,002
Cotton (bales, 000 omitted):				Stocks, close of month.....	13,055	13,502	13,848
Sight receipts.....	453	410	486				
American spinners' takings.....	422	399	259				

² Figures for April, 1923, March, 1923, April, 1922.

COMMODITY MOVEMENTS—Continued.				COMMODITY MOVEMENTS—Continued.			
	March, 1923.	February, 1923.	March, 1922.		March, 1923.	February, 1923.	March, 1922.
Building materials—Continued.				Miscellaneous manufactures—Con.			
Oak flooring:				Locomotives (number):			
Production.....	32,236	24,421	20,367	Domestic shipped.....	269	196	35
Shipments.....	34,964	25,031	22,690	Foreign completed.....	13	11	4
Orders booked.....	39,641	33,458	23,479	Total.....	282	207	39
Stocks.....	25,297	25,301	28,090	Unfilled orders—			
Unfilled orders.....	65,823	56,936	24,935	Domestic.....	2,214	2,141	255
Maple flooring:				Foreign.....	102	79	75
Production.....	12,344	11,333	9,218	Total.....	2,316	2,220	330
Shipments.....	15,329	11,354	10,548	Vessels built in United States and officially numbered by the Bureau of Navigation:			
Orders booked.....	18,321	16,033	11,923	Number.....	67	37	62
Stocks.....	23,161	25,539	33,632	Gross tonnage.....	24,978	21,392	6,203
Unfilled orders.....	42,434	40,200	14,282	Transportation.			
Enameled ware:				Freight carried by Class I railways: ¹			
Baths—				Net ton-miles, revenue and non-revenue (000,000 omitted).....	32,616	37,668	28,451
Shipments.....	92,473	82,912	65,243	Net tons per train.....	672	696	674
Stocks at close of month.....	40,200	40,124	70,587	Net tons per loaded car.....	28.2	29.0	28.3
New orders.....	116,514	129,847	63,815	Revenue freight loaded and received from connections, classified according to nature of products (cars, loaded, 000 omitted):			
Lavatories—				Grain and grain products.....	185	165	183
Shipments.....	104,876	83,469	91,639	Live stock.....	140	128	122
Stocks at close of month.....	50,127	56,543	126,228	Coal.....	834	742	883
New orders.....	148,121	156,033	95,891	Coke.....	69	60	39
Sinks—				Forest products.....	337	267	236
Shipments.....	114,677	99,085	90,765	Ore.....	60	41	24
Stocks at close of month.....	61,391	59,806	152,980	Merchandise, l. c. l.....	1,040	848	1,064
New orders.....	149,144	167,607	95,137	Miscellaneous.....	1,459	1,142	1,135
Miscellaneous ware—				Total.....	4,124	3,393	3,687
Shipments.....	56,359	44,766	44,912	Revenue freight loaded, classified according to geographical divisions:			
Stocks at close of month.....	54,332	49,367	86,334	Eastern.....	1,025	812	928
New orders.....	67,642	75,431	48,062	Allegheny.....	903	731	792
Miscellaneous manufactures.				Pocahontas.....	162	134	165
Wood pulp (short tons):				Southern.....	660	546	576
Production.....	313,777	279,457	314,591	Northwestern.....	513	429	447
Consumption.....	253,477	235,934	249,204	Central western.....	612	531	544
Shipments.....	54,207	51,389	47,839	Southwestern.....	250	210	236
Stocks, end of month.....	111,823	108,872	196,257	Total.....	4,124	3,393	3,688
Paper (short tons):				Freight-car surplus (number):			
Newsprint—				Total.....	13,157	23,101	216,684
Production.....	129,294	114,611	117,507	Box.....	2,644	5,692	88,569
Shipments.....	132,292	114,415	117,142	Coal.....	3,980	6,263	81,149
Stocks, end of month.....	20,199	23,200	28,180	Freight-car shortage (number):			
Book paper—				Total.....	73,535	75,228	437
Production.....	96,087	89,265	77,889	Box.....	34,068	29,138	246
Stocks, end of month.....	31,480	38,043	38,367	Coal.....	31,061	38,432	90
Paper board—				Bad-order cars, total.....	206,312	215,552	334,628
Production.....		198,031	192,308	Vessels cleared in foreign trade (tons, 000 omitted):			
Stocks, end of month.....		62,901	71,986	American.....	2,021	1,587	2,181
Wrapping paper—				Foreign.....	2,800	2,526	2,684
Production.....	86,776	77,813	70,141	Total.....	4,821	4,113	4,864
Stocks, end of month.....	43,213	48,421	64,931	Percentage of American to total.....	41.9	38.6	44.8
Fine paper—				Panama Canal traffic (tons, 000 omitted): ¹			
Production.....	35,144	32,377	29,346	Total cargo traffic.....	1,563	1,592	960
Stocks, end of month.....	36,978	39,772	35,123	American vessels.....	959	775	459
Rubber (pounds, 000 omitted):				British vessels.....	376	407	287
Consumption by tire manufacturers	41,594	34,235	26,771				
Pneumatic tires (000 omitted):							
Production.....	3,866	3,218	2,646				
Shipments, domestic.....	3,323	2,589	2,074				
Stocks.....	5,671	5,244	5,183				
Inner tubes (000 omitted):							
Production.....	4,875	4,039	3,018				
Shipments, domestic.....	3,828	3,002	2,091				
Stocks.....	7,741	6,772	6,991				
Solid tires (000 omitted):							
Production.....	80	75	49				
Shipments, domestic.....	77	63	48				
Stocks.....	266	270	182				
Automobiles:							
Production (number)—							
Passenger cars.....	319,527	259,383	152,625				
Trucks.....	34,063	21,411	19,369				
Shipments—							
Railroads (carloads).....	43,774	35,700	27,753				
Driveways (machines).....	58,320	42,700	16,917				
Boat (machines).....	1,900	900	560				

¹ Figures for February, 1923; January, 1923; February, 1922.

BUILDING STATISTICS.

BUILDING PERMITS ISSUED IN 168 SELECTED CITIES.

[Collected by the 12 Federal Reserve Banks.]

NUMBER OF PERMITS ISSUED.

	District No. 1 (14 cities).	District No. 2 (22 cities).	District No. 3 (14 cities).	District No. 4 (12 cities).	District No. 5 (15 cities).	District No. 6 (15 cities).	District No. 7 (19 cities).	District No. 8 (5 cities).	District No. 9 (9 cities).	District No. 10 (14 cities).	District No. 11 (9 cities).	District No. 12 (20 cities).	Total (168 cities).
1922.													
March.....	2,337	13,420	3,557	5,161	4,101	3,424	8,917	2,218	1,493	2,711	2,623	11,196	61,158
August.....	2,873	7,828	3,044	5,093	4,018	3,130	11,112	2,354	2,244	2,778	2,534	11,596	58,604
September.....	2,734	8,424	3,960	4,789	3,997	3,114	10,553	2,373	1,932	2,629	2,223	11,291	57,919
October.....	2,911	9,672	3,169	5,064	3,930	3,335	11,988	2,492	2,629	2,906	2,470	12,254	62,230
November.....	2,301	9,022	2,504	4,150	3,433	3,010	9,437	2,048	1,437	2,669	2,184	10,490	52,685
December.....	1,285	7,456	1,639	2,666	2,458	2,070	6,620	1,653	698	1,601	1,510	7,767	37,453
1923.													
January.....	905	6,243	1,486	2,946	2,787	2,975	6,310	1,985	722	2,276	2,554	10,313	41,502
February.....	838	6,880	1,573	2,901	2,585	2,516	5,729	1,742	612	1,913	2,199	9,666	39,154
March.....	1,983	13,745	3,308	6,411	4,232	3,251	10,735	2,645	1,417	3,086	2,589	13,358	66,770

VALUE OF PERMITS ISSUED (000 OMITTED).

	District No. 1	District No. 2	District No. 3	District No. 4	District No. 5	District No. 6	District No. 7	District No. 8	District No. 9	District No. 10	District No. 11	District No. 12	Total
1922.													
March.....	\$11,069	\$120,359	\$14,116	\$14,926	\$11,329	\$5,873	\$33,291	\$5,013	\$4,526	\$7,166	\$5,630	\$27,432	\$260,730
August.....	16,634	49,211	15,353	22,037	11,605	7,985	40,453	5,816	8,285	9,793	5,010	29,424	221,606
September.....	8,656	55,670	15,869	25,077	12,970	6,326	31,550	3,384	4,761	8,352	4,980	23,968	204,564
October.....	9,159	66,063	13,806	14,907	11,292	8,049	34,088	6,353	4,717	8,980	4,765	26,338	211,527
November.....	8,388	66,684	15,357	14,713	9,519	5,125	41,425	5,812	5,273	8,278	3,860	26,200	210,634
December.....	7,252	80,400	10,640	13,050	14,486	5,156	53,134	10,115	3,686	6,923	9,570	22,035	236,446
1923.													
January.....	5,661	73,574	9,767	16,458	11,083	7,265	31,022	7,936	3,739	6,903	6,248	26,164	205,820
February.....	4,003	88,207	9,877	14,165	13,085	7,811	40,490	6,528	2,455	7,028	6,121	28,830	228,601
March.....	10,986	167,218	31,845	23,264	14,153	7,498	59,463	8,641	5,574	10,952	11,427	40,203	391,226

VALUE OF BUILDING CONTRACTS AWARDED BY FEDERAL RESERVE DISTRICTS.

(F. W. Dodge Co.)

VALUE OF CONTRACTS FOR ALL CLASSES OF BUILDINGS (000 OMITTED).

	District No. 1.	District No. 2.	District No. 3.	District No. 4.	District No. 5.	District No. 6.	District No. 7.	District No. 8.	District No. 9. ¹	District No. 10. ²	Total.
1922.											
September.....	\$29,245	\$64,299	\$24,948	\$34,635	\$22,997	.....	\$62,220	.....	\$5,868	.....	\$244,262
October.....	25,305	65,061	20,440	35,165	19,685	.....	52,048	.....	4,523	.....	222,226
November.....	25,298	77,700	16,929	29,337	19,848	.....	45,429	.....	4,810	.....	219,351
December.....	19,740	58,685	18,706	28,042	15,677	.....	45,128	.....	5,285	.....	191,263
1923.											
January.....	21,806	65,233	16,770	25,691	17,633	\$22,051	43,137	\$17,864	4,524	\$7,845	\$ 242,554
February.....	13,759	58,614	18,780	38,546	20,219	34,775	46,764	21,193	12,199	12,531	\$ 277,380
March.....	25,079	98,412	31,265	52,793	30,147	25,538	59,868	17,961	15,269	11,277	\$ 367,599
April.....	31,893	96,267	30,553	48,786	39,364	20,817	75,240	25,840	17,585	11,346	\$ 397,192

VALUE OF CONTRACTS FOR RESIDENTIAL BUILDINGS (000 OMITTED).

	District No. 1.	District No. 2.	District No. 3.	District No. 4.	District No. 5.	District No. 6.	District No. 7.	District No. 8.	District No. 9. ¹	District No. 10. ²	Total.
1922.											
September.....	\$11,510	\$34,537	\$8,142	\$12,737	\$8,596	.....	\$15,012	.....	\$2,454	.....	\$92,986
October.....	13,553	33,238	10,072	13,730	7,416	.....	20,291	.....	2,228	.....	100,528
November.....	13,667	51,892	7,397	11,405	7,998	.....	22,308	.....	2,847	.....	117,515
December.....	13,963	42,981	11,526	17,809	5,003	.....	17,949	.....	2,046	.....	111,278
1923.											
January.....	14,469	47,702	5,722	11,803	7,815	\$10,223	14,567	\$5,884	2,072	\$2,120	\$ 122,376
February.....	4,587	10,849	9,128	13,751	7,930	10,065	18,315	6,476	6,703	3,288	\$ 90,462
March.....	11,044	65,912	13,336	23,338	9,146	8,993	27,035	8,676	4,493	3,295	\$ 175,298
April.....	15,493	56,811	13,823	20,807	11,411	8,506	28,524	9,360	5,345	3,369	\$ 173,452

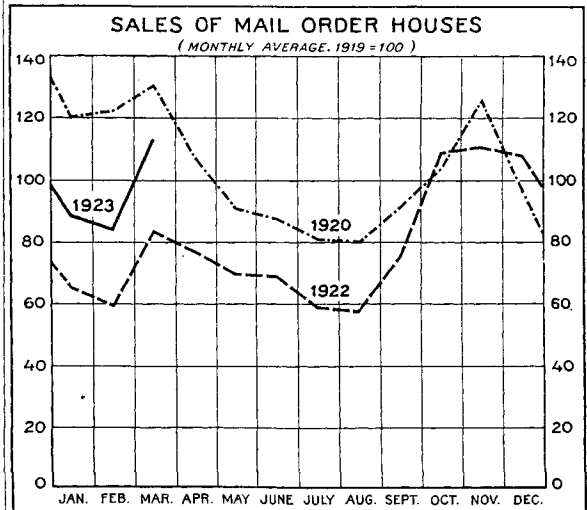
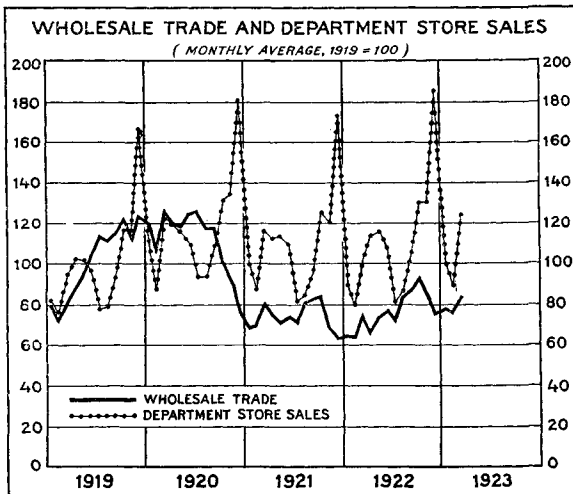
¹ Montana not included.² Colorado, Wyoming, and Arizona not included.³ Figures for Districts 6, 8, and 10, not available for previous months, included in total.

WHOLESALE AND RETAIL TRADE.

Sales of both wholesale and retail dealers were substantially larger in March than in the preceding months of 1923, and were also much larger than the sales in March, 1922. The chart below shows a comparison of the trends of wholesale trade and of department-store sales from January, 1919, to date. This chart indicates that department-store business has much larger seasonal fluctuations than the average wholesale business and that there has been a distinct divergence in the trend of wholesale trade and retail trade during the past three years. The higher level of retail trade is due primarily to the relatively small decrease in retail prices since 1920 as compared with the large decline in wholesale prices. In the past year this price factor has become slightly less important, as wholesale prices have been rising more rapidly than retail prices. A correction of the two series by price changes indicates that there has not been much change in the volume of wholesale business since 1919, while there has been a considerable increase in the volume of retail sales.

Wholesale trade in March reached the largest monthly volume since November. The March sales were 10 per cent greater than February and 12 per cent larger than in March, 1922. The most important increases, as compared with February, were registered by the sales of shoes, hardware, jewelry, and drugs. There was a slight decline in the sales of diamonds.

A comparison with a year ago indicates that the value of wholesale business was larger in all lines and in almost all districts. Sales of



machine tools were over three times as large as in last March, while sales of jewelry, diamonds, and men's clothing were over 50 per cent greater. The larger distribution of clothing and jewelry reflects the increased buying power in 1923, which has resulted from full employment, rising wages, and expanding business profits. Hardware sales also showed very substantial gains in all reporting districts, which may be ascribed in part to the great building activity in all sections and in part to the demand for farm equipment.

Retail business showed even more pronounced gains in March than wholesale business. Chain shoe stores more than doubled their February sales, while sales of 5-and-10-cent stores, department stores, and mail-order houses showed gains of from 30 to 40 per cent. Sales of shoe stores, mail-order houses, and 5-and-10-cent stores were all over one-third larger than a year ago. The large volume of sales this March may be ascribed to the early date of Easter, but this influence must have been partly counterbalanced by the severe storms and prolonged cold weather. Sales of mail-order houses reached a larger dollar value than at the fall peaks of the years 1921 and 1922. The chart below shows a comparison of the sales, by months, in 1923 with sales in 1922 and sales during the period of business activity in 1920. It will be noted that sales in each of the first three months of 1923 were much larger than in the corresponding months of 1922, but are still considerably smaller than in the first quarter of 1920.

Department-store stocks were increased about 8 per cent during March, but expansion

is customary in the early spring, and stocks at the end of the month were only 6 per cent higher than a year ago. As the increase in sales during the past year has been much larger business is now being done on a lower relative volume of stocks than in 1922. Increases in stocks as compared with March 31, 1922, were recorded in 10 of the 12 districts and amounted to over 10 per cent in the Minneapolis, St. Louis, Philadelphia, and Chicago districts. Stocks at department stores in the Kansas City and Dallas districts were slightly smaller than a year ago, although they showed an increase as compared with February.

The following tables show the trend of wholesale and retail trade, by lines and by Federal reserve districts:

WHOLESALE TRADE IN THE UNITED STATES.

[Average monthly sales 1919=100.]

	Groceries.	Meat.	Dry goods.	Shoes.	Hardware.	Drugs.	Total.
1922.							
January.....	65.6	49.3	81.4	43.5	58.1	94.4	64.2
February.....	62.2	48.9	80.2	50.0	57.7	94.2	62.9
March.....	76.3	51.3	88.2	70.4	81.9	113.7	74.3
April.....	66.2	48.3	74.6	65.1	84.6	93.6	65.8
May.....	74.1	58.2	79.0	60.5	92.7	96.6	72.6
June.....	82.2	62.6	78.9	58.8	91.7	99.6	76.9
July.....	74.5	59.2	80.2	45.2	81.3	93.6	72.1
August.....	96.4	55.9	112.7	66.0	89.5	102.9	83.6
September.....	90.5	60.5	116.1	77.6	95.1	104.6	88.1
October.....	98.7	67.8	108.3	77.2	98.9	111.1	92.4
November.....	95.8	54.1	94.4	67.4	93.1	102.9	84.0
December.....	85.0	56.8	72.8	57.3	83.1	99.0	75.0
1923.							
January.....	74.9	60.4	105.4	55.7	87.3	113.4	78.4
February.....	74.9	56.8	100.8	56.3	82.0	106.3	76.1
March.....	79.7	58.9	113.0	82.6	108.2	120.6	84.6

CHANGES IN CONDITION OF WHOLESALE TRADE, BY LINES AND DISTRICTS.

	Percentage change in March, 1923, sales as compared with—			Percentage change in March, 1923, sales as compared with—			Percentage change in March, 1923, sales as compared with—	
	February, 1923.	March, 1922.		February, 1923.	March, 1922.		February, 1923.	March, 1922.
Groceries:			Shoes—Continued.			Drugs—Continued.		
United States.....	6.9	4.5	Richmond district.....	25.0	23.3	Dallas district.....	8.4	3.0
New York district.....	19.8	8.9	Atlanta district.....	42.0	23.5	San Francisco district.....	20.5	4.8
Philadelphia district.....	9.1	11.2	Chicago district.....	83.5	16.4	Furniture:		
Cleveland district.....	16.4	7.3	St. Louis district.....	17.6	18.5	Richmond district.....	34.1	87.9
Richmond district.....	13.6	12.5	Minneapolis district.....	22.1	32.0	Atlanta district.....	28.1	46.0
Atlanta district.....	.6	11.4	San Francisco district.....	12.1	1.4	Kansas City district.....	37.5	46.4
Chicago district.....	6.1	1.3	Hardware:			Dallas district.....	23.0	27.7
St. Louis district.....	14.3	6.2	United States.....	32.0	32.1	San Francisco district.....	7.4	34.9
Minneapolis district.....	-16.6	-22.0	New York district.....	42.6	20.6	Agricultural implements:		
Kansas City district.....	-4.5	3.8	Philadelphia district.....	37.9	18.7	Atlanta district.....	45.4	85.6
Dallas district.....	9.2	13.1	Cleveland district.....	26.7	26.0	Minneapolis district.....	66.3	69.9
San Francisco district.....	-2.6	-3.4	Richmond district.....	25.3	38.3	Dallas district.....	10.0	187.8
Dry goods:			Atlanta district.....	16.5	32.7	San Francisco district.....	75.8	27.9
United States.....	12.1	28.1	Chicago district.....	33.5	24.3	Stationery:		
New York district.....	7.5	29.2	St. Louis district.....	17.6	18.5	New York district.....	15.6	13.3
Philadelphia district.....	23.3	28.6	Minneapolis district.....	48.5	149.7	Atlanta district.....	4.6	26.4
Cleveland district.....	12.7	25.2	Kansas City district.....	20.5	20.6	San Francisco district.....	14.4	22.7
Richmond district.....	7.7	30.3	Dallas district.....	19.6	39.7	Auto supplies:		
Atlanta district.....	53.2	72.0	San Francisco district.....	29.5	39.6	Chicago district.....	43.9	59.0
Chicago district.....	20.1	22.5	Drugs:			San Francisco district.....	26.9	33.1
St. Louis district.....	-10.8	29.3	United States.....	13.4	6.0	Men's clothing:		
Minneapolis district.....	-30.9	-1.6	New York district.....	11.5	1.2	New York district.....	22.3	52.4
Kansas City district.....	5.9	29.6	Philadelphia district.....	8.6	5.8	Women's clothing:		
Dallas district.....	-5.6	14.2	Cleveland district.....	9.1	11.5	New York district.....	12.1	13.4
San Francisco district.....	28.2	28.6	Richmond district.....	12.0	10.3	Machine tools:		
Shoes:			Atlanta district.....	18.9	16.0	New York district.....	21.3	254.1
United States.....	46.7	17.3	Chicago district.....	19.9	15.1	Diamonds:		
New York district.....	54.7	17.2	St. Louis district.....	11.0	6.7	New York district.....	-23.2	56.3
Philadelphia district.....	115.3	28.1	Kansas City district.....	4.6	7.3	Jewelry:		
						New York district.....	38.1	73.0

RETAIL TRADE BY REPORTING LINES.

[Average monthly sales, 1919=100.]

	Department stores (306 stores).	Mail-order houses (4 houses).	Chain stores.					
			Grocery (21 chains).	Five and Ten (4 chains).	Drug (8 chains).	Cigar (3 chains).	Shoe (5 chains).	Music (4 chains).
1922.								
January.....	89.8	65.3	137.5	94.6	117.4	111.0	79.9	71.8
February.....	79.7	59.4	130.3	100.8	114.8	109.3	80.6	75.0
March.....	101.3	83.5	149.2	118.4	123.4	124.3	103.8	80.6
April.....	112.9	77.1	139.2	134.9	120.5	124.5	156.1	78.9
May.....	115.4	69.9	137.9	129.6	123.2	128.8	126.9	80.9
June.....	108.0	68.8	136.7	127.0	123.8	123.4	121.7	81.3
July.....	80.1	58.4	135.1	125.3	126.2	127.3	101.2	83.0
August.....	87.1	57.2	139.1	130.4	128.2	126.9	86.7	99.1
September.....	106.2	75.1	141.0	136.1	128.7	135.4	117.7	118.2
October.....	129.8	108.7	148.6	156.6	133.1	127.1	121.1	118.8
November.....	130.0	110.4	162.4	152.3	122.4	126.9	121.9	120.7
December.....	185.9	107.8	165.5	279.2	161.0	178.7	164.7	203.7
1923.								
January.....	99.8	88.7	165.1	115.9	128.7	115.6	85.5	95.0
February.....	89.3	83.9	158.8	117.4	125.3	109.7	70.8	87.8
March.....	123.1	112.7	188.4	163.4	144.7	134.5	145.5	96.0

DEPARTMENT STORE SALES BY FEDERAL RESERVE DISTRICTS.

[Average month, 1919=100.]

	District No. 1—Boston (24 stores).	District No. 2—New York (64 stores).	District No. 3—Philadelphia (18 stores).	District No. 5—Richmond (19 stores).	District No. 6—Atlanta (35 stores).	District No. 7—Chicago (70 stores).	District No. 9—Minneapolis (24 stores).	District No. 11—Dallas (21 stores).	District No. 12—San Francisco (31 stores).	Index for United States (306 stores).
1922.										
January.....	100.3	98.4	96.6	75.6	74.1	85.6	83.1	75.2	99.6	89.8
February.....	83.9	84.8	87.8	72.0	73.3	77.3	70.6	71.2	83.8	79.7
March.....	109.5	109.3	111.8	93.9	85.2	94.3	91.1	90.8	111.0	101.3
April.....	125.1	119.0	132.1	105.8	98.3	111.9	106.8	87.4	110.0	112.9
May.....	122.8	117.7	126.4	103.3	97.6	116.5	105.6	96.5	132.5	115.4
June.....	121.9	114.5	108.7	103.0	86.3	110.3	101.3	89.2	111.6	108.0
July.....	81.7	77.8	86.8	71.0	69.8	83.0	81.2	64.8	95.9	80.1
August.....	87.5	78.2	94.9	72.9	73.9	92.1	93.1	67.7	113.3	87.1
September.....	114.2	106.7	107.2	90.8	86.4	114.4	105.4	101.0	112.5	106.2
October.....	134.8	144.8	143.8	119.1	113.8	122.1	119.8	104.5	137.0	129.8
November.....	134.9	141.6	146.8	122.3	113.1	130.9	107.0	104.9	132.2	130.0
December.....	197.3	198.5	185.8	184.7	161.8	184.5	164.1	149.2	203.7	185.9
1923.										
January.....	106.3	107.7	106.1	83.9	83.0	98.5	92.1	81.0	114.6	99.8
February.....	92.3	91.3	98.0	79.6	78.2	92.7	77.0	73.3	101.5	89.3
March.....	126.9	129.0	149.0	115.3	105.5	122.0	105.2	99.4	134.6	123.4

TREND OF DEPARTMENT STORE STOCKS.

[Average monthly stocks, 1919=100.]

	District No. 1—Boston (24 stores).	District No. 2—New York (64 stores).	District No. 3—Philadelphia (13 stores).	District No. 5—Richmond (19 stores).	District No. 6—Atlanta (22 stores).	District No. 7—Chicago (59 stores).	District No. 9—Minneapolis (16 stores).	District No. 11—Dallas (19 stores).	District No. 12—San Francisco (29 stores).	Index for United States (265 stores).
1922.										
January.....	99.1	105.1	95.9	90.8	101.7	106.9	88.5	98.8	106.2	101.4
February.....	103.6	108.5	104.7	102.4	110.6	117.7	95.6	107.3	111.7	108.7
March.....	110.7	120.7	116.3	111.7	117.3	127.0	103.3	115.5	120.9	118.2
April.....	112.2	121.6	113.9	110.6	116.4	124.6	98.7	113.8	122.2	117.5
May.....	110.9	116.5	110.1	107.0	111.7	122.8	102.5	110.1	114.4	114.0
June.....	106.2	110.4	109.8	103.7	104.9	115.7	99.2	100.4	107.0	108.3
July.....	103.7	104.5	105.6	99.8	103.2	113.6	97.8	99.6	108.1	105.5
August.....	105.0	109.1	111.9	105.0	109.3	125.0	102.0	111.0	112.1	111.8
September.....	116.9	120.2	121.6	119.5	118.5	128.9	107.7	117.7	118.0	120.4
October.....	125.1	124.5	127.5	130.3	121.3	134.8	112.6	119.6	120.0	125.6
November.....	130.0	131.4	126.7	126.0	123.1	136.8	115.5	118.9	124.2	128.3
December.....	110.5	110.4	105.9	103.2	101.2	115.2	97.2	94.1	107.6	107.5
1923.										
January.....	104.0	106.6	102.2	99.6	105.2	111.4	100.0	96.0	107.4	105.2
February.....	111.5	113.0	116.5	113.0	111.9	125.3	107.2	105.8	117.7	115.2
March.....	119.9	124.6	127.5	124.3	118.9	137.2	117.0	114.3	125.1	125.3

BANKING AND FINANCIAL STATISTICS.

DISCOUNT AND OPEN-MARKET OPERATIONS OF FEDERAL RESERVE BANKS.

VOLUME OF OPERATIONS DURING MARCH, 1923.

Federal reserve bank.	Bills discounted for member banks.	Bills bought in open market.	United States securities purchased.		Municipal warrants purchased.	Total.	
			Bonds and notes.	Certificates of indebtedness.		March, 1923.	March, 1922.
Boston.....	\$330,903,414	\$33,236,612	\$519,200	\$16,665,945	.....	\$381,325,171	\$304,763,629
New York.....	1,995,975,853	75,774,818	40,759,500	73,440,500	.....	2,185,950,671	1,074,055,174
Philadelphia.....	238,143,940	12,031,768	225,000	171,000	\$40,683	250,612,391	263,529,229
Cleveland.....	138,462,039	33,241,861	.....	555,000	.....	172,258,900	159,516,811
Richmond.....	225,345,373	1,150,894	.....	.....	.....	226,496,267	167,679,536
Atlanta.....	30,403,422	22,907,075	292,700	5,360,000	.....	58,963,197	55,898,867
Chicago.....	251,529,771	22,302,677	9,546,000	38,430,500	.....	321,808,948	204,014,331
St. Louis.....	83,021,378	9,755,917	20,700	100,000	.....	92,897,995	50,453,299
Minneapolis.....	18,011,973	.....	3,248,900	302,000	.....	21,562,873	25,890,225
Kansas City.....	48,663,365	75,000	435,500	3,500,000	.....	52,673,865	45,557,798
Dallas.....	12,743,364	6,435,451	1,600,000	1,198,000	.....	21,976,815	28,101,050
San Francisco.....	146,496,704	37,228,596	.....	1,175,000	.....	184,909,300	236,799,165
Total: March, 1923.....	3,519,700,596	254,140,669	56,647,500	140,897,945	40,683	3,971,427,393	.....
March, 1922.....	1,753,096,620	144,351,644	156,696,850	562,114,000	.....	.....	2,616,259,114
3 months ending—							
Mar. 31, 1923.....	10,931,505,998	593,359,216	208,471,730	1,913,344,975	40,683	13,646,722,602	.....
Mar. 31, 1922.....	6,178,834,855	387,282,638	389,106,600	838,274,500	111,029	.....	7,793,609,622

VOLUME OF BILLS DISCOUNTED DURING MARCH, 1923, BY CLASSES OF PAPER; ALSO NUMBER OF MEMBER BANKS ACCOMMODATED.

Federal reserve bank.	Customers' paper secured by Government obligations.	Member banks' collateral notes.		Commercial paper n. e. s.	Agricultural paper.	Live-stock paper.	Bankers' acceptances.		
		Secured by Government obligations.	Otherwise secured.				Foreign	Domestic.	Dollar exchange.
Boston.....	\$544,699	\$183,009,500	.....	\$146,895,982	\$236,278	\$93,325	.....	.....	.....
New York.....	2,229,953	1,814,271,257	.....	178,386,790	300,940	6,055	\$5,697	\$19,963	.....
Philadelphia.....	318,219	167,253,400	.....	70,245,347	270,986	.....	.....	.....	.....
Cleveland.....	317,735	92,973,450	\$39,500	43,865,676	194,995	281,917	.....	.....	.....
Richmond.....	282,641	199,822,414	1,945,000	21,050,039	1,624,781	16,315	.....	.....	.....
Atlanta.....	101,812	11,305,700	404,400	16,340,576	1,966,692	184,940	.....	.....	.....
Chicago.....	305,195	170,964,560	234,771	72,333,428	7,433,721	.....	.....	50,000	.....
St. Louis.....	6,842	52,831,700	.....	28,315,020	1,559,634	42,703	.....	25,000	.....
Minneapolis.....	1,230	10,359,920	730,419	5,234,523	1,095,870	590,011	.....	.....	.....
Kansas City.....	61,990	36,958,950	47,000	6,326,324	1,236,215	4,020,886	.....	.....	.....
Dallas.....	3,437	3,771,200	657,930	4,258,483	1,641,975	2,393,937	.....	.....	.....
San Francisco.....	698,423	88,327,000	13,900,110	41,006,401	1,632,860	681,985	3,573	.....	.....
Total: March, 1923.....	4,872,196	2,831,849,051	17,959,130	634,258,589	19,258,947	8,312,074	9,270	94,963	.....
February, 1923.....	2,212,578	3,129,871,682	18,420,555	546,850,386	13,800,770	4,432,921	846,402	819,974	\$90,000
March, 1922.....	12,148,775	1,020,251,778	29,931,867	640,980,433	35,712,261	9,599,037	.....	124,220	.....
February, 1922.....	17,081,217	1,267,616,523	26,411,796	730,839,912	27,567,790	6,909,724	.....	92,410	.....

Federal reserve bank.	Trade acceptances.		Total all classes.	Total reduced to a common maturity basis. ¹		Member banks.		
	Foreign.	Domestic.		Amount.	Per cent of total.	Number in district Mar. 31.	Accommodated.	
							Number.	Per cent.
Boston.....	.....	\$123,630	\$330,903,414	\$260,325,281	7.4	428	223	52.1
New York.....	\$409,200	285,998	1,995,975,853	1,006,124,756	28.6	814	375	46.1
Philadelphia.....	.....	55,988	238,143,940	245,510,301	7.0	715	313	43.8
Cleveland.....	.....	788,766	138,462,039	171,123,462	4.9	882	240	27.2
Richmond.....	.....	604,183	225,345,373	196,034,298	5.6	639	243	38.0
Atlanta.....	.....	99,302	30,403,422	114,133,865	3.2	542	213	39.3
Chicago.....	.....	206,096	251,529,771	733,059,081	20.8	1,441	502	34.8
St. Louis.....	.....	240,479	83,021,378	207,890,885	5.9	620	191	30.8
Minneapolis.....	.....	.....	18,011,973	77,612,495	2.2	1,010	209	20.7
Kansas City.....	.....	10,000	48,663,365	133,892,023	3.8	1,154	254	22.0
Dallas.....	.....	16,382	12,743,364	83,684,889	2.4	862	253	29.4
San Francisco.....	.....	246,352	146,496,704	290,309,260	8.2	815	266	32.6
Total: March, 1923.....	409,200	2,677,176	3,519,700,596	3,519,700,596	100.0	9,922	3,282	33.1
February, 1923.....	173,012	3,028,306	3,720,546,586	.....	.....	9,917	2,976	30.0
March, 1922.....	4,348,249	1,753,096,620	.....	.....	.....	9,873	4,701	47.6
February, 1922.....	3,853,961	2,080,373,333	.....	.....	.....	9,858	4,847	49.1

¹ Total discounts multiplied by ratio of average maturity of bills discounted by each bank to average maturity (8.86) for system.

VOLUME OF BILLS DISCOUNTED DURING MARCH, 1923, BY RATES OF DISCOUNT CHARGED; ALSO AVERAGE RATES AND MATURITIES.

Federal reserve bank.	4 per cent.	4½ per cent.	Total.	Average rate (365-day basis).	Average maturity.
				<i>Per cent.</i>	<i>Days.</i>
Boston.....		\$330,903,414	\$330,903,414	4.50	6.97
New York.....		1,995,975,853	1,995,975,853	4.50	4.47
Philadelphia.....		238,143,940	238,143,940	4.50	9.14
Cleveland.....		138,462,039	138,462,039	4.50	10.95
Richmond.....		225,345,373	225,345,373	4.50	7.71
Atlanta.....		30,403,422	30,403,422	4.50	33.28
Chicago.....		251,529,771	251,529,771	4.50	25.83
St. Louis.....		83,021,378	83,021,378	4.50	22.20
Minneapolis.....		18,011,973	18,011,973	4.50	38.19
Kansas City.....		48,663,365	48,663,365	4.50	24.39
Dallas.....		12,743,364	12,743,364	4.50	58.21
San Francisco.....	\$31,147,809	115,348,895	146,496,704	4.33	17.57
Total: March, 1923.....	31,147,809	3,488,552,787	3,519,700,596	4.49	8.86
February, 1923.....	2,494,809,243	1,285,737,343	3,720,546,586	4.28	6.70

VOLUME OF BANKERS' AND TRADE ACCEPTANCES PURCHASED DURING MARCH, 1923, BY CLASSES.

Federal reserve bank.	Bankers' acceptances.				Trade acceptances.			Total bills purchased.	Total reduced to a common maturity basis. ¹	
	Foreign.	Domestic.	Dollar exchange.	Total.	Foreign.	Domestic.	Total.		Amount.	Per cent of total.
Boston.....	\$23,523,673	\$8,224,499	\$1,488,440	\$33,236,612				\$33,236,612	\$20,388,082	8.0
New York.....	57,093,705	11,561,256	5,152,880	73,807,841	\$1,888,069	\$78,908	\$1,966,977	75,774,818	32,762,767	12.9
Philadelphia.....	8,273,938	2,542,830	1,215,000	12,031,768				12,031,768	20,225,964	7.9
Cleveland.....	28,155,033	4,100,408	882,000	33,137,441		104,420	104,420	33,241,861	51,530,916	20.3
Richmond.....	127,894	1,023,000		1,150,894				1,150,894	1,235,483	.5
Atlanta.....	19,240,871	3,137,704	528,500	22,907,075				22,907,075	31,571,206	12.4
Chicago.....	14,142,798	6,348,879	1,811,000	22,302,677				22,302,677	34,024,226	13.4
St. Louis.....	6,801,633	2,138,047	816,237	9,755,917				9,755,917	12,869,103	5.1
Minneapolis.....										
Kansas City.....		75,000		75,000				75,000	49,973	
Dallas.....	4,928,679	1,300,705	206,067	6,435,451				6,435,451	8,241,322	3.3
San Francisco.....	27,531,001	8,975,823	670,517	37,177,341	51,255		51,255	37,228,596	41,241,627	16.2
Total: March, 1923.....	189,819,225	49,428,151	12,770,641	252,018,017	1,939,324	183,328	2,122,652	254,140,669	254,140,669	100.0
February, 1923.....	129,275,500	49,578,270	6,080,641	184,934,411	1,529,367		1,529,367	186,463,778		
March, 1922.....	99,620,840	36,084,364	8,229,500	143,934,704	416,940		416,940	144,351,644		
February, 1922.....	96,606,585	36,846,851	5,243,963	138,697,399			323,099	139,020,498		

¹Total purchases multiplied by ratio of average maturity of bills purchased by each bank to average maturity (46.59) for system.

VOLUME OF ACCEPTANCES PURCHASED DURING MARCH, 1923, BY RATES OF DISCOUNT CHARGED; ALSO AVERAGE RATES AND MATURITIES.

Federal reserve bank.	3½ per cent.	4 per cent.	4½ per cent.	4¾ per cent.	4¾ per cent.	4¾ per cent.	4¾ per cent.	Total.	Average rate (365-day basis).	Average maturity.
									<i>Per cent.</i>	<i>Days.</i>
Boston.....	\$6,008,324	\$17,319,803	\$9,073,383	\$631,718	\$188,255	\$15,129		\$33,236,612	4.06	28.58
New York.....	2,894,955	70,151,796	490,849	195,240		1,956,219	\$85,759	75,774,818	4.08	20.14
Philadelphia.....	89,741	9,796,554	2,137,259	8,214				12,031,768	4.09	78.31
Cleveland.....	4,899,293	18,911,884	7,845,940	1,384,993	77,146	122,605		33,241,861	4.11	72.22
Richmond.....			1,130,894	20,000				1,150,894	4.18	50.01
Atlanta.....	3,330,851	15,604,568	2,202,565	129,042	456	1,639,593		22,907,075	4.10	64.20
Chicago.....	864,653	14,367,778	6,810,377	163,740	96,129			22,302,677	4.10	71.07
St. Louis.....	984,953	8,205,623	565,341					9,755,917	4.06	61.45
Minneapolis.....										
Kansas City.....						75,000		75,000	4.56	31.04
Dallas.....	1,275,091	4,510,119	107,075	529,000	14,166			6,435,451	4.06	59.66
San Francisco.....	7,270,041	15,304,705	12,854,238	1,481,609	213,228	104,775		37,228,596	4.11	51.61
Total: March, 1923.....	27,617,902	174,172,830	43,217,921	4,543,556	589,380	3,913,321	85,759	254,140,669	4.09	46.59
February, 1923.....	30,207,039	128,689,708	22,322,143	1,031,218	145,620	3,975,482	92,568	186,463,778	4.08	43.14

NOTE.—All Federal reserve banks use 360 days to the year in calculating interest on bills bought in open market.

HOLDINGS OF EARNING ASSETS, BY CLASSES.

AVERAGE DAILY HOLDINGS OF EACH CLASS OF EARNING ASSETS, EARNINGS THEREON, AND ANNUAL RATES OF EARNINGS DURING MARCH, 1923.

Federal reserve bank.	Average daily holdings of—				Earnings on—				Annual rate of earnings on—			
	All classes of earning assets.	Discounted bills.	Purchased bills.	United States securities.	All classes of earning assets.	Discounted bills.	Purchased bills.	United States securities.	All classes of earning assets.	Discounted bills.	Purchased bills.	United States securities.
Boston.....	\$87,662,269	\$50,566,899	\$16,187,595	\$20,907,775	\$310,438	\$188,120	\$55,685	\$66,633	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>
New York.....	262,893,412	204,519,618	31,444,379	26,929,415	972,645	774,054	109,534	89,057	4.17	4.38	4.05	3.75
Philadelphia.....	114,584,839	57,217,988	28,761,448	28,588,342	421,051	218,711	99,597	102,677	4.36	4.44	4.11	3.89
Cleveland.....	109,524,398	34,554,962	41,989,391	32,980,045	389,267	132,047	146,924	110,296	4.32	4.50	4.07	4.22
Richmond.....	48,229,154	46,176,046	712,208	1,340,900	181,692	176,481	2,530	2,681	4.18	4.50	4.12	3.94
Atlanta.....	43,723,928	19,160,531	13,853,200	10,710,197	156,300	73,230	48,535	34,535	4.43	4.50	4.18	2.35
Chicago.....	181,001,802	86,242,423	29,092,360	65,667,019	640,273	329,611	100,274	210,388	4.21	4.50	4.13	3.80
St. Louis.....	62,327,066	22,835,305	11,197,440	28,294,261	226,019	87,275	38,480	100,264	4.17	4.50	4.06	3.77
Minneapolis.....	35,572,757	17,948,831	3,765,775	13,858,151	131,996	68,613	12,985	50,398	4.27	4.50	4.05	4.17
Kansas City.....	65,425,596	22,143,147	956,070	42,326,379	237,275	84,587	3,326	149,362	4.37	4.50	4.06	4.28
Dallas.....	51,892,271	18,753,367	20,875,549	12,263,355	183,119	71,704	71,862	39,553	4.27	4.50	4.10	4.15
San Francisco.....	116,671,435	48,990,056	33,650,705	34,030,674	412,605	173,276	119,077	120,252	4.15	4.50	4.05	3.90
Total: Mar., 1923.....	1,179,508,867	629,109,173	232,486,120	317,896,513	4,262,680	2,377,709	808,809	1,076,096	4.16	4.45	4.10	3.99
Feb., 1923.....	1,152,861,754	610,754,670	186,648,316	355,458,768	3,652,160	1,986,681	585,458	1,080,021	4.13	4.24	4.09	3.96
Mar., 1922.....	1,191,013,324	649,302,001	92,966,969	457,642,354	4,394,575	2,626,282	320,829	1,446,971	4.34	4.83	4.06	3.72
Feb., 1922.....	1,215,220,146	772,415,900	87,490,347	355,209,265	4,165,669	2,903,831	284,686	976,285	4.47	4.90	4.25	3.58

NOTE.—The figures in the first, fifth, and ninth columns include average daily holdings of municipal warrants, earnings, and annual rate of earnings thereon, as follows: Philadelphia, \$17,061, \$66, and 4.56 per cent.

HOLDINGS OF DISCOUNTED BILLS, BY CLASSES.

[End of March figures. In thousands of dollars.]

Federal reserve bank.	Total.	Cus- tomers' paper secured by Gov- ernment obligations.	Member banks' collateral notes.		Com- mer- cial paper. n. e. s.	Agricultural paper.	Live- stock paper.	Bankers' acceptances.			Trade acceptances.			
			Secured by Gov- ernment obligations.	Other- wise secured.				Foreign.		Domestic.	Dollar ex- change.	Foreign.		Domestic.
								Im- ports.	Ex- ports.			Im- ports.	Ex- ports.	
Boston.....	60,935	1,056	21,869	.....	37,065	700	75	.....	.....	.....	.....	170	
New York.....	205,321	.....	154,492	.....	49,927	392	.....	108	82	46	.....	53	221
Philadelphia.....	71,784	266	48,164	10	22,861	397	.....	.....	.....	.....	.....	.....	86
Cleveland.....	34,036	375	19,695	39	12,187	404	527	.....	.....	.....	.....	.....	809
Richmond.....	55,071	383	24,483	855	24,790	3,745	87	.....	.....	.....	.....	.....	728
Atlanta.....	20,554	87	2,448	251	11,962	5,276	424	.....	.....	.....	.....	.....	106
Chicago.....	101,521	315	49,688	129	36,818	14,229	.....	.....	.....	.....	.....	.....	342
St. Louis.....	26,006	38	11,808	.....	10,928	2,882	185	.....	25	.....	.....	.....	140
Minneapolis.....	20,329	.....	2,932	356	4,552	5,911	6,386	.....	.....	.....	.....	.....	192
Kansas City.....	24,639	112	8,168	47	5,396	3,849	7,057	.....	.....	.....	.....	.....	10
Dallas.....	19,961	5	981	444	5,470	5,898	7,143	.....	.....	.....	.....	.....	20
San Francisco.....	58,757	571	24,832	6,518	20,178	3,638	2,638	14	58	63	.....	.....	247
Total: Mar. 31, 1923.....	698,914	3,208	369,560	8,649	242,134	47,321	24,522	122	140	134	.....	53	3,071
Feb. 28, 1923.....	595,760	3,242	352,797	8,790	157,244	46,386	22,712	453	321	703	90	4	3,018	
Mar. 31, 1922.....	680,467	12,555	248,226	13,190	258,848	104,817	36,466	.....	.....	177	.....	.....	6,188
Feb. 28, 1922.....	712,577	18,459	266,155	14,074	256,335	111,822	39,147	.....	.....	234	.....	.....	6,351

HOLDINGS OF BANKERS' AND TRADE ACCEPTANCES PURCHASED OR DISCOUNTED, BY CLASSES OF ACCEPTANCES.

[End of March figures. In thousands of dollars.]

Federal reserve bank.	All classes.			Bankers' acceptances.				Trade acceptances.				
	Total.	Purchased in open market.	Discounted for member banks.	Total.	Foreign.		Domes- tic.	Dollar ex- change.	Total.	Foreign.		Domes- tic.
					Imports.	Exports.				Imports.	Exports.	
Boston.....	17,564	17,394	170	17,394	9,011	3,438	4,575	370	170			170
New York.....	29,309	28,799	510	27,075	13,342	6,044	6,213	1,476	2,234	1,934		300
Philadelphia.....	29,112	29,026	86	29,026	15,625	6,130	5,931	1,340	86			86
Cleveland.....	52,622	51,813	809	51,708	32,125	11,207	7,497	879	914			914
Richmond.....	1,704	976	728	976		128	848		728			728
Atlanta.....	25,630	25,524	106	25,524	12,080	8,289	4,617	538	106			106
Chicago.....	33,533	33,191	342	33,191	13,241	10,283	7,316	2,351	342			342
St. Louis.....	13,035	12,870	165	12,895	5,322	3,806	2,726	1,041	140			140
Minneapolis.....	2,775	2,583	192	2,583	1,297	580	696	10	192			192
Kansas City.....	605	595	10	595			595		10			10
Dallas.....	20,683	20,663	20	20,663	9,897	7,844	1,132	1,790	20			20
San Francisco.....	40,306	39,924	382	40,008	21,955	10,525	6,597	961	298	51		247
Total: Mar. 31, 1923.....	268,878			261,638	133,895	68,274	48,713	10,756	5,240	1,985		3,255
Feb. 28, 1923.....	212,267			207,873	97,866	60,175	42,825	7,007	4,394	1,376		3,018
Mar. 31, 1922.....	111,635			105,287	77,015		22,841	5,431	6,348	160		6,188
Feb. 28, 1922.....	100,043			93,590	67,136		22,612	3,842	6,453	99		6,354
Purchased in open market:												
Mar. 31, 1923.....		263,358		261,242	133,773	68,134	48,579	10,756	2,116	1,932		184
Feb. 28, 1923.....		207,678		206,306	97,413	58,834	42,122	6,917	1,372	1,372		
Mar. 31, 1922.....		105,270		105,110	77,015		22,664	5,431	160	160		
Feb. 28, 1922.....		93,458		93,356	67,136		22,378	3,842	102	99		3
Discounted for member banks:												
Mar. 31, 1923.....			3,520	396	122	140	134		3,124	53		3,071
Feb. 28, 1923.....			4,589	1,567	453	321	703	90	3,022	4		3,018
Mar. 31, 1922.....			6,365	177			177		6,188			6,188
Feb. 28, 1922.....			6,585	234			234		6,351			6,351

HOLDINGS OF BANKERS' ACCEPTANCES PURCHASED OR DISCOUNTED, BY CLASSES OF ACCEPTING INSTITUTIONS.

[End of March figures. In thousands of dollars.]

Federal reserve bank.	Total.	Member banks.		Nonmem- ber banks and bank- ing corpo- rations.	Private banks.	Branches and agencies of foreign banks.
		National.	Non- national.			
Boston.....	17,394	10,621	4,344	769	1,533	127
New York.....	27,075	9,525	8,420	4,470	3,089	1,571
Philadelphia.....	29,026	10,366	9,417	3,410	4,178	1,655
Cleveland.....	51,708	15,479	16,863	5,139	9,851	4,376
Richmond.....	976	20		325	631	
Atlanta.....	25,524	8,668	7,696	4,701	2,446	2,013
Chicago.....	33,191	15,500	15,130	2,329	177	55
St. Louis.....	12,895	5,270	4,840	1,959	239	587
Minneapolis.....	2,583	1,350	757	310	65	101
Kansas City.....	595	200	395			
Dallas.....	20,663	9,533	5,210	2,987	2,183	750
San Francisco.....	40,008	13,113	10,868	5,519	7,243	3,265
Total: Mar. 31, 1923.....	261,638	99,645	83,940	31,918	31,635	14,500
Feb. 28, 1923.....	207,873	83,357	64,616	25,493	23,408	10,999
Mar. 31, 1922.....	105,287	42,148	33,931	12,671	9,781	6,756
Feb. 28, 1922.....	93,590	41,932	28,217	8,470	7,371	7,600
Purchased in open market:						
Mar. 31, 1923.....	261,242	99,459	83,907	31,883	31,549	14,444
Feb. 28, 1923.....	206,306	82,586	64,107	25,438	23,307	10,868
Mar. 31, 1922.....	105,110	42,094	33,808	12,671	9,781	6,756
Feb. 28, 1922.....	93,356	41,826	28,089	8,470	7,371	7,600
Discounted for member banks:						
Mar. 31, 1923.....	396	186	33	35	86	56
Feb. 28, 1923.....	1,567	771	509	55	101	131
Mar. 31, 1922.....	177	54	123			
Feb. 28, 1922.....	234	106	128			

CONDITION OF FEDERAL RESERVE BANKS.

CASH RESERVES, TOTAL DEPOSITS, FEDERAL RESERVE NOTE CIRCULATION, AND RESERVE PERCENTAGES FOR APRIL AND MARCH, 1923.

[Daily averages. Amounts in thousands of dollars.]

Federal reserve bank.	Total cash reserves.		Total deposits.		Federal reserve notes in circulation.		Reserve percentages.	
	April.	March.	April.	March.	April.	March.	April.	March.
Boston.....	264,583	250,914	128,791	128,373	203,548	202,812	79.6	75.8
New York.....	1,083,524	1,078,621	718,011	723,709	568,780	572,488	84.2	83.2
Philadelphia.....	230,983	226,353	117,751	116,774	200,890	202,805	72.5	70.8
Cleveland.....	296,983	306,187	163,586	162,432	230,343	231,382	75.4	77.7
Richmond.....	91,139	107,058	62,473	65,742	82,598	85,761	62.8	70.7
Atlanta.....	137,361	142,876	59,814	60,745	128,053	124,283	73.1	77.2
Chicago.....	529,836	514,481	280,697	285,055	396,295	394,196	78.3	75.7
St. Louis.....	104,228	109,981	75,009	75,863	80,777	86,367	66.9	67.8
Minneapolis.....	78,918	79,886	51,888	52,210	56,376	56,220	72.9	73.7
Kansas City.....	92,295	94,985	86,330	88,063	62,085	64,206	62.2	62.4
Dallas.....	37,997	40,950	53,054	55,599	28,818	30,291	46.4	47.7
San Francisco.....	228,833	238,333	147,401	145,975	197,815	202,384	66.3	68.4
Total: 1923.....	3,176,630	3,190,625	1,944,805	1,960,540	2,236,378	2,253,195	76.0	75.7
1922.....	3,114,928	3,095,762	1,822,788	1,794,895	2,190,447	2,195,131	77.6	77.6
1921.....	2,485,079	2,403,470	1,749,568	1,808,529	2,870,645	2,979,486	53.8	50.2
1920.....	2,084,077	2,058,293	1,998,732	2,082,787	3,071,754	3,040,440	143.0	142.7
1919.....	2,224,948	2,202,368	1,878,879	1,951,752	2,547,535	2,503,350	152.0	151.6

¹ Circulated on basis of net deposits and Federal reserve notes in circulation.

RESOURCES AND LIABILITIES OF EACH FEDERAL RESERVE BANK ON WEDNESDAYS, MARCH 28 TO APRIL 18, 1923.

RESOURCES.

[In thousands of dollars.]

	Total.	Boston.	New York.	Phila- delphia	Cleve- land.	Rich- mond.	Atlanta	Chicago.	St. Louis.	Minne- apolis.	Kansas City.	Dallas	San Fran- cisco.
Gold and gold cer- tificates:													
Mar. 28.....	320,401	17,607	156,594	22,509	12,541	7,236	5,812	53,403	3,117	7,823	3,033	10,981	19,745
Apr. 4.....	325,484	17,645	160,860	22,941	12,983	7,389	5,856	53,070	3,124	7,847	3,028	10,760	19,981
Apr. 11.....	324,630	17,725	159,620	23,243	12,497	7,619	5,935	53,193	3,173	7,908	3,048	10,509	20,160
Apr. 18.....	326,375	17,574	160,499	23,477	12,944	7,673	5,960	53,189	3,197	7,921	3,065	10,562	20,314
Gold settlement fund—F. R. Board:													
Mar. 28.....	653,708	45,928	265,428	32,023	79,322	19,479	27,529	76,924	10,026	20,618	32,354	11,339	32,738
Apr. 4.....	677,216	57,099	282,895	40,076	72,289	16,570	24,855	83,792	19,496	22,241	32,350	9,749	35,867
Apr. 11.....	657,410	55,359	254,542	33,612	66,024	17,570	19,847	90,428	12,669	20,907	35,328	10,976	40,148
Apr. 18.....	659,887	56,090	276,571	34,006	57,079	19,093	20,219	89,942	9,679	21,242	31,573	9,341	35,052
Gold with F. R. agents:													
Mar. 28.....	2,034,099	173,441	639,067	152,344	206,271	57,148	101,942	356,012	64,767	46,629	52,919	12,284	171,275
Apr. 4.....	2,013,538	171,367	638,904	151,134	205,327	55,569	101,397	352,089	62,451	46,159	52,308	12,703	164,130
Apr. 11.....	2,041,509	168,841	638,718	158,220	205,787	54,034	100,873	371,512	68,970	48,576	51,509	13,048	161,421
Apr. 18.....	2,036,490	166,385	638,535	165,193	206,265	52,294	99,501	365,588	65,610	47,959	50,710	12,668	165,782
Gold redemption fund:													
Mar. 28.....	55,586	8,355	5,723	7,138	1,796	6,358	1,568	10,927	3,440	1,791	1,772	1,442	5,276
Apr. 4.....	53,257	9,760	9,285	8,101	1,156	6,791	1,460	3,768	2,715	1,891	1,867	1,269	5,194
Apr. 11.....	62,210	11,533	7,493	8,812	3,157	7,260	1,249	8,206	2,649	2,098	2,153	1,232	6,368
Apr. 18.....	59,870	13,280	5,836	9,683	1,091	2,938	1,958	13,090	2,448	2,378	2,378	1,019	3,770
Total gold reserves:													
Mar. 28.....	3,063,794	245,331	1,066,812	214,014	299,930	90,221	136,851	497,266	81,350	76,861	90,078	36,046	229,064
Apr. 4.....	3,069,495	255,871	1,071,944	222,252	291,755	86,256	133,568	492,719	87,786	78,138	89,553	34,481	225,172
Apr. 11.....	3,085,759	253,458	1,060,373	223,887	287,465	86,483	127,904	523,339	87,461	79,489	92,038	35,765	228,097
Apr. 18.....	3,082,622	253,329	1,081,441	232,359	277,379	81,999	127,638	521,809	80,934	79,500	87,726	33,590	224,918
Reserves other than gold:													
Mar. 28.....	112,494	10,281	14,748	6,014	7,256	11,364	8,768	18,149	21,467	986	4,066	4,610	4,785
Apr. 4.....	103,522	8,954	14,032	5,389	6,811	10,228	8,424	16,595	19,319	588	4,186	4,282	4,714
Apr. 11.....	98,680	7,856	14,022	4,263	5,972	9,820	8,317	15,249	19,165	923	4,165	4,451	4,477
Apr. 18.....	95,920	7,639	13,447	3,418	6,338	8,850	8,673	14,705	18,722	1,103	3,638	4,427	4,960
Total reserves:													
Mar. 28.....	3,176,288	255,612	1,081,560	220,028	307,186	101,585	145,619	515,415	102,817	77,847	94,144	40,656	233,819
Apr. 4.....	3,173,017	264,825	1,085,976	227,641	298,566	96,484	141,992	509,314	107,105	78,726	93,739	38,763	229,886
Apr. 11.....	3,184,459	261,314	1,074,395	228,150	293,437	96,303	136,221	538,588	106,626	80,412	96,203	40,216	232,574
Apr. 18.....	3,178,542	260,968	1,094,883	235,777	283,717	90,849	136,311	536,514	99,656	80,603	91,364	38,017	229,878
Nonreserve cash:													
Mar. 28.....	65,815	10,587	8,406	2,438	3,028	3,047	8,301	6,178	4,953	1,809	3,829	4,352	8,887
Apr. 4.....	66,663	12,163	9,388	3,285	4,209	2,858	6,843	5,891	5,319	1,833	3,329	3,794	7,751
Apr. 11.....	66,258	12,471	11,034	3,457	2,605	3,114	7,002	6,098	4,938	1,698	3,416	3,999	6,426
Apr. 18.....	67,225	11,029	10,306	3,380	5,336	2,715	7,359	6,910	4,986	1,498	3,285	3,988	6,433

RESOURCES AND LIABILITIES OF EACH FEDERAL RESERVE BANK ON WEDNESDAYS, MARCH 28 TO APRIL 18, 1923—Continued.

RESOURCES—Continued.

[In thousands of dollars.]

	Total.	Boston.	New York.	Phila- delphia.	Cleve- land.	Rich- mond.	Atlanta.	Chicago.	St. Louis.	Minne- apolis.	Kansas City.	Dallas	San Fran- cisco.
Bills discounted:													
Secured by U. S. Government obligations—													
Mar. 28.....	388,238	24,356	176,967	46,424	22,095	20,906	2,856	50,602	11,786	2,647	6,816	1,002	21,781
Apr. 4.....	380,785	19,670	165,668	41,828	24,613	21,053	2,665	57,884	10,676	3,572	12,514	741	22,901
Apr. 11.....	327,412	16,821	137,336	40,780	28,838	22,340	2,238	40,124	10,045	3,097	7,412	768	17,613
Apr. 18.....	334,611	15,825	131,015	35,432	22,733	24,020	4,012	43,128	14,550	4,633	11,193	2,650	25,420
Other bills discounted—													
Mar. 28.....	311,781	32,404	51,934	19,131	17,646	29,460	15,779	46,334	14,645	17,111	16,002	18,284	33,001
Apr. 4.....	314,445	27,684	44,935	18,682	17,118	31,010	18,000	54,318	17,352	16,894	15,643	18,792	34,017
Apr. 11.....	295,238	29,975	44,839	14,327	20,035	30,808	17,067	38,559	13,299	16,007	14,917	19,180	36,225
Apr. 18.....	308,851	34,505	38,561	14,515	24,907	32,907	19,840	40,583	15,294	15,982	17,840	20,588	33,329
Bills bought in open market:													
Mar. 28.....	254,251	17,482	34,309	28,946	46,597	956	21,199	31,112	12,448	2,797	1,077	20,507	36,821
Apr. 4.....	259,879	17,065	27,462	28,169	51,506	1,026	26,117	32,696	12,455	2,275	225	20,130	40,753
Apr. 11.....	274,389	17,428	46,840	26,269	51,549	1,716	27,678	33,452	12,057	1,997	75	17,338	37,990
Apr. 18.....	277,447	19,595	50,911	24,915	51,251	1,778	28,581	33,853	11,966	1,669	75	15,586	37,257
U. S. bonds and notes:													
Mar. 28.....	172,208	5,606	22,026	24,438	12,355	1,341	511	8,954	18,085	14,565	33,331	3,379	27,617
Apr. 4.....	164,586	5,374	17,446	24,438	12,355	1,341	541	7,717	16,432	14,615	33,331	3,379	27,617
Apr. 11.....	162,826	5,420	15,506	24,438	12,348	1,341	508	7,712	16,402	14,824	33,331	3,379	27,617
Apr. 18.....	158,910	5,393	13,431	24,438	12,348	1,341	524	6,806	15,238	15,064	33,331	3,379	27,617
U. S. certificates of indebtedness:													
Mar. 28.....	77,201	4,800	2,713	979	8,945	.....	2,001	36,100	8,942	510	4,086	8,125	.....
Apr. 4.....	74,563	4,763	1,380	979	8,991	.....	2,001	35,791	7,438	520	4,575	8,125	.....
Apr. 11.....	75,328	4,753	1,525	979	9,019	.....	2,001	35,908	7,437	511	4,575	8,625	.....
Apr. 18.....	79,097	4,989	5,610	979	9,018	.....	2,001	35,887	6,942	511	4,535	8,625	.....
Municipal warrants:													
Mar. 28.....	41	.....	.....	41	.....	.....	.....	.....	.....	.....	.....	.....	.....
Apr. 4.....	41	.....	.....	41	.....	.....	.....	.....	.....	.....	.....	.....	.....
Apr. 11.....	41	.....	.....	41	.....	.....	.....	.....	.....	.....	.....	.....	.....
Apr. 18.....	41	.....	.....	41	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total earning assets:													
Mar. 28.....	1,203,720	84,648	287,949	119,959	107,638	52,663	42,346	173,152	65,906	37,630	61,312	51,297	119,220
Apr. 4.....	1,194,299	74,556	256,891	114,137	111,583	54,430	49,324	188,406	64,353	37,876	66,288	51,167	125,288
Apr. 11.....	1,135,234	74,397	246,046	106,834	121,789	56,205	49,492	155,750	59,240	36,436	60,310	49,290	119,445
Apr. 18.....	1,158,957	80,307	239,528	100,320	120,257	60,046	54,958	160,257	63,990	37,859	66,974	50,828	123,633
Bank premises:													
Mar. 28.....	48,847	4,434	11,368	684	7,887	2,617	2,305	8,715	934	1,072	4,831	1,937	2,063
Apr. 4.....	48,938	4,434	11,370	684	7,900	2,617	2,330	8,715	940	1,072	4,831	1,937	2,108
Apr. 11.....	49,208	4,434	11,370	704	8,015	2,617	2,340	8,715	940	1,149	4,868	1,937	2,119
Apr. 18.....	49,692	4,434	11,690	712	8,027	2,617	2,421	8,715	940	1,152	4,867	1,937	2,180
5 per cent redemption fund against F. R. bank notes:													
Mar. 28.....	191	.....	.....	.....	.....	.....	.....	65	.....	.....	100	26	.....
Apr. 4.....	191	.....	.....	.....	.....	.....	.....	65	.....	.....	100	26	.....
Apr. 11.....	191	.....	.....	.....	.....	.....	.....	65	.....	.....	100	26	.....
Apr. 18.....	191	.....	.....	.....	.....	.....	.....	65	.....	.....	100	26	.....
Uncollected items:													
Mar. 28.....	559,481	49,670	119,886	49,387	56,610	54,231	21,272	72,705	33,288	13,290	35,088	19,204	34,850
Apr. 4.....	621,458	55,617	134,664	56,662	66,921	51,242	22,726	87,829	36,910	14,699	37,594	21,038	35,556
Apr. 11.....	638,391	55,397	137,300	53,684	68,188	53,561	25,868	80,396	41,700	14,765	39,727	24,601	43,204
Apr. 18.....	723,336	63,069	170,603	63,819	78,746	59,284	28,895	91,945	43,484	15,640	40,946	24,556	42,349
All other resources:													
Mar. 28.....	13,588	139	1,437	362	492	480	390	743	371	1,812	791	2,075	4,496
Apr. 4.....	13,434	129	1,342	384	465	558	412	758	309	1,798	730	2,056	4,493
Apr. 11.....	13,627	139	1,465	399	564	402	403	737	330	1,812	772	2,080	4,524
Apr. 18.....	13,871	155	1,296	419	530	402	376	773	323	1,771	1,188	2,073	4,565
Total resources:													
Mar. 28.....	5,067,930	405,090	1,510,606	392,858	482,841	214,623	220,233	776,973	208,269	133,460	200,095	119,547	403,335
Apr. 4.....	5,118,000	411,724	1,499,631	402,793	489,644	208,189	223,627	800,978	214,936	136,004	206,611	118,781	405,082
Apr. 11.....	5,087,348	408,152	1,481,610	393,228	494,598	212,202	221,326	790,349	213,774	136,272	205,396	122,149	408,292
Apr. 18.....	5,191,814	419,962	1,528,311	404,427	496,613	215,913	230,320	805,179	213,379	138,523	208,724	121,425	409,088

RESOURCES AND LIABILITIES OF EACH FEDERAL RESERVE BANK ON WEDNESDAYS, MARCH 28 TO APRIL 18, 1923—Continued.

LIABILITIES.

[In thousands of dollars.]

	Total.	Boston.	New York.	Phila- delphia.	Cleve- land.	Rich- mond.	Atlanta.	Chicago.	St. Louis.	Minne- apolis.	Kansas City.	Dallas	San Francisco.
Capital paid in:													
Mar. 28.....	108,623	8,046	28,901	9,481	11,974	5,682	4,429	15,032	4,915	3,583	4,637	4,182	7,761
Apr. 4.....	108,647	8,053	28,915	9,481	11,974	5,682	4,427	15,032	4,915	3,583	4,637	4,183	7,765
Apr. 11.....	108,683	8,053	28,940	9,482	11,993	5,682	4,427	15,007	4,925	3,585	4,638	4,183	7,768
Apr. 18.....	108,649	8,053	28,942	9,483	11,995	5,677	4,422	15,007	4,925	3,574	4,603	4,191	7,777
Surplus:													
Mar. 28.....	218,369	16,312	59,800	18,749	23,495	11,288	8,942	30,398	9,665	7,473	9,488	7,496	15,263
Apr. 4.....	218,369	16,312	59,800	18,749	23,495	11,288	8,942	30,398	9,665	7,473	9,488	7,496	15,263
Apr. 11.....	218,369	16,312	59,800	18,749	23,495	11,288	8,942	30,398	9,665	7,473	9,488	7,496	15,263
Apr. 18.....	218,369	16,312	59,800	18,749	23,495	11,288	8,942	30,398	9,665	7,473	9,488	7,496	15,263
Deposits:													
Government—													
Mar. 28.....	85,432	7,713	38,341	3,826	4,837	5,075	6,582	4,357	1,997	2,543	1,625	4,444	4,092
Apr. 4.....	74,423	6,678	33,686	3,607	5,708	1,112	5,162	5,448	3,275	2,013	2,205	2,634	2,895
Apr. 11.....	45,218	5,418	15,258	3,001	3,178	1,505	3,714	2,316	2,401	1,960	2,580	1,761	2,126
Apr. 18.....	44,936	2,625	11,277	1,288	2,473	352	5,620	3,771	2,805	3,715	2,593	2,346	6,071
Member bank— reserve ac- count—													
Mar. 28.....	1,871,373	120,433	707,865	110,475	156,767	59,088	54,896	269,434	72,450	49,252	80,295	51,192	139,226
Apr. 4.....	1,894,035	123,450	689,544	118,746	164,026	60,262	55,948	280,477	75,426	50,056	84,920	50,455	140,725
Apr. 11.....	1,876,414	122,921	691,416	113,066	161,594	61,328	54,508	277,572	71,539	50,390	79,744	52,162	140,174
Apr. 18.....	1,924,525	127,962	722,586	118,525	161,780	61,642	56,699	281,988	70,643	50,642	82,504	50,373	139,181
Other deposits—													
Mar. 28.....	19,465	503	9,966	693	1,082	142	130	993	745	580	755	249	3,627
Apr. 4.....	20,148	346	10,607	530	1,152	141	158	1,172	552	776	689	246	3,779
Apr. 11.....	20,499	433	11,034	428	1,193	179	259	1,203	565	709	543	242	3,706
Apr. 18.....	21,540	477	11,452	344	1,248	158	523	1,682	572	565	561	214	3,744
Total deposits:													
Mar. 28.....	1,976,270	128,649	756,172	114,994	162,686	64,305	61,608	274,784	75,192	52,375	82,675	55,885	146,945
Apr. 4.....	1,988,006	130,474	733,837	122,883	170,886	61,515	61,268	287,097	79,253	52,845	87,814	53,335	147,399
Apr. 11.....	1,942,131	128,772	717,708	116,495	165,965	63,012	58,481	281,091	74,505	53,059	82,872	54,165	146,006
Apr. 18.....	1,991,001	131,004	745,315	120,157	165,501	62,152	62,842	287,441	74,020	54,922	85,658	52,933	148,996
F. R. notes in actual circulation:													
Mar. 28.....	2,232,432	203,836	565,691	202,811	230,500	83,528	123,757	393,330	83,690	56,032	62,631	28,954	197,722
Apr. 4.....	2,240,951	204,967	574,400	199,270	225,773	83,662	126,657	395,330	82,465	57,069	62,719	29,449	199,170
Apr. 11.....	2,231,041	202,916	565,181	198,690	233,270	82,909	126,055	395,284	80,994	56,584	62,548	29,136	197,494
Apr. 18.....	2,220,251	203,780	561,366	197,788	228,359	82,195	126,951	395,506	80,512	56,396	61,889	28,723	196,796
F. R. bank notes in circulation—net li- ability:													
Mar. 28.....	2,435							490			1,488	457	
Apr. 4.....	2,488							555			1,507	446	
Apr. 11.....	2,472							552			1,484	436	
Apr. 18.....	2,443							554			1,458	431	
Deferred availability items:													
Mar. 28.....	515,298	47,637	96,818	45,908	52,953	49,255	20,754	61,306	33,905	13,099	38,612	20,791	34,260
Apr. 4.....	544,367	51,258	99,596	51,451	56,264	48,436	21,547	70,872	37,783	14,108	39,868	22,101	34,103
Apr. 11.....	569,272	51,430	106,257	48,797	58,555	48,704	22,627	66,467	42,784	14,640	43,780	24,938	40,298
Apr. 18.....	635,966	60,004	129,537	57,247	65,928	53,940	26,325	74,751	43,409	15,238	44,989	25,855	38,743
All other liabilities:													
Mar. 28.....	14,453	610	3,224	915	1,233	565	743	1,633	902	898	564	1,782	1,384
Apr. 4.....	14,572	640	3,083	959	1,252	606	788	1,714	875	926	573	1,771	1,382
Apr. 11.....	15,380	669	3,724	1,015	1,320	607	814	1,550	901	931	586	1,795	1,468
Apr. 18.....	15,135	749	3,351	1,003	1,335	661	838	1,522	848	930	639	1,796	1,468
Total liabilities:													
Mar. 28.....	5,067,930	405,090	1,510,606	392,858	482,841	214,623	220,233	776,973	208,269	133,460	200,095	119,547	403,335
Apr. 4.....	5,118,000	411,724	1,499,631	402,793	480,644	208,189	223,627	800,978	214,936	136,004	206,611	118,781	405,082
Apr. 11.....	5,087,348	408,152	1,481,610	393,228	494,598	212,202	221,326	790,349	213,774	136,272	205,396	122,149	408,292
Apr. 18.....	5,191,814	419,962	1,528,311	404,427	496,613	215,913	230,320	805,179	213,379	138,523	208,724	121,425	409,038
MEMORANDA.													
Ratio of total re- serves to deposit and F. R. note li- abilities com- bined—per cent:													
Mar. 28.....	75.5	76.9	81.8	69.2	78.1	68.7	78.6	77.1	64.7	71.8	64.8	47.9	67.8
Apr. 4.....	75.0	78.9	83.0	70.7	75.3	66.5	75.6	74.6	66.2	71.6	62.3	46.8	66.3
Apr. 11.....	76.3	78.8	83.7	72.4	73.5	66.0	73.8	79.6	68.6	73.3	66.2	48.3	67.7
Apr. 18.....	75.5	77.9	83.8	74.2	72.0	62.9	71.8	78.6	64.5	72.4	61.9	46.6	66.5
Contingent liability on bills purchased for foreign corre- spondents:													
Mar. 28.....	35,832	2,132	15,112	2,444	3,070	1,478	1,165	3,951	1,251	966	1,222	1,023	2,018
Apr. 4.....	36,427	2,514	10,270	3,109	3,904	1,580	1,482	5,025	1,591	1,229	1,555	1,301	2,567
Apr. 11.....	31,914	2,711	5,590	3,109	3,904	1,580	1,482	5,025	1,591	1,229	1,555	1,301	2,567
Apr. 18.....	32,634	2,394	9,367	2,745	3,447	1,660	1,309	4,436	1,404	1,085	1,372	1,149	2,266

MATURITY DISTRIBUTION OF BILLS, CERTIFICATES OF INDEBTEDNESS AND MUNICIPAL WARRANTS HELD BY THE 12 FEDERAL RESERVE BANKS COMBINED.

[In thousands of dollars.]

	Total.	Within 15 days.	16 to 30 days.	31 to 60 days.	61 to 90 days.	From 91 days to 6 months.	Over 6 months.
Bills discounted:							
Mar. 28.....	700,019	513,267	42,899	71,245	51,772	20,821	15
Apr. 4.....	695,230	493,438	47,394	78,906	55,447	20,004	41
Apr. 11.....	622,650	433,598	42,008	73,744	52,691	20,431	178
Apr. 18.....	643,462	447,929	41,850	81,027	50,435	21,790	431
Bills bought in open market:							
Mar. 28.....	254,251	68,201	50,121	57,897	63,829	14,203	.....
Apr. 4.....	259,879	60,462	53,095	61,977	70,003	14,342	.....
Apr. 11.....	274,389	80,670	45,052	67,678	68,045	12,944	.....
Apr. 18.....	277,447	73,519	44,299	79,702	68,510	11,417	.....
United States certificates of indebtedness:							
Mar. 28.....	77,201	2,819	.....	.....	.....	65,365	9,017
Apr. 4.....	74,563	1,449	.....	.....	582	53,861	18,671
Apr. 11.....	75,323	1,584	.....	.....	34	18,275	55,435
Apr. 18.....	79,097	5,905	.....	.....	267	36,061	36,864
Municipal warrants:							
Mar. 28.....	41	.....	.....	41	.....	.....	.....
Apr. 4.....	41	.....	41	.....	.....	.....	.....
Apr. 11.....	41	41	.....	.....	.....	.....	.....
Apr. 18.....	41	41	.....	.....	.....	.....	.....

FEDERAL RESERVE NOTES.

FEDERAL RESERVE AGENTS' ACCOUNTS ON WEDNESDAYS, MARCH 28 TO APRIL 18, 1923.

[In thousand of dollars.]

	Total.	Boston.	New York.	Phila- delphia.	Cleve- land.	Rich- mond.	Atlanta.	Chicago.	St. Louis.	Minne- apolis.	Kansas City.	Dallas.	San Fran- cisco.
Net amount of F. R. notes received from Comptroller of the Currency:													
Mar. 28.....	3,463,617	313,928	1,070,979	267,311	279,088	121,927	205,861	549,747	128,212	71,302	91,316	53,947	309,999
Apr. 4.....	3,447,496	311,854	1,062,717	271,101	276,545	120,748	208,316	545,824	127,396	70,830	90,705	53,366	308,094
Apr. 11.....	3,443,457	309,328	1,057,100	273,588	278,105	121,172	208,292	548,447	126,915	71,367	90,266	52,712	306,165
Apr. 18.....	3,427,962	306,872	1,045,243	277,560	280,982	119,433	207,920	544,523	125,554	72,110	89,467	52,332	305,966
F. R. notes on hand:													
Mar. 28.....	862,538	91,400	334,340	44,800	33,220	30,690	76,038	111,560	26,940	11,926	19,760	20,879	60,985
Apr. 4.....	828,797	86,400	318,340	44,800	32,020	27,990	77,458	102,460	27,240	10,805	19,760	20,539	60,985
Apr. 11.....	830,385	84,700	318,340	46,200	30,820	29,550	77,043	105,860	26,190	11,125	19,643	19,929	60,985
Apr. 18.....	832,530	86,000	318,340	46,000	34,320	29,270	75,688	104,060	26,190	12,205	19,643	19,829	60,985
F. R. notes outstanding:													
Mar. 28.....	2,601,079	222,528	736,639	222,511	245,868	91,237	129,823	438,187	101,272	59,376	71,556	33,068	249,014
Apr. 4.....	2,618,699	225,454	744,377	226,301	244,525	92,758	130,858	443,364	100,156	60,025	70,945	32,827	247,109
Apr. 11.....	2,613,072	224,628	738,760	227,388	247,285	91,622	131,249	442,587	100,725	60,242	70,623	32,783	245,180
Apr. 18.....	2,595,432	220,872	726,903	231,560	246,662	90,163	132,232	440,463	99,364	59,905	69,824	32,503	244,981
Collateral security for F. R. notes outstanding:													
Gold and gold certificates—													
Mar. 28.....	314,899	25,300	235,531	7,000	13,275	.....	2,400	.....	11,880	13,052	.....	6,461	.....
Apr. 4.....	314,899	25,300	235,531	7,000	13,275	.....	2,400	.....	11,880	13,052	.....	6,461	.....
Apr. 11.....	314,899	25,300	235,531	7,000	13,275	.....	2,400	.....	11,880	13,052	.....	6,461	.....
Apr. 18.....	314,899	25,300	235,531	7,000	13,275	.....	2,400	.....	11,880	13,052	.....	6,461	.....
Gold redemption fund—													
Mar. 28.....	129,141	20,141	32,536	15,455	12,996	3,353	4,042	16,368	3,887	1,577	3,559	1,823	13,404
Apr. 4.....	128,082	18,067	32,373	13,245	12,052	1,774	5,997	15,445	4,071	1,107	2,948	2,242	18,761
Apr. 11.....	130,285	15,541	32,187	16,351	12,512	3,239	4,973	16,868	3,590	1,524	4,149	2,587	16,784
Apr. 18.....	123,761	13,085	32,004	14,303	12,990	4,499	3,601	15,944	4,230	1,907	3,350	2,207	15,641
Gold fund—F. R. Board—													
Mar. 28.....	1,590,059	128,000	371,000	129,889	180,000	53,795	95,500	339,644	49,000	32,000	49,360	4,000	157,871
Apr. 4.....	1,570,557	128,000	371,000	130,889	180,000	53,795	93,000	336,644	46,500	32,000	49,360	4,000	145,369
Apr. 11.....	1,596,825	128,000	371,000	134,889	180,000	50,795	93,500	334,644	53,500	34,000	47,360	4,000	144,637
Apr. 18.....	1,597,830	128,000	371,000	143,890	180,000	47,795	93,500	349,644	49,500	33,000	47,360	4,000	150,141
Eligible paper—Amount required—													
Mar. 28.....	566,980	49,087	97,572	70,167	39,597	34,089	27,881	82,175	36,505	12,747	18,637	20,784	77,739
Apr. 4.....	605,161	54,087	105,473	75,167	39,198	37,189	29,461	91,275	37,705	13,866	18,637	20,124	82,979
Apr. 11.....	571,563	55,787	100,042	69,168	41,498	37,588	30,376	71,075	31,755	11,666	19,114	19,735	83,759
Apr. 18.....	558,942	54,487	88,368	66,367	40,397	37,869	32,731	74,875	33,754	11,946	19,114	19,835	79,199
Excess amount held—													
Mar. 28.....	340,180	25,155	137,647	13,498	40,899	15,600	11,944	45,923	2,374	9,337	5,253	18,906	13,644
Apr. 4.....	305,817	10,332	109,447	1,436	44,126	14,668	17,302	53,623	2,776	8,395	9,745	19,378	14,571
Apr. 11.....	290,239	8,437	108,456	3,882	55,765	14,863	16,551	41,037	3,563	8,921	3,284	17,533	7,947
Apr. 18.....	320,936	15,438	104,070	435	57,782	17,690	19,606	42,685	7,935	9,831	9,992	18,943	16,529

PRINCIPAL RESOURCES AND LIABILITIES OF REPORTING MEMBER BANKS IN LEADING CITIES ON WEDNESDAYS FROM MARCH 21 TO APRIL 11, 1923—Continued.

ALL REPORTING MEMBER BANKS IN EACH FEDERAL RESERVE DISTRICT—Continued.

[In thousands of dollars.]

Table with 13 columns: Total, Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas, San Francisco. Rows include Net demand deposits, Time deposits, Government deposits, Bills payable and rediscount with F. R. banks, Secured by U. S. Government obligations, and All other categories.

REPORTING MEMBER BANKS IN FEDERAL RESERVE BANK CITIES.

Detailed table showing reporting member banks in Federal Reserve Bank Cities. Columns include the bank name and reporting dates (Mar. 21, Mar. 28, Apr. 4, Apr. 11). Rows include Number of reporting banks, Loans and discounts (gross and secured), U. S. pre-war bonds, U. S. Liberty bonds, U. S. Treasury bonds, and U. S. Victory notes and Treasury notes.

PRINCIPAL RESOURCES AND LIABILITIES OF REPORTING MEMBER BANKS IN LEADING CITIES ON WEDNESDAYS FROM MARCH 21 TO APRIL 11, 1923—Continued.

REPORTING MEMBER BANKS IN FEDERAL RESERVE BANK CITIES—Continued.

[In thousands of dollars.]

	Total.	Boston.	New York.	Philadelphia.	Cleveland.	Richmond.	Atlanta.	Chicago.	St. Louis.	Minneapolis.	Kansas City.	Dallas.	San Francisco.
U. S. certificates of indebtedness:													
Mar. 21	113,876	3,683	65,234	9,004	2,250	1,449	2,061	12,869	6,353	2,459	464	4,618	3,432
Mar. 28	113,558	2,731	70,236	8,087	2,286	1,434	2,058	11,616	4,663	2,451	453	4,405	3,138
Apr. 4	114,158	2,773	72,263	7,055	2,285	1,338	2,057	11,283	4,558	2,420	409	4,976	2,741
Apr. 11	100,483	2,311	61,499	6,634	2,403	1,135	2,057	10,261	4,325	2,418	432	4,275	2,733
Other bonds, stocks, and securities:													
Mar. 21	1,163,854	80,689	518,022	147,711	66,888	5,245	3,580	188,343	57,452	13,695	11,037	2,093	69,599
Mar. 28	1,167,651	78,826	518,171	146,862	67,676	5,173	3,590	191,798	58,840	13,512	10,951	2,209	70,043
Apr. 4	1,162,376	79,938	518,942	144,831	67,935	5,108	3,540	188,714	55,935	13,452	11,320	2,306	70,355
Apr. 11	1,164,772	81,513	520,808	144,692	67,230	5,040	3,502	190,866	54,764	13,594	11,132	2,094	69,537
Total loans and discounts and investments:													
Mar. 21	10,466,570	798,205	5,261,815	805,211	568,318	103,331	79,988	1,453,940	400,152	156,520	186,313	94,422	558,355
Mar. 28	10,479,840	800,355	5,255,560	809,369	571,142	101,791	83,562	1,461,951	398,153	157,578	184,104	94,295	561,980
Apr. 4	10,551,179	801,560	5,325,740	810,864	571,587	101,931	79,277	1,465,127	393,020	158,468	184,956	94,508	564,141
Apr. 11	10,469,131	796,524	5,252,948	820,013	570,560	102,538	79,257	1,453,401	389,949	158,542	184,631	93,177	567,591
Reserve balance with F. R. banks:													
Mar. 21	985,416	64,604	569,621	64,997	33,670	6,172	5,602	141,094	27,032	14,845	16,206	7,751	33,822
Mar. 28	993,782	65,041	589,476	62,871	33,947	4,987	5,275	136,051	28,312	11,234	15,954	6,956	33,678
Apr. 4	995,889	66,951	571,197	67,588	35,455	5,793	4,733	145,211	28,434	12,565	17,299	7,114	33,549
Apr. 11	986,968	64,468	578,292	63,016	34,543	4,063	5,879	141,793	27,966	12,783	16,429	6,661	31,075
Cash in vault:													
Mar. 21	141,082	8,011	66,236	12,967	8,079	803	1,930	28,257	3,531	1,865	2,125	1,356	5,922
Mar. 28	145,663	8,118	68,195	14,146	8,150	810	1,723	29,369	3,550	1,883	2,332	1,268	6,119
Apr. 4	145,688	7,780	69,204	13,252	8,519	841	1,765	29,405	3,557	1,903	2,185	1,317	5,960
Apr. 11	148,673	8,153	69,704	12,868	8,277	2,718	2,017	28,871	3,746	1,992	2,586	1,373	6,368
Net demand deposits:													
Mar. 21	7,585,931	605,022	4,236,604	602,843	233,839	53,808	45,899	1,001,167	245,334	97,368	159,102	65,098	239,847
Mar. 28	7,523,552	601,647	4,185,561	602,004	235,530	53,895	45,626	995,110	242,232	98,593	160,836	63,462	239,056
Apr. 4	7,632,259	615,875	4,257,805	614,007	243,888	53,462	45,087	998,211	239,253	100,903	160,491	64,663	238,664
Apr. 11	7,642,444	619,023	4,230,112	623,995	242,479	53,952	46,822	1,009,822	244,329	101,465	163,015	65,858	241,772
Time deposits:													
Mar. 21	1,941,130	103,751	624,563	68,875	317,954	25,428	21,899	375,157	103,269	38,218	12,555	13,851	235,610
Mar. 28	1,961,267	103,601	626,165	71,008	320,205	25,469	21,964	376,425	103,225	38,491	12,573	13,889	248,252
Apr. 4	1,968,889	105,056	633,379	69,770	318,559	25,462	22,290	376,407	103,413	38,427	12,566	13,796	248,438
Apr. 11	1,957,245	105,029	627,070	69,660	315,679	25,641	22,378	372,366	103,333	39,089	13,007	13,705	250,288
Government deposits:													
Mar. 21	238,696	14,272	140,867	25,403	2,542	1,068	2,991	15,650	8,607	3,874	105	9,376	13,941
Mar. 28	243,077	14,272	140,867	25,403	2,742	1,068	3,191	15,713	8,607	3,874	4,025	9,376	13,939
Apr. 4	243,060	14,272	140,867	25,403	2,745	1,068	3,171	15,713	8,607	3,874	4,025	9,376	13,939
Apr. 11	242,886	14,272	140,867	25,403	2,742	1,088	3,171	15,663	8,607	3,734	4,025	9,375	13,939
Bills payable and rediscounts with F. R. banks:													
Secured by U. S. Government obligations—													
Mar. 21	177,738	8,026	92,115	20,295	715	5,495	-----	26,744	1,606	1,365	5,052	-----	16,325
Mar. 28	211,235	8,236	130,211	22,237	475	3,718	-----	24,359	3,806	3,665	2,091	-----	15,737
Apr. 4	204,787	5,267	124,092	18,798	715	3,924	-----	25,245	2,356	3,665	6,042	-----	17,983
Apr. 11	170,424	2,867	99,546	18,686	1,085	4,612	-----	17,150	1,932	1,615	2,480	-----	20,451
All other—													
Mar. 21	108,796	20,579	17,689	14,718	9,956	5,630	738	12,166	8,041	2,418	1,478	864	14,519
Mar. 28	132,795	26,140	35,341	15,522	6,008	4,935	808	16,597	7,219	2,482	915	479	16,349
Apr. 4	126,722	21,100	27,100	15,009	5,437	5,702	898	22,623	7,706	2,632	666	855	16,994
Apr. 11	102,501	22,543	27,367	10,877	7,334	5,833	973	9,213	3,010	2,069	390	626	11,766
MEMORANDA.													
Bank deposits:													
Due to banks—													
Mar. 21	1,974,156	106,602	945,023	157,365	41,304	31,157	16,799	338,284	82,209	48,644	102,246	23,296	81,227
Mar. 28	1,948,786	103,632	929,839	153,231	41,283	29,087	15,965	342,962	79,045	47,585	103,869	21,630	80,658
Apr. 4	2,067,516	114,572	979,613	166,634	46,596	30,021	15,561	369,419	81,484	51,960	105,864	22,392	83,350
Apr. 11	2,006,977	110,971	944,022	161,173	44,731	28,504	16,133	358,585	81,256	49,609	105,791	21,936	84,266
Due from banks—													
Mar. 21	493,714	36,125	74,262	55,925	17,657	13,618	9,197	139,895	21,135	16,176	41,057	19,640	49,027
Mar. 28	480,842	33,253	79,257	51,320	16,321	11,540	8,925	142,120	19,983	13,130	41,250	19,303	44,440
Apr. 4	518,568	34,508	77,707	61,446	18,412	12,533	10,122	154,630	24,070	18,022	43,710	19,616	43,742
Apr. 11	515,472	35,994	75,781	55,995	17,298	12,575	10,129	152,655	25,184	17,196	42,869	21,463	48,333

DEBITS TO INDIVIDUAL ACCOUNTS BY BANKS IN SELECTED CITIES.

MONTHLY SUMMARY FOR BANKS IN 141 SELECTED CITIES.

[In thousands of dollars.]

Federal reserve district.	Number of cities.	February, 1923.	March, 1923.	April, 1923.	February, 1922.	March, 1922.	April, 1922.
No. 1—Boston.....	11	1,889,899	2,222,086	2,119,787	1,611,605	1,857,809	1,760,157
No. 2—New York.....	7	19,595,761	23,231,535	21,180,741	17,029,426	20,977,917	21,326,277
No. 3—Philadelphia.....	10	1,648,925	1,926,493	1,863,477	1,431,593	1,628,117	1,569,312
No. 4—Cleveland.....	13	1,949,930	2,206,665	2,227,570	1,538,886	1,665,926	1,744,376
No. 5—Richmond.....	7	631,628	737,293	676,260	535,864	618,568	614,409
No. 6—Atlanta.....	15	827,440	991,806	886,328	676,960	781,076	710,303
No. 7—Chicago.....	21	4,333,007	4,828,041	4,737,859	3,523,914	4,339,187	3,945,171
No. 8—St. Louis.....	5	952,802	1,112,395	1,039,549	739,485	859,417	826,599
No. 9—Minneapolis.....	9	510,811	600,805	596,914	455,305	556,282	512,419
No. 10—Kansas City.....	14	996,426	1,199,481	1,130,015	872,689	1,012,278	956,757
No. 11—Dallas.....	11	494,600	547,188	488,255	460,149	524,469	470,827
No. 12—San Francisco.....	18	2,043,173	2,581,355	2,347,653	1,709,434	2,061,228	1,951,433
Total.....	141	35,924,402	42,185,143	39,294,408	30,585,310	36,932,274	36,388,400
New York City.....	1	19,019,491	22,541,298	20,478,562	16,543,428	20,397,109	20,716,594
Other cities.....	140	16,904,911	19,643,845	18,815,846	14,041,882	16,535,165	15,671,446

WEEKLY SUMMARY FOR BANKS IN 243 CITIES.

[In thousands of dollars.]

Federal reserve district.	Number of centers included.	1923 Week ending—				1922 Week ending—			
		Mar. 28.	Apr. 4.	Apr. 11.	Apr. 18.	Mar. 29.	Apr. 5.	Apr. 12.	Apr. 19.
No. 1—Boston.....	16	472,192	593,896	504,762	630,567	394,863	495,219	431,289	435,753
No. 2—New York.....	13	4,815,390	5,206,836	4,895,346	5,326,208	4,584,156	5,269,601	4,843,587	5,138,450
No. 3—Philadelphia.....	18	462,706	507,345	462,613	517,404	378,241	446,294	404,980	408,154
No. 4—Cleveland.....	23	580,666	654,208	639,887	651,829	421,390	508,931	545,044	488,238
No. 5—Richmond.....	22	250,377	283,637	265,332	281,282	204,610	259,724	232,179	238,472
No. 6—Atlanta.....	25	214,690	233,237	216,076	232,476	163,761	198,547	178,176	188,591
No. 7—Chicago.....	31	1,050,057	1,195,769	1,053,875	1,176,092	956,035	1,090,114	872,440	963,386
No. 8—St. Louis.....	11	252,051	276,561	264,730	287,767	186,814	219,095	218,911	220,251
No. 9—Minneapolis.....	16	127,331	143,224	148,837	161,247	111,641	125,267	122,392	131,676
No. 10—Kansas City.....	27	275,981	294,462	292,039	311,442	232,395	247,268	245,886	248,286
No. 11—Dallas.....	15	134,164	142,310	145,714	161,412	128,140	144,009	133,511	138,889
No. 12—San Francisco.....	26	530,139	562,855	572,871	598,298	407,516	485,601	486,619	493,400
Total.....	243	9,165,744	10,094,400	9,512,082	10,336,024	8,169,562	9,489,670	8,715,014	9,093,546

DATA FOR EACH CITY.

[In thousands of dollars.]

District No. 1—Boston:	1923 Week ending—				1922 Week ending—			
	Mar. 28.	Apr. 4.	Apr. 11.	Apr. 18.	Mar. 29.	Apr. 5.	Apr. 12.	Apr. 19.
Bangor, Me.....	2,831	3,713	3,138	3,163	3,121	3,170	3,289	2,833
Boston, Mass.....	319,047	407,492	331,951	434,090	269,035	330,667	284,548	286,497
Brockton, Mass.....	4,425	5,020	5,077	6,886	4,255	4,508	4,799	4,535
Fall River, Mass.....	6,752	8,200	8,300	8,397	5,399	6,234	6,053	6,225
Hartford, Conn.....	20,626	26,275	23,071	29,900	17,646	24,006	21,792	24,679
Holyoke, Mass.....	3,838	4,909	4,005	4,759	2,919	3,308	2,965	2,750
Lowell, Mass.....	4,975	5,514	5,413	6,098	4,077	4,904	4,630	4,104
Lynn, Mass.....	6,470	7,018	7,243	6,180	4,787	5,948	6,017	5,356
Manchester, N. H.....	4,362	5,810	4,709	5,488	3,986	4,951	4,275	4,053
New Bedford, Mass.....	6,707	6,805	8,014	9,066	5,244	6,161	6,028	5,226
New Haven, Conn.....	16,436	18,853	19,263	20,466	13,692	18,910	15,915	17,077
Portland, Me.....	6,997	9,051	8,760	8,997	6,585	7,857	7,606	6,936
Providence, R. I.....	30,589	40,417	36,004	39,354	25,468	34,067	29,977	33,064
Springfield, Mass.....	16,369	18,162	16,102	18,711	12,251	14,380	14,151	12,412
Waterbury, Conn.....	6,665	8,719	8,186	10,249	4,059	9,890	5,640	6,269
Worcester, Mass.....	15,103	17,938	15,526	18,763	12,339	16,258	13,604	13,737

DEBITS TO INDIVIDUAL ACCOUNTS BY BANKS IN SELECTED CITIES—Continued.

DATA FOR EACH CITY—Continued.

[In thousands of dollars.]

	1922 Week ending—				1922 Week ending—			
	Mar. 28.	Apr. 4.	Apr. 11.	Apr. 18.	Mar. 29.	Apr. 5.	Apr. 12.	Apr. 19.
District No. 2—New York:								
Albany, N. Y.	25,021	46,456	20,455	28,938	24,259	43,136	25,802	23,137
Binghamton, N. Y.	3,987	4,952	5,049	5,525	3,504	4,419	4,149	4,338
Buffalo, N. Y.	60,305	75,466	68,949	78,633	49,517	64,950	58,618	59,919
Elmira, N. Y.	3,634	3,951	3,861	4,533	2,857	3,077	2,890	3,086
Jamestown, N. Y.	3,652	4,320	4,227	4,734	2,814	4,035	3,725	3,778
Montclair, N. J.	2,520	2,661	2,747	3,483	2,207	2,689	2,336	2,560
Newark, N. J.	56,552	65,965	59,321	65,996	45,600	58,676	48,532	52,370
New York, N. Y.	4,572,565	4,892,196	4,634,721	5,029,019	4,379,457	4,990,529	4,614,420	4,903,158
Northern New Jersey Clearing House Association								
Passaic, N. J.	34,492	39,071	36,973	40,309	30,053	37,701	31,395	31,220
Rochester, N. Y.	6,582	6,297	7,582	8,573	4,785	5,548	5,974	5,384
Stamford, Conn.	29,768	44,580	33,944	36,439	26,402	35,915	28,582	31,840
Syracuse, N. Y.	2,265	3,085	3,053	3,210	1,987	2,523	2,402	2,299
Syracuse, N. Y.	14,047	17,836	14,484	16,796	10,714	16,403	14,762	15,361
District No. 3—Philadelphia:								
Allentown, Pa.	6,585	8,769	7,134	7,850	5,452	7,633	5,918	6,295
Altoona, Pa.	4,239	3,715	4,446	4,370	3,038	2,478	3,457	3,143
Camden, N. J.	10,069	11,581	9,890	11,754	8,402	9,762	9,712	10,624
Chester, Pa.	4,426	4,939	5,111	5,798	3,766	4,431	3,950	4,265
Harrisburg, Pa.	7,666	8,881	9,028	9,168	6,209	7,224	8,192	7,231
Hazleton, Pa.	2,552	3,108	2,843	3,022	2,183	2,506	2,223	2,249
Johnstown, Pa.	5,309	5,612	6,026	5,725	4,376	4,652	4,501	4,424
Lancaster, Pa.	6,331	13,537	8,099	6,807	5,096	11,536	6,278	5,531
Lebanon, Pa.	1,481	2,188	1,872	1,723	1,109	2,194	1,443	1,321
Norristown, Pa.	894	898	934	903	698	741	739	789
Philadelphia, Pa.	348,507	373,785	341,301	386,530	283,444	329,196	297,291	307,077
Reading, Pa.	8,724	10,489	10,130	11,588	6,822	8,942	7,743	7,928
Scranton, Pa.	19,530	17,526	17,900	16,562	14,888	14,482	16,952	12,648
Trenton, N. J.	11,296	11,930	12,864	17,012	9,335	10,888	12,656	10,846
Wilkes-Barre, Pa.	9,451	10,106	8,567	10,975	3,592	9,118	8,827	8,010
Williamsport, Pa.	3,762	4,528	4,217	4,568	3,758	5,233	4,111	4,150
Wilmington, Del.	7,967	9,603	7,937	8,258	6,959	7,888	6,337	6,933
York, Pa.	3,917	6,130	4,314	4,791	4,114	7,390	4,650	4,683
District No. 4—Cleveland:								
Akron, Ohio	20,084	17,432	20,579	17,970	11,319	14,695	14,128	12,367
Butler, Pa.	2,454	3,003	2,780	2,682	1,553	2,588	2,344	2,158
Canton, Ohio	10,041	10,984	12,098	11,034	6,161	9,682	9,102	7,550
Cincinnati, Ohio	76,971	84,891	91,520	90,154	64,428	68,358	79,892	67,296
Cleveland, Ohio	125,191	172,847	192,674	151,873	92,507	133,569	146,025	117,522
Columbus, Ohio	29,493	41,972	43,575	39,605	23,297	28,078	33,190	30,206
Cornellsville, Pa.	1,397	1,289	1,441	1,409	976	974	1,032	1,024
Dayton, Ohio	14,727	17,550	17,218	17,342	10,279	13,909	12,217	12,683
Erie, Pa.	6,696	7,019	7,264	7,632	4,761	5,628	5,969	5,565
Greensburg, Pa.	5,335	4,608	4,330	5,145	3,529	3,492	3,785	5,133
Homestead, Pa.	593	798	114	808	462	628	636	629
Lexington, Ky.	6,693	6,057	5,776	6,648	5,716	4,879	4,559	4,378
Lima, Ohio	4,232	4,772	4,353	4,021	2,540	3,135	3,614	2,878
Lorain, Ohio	1,056	1,291	1,708	1,405	808	1,252	1,302	1,217
New Brighton, Pa.	2,348	2,570	2,664	2,920	1,756	1,905	1,973	1,597
Oil City, Pa.	2,828	2,838	3,099	3,332	2,114	2,531	2,450	2,525
Pittsburgh, Pa.	199,451	188,680	185,614	198,645	136,380	152,292	155,284	152,467
Springfield, Ohio	4,283	4,511	5,381	5,545	3,402	3,790	4,738	4,194
Toledo, Ohio	38,850	43,352	45,422	49,382	28,858	31,867	37,119	34,591
Warren, Ohio	2,791	3,321	3,212	3,924	1,977	2,715	1,954	2,595
Wheeling, W. Va.	9,694	11,130	12,915	12,255	7,526	8,575	7,901	8,127
Youngstown, Ohio	12,785	20,113	19,097	14,556	8,910	11,959	12,845	9,093
Zanesville, Ohio	2,673	3,180	3,353	3,342	2,131	2,430	2,979	2,443
District No. 5—Richmond:								
Asheville, N. C.	4,271	4,606	5,029	4,557	3,200	4,058	4,335	4,070
Baltimore, Md.	80,400	93,700	85,021	91,335	70,050	92,773	80,736	81,193
Charleston, S. C.	6,150	6,730	7,081	7,001	4,564	6,480	6,100	6,800
Charleston, W. Va.	8,077	8,630	8,722	11,405	5,803	6,581	6,325	6,796
Charlotte, N. C.	8,970	10,109	9,062	9,574	5,605	6,095	5,332	8,244
Columbia, S. C.	6,000	6,057	5,412	5,300	4,771	7,368	4,521	4,400
Cumberland, Md.	2,393	2,462	2,204	2,667	1,601	1,907	1,878	1,967
Danville, Va.	1,745	2,451	2,196	1,980	1,634	2,230	2,021	1,474
Durham, N. C.	3,803	3,470	4,551	4,798				
Greensboro, N. C.	4,451	4,761	5,089	4,912	2,633	4,088	3,599	3,462
Greenville, S. C.	5,256	5,017	4,913	4,458	3,016	3,279	3,499	3,454
Hagerstown, Md.	2,178	3,478	2,685	2,871	1,775	2,672	2,079	1,848
Huntington, W. Va.	5,517	6,189	6,015	6,824	3,773	4,523	4,238	4,368
Lynchburg, Va.	4,556	4,659	4,722	4,857	2,872	4,526	4,544	3,978
Newport News, Va.	2,178	1,937	1,922	2,022	1,486	1,712	1,492	1,610
Norfolk, Va.	15,730	20,473	14,987	16,866	13,824	16,688	15,596	14,539
Raleigh, N. C.	5,700	6,400	6,350	7,000	3,900	3,600	4,200	4,100
Richmond, Va.	27,381	28,363	25,321	30,119	21,166	27,898	22,706	26,682
Roanoke, Va.	4,759	5,873	5,523	5,810	3,765	5,272	3,866	5,164
Spartanburg, S. C.	2,784	2,658	3,081	2,413	2,333	1,975	1,975	1,787
Washington, D. C.	40,904	47,256	46,356	47,328	38,511	44,219	43,148	42,039
Wilmington, N. C.	4,501	5,581	5,367	3,877	3,869	6,044	4,888	4,731
Winston-Salem, N. C.	6,476	6,247	8,264	8,103	4,459	5,736	5,101	5,766

DEBITS TO INDIVIDUAL ACCOUNTS BY BANKS IN SELECTED CITIES—Continued.

DATA FOR EACH CITY—Continued.

[In thousands of dollars.]

	1923 Week ending—				1923 Week ending—			
	Mar. 28.	Apr. 4.	Apr. 11.	Apr. 18.	Mar. 29.	Apr. 5.	Apr. 12.	Apr. 19.
District No. 6—Atlanta:								
Albany, Ga.	960	1,190	1,044	960	833	922	823	986
Atlanta, Ga.	28,236	33,560	29,030	32,395	22,686	26,027	23,320	25,305
Augusta, Ga.	7,827	7,990	6,846	6,453	4,425	6,772	4,966	5,053
Birmingham, Ala.	22,399	25,557	23,445	24,703	14,637	17,733	14,456	17,034
Brunswick, Ga.	580	675	657	625	469	588	588	530
Chattanooga, Tenn.	7,529	9,152	8,472	9,423	5,602	7,944	6,252	7,324
Columbus, Ga.	2,561	2,852	2,557	2,926	1,911	2,505	2,524	2,487
Cordele, Ga.	243	278	264	259	197	256	236	216
Dothan, Ala.	553	650	633	645	557	553	500	439
Elberton, Ga.	192	231	222	201	172	361	229	214
Jackson, Miss.	2,843	3,254	3,345	2,997	2,134	3,006	3,067	2,344
Jacksonville, Fla.	11,862	13,785	14,132	14,689	12,298	12,149	11,131	11,598
Knoxville, Tenn.	6,352	7,042	6,198	7,782	5,625	5,937	6,399	7,086
Macon, Ga.	4,182	5,053	4,606	4,938	2,793	3,923	4,204	4,193
Meridian, Miss.	2,744	2,184	2,372	2,381	1,467	1,991	1,836	1,976
Mobile, Ala.	6,591	6,946	7,025	5,607	5,607	6,199	4,387	6,414
Montgomery, Ala.	4,845	4,794	5,025	5,634	3,185	3,957	3,589	3,521
Nashville, Tenn.	15,706	17,462	17,368	17,647	13,188	15,503	15,938	16,372
Newnan, Ga.	381	430	525	401	337	319	275	287
New Orleans, La.	69,099	68,103	61,208	68,687	49,109	60,651	54,317	55,367
Pensacola, Fla.	1,286	1,613	1,590	1,723	1,083	1,623	1,790	2,551
Savannah, Ga.	8,111	9,716	8,811	9,179	8,742	10,997	9,200	9,291
Tampa, Fla.	7,111	8,465	7,986	8,180	4,842	6,448	5,863	5,841
Taladosta, Ga.	1,049	940	1,095	1,146	764	855	937	912
Vicksburg, Miss.	1,443	1,375	1,560	1,486	1,098	1,298	1,409	1,241
District No. 7—Chicago:								
Adrian, Mich.	688	763	895	960	565	752	727	782
Aurora, Ill.	3,130	3,915	3,413	3,569	2,396	2,555	3,264	2,839
Bay City, Mich.	2,449	2,221	2,187	2,163	2,198	2,301	2,501	2,191
Bloomington, Ill.	2,616	3,436	2,910	3,066	2,219	3,192	2,257	2,485
Cedar Rapids, Iowa	5,888	9,118	6,524	6,347	4,614	7,532	5,313	4,969
Chicago, Ill.	648,516	792,087	637,205	715,947	614,962	738,352	550,088	611,174
Danville, Ill.	4,100	4,700	4,100	3,700	2,900	4,400	2,500	2,900
Davenport, Iowa	6,806	9,168	7,458	8,290	6,410	10,375	7,173	7,135
Decatur, Ill.	3,503	3,959	3,314	3,557	2,946	3,437	3,041	2,759
Des Moines, Iowa	17,341	19,367	20,979	22,009	13,821	17,232	16,079	15,231
Detroit, Mich.	150,193	133,876	140,820	173,762	110,540	114,673	99,334	124,731
Dubuque, Iowa	2,888	3,237	3,533	3,483	2,806	2,950	2,994	2,771
Flint, Mich.	7,010	7,070	8,718	8,284	4,990	8,010	7,884	10,199
Fort Wayne, Ind.	7,867	9,187	8,265	8,800	5,974	6,821	6,708	7,130
Gary, Ind.	4,190	3,232	4,249	3,477	2,760	1,910	2,835	2,515
Grand Rapids, Mich.	14,972	15,420	15,115	16,281	13,344	13,452	13,219	13,837
Green Bay, Wis.	2,732	2,812	2,815	2,561				
Hammond, Ind.	4,190	3,280	3,600	4,220				
Indianapolis, Ind.	32,042	34,424	33,966	40,067	46,226	30,380	30,599	30,153
Jackson, Mich.	5,863	4,890	4,935	4,936	3,466	3,098	3,240	3,376
Kalamazoo, Mich.	4,782	5,327	4,969	4,792	3,585	4,229	4,089	3,864
Lansing, Mich.	8,900	8,500	9,200	9,000	4,264	6,592	4,831	5,224
Mason City, Iowa	2,201	2,600	2,546	2,302	1,852	2,609	1,972	2,533
Milwaukee, Wis.	59,984	56,702	67,057	70,357	59,929	49,568	52,493	55,905
Moline, Ill.	1,304	2,991	2,084	2,184	1,548	2,496	1,979	2,684
Muscatine, Iowa	1,519	1,459	1,914	1,390	1,182	1,309	1,512	1,079
Oshkosh, Wis.	2,600	2,700	2,800	2,700	1,800	2,100	2,300	2,000
Peoria, Ill.	7,978	10,309	8,640	9,981	5,585	9,251	7,189	7,559
Rockford, Ill.	5,164	6,887	5,726	6,230	4,078	5,907	4,806	4,790
Saginaw, Mich.	5,425	4,156	5,749	6,573				
Sioux City, Iowa	16,625	19,210	19,717	18,548	15,580	17,168	15,774	14,078
South Bend, Ind.	8,637	7,870	10,303	8,511	5,873	6,665	6,415	6,462
Springfield, Ill.	6,068	6,620	6,266	7,054	4,645	7,001	5,753	6,256
Terre Haute, Ind.	6,031	5,217	6,181	5,396				
Waterloo, Iowa	4,233	4,524	4,067	4,345	2,977	3,797	3,571	3,775
District No. 8—St. Louis:								
East St. Louis and National Stock Yards, Ill.	8,615	9,330	10,301	10,048	7,665	8,757	9,284	8,009
Eldorado, Ark.	3,472	3,564	3,596	3,744				
Evansville, Ind.	6,506	6,145	7,041	8,331	5,760	5,189	5,359	6,512
Fort Smith, Ark.	2,379	3,302	3,060	2,826				
Greenville, Miss.	889	884	923	933	751	947	1,086	748
Helena, Ark.	1,047	1,087	1,199	1,058	751	833	950	826
Little Rock, Ark.	12,967	13,568	16,603	14,136	7,731	8,287	10,058	9,023
Louisville, Ky.	33,259	35,278	36,372	40,879	28,130	29,761	30,435	34,275
Memphis, Tenn.	38,747	43,402	33,182	34,612	18,255	24,931	24,387	22,464
Owensboro, Ky.	1,280	1,684	1,461	1,674	1,139	1,288	1,156	1,270
Quincy, Ill.	2,082	2,979	3,365	2,720	2,019	3,009	2,059	1,951
St. Louis, Mo.	143,957	159,176	150,892	169,944	112,203	133,082	131,022	132,051
Springfield, Mo.	2,812	3,028	3,391	3,428	2,410	3,011	3,115	3,122
District No. 9—Minneapolis:								
Aberdeen, S. Dak.	1,135	1,271	1,308	1,248	937	1,337	1,188	1,366
Billings, Mont.	1,730	1,764	1,970	1,964	1,200	1,791	1,629	1,489
Dickinson, N. Dak.	269	290	317	339	155	227	266	426
Duluth, Minn.	11,904	13,121	16,423	18,714	11,019	12,444	11,554	10,634
Fargo, N. Dak.	2,135	2,692	3,186	2,963	1,866	2,370	2,465	2,572
Grand Forks, N. Dak.	1,671	1,759	2,111	1,885	1,075	1,379	1,521	1,621

DEBITS TO INDIVIDUAL ACCOUNTS BY BANKS IN SELECTED CITIES—Continued.

DATA FOR EACH CITY—Continued.

[In thousands of dollars.]

	1923 Week ending—				1922 Week ending—			
	Mar. 28.	Apr. 4.	Apr. 11.	Apr. 18.	Mar. 29.	Apr. 5.	Apr. 12.	Apr. 19.
District No. 9—Minneapolis—Continued.								
Helena, Mont.	2,017	1,888	1,933	2,115	1,491	2,320	2,136	2,025
Jamesstown, N. Dak.	346	647	598	587	293	328	500	470
La Crosse, Wis.	2,703	2,631	3,021	2,909	.....	.....	.....	.....
Lewistown, Mont.	968	1,107	1,016	1,175	621	794	809	769
Minneapolis, Minn.	64,790	69,407	74,118	79,445	55,988	62,010	61,588	67,890
Minot, N. Dak.	788	1,075	1,029	902	771	870	1,132	872
Red Wing, Minn.	344	447	511	537	435	537	468	457
St. Paul, Minn.	32,881	40,807	37,557	42,741	30,973	32,872	31,398	35,665
Sioux Falls, S. Dak.	3,623	3,863	3,840	3,600	2,490	3,455	3,150	2,797
Superior, Wis.	1,880	1,921	1,785	1,974	1,567	1,470	1,533	1,751
Winona, Minn.	850	1,165	1,135	1,058	760	1,063	1,059	872
District No. 10—Kansas City:								
Atchison, Kans.	1,291	1,328	1,391	1,613	1,300	1,187	1,231	1,260
Bartlesville, Okla.	2,717	3,759	2,862	4,665	2,006	2,785	2,304	2,575
Casper, Wyo.	3,159	3,801	4,185	3,982	2,901	2,442	2,321	2,578
Cheyenne, Wyo.	1,909	3,374	2,513	1,985	1,755	1,690	1,508	1,490
Colorado Springs, Colo.	3,191	3,179	3,136	3,188	2,155	3,031	2,563	2,357
Denver, Colo.	35,601	40,795	39,356	38,387	35,470	38,374	29,065	29,745
Enid, Okla.	2,888	3,398	3,379	3,189	.....	.....	.....	.....
Fremont, Nebr.	808	1,224	1,079	890	.....	951	945	741
Grand Island, Nebr.	1,368	1,737	1,475	1,355	953	1,293	1,063	1,217
Grand Junction, Colo.	559	661	704	700	500	596	682	607
Guthrie, Okla.	707	879	753	753	461	506	553	533
Hutchinson, Kans.	2,225	2,698	2,615	2,853	2,331	2,756	2,316	2,421
Independence, Kans.	2,103	3,039	1,870	3,237	2,155	1,596	1,715	2,835
Joplin, Mo.	3,449	3,584	3,814	4,016	2,058	2,227	2,563	2,443
Kansas City, Kans.	4,303	4,421	4,301	5,097	3,419	3,272	3,527	3,412
Kansas City, Mo.	75,124	79,215	76,996	90,163	50,433	59,077	65,308	73,058
Lawrence, Kans.	891	907	1,109	1,061	846	948	1,068	878
McAlester, Okla.	810	687	940	1,229	760	901	1,148	1,042
Muskogee, Okla.	5,935	6,357	5,987	6,915	5,578	5,579	5,548	5,441
Oklahoma City, Okla.	19,972	18,652	18,435	19,389	20,568	21,046	18,076	20,175
Okmulgee, Okla.	2,329	2,639	2,415	2,527	2,063	1,328	1,838	2,408
Omaha, Nebr.	47,118	51,913	51,032	53,207	39,531	47,832	41,220	40,484
Parsons, Kans.	850	1,012	874	758	768	847	763	810
Pittsburg, Kans.	1,311	1,274	1,269	1,606	1,279	1,040	1,325	1,085
Pueblo, Colo.	5,079	4,034	6,185	3,203	4,050	4,418	4,186	3,819
St. Joseph, Mo.	14,645	15,408	15,094	16,409	10,738	13,660	15,737	12,840
Topeka, Kans.	3,513	3,421	4,336	4,498	2,406	3,247	3,872	2,732
Tulsa, Okla.	26,537	24,550	27,604	27,867	21,399	16,504	25,547	20,784
Wichita, Kans.	9,285	11,088	10,728	10,729	8,442	9,086	8,642	9,199
District No. 11—Dallas:								
Albuquerque, N. Mex.	1,822	2,125	2,089	2,319	1,513	2,104	1,751	1,889
Austin, Tex.	3,024	2,802	5,069	3,784	2,645	3,569	3,292	2,932
Beaumont, Tex.	3,153	3,204	3,831	4,163	2,700	3,220	3,218	3,630
Corsicana, Tex.	.....	1,013	1,470	1,582	613	1,007	1,290	1,416
Dallas, Tex.	32,243	34,584	34,739	36,339	29,198	32,442	31,727	32,777
El Paso, Tex.	6,835	7,333	7,271	9,331	6,239	6,735	6,987	7,012
Fort Worth, Tex.	23,887	24,717	25,431	24,334	24,334	30,876	30,100	29,400
Galveston, Tex.	13,515	15,596	20,046	20,169	13,067	13,168	13,163	14,114
Houston, Tex.	21,655	29,556	22,328	24,584	23,067	25,012	21,812	24,170
Roswell, N. Mex.	497	615	615	538	462	605	625	679
San Antonio, Tex.	6,062	6,227	7,431	7,395	5,183	5,480	6,141	6,682
Shreveport, La.	8,694	8,282	7,930	8,149	6,493	6,628	7,372	7,109
Texarkana, Tex.	2,228	1,367	1,882	3,407	1,284	1,127	1,494	1,942
Tucson, Ariz.	1,542	1,758	2,010	1,675	1,339	1,547	1,402	1,897
Waco, Tex.	3,037	3,323	3,572	3,413	2,451	3,504	3,150	3,180
District No. 12—San Francisco:								
Bakersfield, Calif.	2,198	3,372	2,766	2,750	2,564	3,537	2,571	2,467
Bellingham, Wash.	1,498	2,096	2,132	2,508	1,280	1,377	1,459	1,679
Berkeley, Calif.	3,551	3,973	4,075	3,998	3,390	4,247	4,101	3,572
Boise, Idaho.	2,428	2,901	2,850	2,867	2,181	2,731	2,531	2,319
Eugene, Ore.	2,071	2,136	2,736	2,329	1,361	1,345	2,200	2,085
Fresno, Calif.	10,342	11,021	12,263	11,698	9,006	15,935	15,749	10,174
Long Beach, Calif.	12,623	14,321	13,276	13,599	5,842	7,152	6,812	7,036
Los Angeles, Calif.	145,331	161,115	154,603	161,838	100,277	114,288	108,864	114,891
Oakland, Calif.	26,656	30,896	29,885	31,308	17,018	23,056	19,015	20,025
Ogden, Utah	5,213	7,093	7,442	8,246	3,464	5,194	3,512	4,284
Pasadena, Calif.	7,258	7,016	6,779	7,165	5,450	3,872	6,425	6,437
Phoenix, Ariz.	3,437	4,083	4,343	4,451	2,672	4,130	3,715	3,760
Portland, Ore.	28,968	33,973	37,708	38,044	25,522	32,370	35,967	32,639
Reno, Nev.	1,612	2,307	2,175	2,227	2,024	2,256	2,153	2,207
Ritzville, Wash.	122	135	181	130	132	139	146	151
Sacramento, Calif.	8,851	8,673	7,691	8,781	11,615	16,164	17,652	13,706
Salt Lake City, Utah	12,723	13,613	14,081	14,239	11,093	13,562	14,545	11,925
San Bernardino, Calif.	1,563	1,384	1,717	1,724	1,410	1,743	1,743	1,502
San Diego, Calif.	9,833	11,508	9,973	10,288	7,948	8,752	11,576	9,756
San Francisco, Calif.	179,173	172,270	179,005	190,452	134,544	161,904	153,105	175,581
San Jose, Calif.	4,314	5,177	6,061	6,704	4,463	4,733	4,194	4,179
Seattle, Wash.	35,214	38,411	41,832	42,410	33,086	32,375	40,749	34,977
Spokane, Wash.	10,648	9,812	12,420	12,108	7,617	9,084	10,782	11,130
Stockton, Calif.	4,453	5,238	5,816	5,844	4,037	5,064	5,737	5,699
Tacoma, Wash.	7,855	7,987	8,653	9,855	7,385	8,291	8,692	8,351
Yakima, Wash.	2,154	2,394	2,278	2,764	2,190	2,583	2,624	2,837

MONEY IN CIRCULATION APRIL 1, 1923.

[Source: United States Treasury Department circulation statement.]

	Stock of money in the United States.	Money held by the U. S. Treasury and the Federal reserve system.	Money in circulation.	
			Amount.	Per capita.
Gold coin and bullion	\$3,969,193,743	\$3,559,091,728	\$410,102,015	\$3.70
Gold certificates	² (681,693,769)	362,625,420	319,068,349	2.88
Standard silver dollars	475,314,404	416,251,024	59,063,380	.53
Silver certificates	² (387,726,863)	48,812,316	338,914,547	3.06
Treasury notes of 1890	² (1,471,783)	1,000	1,470,783	.01
Subsidiary silver	268,860,972	26,880,733	241,980,239	2.18
United States notes	346,681,016	52,373,474	294,307,542	2.65
Federal reserve notes	2,598,033,725	365,585,374	2,232,448,351	20.13
Federal reserve bank notes	29,859,000	3,989,456	25,869,544	.23
National bank notes	767,182,504	34,731,464	732,451,040	6.61
Total	8,455,125,364	³4,870,341,989	4,655,675,790	41.98
Comparative totals:				
Mar. 1, 1923	8,489,635,419	³ 4,941,147,056	4,610,636,668	41.61
Apr. 1, 1922	8,108,976,196	³ 4,686,870,457	4,413,130,714	40.37
Apr. 1, 1917	5,312,109,272	³ 3,896,318,653	4,100,590,704	39.54
July 1, 1914	3,738,288,871	³ 1,843,452,323	3,402,015,427	34.35
Jan. 1, 1879	1,007,084,483	³ 212,420,402	816,266,721	16.92

¹ Does not include gold bullion or foreign coin outside of vaults of the Treasury, Federal reserve banks, and Federal reserve agents.² These amounts are not included in the total, since the money held in trust against gold and silver certificates and Treasury notes of 1890 is included under gold coin and bullion and standard silver dollars, respectively.³ Includes gold held in trust against gold certificates and standard silver dollars held in trust against silver certificates and Treasury notes of 1890, the aggregate of which should be deducted from the sum of money held by the United States Treasury and the Federal reserve system and money in circulation to arrive at the stock of money in the United States. The amounts of such gold and silver held in trust as of the date of this statement are shown in parentheses in the first column.

GOLD SETTLEMENT FUND.

INTERBANK TRANSACTIONS FROM MARCH 23, 1923, TO APRIL 19, 1923, INCLUSIVE.

[In thousands of dollars.]

Federal reserve bank.	Transfers.		Daily settlements.		Changes in ownership of gold through transfers and settlements.		Balance in fund at close of period.
	Debits.	Credits.	Debits.	Credits.	Decrease.	Increase.	
Boston	6,000		617,356	634,572		11,216	56,090
New York	5,000		2,002,742	2,009,479		1,737	287,544
Philadelphia		2,000	605,563	618,722		15,159	31,724
Cleveland			558,386	559,124		282	64,728
Richmond	3,000	2,000	477,544	463,839	14,705		28,434
Atlanta	2,000		242,129	238,229	5,900		16,373
Chicago		4,000	959,066	972,318		17,252	84,066
St. Louis		2,000	470,207	465,518	2,689		10,026
Minneapolis	2,000		124,535	127,177		642	18,989
Kansas City		3,000	335,806	321,416	11,390		29,191
Dallas			188,761	187,088	1,673		7,855
San Francisco		5,000	270,137	255,750	9,387		33,568
Total four weeks ending--							
Apr. 19, 1923	18,000	18,000	6,853,232	6,853,232	46,006	46,006	668,588
Mar. 22, 1923	108,000	108,000	7,324,106	7,324,106			648,222
Apr. 20, 1922	69,000	69,000	5,274,437	5,274,437			497,051
Mar. 23, 1922	113,500	113,500	5,518,607	5,518,607			513,493

GOLD AND SILVER IMPORTS AND EXPORTS.

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

Countries.	Gold.				Silver.			
	March—		Nine months ending March—		March—		Nine months ending March—	
	1922	1923	1922	1923	1922	1923	1922	1923
IMPORTS.								
Denmark.....	\$3,983,059		\$12,579,266	\$1,115,469			\$844	\$987
France.....	6,649,971	\$4,005,014	127,278,661	20,789,147	\$76,794	\$55,717	198,781	133,275
Germany.....	3,986		19,924,809	29,707	20,528		5,709,498	35,764
Greece.....			5,003	4,798,294				21,156
Netherlands.....		5,600,000	4,186,976	15,644,247			1,669	
Norway.....	4,139,110		4,805,302	543,592			7,767	11,732
Spain.....			316,389	48,655	216	312	49,655	98,933
Sweden.....	14,938,204		51,770,795	1,328,938			1,354	1,180
United Kingdom—England.....	21,399	391,409	118,639,688	107,911,597	35,582		159,587	185,731
Canada.....	1,264,172	4,113,344	17,062,493	29,667,978	234,837	475,716	2,875,425	6,280,343
Central America.....	414,414	182,027	4,815,105	2,196,386	183,374	130,246	1,271,641	1,131,019
Mexico.....	707,332	443,521	4,282,030	4,045,096	5,476,656	2,644,030	36,371,689	32,206,794
West Indies.....	14,530	12,027	2,857,729	491,544	17,487	13,081	457,971	192,949
Bolivia.....	11,735	949	19,417	5,183	64,104	51,713	380,592	594,645
Chile.....	15,959	1,753	392,501	116,041	118,935	10,329	1,271,391	1,512,382
Colombia.....	414,200	292,393	7,822,482	4,239,125	47,686	9,475	193,451	144,679
Peru.....	137,046	169,361	1,361,212	1,311,362	624,913	1,132,053	4,503,020	6,604,363
Uruguay.....	145,000		4,111,970	8,959			25,347	2,167
Venezuela.....	131,745	35,361	775,615	496,779	35	41	1,513	1,860
China.....			4,236,999	5,895,896		6,000	1,702	16,924
British India.....			14,863,765				11,718	
Dutch East Indies.....	217,647	208,057	1,342,271	1,586,669	31,482	81,029	328,479	619,140
Philippine Islands.....	49,592	108,313	997,216	812,926	907	1,474	14,390	10,925
British Oceania.....	152,450	276,020	12,740,382	1,352,396	141	242	1,550	1,430
Egypt.....			7,210,097	3,271,242			227	12,730
Portuguese Africa.....	2,689	4,148	286,415	612,819	6,175	7,588	22,153	162,160
All other.....	74,025	107,660	9,419,537	993,299	13,253	7,330	165,714	154,795
Total.....	33,488,256	15,951,357	434,104,125	209,311,346	6,953,105	4,626,376	54,027,128	50,158,063
EXPORTS.								
France.....		2,660,000		2,660,000				1,645
Netherlands.....				19,000				1,500
Spain.....	222,000		672,200	20,000		1,500		600
Sweden.....			2,721,013					
Switzerland.....	3,601	3,579	6,724	1,358,445				
United Kingdom—England.....		9,572		143,828	1,562,459	203,805	9,431,987	7,378,690
Canada.....	61,995	102,180	2,044,827	21,872,613	267,625	146,433	3,987,427	1,388,040
Central America.....	12,127		12,127			544	6,543	4,494
Mexico.....	339,875	583,640	4,214,470	3,680,479	319,211	203,003	1,516,234	1,393,818
West Indies.....			350	899	4,440	23,525	29,800	37,627
Colombia.....				500,000	136,103		327,103	10,060
Venezuela.....							649,000	
China.....				350,200	526,753	2,651,192	14,303,856	16,672,506
British India.....		6,960,089	2,003,057	13,394,018	1,341,761	1,430,211	4,316,183	11,055,489
Dutch East Indies.....	40,000		40,000	75,000				
French Indo-China.....							3,163,000	
Hongkong.....	183,805	81,440	8,864,485	2,862,800	143,830	33,767	6,605,326	6,565,296
All other.....	100,010	48,600	179,750	56,530		37,725	1,563,310	40,474
Total.....	963,413	10,392,100	20,759,003	46,993,812	4,302,182	4,731,705	45,904,769	44,490,179

DISCOUNT RATES OF FEDERAL RESERVE BANKS IN EFFECT APRIL 30, 1923.

Federal reserve bank.	Paper maturing—					
	Within 90 days.				After 90 days, but within 6 months.	After 6, but within 9 months.
	Commercial, agricultural, and live-stock paper, n. e. s.	Secured by United States Government obligations.	Bankers' acceptances.	Trade acceptances.		
Boston.....	4½	4½		4½	4½	5
New York.....	4½	4½	4½	4½	4½	
Philadelphia.....	4½	4½	4½	4½	4½	5
Cleveland.....	4½	4½	4½	4½	4½	4½
Richmond.....	4½	4½	4½	4½	4½	4½
Atlanta.....	4½	4½	4½	4½	4½	4½
Chicago.....	4½	4½	4½	4½	4½	4½
St. Louis.....	4½	4½	4½	4½	4½	4½
Minneapolis.....	4½	4½	4½	4½	4½	4½
Kansas City.....	4½	4½	4½	4½	4½	4½
Dallas.....	4½	4½	4½	4½	4½	4½
San Francisco.....	4½	4½	4½	4½	4½	4½

¹ Including bankers' acceptances drawn for an agricultural purpose and secured by warehouse receipts, etc

DISCOUNT AND INTEREST RATES.

In the following table are presented actual discount and interest rates prevailing during the 30-day period ending April 15, 1923, in the various cities in which the Federal reserve banks and their branches are located. A complete description of the several types of paper for which quotations are given will be found in the September, 1918, and October, 1918, FEDERAL RESERVE BULLETINS.

A comparison of the discount and interest rates for the various centers during the 30-day period ending April 15 with the 30-day period ending

March 15 shows higher rates for prime commercial paper and bankers' acceptances in most centers and higher rates for collateral loans in some centers. For other types of paper, with few exceptions, the rates remained at practically the same level as during the preceding period. Compared with the corresponding period ending April 15, 1922, rates were generally lower, although in some centers they were near the levels of the 1922 period and a few centers report higher charges for some commercial paper. Compared with both periods under review all interest rates show upward tendencies.

DISCOUNT AND INTEREST RATES PREVAILING IN VARIOUS CITIES DURING THE 30-DAY PERIOD ENDING APRIL 15, 1923.

District.	City.	Prime commercial paper.				Interbank loans.	Bankers' acceptances, 60 to 90 days.		Collateral loans—stock exchange.			Cattle loans.	Secured by warehouse receipts.	Ordinary loans to customers secured by Liberty bonds.
		Customers'.		Open market.			Indorsed.	Unindorsed.	Demand.	3 months.	3 to 6 months.			
		30 to 90 days.	4 to 6 months.	30 to 90 days.	4 to 6 months.									
		<i>H. L. C.</i>	<i>H. L. C.</i>	<i>H. L. C.</i>	<i>H. L. C.</i>	<i>H. L. C.</i>	<i>H. L. C.</i>	<i>H. L. C.</i>	<i>H. L. C.</i>	<i>H. L. C.</i>	<i>H. L. C.</i>	<i>H. L. C.</i>	<i>H. L. C.</i>	<i>H. L. C.</i>
No. 1....	Boston.....	5½ 5 5½	5½ 5 5½	5½ 5 5	5½ 5 5	5 5 5	4 4 4	4½ 4 4	5½ 5 5½	6 5½ 5½	6 5½ 5½	.....	.....	5½ 5½ 5½
No. 2....	New York.....	6½ 4½ 5-5½	6½ 4½ 5-6	5½ 5 5-5½	5½ 5 5-5½	6 4½ 5-6	5 4 4-4½	4½ 4 4½	6 4 4½-6	6 5 5-6	6 5 5-6	.....	.....	5½ 4½ 5
	Buffalo.....	7 5 6	6 5 6	5½ 5	5½ 5	8 5 6	.....	4½ 4 4½	7 5 6	6 5 6	6 5 6	.....	.....	6 5 6
No. 3....	Philadelphia.....	6 5 5½	6 4½ 5½	5½ 5 5½	5½ 5 5½	6 5 5½	5 4½	5 4½	6 4½ 5	6 5 5½	6 5 5½	.....	.....	6 4½ 5
No. 4....	Cleveland.....	7 5 6	7 5 6	.....	.....	.....	.....	4½ 4½ 4½	7 5 6	7 5 6	7 5 6	.....	.....	6 6 6
	Pittsburgh.....	6 5 6	6 5 6	5½ 5 5	5½ 5 5	6 6 6	4½ 4 4½	4½ 4½ 4½	6 5 6	6 5 6	6 5 6	.....	.....	6 6 6
	Cincinnati.....	6 5 6	6 5½ 6	6 5 5½	6 5½ 6	6 5 5-5½	4½ 4 4	4½ 4 4	6 5 5½-6	6 5 5½-6	6 6 6	.....	.....	6 5 5-5½
No. 5....	Richmond.....	6 5 6	6 5 6	5½ 4 5½	5½ 5 5½	6 5 5½	5½ 4½	5½ 4½	6 5 6	6 5 6	6 5 6	.....	.....	6 4½ 6
	Baltimore.....	6 5 5½	6 5 5½	.....	.....	6 5 5½	.....	.....	6 5 5½	6 5 5½	6 5 5½	.....	.....	6 5 5½
No. 6....	Atlanta.....	7 4½ 6	7 4½ 6	5 4½ 4½	.....	7 5 5	5 5 5	.....	7 5 6	7 5 6	7 5 6	.....	.....	6 4½ 6
	Birmingham.....	8 5 6	8 5 6	5½ 4½ 4½	5½ 4½ 4½	7 5 6	.....	.....	8 6 6	8 6 6	8 6 6	.....	.....	8 6 6
	Jacksonville.....	8 4½ 6-7	8 4½ 6-7	6 4½ 4½-6	6 4½ 4½-6	7 6 6	.....	.....	7 5 6-7	8 6 7-8	8 6 7-8	.....	.....	8 5 7-8
	New Orleans.....	6½ 5½ 5½	7½ 5½ 6½	5½ 5 5½	5½ 5 5½	6½ 5 4½	5 4½ 4½	6 4½ 4½	6½ 5½ 5½	7 5½ 6	7 5½ 6½	.....	.....	6½ 5½ 6
	Nashville.....	8 6 7	8 6 7	.....	.....	8 6 6	.....	.....	8 6 7	8 6 7	8 6 7	.....	.....	7 6 6
No. 7....	Chicago.....	6 4½ 5-5½	6 5 5-5½	5 5 5	5½ 4½ 5	6 5 5-5½	5 4 4-5	5 4 4-5	6 5 5½	6 5 5½	6 5 5½	6 5 5½	6 5½ 6-6	6 4½ 5-5½
	Detroit.....	6 5 6	7 5 6	4½ 4½ 4½	4½ 4½ 4½	6½ 5 5½	.....	.....	6 5 6	7 5 6	7 5 6	.....	.....	6 5 6
No. 8....	St. Louis.....	6 4 5½	6 4 5½	5½ 5 5	5½ 5 5	6 5 5½	4 4 4	5 5 5	6½ 5 5½	6½ 5 5½	6½ 5 5½	7 5½ 6	.....	6 4½ 5½
	Louisville.....	6 5 6	6 5 6	5½ 5 5	5½ 5 5	6 4½ 5½	.....	.....	6 5 6	6 5 6	6 5½ 6	.....	.....	6 5 6
	Memphis.....	6 5½ 6	6 6 6	.....	.....	6 6 6	.....	.....	6 6 6	6 6 6	6 6 6	.....	.....	6 6 6
	Little Rock.....	7 6 6	7 6 6	5½ 4½ 5	5½ 4½ 5	6 6 6	.....	.....	7 6 6	8 6 6	8 6 6	8 7 7	.....	7 6 6
No. 9....	Minneapolis.....	5½ 5 5½	6 5 5½	5 4½ 5	5½ 5 5	6 5½ 5½	4½ 4½ 4½	5 4½ 4½	6½ 4½ 5½	6½ 5 5½	6½ 5 5½	6½ 6 6½	.....	6 4½ 5
	Helena.....	8 7 8	8 7 8	6 5 5	6 5 5	8 7 8	.....	.....	8 7 8	8 7 8	8 7 8	.....	.....	8 8 8
No. 10....	Kansas City.....	7 4½ 6	6 4½ 6	5 4½ 4½-5	5 4½ 4½-5	7 5 6	.....	.....	7 5 6	8 5 6	8 5 6	7 6 6	.....	8 5 6
	Omaha.....	7 5 6	7 5 6	5½ 4½ 5	5½ 4½ 5	7 5 6	.....	.....	7½ 5 6	7½ 5 6	7½ 5 6	7½ 5½ 6½	.....	7½ 5½ 6½
	Denver.....	8 5 6-7	8 5 6-7	5½ 4½ 5	5½ 4½ 5	8 6 6-7	.....	.....	8 5 6	8 5 6	8 5 6	8 6 6-7	.....	8 5 6
	Oklahoma City.....	10 4½ 7	8 5½ 7	6 4½ 6	6 4½ 6	8 6 6	8 7 8	.....	10 6 8	10 6 8	10 6 8	.....	.....	10 5 8
No. 11....	Dallas.....	6 5 5½	6 5 5½	6 5 5½	6 5 5½	7 4½ 5½	.....	.....	8 5 6½	8 5 6½	8 5 7	8 7 7½	.....	8 4½ 6½
	El Paso.....	10 6 8	10 8 8	5½ 4 4½	10 8 8	9 6 8	.....	.....	10 8 8	10 8 8	10 8 8	.....	.....	10 8 8
	Houston.....	7 5 6	7 5 6	.....	.....	5 4½ 4½	.....	.....	7 5 6	7 5 6	7 6 6	.....	.....	5 4½ 5
No. 12....	San Francisco.....	6 5 5½-6	6 5 5½-6	5 4½ 5	5 4½ 5	6 5 5½	4½ 4 4½	4½ 4 4½	6 5 5½-6	6 5 6	6 5 6	6 6 6	.....	6 5 5½-6
	Portland.....	8 4½ 7	8 4½ 6	5 4½ 4½	5 4½ 4½	7 6 6	4½ 4½ 4½	4½ 4½ 4½	7 6 6	7 6 6	7 6 6	.....	.....	8 5½ 7
	Seattle.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Spokane.....	8 5 7	8 6 6½-7	5½ 4½ 5	5½ 4½ 5	7 6 7	.....	4½ 4 4½	8 6 7	8 6 7	8 7 8	.....	.....	8 6 7
	Salt Lake City.....	8 6 7	8 6 7	.....	.....	7 6 6	.....	.....	8 7 7	8 7 7	8 7 7	.....	.....	8 6 7
	Los Angeles.....	8 5 6½	8 5 6½	5 4½ 4½	5 4½ 4½	8 5 6	.....	4½ 3½ 4½	7 5 6½	8 5 6½	8 5 6½	10 6 6	.....	8 5½ 6½

Rates for demand paper secured by prime bankers' acceptances—high, 5½; low, 4; customary, 4½-5½.

FOREIGN EXCHANGE RATES.

[General index for April, 1923 (preliminary), 67; for March, 1923, 67; for April, 1922, 72. Noon buying rates for cable transfers in New York as published by Treasury. In cents per unit of foreign currency.]

COUNTRIES INCLUDED IN COMPUTATION OF INDEX.

	Monetary unit.	Par of exchange.	Low.		High.		Average.		Index (per cent of par). ¹	
			April.	March.	April.	March.	April.	March.	April.	March.
			Belgium.....	Franc.....	19.30	5.5900	5.2100	5.8900	5.9400	5.7560	5.4800	29.82	28.39
Denmark.....	Krone.....	26.80	18.6100	19.0800	19.1500	19.3100	18.9160	19.1970	70.58	71.67
France.....	Franc.....	19.30	6.4900	6.0300	6.7900	6.7400	6.6668	6.3237	34.54	32.77
Great Britain.....	Pound.....	486.65	463.3800	467.6900	467.8600	470.8300	465.5468	469.5893	95.66	96.49
Italy.....	Lira.....	19.30	4.9100	4.7600	5.0200	5.0200	4.9596	4.8550	25.70	25.16
Netherlands.....	Florin.....	40.20	39.0600	39.3600	39.3700	39.5900	39.1788	39.4893	97.46	98.23
Norway.....	Krone.....	26.80	17.2600	18.0600	18.1000	18.4100	17.8420	18.1578	66.57	67.75
Spain.....	Peseta.....	19.30	15.2600	15.3600	15.3600	15.6100	15.3220	15.4652	79.39	80.13
Sweden.....	Krona.....	26.80	26.5800	26.5800	26.7700	26.6300	26.6444	26.6000	99.42	99.25
Switzerland.....	Franc.....	19.30	18.0700	18.4400	18.4800	18.7600	18.2424	18.5896	94.52	96.32
Canada.....	Dollar.....	100.00	97.6406	97.4328	98.2321	98.4813	98.0201	98.0570	98.02	98.06
Argentina.....	Peso (gold).....	96.48	82.6700	83.8600	83.7700	84.7000	83.1484	84.1452	86.18	87.22
Brazil.....	Milreis.....	32.44	10.1700	10.7900	10.8600	11.3700	10.6364	11.0874	32.79	34.18
Chile.....	Peso (paper).....	* 19.53	12.1300	12.2200	12.7800	12.9800	12.3104	12.6725	63.03	64.89
China.....	Shanghai tael.....	* 66.85	73.4800	73.9800	76.3800	76.5400	74.4964	75.5300	111.44	112.98
India.....	Rupee.....	48.66	31.2300	31.3500	31.4200	31.8200	31.3460	31.5659	64.42	64.87
Japan.....	Yen.....	49.85	48.4800	48.3000	49.0300	48.6100	48.6936	48.4559	97.68	97.20

OTHER COUNTRIES.

Austria.....	Krone.....	20.26	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.01	0.01
Bulgaria.....	Lev.....	19.30	.7443	.6100	.8443	.8086	.7738	.6543	4.01	3.39
Czechoslovakia.....	Crown.....		2.9678	2.9648	2.9865	2.9795	2.9781	2.9693		
Finland.....	Markka.....	19.30	2.7189	2.7111	2.7806	2.7933	2.7541	2.7553	14.27	14.28
Germany.....	Reichsmark.....	23.82	.0031	.0044	.0048	.0048	.0041	.0047	.02	.02
Greece.....	Drachma.....	19.30	1.1478	1.0522	1.1894	1.1711	1.1694	1.0962	6.06	5.68
Hungary.....	Krone.....	20.26	.0168	.0203	.0237	.0346	.0217	.0289	.11	.14
Poland.....	Polish mark.....		.0020	.0022	.0026	.0026	.0023	.0024		
Portugal.....	Escudo.....	108.05	4.3700	4.1600	4.9500	4.8900	4.6032	4.3430	4.26	4.02
Rumania.....	Leu.....	19.30	.4745	.4728	.4858	.4919	.4789	.4842	2.48	2.51
Yugoslavia.....	Dinar.....	19.30	1.0010	1.0025	1.0343	1.1288	1.0173	1.0417	5.27	5.40
Cuba.....	Peso.....	100.00	99.9688	99.9500	100.0438	100.0156	99.9998	99.9858	100.00	99.99
Mexico.....	do.....	49.85	48.2969	48.5833	48.6250	49.0781	48.4463	48.8605	97.18	98.02
Uruguay.....	do.....	103.42	82.7400	84.1400	84.8000	85.1200	83.7348	84.5496	80.97	81.75
China.....	Mexican dollar.....	* 48.11	53.0800	53.3100	55.2300	55.4400	53.8192	54.5333	111.87	113.35
Hongkong.....	Dollar.....	* 47.77	54.1100	54.0000	56.1500	56.3000	54.8180	55.3804	114.75	115.93
Straits Settlements.....	Singapore dollar.....	56.78	54.5000	54.6700	54.9200	55.0800	54.7328	54.8133	96.39	96.54

¹ Based on average.

* 1913 average.

SILVER.

[Average price per fine ounce.]

	April.	March.
London (converted at average rate of exchange).....	\$0.67830	\$0.68360
New York.....	.67270	.67963

FINANCIAL STATISTICS FOR PRINCIPAL FOREIGN COUNTRIES.

A summary of banking and financial conditions abroad is presented statistically in the accompanying tables.

ENGLAND.

[Amounts in millions of pounds sterling.]

	Note accounts and Bank of England deposits.				Nine London clearing banks. ³				London bankers' clearing house returns—total clearings.	Government floating debt.			Discount rates.			Capital issues in United Kingdom. ⁴	Index numbers of securities prices. ⁵	Statist index number of foreign exchange value of £. ⁶
	Gold and silver, coin and bullion. ¹	Bank notes in circulation. ²	Currency notes and certificates outstanding.	Total deposits.	Money at call and short notice.	Discounts and advances.	Investments.	Total deposits.		Treasury bills.	Temporary advances.	Total floating debt.	Three months' Treasury bills.	Three months' bank bills.	Six months' trade bills.			
Average of end of month figures:												Per cent.	Per cent.	Per cent.				
1913.....	38	29		57				1,370	15			4½	4½	4½	21		99.6	
1920.....	146	103	348	147				3,252	1,078	1,297	6½	6½	7½	40		110.1		
1921.....	157	108	327	136	97	1,176	309	1,768	2,911	1,139	4½	5½	6½	33	99.2	120.6		
1922.....	156	103	296	130	107	1,068	372	1,727	3,097	796	2½	2½	3½	49	111.7	120.6		
1922, end of—																		
March.....	157	103	300	151	103	1,097	369	1,747	3,452	882	2½	3	4½	40	107.3	118.3		
April.....	157	102	303	134	107	1,065	378	1,737	3,305	758	2½	2½	4½	100	113.3	118.0		
May.....	157	103	298	130	109	1,061	392	1,745	3,307	771	2½	2½	4½	52	113.4	118.2		
June.....	157	103	295	131	113	1,070	388	1,755	2,917	760	2½	2½	3½	29	112.8	118.2		
July.....	154	104	296	122	110	1,056	386	1,730	3,236	755	1½	1½	3½	43	114.4	120.3		
August.....	154	103	293	124	105	1,020	390	1,688	2,885	715	2½	2½	3½	21	114.7	121.3		
September.....	154	101	289	121	101	1,007	381	1,660	2,690	724	2½	2½	3½	7	114.0	122.7		
October.....	154	101	287	125	105	1,033	370	1,646	3,124	740	2½	2½	3½	31	115.1	123.0		
November.....	154	102	288	121	98	1,031	365	1,667	2,989	732	2½	2½	3½	19	114.1	124.6		
December.....	154	104	301	133	106	1,030	360	1,684	2,769	719	2½	2½	3½	15	113.2	125.8		
1923, end of—																		
January.....	154	101	280	121	108	1,016	357	1,692	3,262	715	2	2½	3½	34	114.2	123.4		
February.....	155	102	279	131	103	1,023	349	1,614	3,006	698	2	2½	3½	19	115.3	126.0		
March.....	155	102	286	133	104	992	333	1,596	.....	616	1½	2½	3½	39	113.4	126.0	

¹ Held by the Bank of England and by the Treasury as note reserve.² Less notes in currency notes account.³ Average weekly figures.⁴ Statist.⁵ Bankers Magazine.⁶ Excluding Germany.

FRANCE.

[Amounts in millions of francs.]

	Bank of France.					Bons de la Défense Nationale.	Price of 3 per cent perpetual rente.	Average daily clearings of the Paris banks.	Savings banks, excess of deposits (+) or withdrawals (-).	New stock and bond issues.	
	Gold reserve. ¹	Silver reserve.	War advances to the Government.	Note circulation.	Total deposits.					Value.	Average rate of return.
Average of end of month figures:											
1913.....	3,343	629		5,565	830		86.77	59	-65		
1920.....	3,586	253	26,000	38,066	3,527		57.34	554	+48	702	
1921.....	3,568	274	25,300	37,404	2,927		56.56	550	+67	1,100	6.70
1922.....	3,597	285	23,042	36,177	2,307		58.48	525	+53	574	6.41
1922, end of—											
March.....	3,578	282	21,500	35,528	2,236	60,839	56.70	455	+49	377	6.57
April.....	3,579	283	22,100	35,787	2,412	61,528	57.60	411	+58	459	6.45
May.....	3,579	284	23,100	35,982	2,303	62,890	57.70	454	+55	644	6.37
June.....	3,580	285	23,300	36,039	2,448	63,809	57.95	474	+53	947	6.30
July.....	3,582	285	23,000	36,050	2,432	62,525	58.25	562	+62	485	6.02
August.....	3,583	286	23,900	36,385	2,170	62,936	60.10	512	+66	151	6.32
September.....	3,584	287	24,000	36,603	2,199	63,404	61.10	484	+58	636	6.36
October.....	3,635	288	23,600	36,691	2,170	.....	58.25	556	+17	421	6.41
November.....	3,636	289	22,900	36,114	2,184	.....	59.00	783	+43	179	6.59
December.....	3,670	289	23,600	36,350	2,309	.....	59.02	630	+33	1,453	6.22
1923, end of—											
January.....	3,671	290	23,100	36,780	2,208	.....	58.80	726	+44	.....	.....
February.....	3,671	291	23,200	37,055	2,279	.....	58.65	792	+85	.....	.....
March.....	3,672	292	23,100	37,188	2,066	.....	.....	755	.....	.....	.....
April.....	3,672	292	22,500	36,548	2,116	.....	.....	.....	.....	.....	.....

¹ Not including gold held abroad.

ITALY.

[Amounts in millions of lire.]

	Banks of issue.					Leading private banks. ¹					Short-term treasury bills.	Index numbers of security prices. ²	
	Reserve.		Loans and discounts.	Note circulation.		Total deposits.	Cash.	Loans and discounts including treasury bills.	Due from correspondents.	Participations.			Total deposits.
	Gold.	Total.		For account of commerce.	For account of the State.								
Average of end of month figures:													
1913 ³	1,375	1,661	857	2,284	318	129	1,093	914	55	1,674			
1920.....	1,043	2,088	6,335	7,035	10,581	2,474	1,308	10,594	5,945	446	15,810	13,200	
1921.....	1,074	2,020	7,586	9,304	9,064	2,475	1,200	10,677	5,575	465	16,001		87.12
1922.....	1,120	1,998	9,466	9,734	8,214	2,759							
1922, end of—													
November.....	1,089	1,948	7,888	9,435	8,485	2,388	1,174	8,862	3,981	293	12,778		83.99
December.....	1,092	1,999	10,088	10,304	8,505	3,108	1,997	8,012	3,785	316	12,502	21,926	80.13
1922, end of—													
January.....	1,109	1,995	10,225	10,183	8,570	3,082	1,426	7,782	3,552	317	11,616		96.61
February.....	1,100	1,971	10,095	9,631	8,626	2,794	1,081	8,169	3,275	315	11,482		94.10
March.....	1,118	1,956	9,899	9,589	8,523	2,890	965	8,250	3,157	316	11,403	24,442	88.82
April.....	1,122	1,964	10,181	9,360	8,350	2,663	908	8,572	3,180	317	11,708		88.43
May.....	1,104	1,963	9,391	9,259	8,061	2,751	841	8,500	3,232	316	11,698		93.13
June.....	1,106	1,976	9,573	9,615	8,049	2,935	845	8,800	3,180	318	11,863	23,862	94.83
July.....	1,125	1,991	9,118	9,947	8,050	2,681	861	8,846	3,272	337	11,896		95.19
August.....	1,125	2,024	9,142	9,695	8,050	2,779	763	8,706	3,286	337	11,883		103.01
September.....	1,125	2,024	8,858	9,924	8,066	2,661	769	8,706	3,460	337	11,897	25,574	105.68
October.....	1,136	2,039	9,082	9,782	8,075	2,638	781	8,659	3,568	339	11,960		109.90
November.....	1,141	2,034	8,680	9,892	8,074	2,634	781	8,797	3,554	336	12,045		111.94
December.....	1,128	2,042	9,345	9,935	8,076	2,602							112.91
1923, end of—													
January.....	1,126	2,021	8,552	9,389	8,057	2,610							
February.....	1,127	1,994	8,572	9,117	8,036	2,675							

¹ Includes Banca Commerciale Italiana, Credito Italiano, Banco di Roma, and until November, 1921, Banca Italiana di Sconto.

² Figures for 1921 based on quotations of Dec. 31, 1920=100; those for 1922 on quotations of Dec. 31, 1921=100.

³ End of December figures.

GERMANY.

[Amounts in millions of marks.]

	Reichsbank.					Darlehens-kassenscheine in circulation.	Treasury bills outstanding.	Value of new stock and bond issues placed on German market.	Index of security prices. ¹		
	Gold reserve.	Note circulation.	Total deposits.	Discounts.					Total clearings.	25 stocks.	10 domestic bonds.
				Treasury bills.	Commercial bills.						
Average of end of month figures:									Per cent.	Per cent.	
1913.....	1,068	1,958	668			6,136	1,220				
1920.....	1,092	53,964	17,702	47,980		57,898	13,145				
1921.....	1,056	80,952	20,213	83,133		89,297	8,861	192,832	2,655		
1922.....	1,002	339,677	108,633	338,147	72,211	530,647	11,217	475,835			
1922, end of—											
March.....	997	130,671	33,358	146,531	2,152	170,367	8,701	271,935	6,416		
April.....	1,001	140,420	31,616	155,618	2,403	175,977	9,183	280,935	3,992	121	
May.....	1,003	151,949	33,128	167,794	3,377	179,370	9,440	289,246	4,152		
June.....	1,004	169,212	37,174	186,126	4,752	191,414	10,374	311,600	2,762		
July.....	1,005	189,795	39,976	207,858	8,122	243,493	12,234	307,810	2,330	85	
August.....	1,005	238,147	56,124	249,766	21,704	374,856	13,383	331,000	2,468		
September.....	1,005	316,870	110,012	349,770	50,234	473,715	13,995	451,000	7,937		
October.....	1,005	469,457	140,779	477,201	101,155	789,341	14,009	614,000	7,187	169	
November.....	1,005	754,086	240,969	672,222	246,949	1,463,766	13,809	839,000	15,223		
December.....	1,007	1,280,095	530,526	1,184,464	422,235	2,078,969	13,450	1,495,000		1,334	
1923, end of—											
January.....	1,005	1,984,496	762,264	1,609,081	697,216	3,826,206	13,395	2,082,000		1,378	
February.....	1,005	3,512,788	1,582,981	2,947,364	1,829,341	7,444,323	12,625	3,588,000		4,668	
March.....	1,005	5,517,920	2,272,084	4,552,012	2,372,102	7,287,668	12,600	6,601,000		3,664	
April.....											

¹ End of March, 1913.

² Recalculated by the Frankfurter Zeitung, using as base (100) prices for January, 1922, instead of for January, 1921, and eliminating the five bonds in foreign currencies. Figures are as of beginning of month.

SWEDEN.

[Amounts in millions of kronor.]

	Riksbank.				Joint-stock banks.		Value of stock issues registered during month.	Index number of stock prices.	Index number of foreign exchange value of krona.
	Gold coin and bullion.	Note circulation.	Total deposits.	Clearings.	Loans and discounts.	Bills discounted with Riksbank.			
Averages of end of month figures:									
1913 ¹	102	235	108	585	2,287	139	24	258	.....
1920.....	269	733	226	3,596	6,008	476	61	176	112.9
1921.....	280	661	193	2,715	5,948	389	31	121	121.8
1922.....	274	579	269	2,109	5,317	340	29	103	128.4
1922, end of—									
February.....	274	579	346	2,122	5,572	429	18	94	129.2
March.....	274	626	312	2,354	5,474	447	23	89	128.3
April.....	274	582	301	1,936	5,430	404	15	100	126.6
May.....	274	567	293	2,162	5,378	380	50	115	124.8
June.....	274	585	247	2,118	5,388	320	63	113	125.6
July.....	274	551	243	2,015	5,268	307	35	113	127.0
August.....	274	559	213	1,803	5,221	293	22	110	128.8
September.....	274	605	180	1,902	5,181	288	14	103	130.5
October.....	274	569	178	1,995	5,149	206	15	98	131.7
November.....	274	575	191	1,979	5,099	252	59	90	132.2
December.....	274	584	389	2,588	4,984	331	12	96	129.9
1923, end of—									
January.....	274	520	321	.....	4,888	214	.....	93	129.9
February.....	274	538	270	1,455	4,903	175	.....	.....	.....
March.....	274	587	265	.....	.....	222	.....	.....	.....

¹ End of December figures.

CANADA.

[Amounts in millions of dollars.]

	Chartered banks.						Gold reserve against Dominion notes.	Dominion note circulation.	Bank clearings.*
	Gold coin and bullion. ¹	Current loans and discounts.	Money at call and short notice.	Public and railway securities.	Note circulation.	Individual deposits—demand and time.			
Average of end of month figures:									
1921.....	72	1,403	282	369	195	2,125	85	272	1,454
1922.....	75	1,272	280	332	166	2,009	90	240	1,353
1922, end of—									
February.....	70	1,299	273	352	164	1,987	81	247	1,149
March.....	70	1,301	267	354	163	1,981	81	241	1,346
April.....	70	1,314	278	343	165	2,000	81	242	1,193
May.....	70	1,285	288	313	166	2,059	83	222	1,497
June.....	70	1,266	274	319	166	2,053	85	235	1,328
July.....	70	1,248	272	323	152	2,016	87	231	1,278
August.....	70	1,248	277	331	158	1,979	89	229	1,172
September.....	71	1,250	279	322	177	1,985	91	235	1,253
October.....	87	1,276	301	310	179	2,020	93	240	1,497
November.....	92	1,255	303	317	170	2,036	96	251	1,619
December.....	93	1,230	284	341	176	2,061	129	257	1,555
1923, end of—									
January.....	75	1,197	281	356	153	1,963	132	241	1,507
February.....	72	1,206	270	377	157	1,997	133	247	1,067
March.....	68	1,220	292	385	173	2,008	128	234	1,199

¹ Includes gold in central gold reserve but not gold held abroad.

* Total for month.

ARGENTINA.

[Amounts in millions of pesos.]

	Banco de la Nación.				Commercial banks. ¹				Caja de Conversión.		Clearings in Buenos Aires (paper).
	Cash.		Dis-counts and advances (paper).	Total deposits (paper).	Cash.		Dis-counts and advances (paper).	Total deposits (paper).	Gold reserve.	Note cir-culation (paper).	
	Gold.	Paper.			Gold.	Paper.					
End of—											
1913.....	32	180	478	541	62	435	1,541	1,464	263	823	1,471
1919.....	39	268	676	1,250	66	771	2,113	3,010	399	1,177	2,805
1920.....	25	406	804	1,412	46	1,081	2,505	3,530	470	1,363	3,612
1921.....	23	410	866	1,310	36	1,087	2,343	3,375	470	1,363	3,452
1922, end of—											
February.....	23	383	913	1,310	36	994	2,565	3,362	470	1,363	2,593
March.....	23	383	884	1,272	36	981	2,512	3,313	470	1,363	3,298
April.....	23	393	887	1,283	36	999	2,489	3,304	470	1,363	.....
May.....	23	386	906	1,294	35	1,016	2,461	3,278	470	1,363	3,016
June.....	23	395	933	1,329	35	1,060	2,461	3,326	470	1,363	2,716
July.....	23	399	920	1,322	35	1,013	2,473	3,308	470	1,363	2,814
August.....	23	407	946	1,353	35	1,041	2,491	3,356	470	1,363	2,570
September.....	23	402	950	1,346	35	1,048	2,514	3,379	470	1,363	2,725
October.....	23	405	921	1,328	35	1,028	2,549	3,354	470	1,363	2,827
November.....	23	396	934	1,345	35	1,053	2,557	3,394	470	1,363	2,827
December.....	23	340	1,036	1,389	35	1,025	2,664	3,456	470	1,363	2,954
1923, end of—											
January.....	23	359	992	1,369	35	1,015	2,651	3,451	470	1,363	.....
February.....	23	363	989	1,366	34	993	2,667	3,464	470	1,363	.....

¹ Includes Banco de la Nación.

² Figures for 1919 include 79,000,000 pesos, and for succeeding years 4,000,000 pesos, held in foreign legations.

JAPAN.

[Amounts in millions of yen.]

	Bank of Japan.					Tokyo banks.					Capital issues in Japan.	Index of se-curity prices. ²	
	Specie re-serve for notes. ¹	Loans and dis-counts.	Ad-vances on foreign bills.	Note cir-culation.	Gov-ernment deposits in Japan.	Pri-vate depos-its in Japan.	Cash on hand.	Total loans.	Total depos-its.	Total clear-ings.			Average dis-count rate.
Average of end of month figures:													
1913.....	216	47	33	363	.....	7	.....	333	.....	364	8.38	32	.....
1921.....	1,200	107	39	1,226	297	50	.....	1,932	.....	2,572	9.00	186	194
1922.....	1,172	208	94	1,291	409	36	129	1,961	1,789	2,834	9.31	124	.....
1922, end of—													
February.....	1,223	172	26	1,246	328	27	113	1,950	1,751	2,438	9.02	200	188
March.....	1,289	248	58	1,289	422	29	141	1,963	1,749	3,099	9.09	163	182
April.....	1,263	267	61	1,226	520	30	130	1,980	1,761	2,809	9.34	217	160
May.....	1,203	178	50	1,203	469	33	120	1,973	1,748	3,143	9.42	110	168
June.....	1,223	179	98	1,344	377	43	122	1,998	1,798	3,178	9.45	121	170
July.....	1,220	133	82	1,224	427	35	127	1,971	1,802	2,706	9.38	101	165
August.....	1,132	241	90	1,280	488	30	115	1,928	1,783	2,582	9.42	93	165
September.....	1,069	134	115	1,237	382	29	145	1,921	1,822	2,750	9.38	150	152
October.....	1,068	160	142	1,236	437	33	126	1,926	1,812	2,697	9.38	98	160
November.....	1,066	183	141	1,241	445	40	126	1,929	1,828	2,971	9.45	100	161
December.....	1,064	375	205	1,590	333	66	169	2,011	1,869	3,329	9.34	56	.....
1923, end of—													
January.....	1,062	180	159	1,308	380	34	113	2,002	1,860	2,246	.....	137	.....
February.....	1,060	157	140	1,261	396	31	117	2,051	1,894	2,592	.....	.....	.....
March.....	1,057	241	109	1,238	463	29	.....	.....	.....	.....	.....	.....	.....

¹ Includes gold credits abroad, gold coin and bullion in Japan.

² Tokyo market.

CONDITION OF FOREIGN BANKS OF ISSUE.

AUSTRIAN DEPARTMENT OF THE AUSTRO-HUNGARIAN BANK.

[From weekly statements of the Austro-Hungarian Bank.]

[In thousands of kronen.]

	Dec. 31, 1920.	Dec. 31, 1921.	Dec. 31, 1922.
ASSETS.			
Gold coin and bullion.....	53	81	46
Silver and subsidiary coin.....		5	8
Bills of exchange and foreign notes.....	8,754	9,936	303
Foreign credits and gold deposits of the Government to be made available when countersigned by the delegation of the League of Nations.....			528,254,403
Certificates of the war loan banks.....	113,831	241,828	106,600
Discounted bills, warehouse certificates, and other securities.....	23,021,608	29,373,661	781,767,394
Advances against collateral.....	768,996	666,614	494,786
Securities.....	110	927	4,017
Austrian treasury certificates.....		151,773,095	2,558,379,849
Due from Austrian foreign exchange office.....	2,697,157		
Due from liquidators of the Austro-Hungarian Bank.....	7,684,064	7,722,523	7,687,726
Sundry assets.....	1,288,956	17,156,276	1,288,355,732
Total.....	35,583,529	206,944,946	5,165,050,864
LIABILITIES.			
Notes in circulation.....	30,645,658	174,114,747	4,080,177,238
Scrip payable on demand.....		6,951,279	369,493
Deposits and other demand liabilities.....	3,780,416	19,503,161	327,991,960
Due from liquidators of the Austro-Hungarian Bank.....		1,005,567	547,564
Deposits of the Austrian Government.....			528,254,403
Sundry liabilities.....	1,157,455	5,370,192	227,710,206
Total.....	35,583,529	206,944,946	5,165,050,864

HUNGARIAN OFFICE OF NOTE ISSUE.

[From weekly statements of the Hungarian Office of Note Issue.]

[In thousands of kronen.]

	Dec. 31, 1920. ¹	Dec. 31, 1921.	Dec. 31, 1922.
ASSETS.			
Gold coin and bullion, and bills of exchange on countries with high valuta currencies.....		12,245	15,559
Silver and subsidiary coins.....	200	597	595
Notes of the Hungarian office of note issue.....	967,608		
Notes of the Austro-Hungarian bank, and Hungarian treasury certificates.....	7,274,365	17,772,665	18,263,979

¹ Report of the Hungarian Department of the Austro-Hungarian bank.

HUNGARIAN OFFICE OF NOTE ISSUE -Continued.

[In thousands of kronen.]

	Dec. 31, 1920.	Dec. 31, 1921.	Dec. 31, 1922.
ASSETS—continued.			
Notes of the postal savings bank.....		1,177,251	1,369,929
Counterfeit notes of one and two kronen.....		5,695	16,595
Loans and discounts.....	9,381,887	4,903,628	31,051,358
Advances against collateral.....	193,501	1,158,398	2,016,105
Advances to treasury (laws of 1921-1922).....		900,000	16,500,000
Securities.....		22	1,318
Sundry assets.....	152,119	3,186,400	24,772,147
Total.....	17,969,702	29,116,913	94,007,585
LIABILITIES.			
Notes of the Austro-Hungarian bank in circulation.....	14,307,809		
State notes in circulation.....		25,174,941	75,886,987
Cash vouchers.....			22,500
Deposits and other demand liabilities.....	3,227,566	2,239,914	4,760,741
Sundry liabilities.....	434,327	1,702,058	13,337,357
Total.....	17,969,702	29,116,913	94,007,585

BANKING OFFICE OF THE CZECHOSLOVAK MINISTRY OF FINANCE.

[From weekly statements of the ministry of finance.]

[In thousands of Czechoslovak crowns.]

	Dec. 31, 1920.	Dec. 31, 1921.	Dec. 31, 1922.
ASSETS.			
Gold and silver holdings.....	402,819	552,289	817,543
Foreign credits and foreign currency.....	455,596	532,632	657,711
Discounted bills.....	2,015,526	1,892,968	541,398
Discounted securities.....		618,350	173,958
Advances on collateral.....	2,322,714	1,714,534	1,496,925
Due from liquidators of the Austro-Hungarian Bank:			
Austro-Hungarian bank notes.....	7,437,700	8,012,219	8,012,297
Checks and scrip.....	2,084,418	2,084,419	2,084,419
Sundry assets.....	339,408	1,292,142	348,849
Total.....	15,058,181	16,699,553	14,133,100
LIABILITIES.			
Net liability on Austro-Hungarian notes.....	1,948,436	1,056,879	390,579
State notes in circulation.....	11,288,512	12,129,573	10,064,049
Demand deposits.....	1,429,623	1,743,922	2,774,048
Short-term cash vouchers of the banking office.....	226,717	350,503	53,888
Other liabilities.....	164,893	1,418,676	850,536
Total.....	15,058,181	16,699,553	14,133,100

NATIONAL BANK OF THE KINGDOM OF SERBS, CROATS, AND SLOVENES.¹

[From annual reports of the National Bank of Serbia and weekly statements of the National Bank of the Kingdom of Serbs, Croats, and Slovenes.]

[In thousands of dinars.]

	June 30, 1914.	Dec. 31, 1914.	Dec. 31, 1915.	Dec. 31, 1916.	Dec. 31, 1917.	Dec. 31, 1918.	Dec. 31, 1919.	Dec. 31, 1920.	Dec. 31, 1921.	Dec. 31, 1922.
ASSETS.										
Gold.....	69,997	57,170	64,148	63,837	63,781	63,760	63,384	64,174	74,189	64,013
Silver.....	8,166	2,201	2,985	9,917	15,542	15,560	15,536	15,541	16,733	16,546
Total metallic reserve.....	78,163	59,371	67,133	73,754	79,323	79,320	78,920	79,715	90,922	80,559
Foreign money.....	98	120	108	1,952	160	310	3,563	2,089	2,432	1,154
Foreign credits.....	4,300	133,911	193,903	204,761	208,498	217,664	351,996	349,559	307,999	267,587
Bills discounted.....	9,334	6,169	9,014	9,725	12,025	11,181	11,553	242,702	557,745	421,215
Advances against securities.....	2,102	2,727	3,393	3,484	3,518	3,575	4,382	24,197	40,198	99,553
Advances to the Government:										
Currency exchange account.....	57,934	170,277	250,981	246,884	248,576	276,071	601,976	378,965	334,273	312,119
Other advances.....	25,931	26,245	20,530	22,107	23,771	25,788	28,674	2,904,327	4,083,941	4,205,432
Debtors in current account.....										
State domains held as security for notes issued in exchange for Austrian crown notes.....								2,138,377	2,138,377	2,138,377
Sundry assets.....	3,442	3,265	3,250	3,249	5,097	6,066	6,337	4,962		
Total.....	181,304	402,085	548,312	565,916	580,968	619,975	1,087,401	6,124,893	7,555,887	8,525,996
LIABILITIES.										
Capital paid in.....	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,302	13,084	18,211
Surplus.....	705	705	705	705	705	705	705	815	1,837	4,930
Notes in actual circulation.....	91,201	167,261	297,751	298,993	294,893	340,569	664,007	3,329,264	*4,688,444	*5,039,883
Deposits in current account.....	2,968	2,933	7,934	10,546	11,149	6,354	15,414	220,638	235,364	252,669
Due to Government—currency exchange account as per contra.....								378,965	334,273	312,119
Other Government deposits.....	73,237	217,795	227,598	239,900	256,238	252,583	387,811	36,736	136,013	715,059
State domain account as per contra.....								2,138,377	2,138,377	2,138,377
Sundry liabilities.....	3,193	3,391	4,324	5,772	7,983	9,764	9,464	9,795	8,495	44,748
Total.....	181,304	402,085	548,312	565,916	580,968	619,975	1,087,401	6,124,893	7,555,887	8,525,996
MEMORANDUM.										
Surety account.....	355	360	360	360	360	360	355			
Ordinary safe deposits.....	16,738	19,507	35,122	40,681	37,396	38,842	28,010			
Balances on current accounts.....	48,476	66,567	48,493	48,580	48,845	50,742	53,353	968,746		
Securities deposit account.....	2,167	1,794	1,815	1,961	2,837	3,434	6,376			

¹ On February 1, 1920, the new National Bank of the Kingdom of Serbs, Croats, and Slovenes succeeded the Privileged National Bank of the Kingdom of Serbia, which had been in existence from June 1, 1884, to January 31, 1920.

² Including notes held by the bank among its assets.

NATIONAL BANK OF RUMANIA.

[From annual reports and weekly statements of the National Bank of Rumania.]

[In thousands of lei.]

	Dec. 31, 1913.	Dec. 31, 1914.	Dec. 31, 1915.	Dec. 31, 1916.	Dec. 31, 1917.	Dec. 31, 1918.	Dec. 31, 1919.	Dec. 31, 1920.	Dec. 31, 1921.	Dec. 31, 1922.
ASSETS.										
Gold in vault.....	151,511	153,957	187,897	112	2	6	1,347	1,704	1,704	39,300
Silver and subsidiary coin.....	1,302	735	279	188	165	193	202	352	312	834
Total metallic reserve.....	152,813	154,692	188,176	300	167	199	1,549	2,056	2,016	40,134
Notes of the Banque Générale Roumaine.....						122,984	61,727	71,250		
Gold deposits in foreign countries.....		100	33,073	493,156	493,730	493,730	493,755	493,755	493,755	493,755
Foreign exchange and Treasury gold certificates.....	56,534	62,941	80,980	80,980	196,258	343,796	915,763	2,704,763	4,086,131	4,636,932
Loans and discounts.....	207,746	246,130	198,441	127,651	117,994	70,524	158,812	702,483	1,829,630	3,684,976
Loans secured by Government obligations.....	48,078	59,382	37,987	56,974	46,419	36,293	58,971	130,297	172,627	229,069
Loans against other collateral.....	17,385	22,345	18,875	23,055	47,496	49,290	689,717	744,343	724,979	24,185
Loans to agricultural and industrial loan banks.....			28,951	12,839	9,461	4,768	25,370	26,306	58,112	97,956
Advances to the Government:										
Noninterest bearing (1901).....	12,802	11,274	9,687	9,687	8,043	8,043	8,043	8,043	8,043	8,043
For general expenses (1914-1921).....		109,111	303,023	495,830	1,051,919	1,596,102	3,792,765	4,092,602	5,281,379	5,282,136
For redemption of foreign currency (1920-21).....								4,098,297	7,074,349	7,024,952
All other securities.....	35,603	34,655	43,724	50,191	52,189	52,335	52,451	58,752	59,089	48,705
Debits in current account.....	13,541	34,577	20,234	397,510	426,532	431,055	10,175	9,573	25,586	171,511
Bank premises, furniture, and equipment.....	7,544	7,813	7,862	7,837	7,837	7,730	7,938	8,241	15,333	54,584
Sundry assets.....	11,400	27,690	27,988	30,967	20,065	92,155	120,832	990,370	285,167	457,181
Total.....	563,446	770,710	991,001	1,786,977	2,478,110	3,314,054	6,397,868	14,141,631	20,116,396	22,254,119
LIABILITIES.										
Capital paid in.....	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Surplus.....	36,794	39,403	42,045	45,175	48,819	52,491	56,208	60,722	66,339	68,064
Special reserves.....	8,094	8,474	10,256	12,002	13,867	16,682	25,056	18,854	36,772	20,374
Bank notes in circulation.....	437,182	578,244	762,210	1,451,713	1,961,323	2,489,146	4,215,032	9,485,558	13,722,231	15,126,472
Current account and demand deposits.....	31,547	51,056	91,955	221,833	182,108	308,483	895,983	824,284	1,825,520	2,078,134
Sundry liabilities.....	37,829	81,533	72,535	44,254	259,993	435,252	1,193,589	3,740,213	4,453,484	4,949,075
Total.....	563,446	770,710	991,001	1,786,977	2,478,110	3,314,054	6,397,868	14,141,631	20,116,396	22,254,119

¹ Includes 30,000,000 lei due to the agricultural and industrial loan banks.

NATIONAL BANK OF BULGARIA.

[From annual reports and monthly statements of the National Bank of Bulgaria.]

[In thousands of leva.]

	Dec. 31, 1913.	Dec. 31, 1914.	Dec. 31, 1915.	Dec. 31, 1916.	Dec. 31, 1917.	Dec. 31, 1918.	Dec. 31, 1919.	Dec. 31, 1920.	Dec. 31, 1921.	Dec. 31, 1922.
ASSETS.										
Gold.....	55,335	55,094	61,409	68,173	62,855	64,020	36,978	37,075	38,006	38,420
Silver.....	23,416	28,549	22,462	17,204	16,876	19,435	17,429	16,910	20,866	18,412
Total metallic reserve.....	78,751	83,643	83,871	85,377	79,731	83,455	54,407	53,985	58,872	56,832
Foreign bank notes.....	12,161	2,914	194,372	41,044	42,086	95,749	23,562	14,023	2,435	1,323
Due from foreign correspondents.....	1,590	22,697	58,785	650,787	1,197,693	1,090,441	1,003,132	1,307,377	986,736	795,821
Foreign bills of exchange.....	41,088	40,097	35,436	28,616	24,123	20,708	362,277	273,167	121,324	2,142
Bills discounted.....	64,160	75,867	4,741	40,042	77,793	527,481	484,840	419,582	554,403	679,429
Debtors in current account.....	142,900	154,823	146,838	260,776	621,331	881,339	1,742,194	2,801,748	3,667,507	3,770,335
Advances to the Treasury in current account.....	70,089	78,514	80,425	81,309	76,573	72,801	71,309	73,516	115,146	200,969
Long and short term advances against collateral.....								1,862		297,913
Public debt administration.....							8,464	8,311	8,448	18,942
Public securities.....							3,162	3,512	3,411	14,987
Participations.....									14,881	9,394
Exporters' liabilities.....									124,282	254,055
Exporters' foreign exchange bills.....									49,892	21
Treasury bonds.....							221,385	42,140	2,310	4,872
Real estate and furniture.....							2,063	2,127	42,985	122,893
Sundry assets.....							85,422	51,076		
Total.....							4,078,780	5,156,966	5,786,183	6,441,470
LIABILITIES.										
Capital paid in.....							100,000	100,000	100,000	200,000
Surplus and special reserves.....							55,000	63,205	70,000	40,000
Special funds.....							3,280	226,913	237,824	292,060
Notes in circulation.....	188,742	226,615	369,829	833,910	1,492,768	2,298,619	2,858,486	3,354,139	3,615,440	3,885,990
Creditors in current account.....	134,417	136,878	187,095	206,693	408,438	623,174	775,873	1,072,723	969,735	1,248,865
Time deposits.....	50,468	55,210	59,225	66,718	85,825	101,158	120,856	152,457	218,118	209,532
Export license account as per contra.....									14,881	9,394
Due to Government on account of exporters' foreign exchange bills as per contra.....									124,282	254,056
Balance due on account of mortgage loan, 1909.....									26,590	25,240
Public debt account.....								26,150	106,101	
Sundry liabilities.....							138,369	161,379	304,093	276,333
Total.....							4,078,780	5,156,966	5,786,183	6,441,470

BANK OF FINLAND.

[From annual reports and weekly statements of the Bank of Finland.]

[In thousands of Finnish marks.]

	Dec. 31, 1914.	Dec. 31, 1915.	Dec. 31, 1916.	Dec. 31, 1917.	Dec. 31, 1918.	Dec. 31, 1919.	Dec. 31, 1920.	Dec. 31, 1921.	Dec. 31, 1922.
ASSETS.									
Gold.....	42,674	42,641	42,651	42,629	42,661	42,628	42,625	42,625	43,373
Silver.....	1,666	1,301	942	814	536	536	537	547	547
Total metallic reserve.....	44,340	43,942	43,593	43,443	43,197	43,164	43,162	43,172	43,920
Due from foreign correspondents.....	85,242	253,648	275,107	464,250	355,064	74,554	180,266	215,711	707,998
Foreign bank notes and coupons.....	2,646	3,121	2,642	2,021	164	358	846	774	895
Domestic bills.....	60,420	51,697	34,171	34,807	45,143	158,632	219,574	627,445	590,739
Foreign bills.....	5,196	4,643	2,121	357	712	81,735	51,888	8,347	74,923
Loans against mortgages and other collateral.....	25,787	8,840	5,583	5,838	23,322	31,667	33,749	28,435	51,021
Foreign securities.....	22,471	65,851	256,884	434,423	406,774	171,914	166,430	9,238	6,931
Short term advances to the Government.....					427,069	823,406	420,965	303,919	71,712
Other advances to the Government.....							476,092	525,464	511,392
Bank premises and furniture.....	3,374	3,643	3,554	3,466	3,378	3,378	5,876	6,000	12,600
Sundry assets.....	39,805	41,856	43,846	47,234	51,825	9,122	20,736	51,696	53,368
Total.....	289,281	477,241	667,501	1,035,839	1,356,648	1,397,930	1,619,584	1,820,201	2,124,899
LIABILITIES.									
Capital paid in.....	25,000	25,000	25,000	4,715	4,715	25,000	100,000	100,000	100,000
Surplus.....	71,800	62,586	62,498			71,892	123,583	56,000	50,000
Undistributed profits.....	16,134	4,000	8,198			25,939	48,388	69,984	39,505
Notes in circulation.....	141,724	231,614	421,284	764,485	1,156,196	1,123,943	1,341,042	1,356,108	1,420,920
Government deposits.....	8,721	9,074	9,252	10,005	60,446	6,078	26,065	128,363	239,311
Current account deposits.....	14,695	136,689	116,076	237,840	108,615	117,031	53,139	57,855	110,551
Bank orders.....	983	3,354	1,203	3,351	6,430	6,658	6,735	2,831	5,411
Due to foreign correspondents.....	8,063	1,869	16,044	7,928	11,278	8,308	5,810	12,610	35,311
Sundry liabilities.....	2,161	3,055	7,946	7,515	8,968	13,081	14,822	36,250	123,890
Total.....	289,281	477,241	667,501	1,035,839	1,356,648	1,397,930	1,619,584	1,820,201	2,124,899

1 Including an "unmovable" reserve of 5,876,000 marks.

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FEDERAL RESERVE DISTRICTS

