

# FEDERAL RESERVE BULLETIN

(FINAL EDITION)

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ISSUED BY THE  
FEDERAL RESERVE BOARD  
AT WASHINGTON

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NOVEMBER, 1922



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1922

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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.

## TABLE OF CONTENTS.

	Page.
<b>General summary:</b>	
Review of the month.....	1267
Business, industry, and finance, October, 1922.....	1274
The first three years of German reparation: Part I—The treaty of Versailles.....	1288
Treasury refunding loan.....	1272, 1296
Foreign branches of American banking institutions.....	1298
<b>Official:</b>	
Rulings of the Federal Reserve Board.....	1286
State banks admitted to system.....	1285
Fiduciary powers granted to national banks.....	1285
Charters issued to national banks.....	1285
Edge Act corporation authorized.....	1287
<b>Business and financial conditions abroad:</b>	
Railway situation in Great Britain and France.....	1300
The German coal situation.....	1308
Current economic conditions in Argentina and Brazil.....	1314
Economic and financial conditions in Mexico.....	1318
Currency and banking in South Africa.....	1324
Prices in Uruguay.....	1333
<b>Price movement and volume of trade:</b>	
International wholesale price index—United States, England, France, Canada, and Japan.....	1335
Comparative wholesale prices in principal countries.....	1338
Comparative retail prices and cost of living in principal countries.....	1342
Indexes of industrial activity—United Kingdom, France, Germany, Sweden, and Japan.....	1343
Foreign trade of principal countries.....	1345
Foreign trade index.....	1348
Ocean freight rates.....	1348
Report of knit-goods manufacturers of America.....	1224
Production and shipments of finished cotton fabrics.....	1225
Physical volume of trade.....	1226
Building statistics.....	1232
Retail trade.....	1233
Wholesale trade.....	1235
November estimate of corn production, by Federal reserve districts.....	1285
Commercial failures.....	1285
<b>Banking and financial statistics:</b>	
Domestic—	
Discount and open-market operations of Federal reserve banks.....	1237
Condition of Federal reserve banks.....	1244
Federal reserve note account.....	1247
Condition of member banks in leading cities.....	1248
Savings deposits.....	1224
Bank debits.....	1251
Operations of the Federal reserve clearing system.....	1256
Gold settlement fund.....	1255
Gold and silver imports and exports.....	1257
Money in circulation.....	1258
Discount rates approved by the Federal Reserve Board.....	1258
Discount and interest rates in various centers.....	1259
Foreign exchange rates.....	1260
Foreign—England, France, Italy, Germany, Sweden, Norway, Japan, and Argentina.....	1263
<b>Charts:</b>	
Prices of raw materials and consumers' goods.....	1268
Price and production of cotton, wool, and pig iron.....	1269
Banking progress in South Africa.....	1327
International wholesale price index—Federal Reserve Board.....	1335
Index numbers of domestic business.....	1226
Average monthly value of sales of chain stores.....	1251
Debits to individual accounts.....	1251
Foreign exchange index.....	1261

# FEDERAL RESERVE BULLETIN

VOL. 8

NOVEMBER, 1922.

No. 11

## REVIEW OF THE MONTH.

Developments in the business situation during the past year have resulted in current conditions which differ widely from those prevailing during the first half of 1921. At that time business was endeavoring to adjust itself to a continued fall in prices, industry was inactive, and unemployment large. Since the beginning of this year the level of prices has been advancing and the volume of industrial output increasing. The series of changes by which this new condition was brought about constitute so important an influence on the course of business as to call for some account of the process. Effects of a business resumption are so uneven among various industries that the process of readjustment may continue for some time before a general change of direction is noticeable. Looking back over the recent period, however, it is now possible to discern certain well-marked movements that have taken place. Some of the developments are still too much within the present to be fully apprehended, but their significance is clearer even in short retrospect than at the time they occurred. The purpose in reviewing the movements of prices, production, and the volume of business is not to draw from the record any inferences about the future, but merely to describe and measure the changes already effected.

### Recent course of business.

In general outline, the course of readjustment has been clear and well defined. After the decline in the levels of production and prices during 1920-21, production began to increase in July, 1921, and at about the same time prices entered upon a period of relative stability. Early in 1922 prices joined production in the upward movement, and the combined effect of the two was to increase the

volume of business. As a factor influencing the economic wealth of the Nation greater output may be regarded as more fundamental than price changes, but the readjustments in prices during 1921 helped to bring about increased production. Business was emerging from depression and the new confidence created by the change in prices led to the placing of orders and contracts. Price readjustments which stimulate production have a different significance from price advances which continue after industry has reached its productive capacity and when further advances register merely competitive bidding.

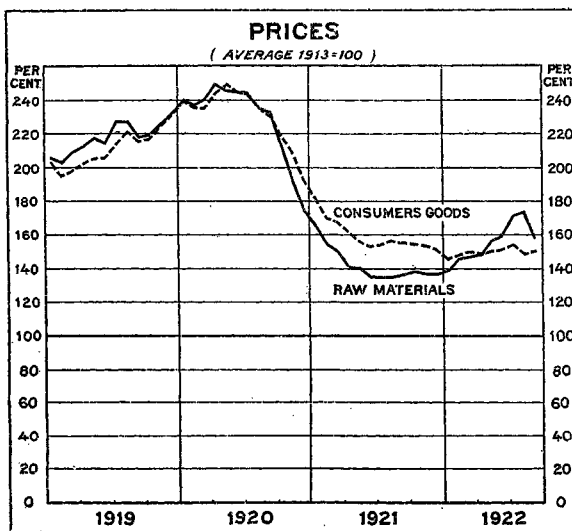
The character and extent of the influence exercised by prices become evident only when

the readjustments between certain groups of prices are considered in some detail. During the downward swing of the

price level from the peak in May, 1920, to the beginning of relative stability in June, 1921, the prices of raw materials fell 45 per cent to an index of 135 (prices in 1913=100), while the prices of goods bought by consumers fell only 39 per cent to a level of 153. The cost of materials fell more rapidly than the prices at which finished products could be sold—a readjustment which offered an incentive to certain lines of industry to resume business activity and to increase output. Monthly changes in the prices of these two groups of commodities from January, 1919, to September, 1922, are shown graphically in the accompanying chart. The groups, which include 88 raw materials and 199 consumers' goods, are a reclassification of certain commodities used by the Bureau of Labor Statistics in constructing its index of wholesale prices.

The period of relative stability in prices, which extended from June, 1921, to January,

1922, furnished a basis for business recovery. During the first six months of this period the index of wholesale prices alternated between 142 and 141—a longer period of relative stability than the business community had experienced during five years preceding. This relative constancy in the general average was, in fact, the result of diverse movements within the system of prices. Important readjustments among groups during these eight months were the increase of 7 per cent in the prices of farm products and the decrease of 15 per cent in the prices of metals and metal products. Higher prices for the farmers' products coming at the crop-marketing time enlarged his buying power, while the lower prices of iron and steel called forth new orders.



In January, 1922, came the turning point for the current upward movement in prices. From that month until August the index of wholesale prices increased from 138 to 155, an advance of 12 per cent. All of the important groups shared in the rise, the fuel group leading the advance with an increase of 39 per cent. The influence of the higher price of coal was reflected in increased prices of coke, pig iron, and other commodities in which the cost of coal is a large factor. During September, when coal prices fell in response to larger supply, the general index decreased to 153, the effect of the decline in the fuel group being partly offset by advances in building materials

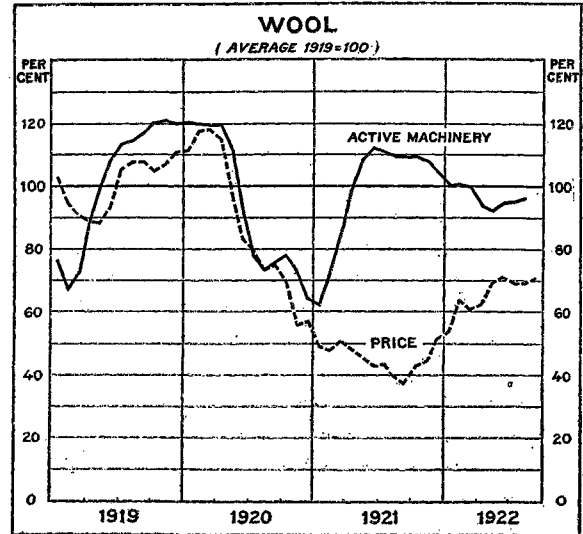
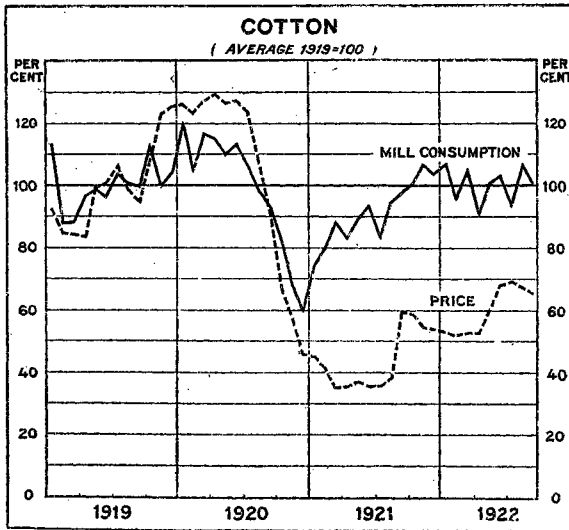
and in metal products. In considering the increase of the price level since the first of the year it is important to distinguish between those advances which have been accompanied by either a present or prospective decrease in supply, as in coal and cotton, and those increases, as in building materials, where the advance has been accompanied by larger output. Recently the prices of commodities have been affected by the difficulties of distribution arising out of the car shortage.

Percentage changes in the price indexes of groups of commodities during the periods referred to above are shown in summary in the table below. Column 1 shows the per cent of decline from the peak in May, 1920, to the beginning of stability in June, 1921; column 2 shows the readjustment among the groups during the period when the general level was relatively stable; and column 3 shows the change from the low point in January, 1922, to the latest month available, September, 1922.

PERCENTAGE CHANGES IN INDEX NUMBERS OF GROUPS OF COMMODITIES BETWEEN SELECTED DATES.

Commodity groups.	May, 1920, to June, 1921.	June, 1921, to January, 1922.	January, 1922, to September, 1922.
All commodities.....	-42.5	-2.8	+10.9
Farm products.....	-52.7	+7.0	+9.0
Foods.....	-44.8	-4.4	+5.3
Cloths and clothing.....	-47.6	+2.3	+4.0
Fuel and lighting.....	-20.1	+2.1	+25.1
Metal and metal products.....	-34.1	-15.8	+19.6
Lumber and building material.....	-44.4	-3.7	+14.7
Miscellaneous.....	-39.9	-6.4	+14.7
House furnishing goods.....	-20.6	-9.2	-2.8
Chemicals and drugs.....	-37.6	-6.8	0.0

The course of production in basic industries also reflects the readjustments incident to business recovery. The general increase in output which began in July, 1921, coincided with the beginning of the period of price stabilization and preceded by six months the advance in the price level. As in prices, the changes in the general level of production were the outcome of diverse movements in different industries. The textile industry, for example, began its increased production a half year earlier than iron and steel. During the first six months of 1922, when the output of pig iron was declining, the average level of production continued to fall.

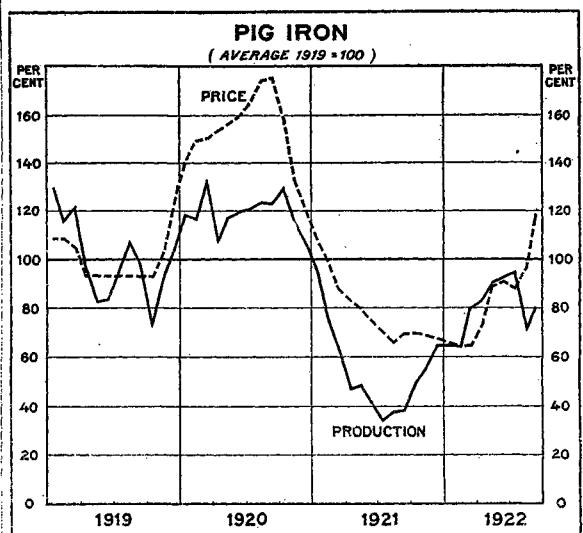


By the middle of 1922, a year after the general advance began, the output of 34 kinds of manufactured goods for which monthly production figures are available rose above the level of 1919. The production of minerals reached its peak in March, 1922, because of the large production of bituminous and anthracite coal, and then declined during the months of the miners' strike. In spite of this decline the index of the combined output of the mines and factories was as high in July, 1922, as the 1919 index of monthly production in these basic industries.

Of particular interest is the textile industry, because it was among the earliest to feel the effect of business reaction in 1920, and one of the first to recover. For the purpose of indicating the course of the industry through this period of readjustment, the mill consumption of cotton and the activity of woollen machinery have been charted, together with the price movements of cotton and wool. The change in each of the series is measured by comparison with the monthly average of 1919. Prices fluctuated over a wider range than production, continuing upward in 1920 after production had reached a maximum and falling to relatively lower levels in the subsequent decline. Production reached its low point at the close of 1920 and began to recover, while prices of materials did not begin to increase until eight months later. The strikes in the New England mills curtailed the production of cotton textiles from April to July of the present

year, but during August production was greater than in any month since June, 1920. Prices of cotton and wool were, of course, affected by many complex factors, but important among these was the resumption of industrial activity. The relationship between production and prices indicated by the chart is an instance in a single industry of what occurred generally during this period—a lag of the price level behind the level of production.

Production and prices of pig iron also show this tendency, prices in 1920 mounting after production reaches the peak and production in 1921 starting upward in advance of prices. Both the decline and the revival of activity in iron and steel came six months later than in



the textile industry. In general, during this period the renewed demand by consumers for such commodities as clothing and shoes preceded the demand by business men for industrial equipment and steel products. During recent months the output of iron and steel has been checked by a shortage of cars available for distributing the products. Here, as in other industries, the after-effects of the strikes of the railroad shopmen and the coal miners are being felt in production and in prices.

Despite the strikes, however, since the beginning of the year the movement of goods has maintained a high level. Each month the total car loadings have been above the average of the corresponding months of the three preceding years. During the months of the coal strike the loading of coal fell to approximately 50 per cent below the three months' average of previous years, but was more than offset by the increased loadings of other goods. The freight movement of heavy structural material tended to maintain the total loadings.

Activity of the building industry, which has been a feature of the business recovery, has carried with it a demand for materials which has increased production in basic industries. During 1922 the volume of building contracts and the monthly production of lumber, cement, and brick have been greater than for the corresponding month of last year. Contracts for building residences were the first to increase, but later the contracts for other classes of buildings grew in volume, and after June, 1922, when contracts for residences passed the high point, an increasing proportion of total construction consisted of buildings for nonresidential purposes. The extensive character of these building operations, the influence exerted by them upon other industries, and the fact that they have been general throughout the country have been important factors in increasing the total volume of business.

One of the best single indicators of the total volume of business transactions is bank debits.

Bank debits as index of business volume.

These figures, reflecting mainly the amount of checks drawn on banks in 141 leading clearing-house centers, have been affected by the movements of commodity prices and production already described, as well as

by changes in the volume of investment and speculation. During the first half of 1921, with the decline in production and price and the decrease in speculative activity, total debits were continuously below the level of 1920. In the latter part of the year, however, with production increasing, prices fairly stable, and the usual seasonal influences operative, bank debits began to rise. This rise reflected also the revival of stock exchange activity, as indicated by the fact that in New York City debits advanced 36 per cent between August and December, 1921, while for centers outside of New York City the increase was 17 per cent.

For every month of 1922, except January, the total of checks drawn has been larger than a year ago, and for September, 1922, the total was 14 per cent in excess of September, 1921. This increase has not been confined to any single locality, nor to any one form of business activity. In every Federal reserve district, whether primarily agricultural in character or chiefly industrial, the level of bank debits for recent months has been higher than last year. A closer analysis of bank debits in New York City and in other centers shows that the rise has not been caused merely by speculative activity, and that during recent months speculation has played a smaller part than earlier in the year.

#### BANK DEBITS IN 1922.

[In millions of dollars.]

Month.	New York City.	Other 140 centers.	Percentage above (+) or below (-) 1921 debits.	
			New York City.	Other centers.
January.....	19,065	15,870	-4.8	-9.5
February.....	16,543	14,040	+9.3	-1.3
March.....	20,397	16,531	+17.5	+2.5
April.....	20,717	15,666	+26.7	+1.3
May.....	21,654	16,317	+26.1	+9.2
June.....	22,063	17,168	+24.3	+11.4
July.....	19,713	16,316	+20.6	+10.6
August.....	18,237	15,817	+20.4	+8.8
September.....	19,215	16,523	+19.3	+9.3

Throughout the year the figures for New York City, where the volume of bank debits is affected by security transactions, show a much larger increase over the preceding year than the figures for other centers, but the difference narrows decidedly during the more recent months.



The increase in the volume of business and the changes in prices and production have not been paralleled by corresponding changes in the volume of bank lending. The relation between the member banks and their borrowers on certain dates is indicated by the statements of condition of all member banks. Lack of parallelism between the volume of business and the volume of bank credit is apparent from the fact that between June, 1921, and June, 1922, the loans and discounts of member banks decreased 5 per cent, while during the same period the price level advanced 5.6 per cent; production in basic industries increased 24 per cent and the volume of business, as measured by bank debits, expanded 19 per cent. In spite of the resumption of business activity, the process of loan liquidation, which began in November, 1920, more than a half year after prices and production reached their peaks, has continued almost without interruption until a short time ago. During the period when loans and discounts were decreasing there was a considerable increase in bank investments. In view of the many factors which influence the movements of bank loans, no close relation to the physical volume of trade is to be expected. Prices in 1922 are lower than in 1920, and industry, even though active, can consequently be financed with a smaller volume of credit than two years ago. Moreover, the continued loan liquidation in certain lines of industry has furnished funds to finance new business without expanding the total of loans. The loans and discounts of all member banks, by Federal reserve districts, on each call date between June 30, 1921, and June 30, 1922, are shown in the following table:

LOANS AND DISCOUNTS OF ALL MEMBER BANKS.

[In millions of dollars.]

Federal reserve district.	June 30, 1921.	Dec. 31, 1921.	Mar. 10, 1922.	June 30, 1922.
Boston.....	1,336	1,306	1,305	1,308
New York.....	5,110	4,894	4,709	4,799
Philadelphia.....	1,080	1,029	1,033	1,022
Cleveland.....	1,684	1,602	1,605	1,624
Richmond.....	884	866	853	855
Atlanta.....	687	685	657	654
Chicago.....	2,870	2,719	2,706	2,701
St. Louis.....	774	784	751	739
Minneapolis.....	758	712	694	687
Kansas City.....	907	856	825	843
Dallas.....	633	594	585	588
San Francisco.....	1,478	1,455	1,455	1,476
<b>Total.....</b>	<b>18,206</b>	<b>17,484</b>	<b>17,161</b>	<b>17,296</b>

While this table does not show how loans changed during the months between the call dates, yet it reveals certain trends. In most of the districts increases in loans during the latter part of the period are recorded, the increase starting as early as December, 1921, in the Boston, Cleveland, and Atlanta districts, and in March, 1922, in the New York, Richmond, Kansas City, Dallas, and San Francisco districts. There are four districts, however, where no advances in loans were noted on June 30, 1922. These districts are Philadelphia, Chicago, St. Louis, and Minneapolis.

More recent figures available for member banks in leading cities indicate that a decided upward trend in the demand for loans has been manifest since the end of August. Total loans and discounts of these banks increased between August 30 and October 18 by \$544,000,000, increases being shown for member banks in all the Federal reserve districts. The big increases reported are for loans secured by stocks and bonds—\$280,000,000—and for all other loans, largely commercial, \$239,000,000. The figures indicate that while the increase in loans secured by stocks and bonds, which represents in the main an increase in speculative rather than in commercial and industrial activity, occurred chiefly in the eastern centers, notably in the New York, Boston, Philadelphia, and Cleveland districts, commercial loans show increases in all the districts, though the largest increases are reported for the New York and Chicago districts.

Increased loan activity during recent weeks has been accompanied by a slackening in the banks' investment operations. Omitting for a moment the developments of the most recent week, it appears that member banks in leading cities between August 30 and October 11, while increasing their loans by \$357,000,000, liquidated a total of \$88,000,000 of investments, of which \$65,000,000 represents Government securities and \$23,000,000 corporate securities. On October 15 the Treasury allotted \$511,000,000 of refunding bonds, and the condition of the reporting member banks on October 18 reflects this operation by an increase of \$142,000,000 in holdings of United States bonds, this increase being considerably

more than sufficient to offset the liquidation of investments during the preceding 10 weeks.

The increase of loans by reporting member banks during the last few weeks has been accompanied by increased borrowings from the Federal reserve banks. Between August 30 and October 25 discounted bills held by Federal reserve banks increased by \$65,000,000, all the districts showing increases except Minneapolis, Dallas, and San Francisco. This resumption in the demand for reserve bank credit on the part of member banks is no doubt partly seasonal in character and partly the outcome of the growth in the volume of business. On October 25 the amount of discounted bills held by Federal reserve banks was \$469,000,000, representing a reduction of 84 per cent from the total of \$2,827,000,000 held on November 5, 1920, the date when borrowings by member banks reached the highest figure. Thus member banks repaid their borrowings from the reserve banks as the liquidation of their own loans proceeded. Because of the nature and function of the reserve banks the decline in their discounts was much more rapid relative to its total than the reduction in loans of member banks. Furthermore, the extent of repayment has been much greater for member banks in leading cities than for banks outside of these cities, as is evident from the fact that bills discounted for reporting member banks in leading cities decreased 95 per cent between November 5, 1920, and August 30, 1922, while discounts for nonreporting banks outside these cities decreased but 50 per cent. The increase of \$107,000,000 in borrowings between August 30 and October 18 reflects an increase of \$147,000,000 in accommodation to reporting member banks, offset by a decrease of \$40,000,000 in accommodation to nonreporting member banks. Liquidation of reserve bank loans was thus much more complete for city banks than for country banks, but liquidation of loans to city banks came to an end in mid-summer of 1922, while the liquidation of loans to country banks still continues.

In considering the relation between the volume of credit and the volume of business during the current year, the outstanding fact is that credit requirements arising out of the expansion of

business have not until recently led member banks to seek accommodation at Federal reserve banks. The extent to which member banks will turn to the reserve banks in the immediate future will largely depend upon the course of production and prices. When the present seasonal demand for credit has passed it will be easier to determine the degree to which the recent increase in borrowings at reserve banks has been caused by a general upward trend in business.



The governors of the Federal reserve banks and the Federal reserve agents held their regular fall conferences in Washington during the week of October 8. The governors and agents met separately for the discussion of matters pertaining to operations of the Federal reserve banks and joint sessions were held with the members of the Federal Reserve Board.

On November 3 the Federal Reserve Board designated W. B. Newsome as Federal reserve agent and chairman of the board of directors of the Federal Reserve Bank of Dallas for the term ending December 31, 1922, to fill the vacancy created by the death of Wm. F. Ramsey, which occurred on October 27.

#### TREASURY FINANCE.

Latest returns for the refunding loan of October 16, 1922, as compiled by the Treasury Department, show that the cash subscriptions for the new 4½ per cent Treasury bonds of 1947-1952 totaled \$1,399,851,900, while allotments on cash subscriptions received totaled \$512,390,000. In addition, subscriptions aggregating \$252,060,900 were received in the form of exchanges of 4½ per cent Victory notes and December 15 Treasury certificates, making total subscriptions for the offering in excess of \$1,651,900,000. Subscriptions on the exchange offering were allotted in full, so that the total allotments on both cash and exchange offerings slightly exceed \$763,400,000. In accordance with previous announcement, allotments of cash subscriptions were made on a graduated scale, all subscriptions for amounts

not exceeding \$10,000 for any single subscription being allotted in full; subscriptions for over \$10,000 but not exceeding \$50,000, 40 per cent; subscriptions for over \$50,000 but not exceeding \$100,000, 30 per cent; subscriptions for over \$100,000 but not exceeding

\$500,000, 20 per cent; subscriptions for over \$500,000 but not exceeding \$1,000,000, 15 per cent, and subscriptions for over \$1,000,000, 10 per cent. The results of these allotments by Federal reserve districts are shown in the following table:

Federal reserve district.	Cash subscriptions.								Exchange subscriptions received and allotted (in full).
	Received.	Allotted.	\$10,000 and under.	\$10,100 to \$50,000.	\$50,100 to \$100,000.	\$100,100 to \$500,000.	\$500,100 to \$1,000,000.	Over \$1,000,000.	
Boston .....	\$113,390,400	\$62,700,300	\$49,015,900	\$3,025,200	\$2,844,600	\$4,906,800	\$1,632,500	\$1,275,300	\$19,508,400
New York .....	667,994,100	198,382,100	109,261,700	9,874,300	9,822,400	23,366,000	16,355,700	29,702,000	146,589,600
Philadelphia .....	103,738,500	46,484,200	32,523,900	3,478,000	2,034,800	4,087,400	1,767,500	2,592,600	7,545,600
Cleveland .....	100,355,300	40,200,000	27,785,000	2,192,000	1,488,000	3,335,000	1,850,000	3,550,000	18,210,700
Richmond .....	37,070,800	20,345,800	15,865,900	1,072,900	534,300	1,602,700	1,120,000	150,000	3,662,200
Atlanta .....	29,608,100	14,158,100	10,077,400	1,224,400	483,800	1,560,000	262,500	550,000	2,450,000
Chicago .....	134,942,800	52,992,000	34,705,300	3,544,400	2,210,000	5,602,000	3,308,800	3,112,500	22,120,800
St. Louis .....	55,300,100	31,244,200	24,625,200	1,633,200	1,737,600	1,719,000	502,500	966,700	7,097,300
Minneapolis .....	33,369,300	9,551,700	5,522,600	399,200	346,500	1,004,000	600,000	1,679,400	2,242,500
Kansas City .....	40,564,900	12,000,000	5,954,100	1,016,200	752,500	1,932,700	994,500	1,350,000	5,270,700
Dallas .....	16,076,800	5,439,200	2,900,300	379,400	529,500	980,000	300,000	350,000	1,762,100
San Francisco .....	67,390,800	18,892,400	9,322,300	1,879,000	921,500	2,553,000	1,047,500	3,169,100	12,752,900
Total .....	1,399,851,900	512,390,000	327,559,600	29,718,200	23,714,500	52,648,600	30,301,500	48,447,600	252,060,900

<sup>1</sup> Includes \$2,848,100 allotted to the Treasury.

The successful consummation of this large financial operation marks the second phase in the execution of the loan refunding policy inaugurated in 1921 by the present administration. The first phase may be said to cover the period from April 30, 1921, when the Treasury first announced its refunding program, to the close of September of the present year, during which the short-term debt, i. e., the debt maturing within about two years from the beginning of the period, was reduced from about \$7,500,000,000 to about \$3,500,000,000, through refunding of about \$2,743,000,000 into Treasury notes with maturities spread over the period from June 15, 1924, to September 15, 1926, and the retirement of the balance. The second phase of the refunding program may be said to have been entered with the placing of the present long-term refunding loan, which matures in October, 1952, but may be redeemed on or after October 15, 1947, on four months' notice.

A general idea of the scope of operations in this field during the near future may be had from the following extracts from Secretary Mellon's letter addressed on October 9 to all banks and trust companies:

There will fall due this fiscal year about \$1,100,000,000 of Treasury certificates of indebtedness, about \$625,000,000 maturity value of war savings certificates of the series of 1918, and about \$1,800,000,000 of Victory notes. Of the

Treasury certificates, about \$48,000,000 represents Pittman Act certificates which will be retired this year through the recoinage of silver bullion, while about \$100,000,000 of loan certificates maturing October 16, 1922, will be paid out of funds already in hand. The retirement of these certificates will leave only tax certificates outstanding, and it will in any event continue to be desirable, with income and profits tax payments as large as they are, for the Treasury to have outstanding at least \$1,000,000,000 of tax certificates in amounts and with maturities conforming to the quarterly tax payments. This correspondingly reduces the amount of necessary refunding into other securities.

After October 16, 1922, the next maturities fall on December 15, and include about \$870,000,000 face amount of 4½ per cent Victory notes called for redemption, and about \$420,000,000 of maturing tax certificates of series TD and TD2-1922, against which the Treasury will receive in December about \$250,000,000 of income and profits taxes. On January 1, 1923, the \$625,000,000 of war savings certificates become payable, but the Treasury has already announced, as you know, a new offering of Treasury savings certificates with a view to refunding as much as possible of the maturity into obligations of the same general character and with the same appeal to the needs of the small investor. The Treasury will shortly announce special facilities for the exchange of maturing war savings certificates for the new Treasury savings certificates, and plans in this manner to provide for a substantial part of the war savings maturity. The only Treasury certificates maturing in the second half of the fiscal year 1923 are about \$266,000,000 on March 15, 1923, and about \$273,000,000 on June 15, 1923, both of which are covered by the income and profits tax payments estimated for those dates. On May 20, 1923, the remaining \$930,000,000 of 4½ per cent Victory notes will mature according to their terms.

## BUSINESS, INDUSTRY, AND FINANCE, OCTOBER, 1922.

Difficulties in handling the increased freight traffic due to car shortage have become an important factor in the current industrial situation. The total number of cars loaded increased during September, chiefly because of heavy loadings of coal and live stock, and during the last week of the month the car loadings were greater than for any week since October, 1920. The increase in production of bituminous and anthracite coal was checked in the latter part of September by the general shortage of cars, a shortage of over 40,000 coal cars developing in less than a month after the settlement of the strike. A shortage of box cars appeared in the first week in August, and by October 7 amounted to 71,063 cars. The difficulty in securing cars for shipment has led to some curtailment of production in lumber and finished steel products. The output of pig iron and steel ingots, however, has expanded steadily since August. Cotton and woolen mills continue to operate at close to capacity and shoe factories have a large volume of business. Agricultural receipts, particularly those of live stock, continue to be heavy.

The number employed at industrial establishments throughout the United States increased 2 per cent during September and the average pay per worker is also higher. The largest increases in number of workers occurred at textile mills and at railroad-equipment factories. Following the wheat harvest, surpluses of common labor are now appearing in the West, while increases of activity in the coal and steel industries have caused local shortages of unskilled labor in industrial sections of the East. Certain establishments which manufacture goods with a seasonal demand, such as agricultural implements and automobiles, have decreased their forces.

The chief reporting lines of wholesale trade showed improvement during September. Increases in sales of hardware and furniture as compared with August, 1922, and September, 1921, reflects the large volume of residential building during recent months. Seasonal declines occurred in sales of farm implements and automobile supplies, but sales were much larger than a year ago. Retail trade continued to improve during September and department-store sales were larger in all districts than in September, 1921.

The wholesale price index of the Bureau of Labor Statistics declined from 155 in August to 153 in September. This drop was chiefly due to the decline in coal prices after the opening of the mines. Prices of building materials and metals continued to rise as a result of the prolonged building activity and the scarcity caused by traffic embargoes and the car shortage.

Bank debits to individual accounts in 140 cities, excluding New York, were 4 per cent larger in September than in August, 1922, and 9 per cent larger than in September, 1921. In New York City debits in September were 5 per cent larger than a month earlier and 19 per cent larger than in 1921.

Loans of reporting banks in leading cities show an increase of \$366,000,000 for the four weeks ended October 18, and their demand deposits show an advance of \$245,000,000. Investments of these banks in United States securities, which showed some decline during the early part of the period, increased by \$144,000,000 during the last week when the Government floated its first post-war long-term bond issue. Discounted paper held by the Federal reserve banks shows an increase for the four weeks ended October 25 of \$49,000,000, their holdings of acceptances increased by \$20,000,000, while Government securities held by these banks declined by \$43,000,000. Federal reserve note circulation expanded by \$55,000,000 during the period. The reserve ratio shows a decrease from 78.4 to 77.6 per cent. This change in the ratio resulted from the increase in note liabilities, which was only partially offset by an increase of \$9,000,000 in cash reserves.

## AGRICULTURE.

The latest estimates for most crops are above the final estimates for 1921 and well above the 10-year average, so that 1922 will rank as a good crop year. Preparation of the ground and seeding of winter wheat has made good progress in various sections of district No. 10 (Kansas City). Both in that district and in district No. 8 (St. Louis) seeding is somewhat retarded by observance of the fly-free dates and also by the dry weather. Corn and oats showed the largest decreases during September in prospective production. In district No. 8 (St. Louis), where the husking of corn is well advanced, the returns indicate that quality is somewhat under the average, owing to premature ripening and damage from insects. In district No. 7 (Chicago) the yield per acre was equal to or a little better than a year ago, and the October 1 estimate indicates a total production for the district closely approximating that of 1921. The barley and rye crops show decided increases compared with last year. District No. 12 (San Francisco) reports a very good crop of barley, which is about 12,000,000 bushels larger than that of last year.

The crops which have shown the most marked declines compared with previous years are sugar beets, peanuts, and grain sorghums. The condition of the rice crop in Louisiana remained unchanged during the month and is 1.1 per cent above the 10-year average for October 1 and 3 per cent above the estimate for that date last year. In California the harvest was delayed by September rains, but no damage was reported. Sugar cane in Louisiana declined in condition for the third successive month, but the condition on October 1 was approximately equal to the 10-year average. Prices paid to producers for the principal crops are lower than they were a year ago and materially below the 10-year average, although the decline during September was less than usual for that month.

## COTTON.

The condition of the cotton crop has further declined, from 57 per cent on August 25 to 50 per cent on September 25, and there has been a corresponding reduction of 440,000 bales in forecasted production. Prior to October 18, 6,962,034 bales had been ginned, compared with 5,497,364 bales and 5,754,582 bales on the corresponding dates in 1921 and 1920. The price of middling upland cotton at New Orleans on October 18 was 22.50 cents, compared with 20.75 cents on September 20.

These figures indicate that the crop is opening faster than usual, and the rapidity with which the staple is being picked is the prin-

cipal feature in most districts. The deterioration in the condition of the crop is very general throughout the cotton-growing section, but the condition is lowest in Georgia and South Carolina. In district No. 11 (Dallas) the decline is attributed to the army worm and the weevil. The cooler weather in October, however, has checked the premature opening of the bolls.

## FRUIT.

With the exception of grapes, the bulk of the deciduous fruit crop of California has been shipped. A shortage of refrigerator cars for grape shipping has been very keenly felt, as the crop has been especially good. The yield and the carload shipments of pears and plums also showed increases as compared with the two previous years. Early varieties of apples have been harvested and marketed, and harvesting of later varieties began during September. The forecasted yield in apples is smaller than the 1921 final estimate. The reduction has occurred mainly in Washington, where the quality as well as the quantity is unsatisfactory. Prices obtained for early apples were lower than those of last year, owing to the abundant apple crop in the East. Late fruit crops in district No. 8 (St. Louis) are large and truck gardens are in good condition.

Prices of both oranges and lemons show a marked advance over last month and September, 1921. The condition of oranges and grapefruit in Florida has improved during September, the fruit developing excellent sizes. Last month's estimate of 15,000,000 boxes will probably be exceeded.

## TOBACCO.

The condition of the tobacco crop has improved slightly during the month and on October 1 was only 2.6 per cent below the 10-year average. Weather has been favorable for marketing and the crop is being rapidly sold in district No. 5 (Richmond). Most of the South Carolina crop has now been marketed. Sales at the Virginia markets during September totaled 1,585,313 pounds for an average of \$20.84 per 100 pounds, compared with 1,719,206 pounds at an average price of \$16.69 per 100 pounds during September, 1921. District No. 4 (Cleveland) reports that on account of the dry summer the burley crop will be smaller than was anticipated. The condition of the crop in Tennessee and Kentucky, however, indicates a substantial increase over the 1921 yield. The entire crop in that section, in both the burley and dark districts, has been cut and housed.

Cigar manufacturers in district No. 3 (Philadelphia) report a continued improvement in demand, and most of the larger manufacturers are operating at capacity. Stocks of cigars in

the hands of manufacturers are decreasing and are at present very light. Most raw materials can be secured in any quantity desired, but the price trend is upward for all grades of tobacco. Prices of cigars are firm but reports of advances are rare, as the present policy of manufacturers is to continue current prices.

#### AGRICULTURAL MOVEMENTS.

Grain receipts at 17 interior centers totaled 134,623,165 bushels in September, a slight increase as compared with last month and September a year ago. Receipts of corn showed the most noteworthy increase, and receipts of wheat, oats, and rye declined slightly. Wheat receipts at Chicago were greatly reduced, reaching the lowest point since June, whereas receipts at Minneapolis showed an increase of 75 per cent compared with last month. Corn receipts at Chicago were practically double the receipts during August, and increases of 363 per cent and of 135 per cent were registered at Indianapolis and Milwaukee. Grain prices increased steadily during the first half of October.

Carload shipments of fruits and vegetables during September show increases compared with last month and with last year, and the total for the current season to date is well above the total for the corresponding period last year. Weekly figures, however, indicate that the peak was passed in September, as total shipments during the first weeks in October began to show a decline. Compared with last month the most noteworthy increases were in shipments of apples from the barrel section, cabbage, celery, grapes, sweet potatoes, and late white potatoes. Peach shipments show an increase of 154 per cent compared with last September, and shipments for the season to September 30 are 27.5 per cent larger than the total for last season. Shipments of citrus fruits during August were considerably less than during July or than during August, 1921. Total shipments from January to September also show a 40 per cent reduction compared with the corresponding period last year.

#### FLOUR.

Flour production during September was 13,785,000 barrels, compared with 12,271,000 barrels in August and 13,349,000 barrels in September, 1921. This increased output was particularly noticeable in districts No. 9 (Minneapolis) and No. 12 (San Francisco). In the former district production increased 11.6 per cent compared with last month and was slightly larger than in September, 1921. The most encouraging feature of the Minne-

apolis market was the continued improvement in demand in spite of strengthening of prices. In district No. 12 (San Francisco) output for 48 mills in September was 129,422 barrels larger than for 53 mills in August, mainly in response to domestic demand. Production of 11 leading mills in district No. 8 (St. Louis) was the largest for any month this year and showed an increase of 3 per cent over last month. In district No. 10 (Kansas City) flour production was slightly smaller than last month and about 9 per cent less than during September last year. The acute car shortage appears to be the most discouraging as well as the outstanding feature. Buyers are said to anticipate a large supply of wheat when the car shortage is over and are waiting to take advantage of the expected price reductions. A great improvement in the export trade is reported from district No. 10 (Kansas City), and to a less extent in district No. 8 (St. Louis), in contradiction to earlier reports that Canadian competition was undermining our foreign flour business. Thirty-six millers in district No. 7 (Chicago) report reductions in output of 9 per cent compared with last month and 6 per cent compared with September a year ago.

#### LIVE STOCK.

Movement of live stock to market was very heavy during September and showed increases both as compared with August and with September last year. Receipts of cattle and calves, sheep, horses, and mules at 15 western markets were larger than during August, and the reduction in receipts of hogs which occurred is customary at this time of year. Receipts of cattle and calves totaled 1,839,143 head, an increase of almost 30 per cent compared with last September. Receipts of hogs amounted to 2,032,510 head, and receipts of sheep were 1,315,599 head, about 20 per cent less than during the corresponding period last year. District No. 10 (Kansas City) reports that the dry weather has forced large numbers of range cattle to the Missouri River territory and Middle West, where feed and water are abundant. Receipts of cattle in that district were the largest for any month since November, 1919, and receipts of calves exceeded any previous month. The greatly reduced receipts of hogs was due to the unseasonably warm weather and to the abundance of corn in the country for feeding purposes. Pastures and ranges suffered from a lack of moisture throughout September, but were benefited by rains in early October in most sections. The drought was most severe in the western part of district No. 11 (Dallas) and in district No. 12 (San Fran-

cisco). In district No. 8 (St. Louis) reports relative to live stock are almost uniformly favorable and the pastures are in good condition. Live-stock prices have shown a general upward tendency during September and early October, and demand continues to be active.

Reports from 35 meat-packing companies show increases of 6.9 and 4.9 per cent in dollar sales as compared with August and with September last year. Operations of meat packers in district No. 10 (Kansas City) continued at the high level of July and August. Wholesale prices for practically all meats are higher than a year ago, and both foreign and domestic demand is good. Stocks of pork and lard at Kansas City continued to decline, but are larger than they were on September 30, 1921.

#### COAL.

Production of bituminous and anthracite coal was maintained at a nearly uniform weekly rate during the first month after the strikes were settled. The September production of bituminous coal totaled 40,964,000 tons, as compared with 22,261,000 tons in August and 35,105,000 tons in September, 1921. The present rate of production is only slightly higher than the September average and is lower than that prevailing during October in 1918, 1919, and 1920. The chief limiting factor continues to be a shortage of railroad cars, although a shortage of miners is also reported in a few sections. Production in the central Pennsylvania fields was considerably reduced during early October by these causes and by lack of water for boilers, resulting from the prolonged drought. Both district No. 3 (Philadelphia) and district No. 4 (Cleveland) state that buyers are curtailing purchases in hope of securing lower prices. September receipts of soft coal in district No. 9 (Minneapolis) were twice as large as in September, 1921, as a result of a consistent effort to prepare for the early northern winter.

Anthracite production amounted to 4,979,000 tons in September, as compared with 161,000 tons in August and 7,124,000 tons in September, 1921. The weekly output has been about 1,900,000 tons since the middle of September. During the current year to October 10 anthracite lake shipments from Buffalo totaled only 133,000 tons, as compared with 3,249,000 tons in the corresponding period of 1921. District No. 3 (Philadelphia) reports that demand is becoming somewhat less insistent. Substitution of bituminous coal and fuel oil has so depressed the market for steam sizes that some producers are storing a part of their output. Price quotations did not change

during October. Quotations for stove coal vary from \$8 to \$9.50 per ton.

Coke production increased substantially during September. The output of by-product coke was 25 per cent larger than in August, while beehive ovens increased their output 12 per cent. The price of Connellsville foundry coke declined slightly during October.

#### PETROLEUM.

Total production of crude petroleum declined from 46,295,000 barrels in August to 45,246,000 barrels in September. Daily average production, on the other hand, advanced from 1,500,677 barrels in August to 1,508,200 barrels in September, and this increase in rate of output continued during the first two weeks of October. Total stocks of American and Mexican oil in this country were augmented by 1,363,000 barrels and aggregated 273,264,000 barrels at the end of September. Drilling operations were somewhat further reduced and the number of new wells completed declined from 1,709 in August to 1,572 in September.

In district No. 12 (San Francisco) daily average production of crude petroleum increased 6.4 per cent during September and reached a new maximum rate of flow. Shipments also increased, but are still at a considerably lower level than production. The number of new wells completed and the daily average new production in California showed large increases as compared with August.

Daily average production also increased in district No. 10 (Kansas City), but the increase only amounted to 0.7 per cent. September well completions in the States of Kansas, Oklahoma, and Wyoming were more numerous than in August, but the number of rigs and wells drilled showed a substantial decline. Both total daily average production and initial production of new wells in district No. 11 (Dallas) were lower in September than in August. Prices for crude oil continue unchanged throughout the mid-continent and coastal fields.

#### IRON AND STEEL.

Production of iron and steel increased considerably during September, but the total monthly output was still substantially smaller than in July. Pig-iron production amounted to 2,034,000 tons, as compared with 1,816,000 tons in August and 2,405,000 tons in July; while steel-ingot production aggregated 2,374,000 tons in September, as compared with 2,215,000 tons in August and 2,487,000 tons in July. The number of furnaces in blast

was increased from 142 to 188, which is only three less than the maximum for the current year. Steel mills have been much embarrassed during October by a shortage of shipping facilities, and some mills have curtailed their activity. Structural-steel business is continuing to expand, however, due to a few very large contract awards. The unfilled orders of the United States Steel Corporation at the end of September amounted to 6,692,000 tons, which was the largest aggregate since February, 1921. Pig-iron prices have shown a distinct downward tendency since October 1, due to the importations of foreign iron, while prices of most finished steel products are unchanged.

Reports from district No. 3 (Philadelphia) state that iron and steel plants are now operating at about 75 per cent of capacity. Machine and machine-tool factories have been receiving exceptionally heavy orders and have advanced their prices. District No. 4 (Cleveland) reports that the more highly finished lines of steel such as sheets, tubular goods, wire products, and tin plate are in stronger demand than plates, shapes, and bars. Purchases of steel rails for 1923 delivery immediately prior to the price advance on October 1 are estimated to have totaled 1,500,000 tons. Iron and steel producers in district No. 6 (Atlanta) have been hampered by a shortage of freight cars. Fewer big sales are reported, but a considerable business is being done in small lots.

#### AUTOMOBILES.

Automobile factories curtailed their production during September. The output of passenger cars was 186,151, a decline of 24.7 per cent, while truck production totaled 18,353, a decline of 22.8 per cent. A reduction in factory operations is customary at this season of the year, and it is worthy of note that the September output was substantially larger than in 1921, especially in the case of trucks. Factory shipments were also considerably smaller than in August, but larger than in September, 1921. District No. 7 (Chicago) reports that automobile factories have been hampered by the shortage of railroad cars. As a result, automobiles driven away or shipped by boat were a much larger proportion of total shipments in September, 1922, than in September, 1921. According to district No. 4 (Cleveland) there is still a strong demand for closed-car bodies. Manufacturers, however, find difficulty in making closed cars of good quality at the prices which most consumers desire to pay. Tire production has been larger this year than in 1921, except in July and August. There has

been a decided growth in the output of solid tires. Prices of tires have registered a steady decline and are now at the lowest point on record.

#### NONFERROUS METALS.

The price of lead improved during October, while there was a slight decline in prices of copper and zinc. The price of common lead at New York was 6.50 cents on October 18, as compared with 6.10 cents on September 20 and 5.75 cents on August 16. Production was 4.8 per cent larger in September than in August. Shipments of lead ore in district No. 10 (Kansas City) increased from 5,803 tons in August to 7,526 tons in September, while the average price received was \$3.47 per ton higher. Operators' stocks total about 200 tons, as compared with 1,700 tons a year ago.

Zinc prices fluctuated considerably during the last month. The price of prime western brands at St. Louis rose from 6.70 cents per pound on September 20 to 6.875 cents on September 25, declined to 6.625 cents on October 11, then advanced to 6.80 cents on October 16. Slab zinc production increased from 31,423 tons in August to 33,134 tons in September, while zinc stocks declined to a total of 18,806 tons. Shipments of zinc ore in district No. 10 (Kansas City) increased substantially during September, and there was an advance of \$1.78 per ton in the average price received for ore.

The price of refined electrolytic copper delivered at New York, which had been stabilized for several months at 14 cents per pound, declined to 13.875 cents during October. September mine production totaled 95,665,000 pounds, a decline of 5.1 per cent as compared with August. Silver production declined 4.3 per cent during September to a total of 5,324,873 troy ounces. Factory consumption of tin has recently been very large and aggregated 5,050 tons in September, as compared with 4,150 tons in August and 2,605 tons in September, 1921.

#### COTTON TEXTILES.

Although there was a decline in cotton consumption during September from the high point reached in August, the cotton textile industry is still operating at close to capacity. In fact, the 495,344 bales consumed in September made the largest figure for that month in any year since 1917. This total was only 6 per cent smaller than in August, in which month consumption was the greatest in over two years. Furthermore, the number of cotton spindles active during September—33,296,513—was over 2 per cent greater than the August total. More spindles were active in the cotton-



growing States than during last year, whereas in the other States the reverse was true. Within recent months the activity outside the growing sections has been increasing.

Advances in prices have been general throughout the country for various grades of yarns and goods. This is attributed by district No. 3 (Philadelphia) to the improved demand, the light stocks, and the upward trend of raw-cotton quotations. The general level of prices of cotton goods is now approximately the same as that prevailing a year ago. Striking advances were made by print cloths, sheetings, and drills.

Improvement in the demand for both yarns and goods was reported by district No. 3 (Philadelphia), and manufacturers of goods are operating at over 80 per cent of capacity on a one-shift basis. Mills in district No. 5 (Richmond) are also receiving a good demand for their products and are generally sold up until the end of the year. Many firms are running night shifts. Detailed reports from 31 cotton-cloth manufacturers in district No. 6 (Atlanta) give statistical evidence of the status of the industry during September. Production was 16 per cent and shipments 7 per cent less than in August. This was partly due to the shortness of the month, as the number of employees at the end of the month was slightly larger. Stocks declined 10 per cent and orders on hand at the end of the month were 32 per cent larger. Furthermore, comparison with last year is favorable, as production, shipments, and number of employees all advanced from 10 to 16 per cent and stocks declined nearly 40 per cent. Returns from 30 cotton-yarn manufacturers show a betterment since August similar to that noted in cotton goods, and as compared with last September an even greater improvement occurred. Orders were 80 per cent, shipments 20 per cent, and production 30 per cent larger than they were a year ago.

#### WOOLEN TEXTILES.

Substantially increased activity in the production of woollen textiles is shown by statistics for active machinery on October 1, and improvement in demand for these products during September and October was indicated by reports from the various Federal reserve banks. On October 1, 72.4 per cent of total looms wider than 50-inch reed space were active, which, although smaller than in September, 1921, is the largest percentage since last December. This is a continuation of the upward movement begun last June. The activity of the narrow looms also increased. A greater number of woollen spindles were active on October 1 than on September 1, and the per-

centage of activity in worsted spindles increased during the same period from 74.8 per cent to 81.4 per cent. More worsted spindles were active than on any date since March. The woollen spindles are still relatively more active than are the worsted machines, although the actual number of spindles in operation is greater for the latter group. Activity among carpet and rug looms also made a further gain.

Reports from various districts indicate increased buying of raw wool since the middle of September, although district No. 3 (Philadelphia) notes that there has been no feverish activity, as buying has been more for mill account than for speculative purposes. Receipts and shipments of raw wool at Chicago during September were reported by district No. 7 (Chicago) to be greater than during August but less than those of a year ago. The price trend of wool in both domestic and foreign markets is upward. This tendency is attributed by district No. 3 (Philadelphia) to a world scarcity of fine merinos and to light stocks of domestic wool.

Demand for both woollen and worsted goods in district No. 3 (Philadelphia) has increased, and worsteds for men's wear are selling in larger quantities than they were a year ago. Mills generally have reduced their stocks to a minimum. Orders for both weaving and knitting yarns have also increased in the Philadelphia district, particularly for the former. District No. 7 (Chicago) reports that the weather in September stimulated sales of woollen and worsted goods. Prices throughout the country are considerably stronger, and quotations on spring lines have been advanced by some firms. The advance in worsteds was relatively greater than that on woollens.

#### CLOTHING.

Sales of clothing reported by 22 firms in district No. 2 (New York) were nearly 30 per cent larger during September than during the same month last year and over 3 per cent greater than in August. The greatest improvement occurred in the case of men's clothing. Manufacturers report an excellent demand for ready-to-wear apparel. In district No. 3 (Philadelphia) clothing firms are operating at from 75 to 100 per cent of capacity, but the warm weather of early fall was a deterrent to buying. District No. 8 (St. Louis) reports that more seasonable weather in late September and early October caused a decided improvement in buying, but September sales were 5 per cent below those of September, 1921.

Makers of ready-to-wear clothing in district No. 7 (Chicago) report that fall orders during this season were 13 per cent smaller than

during the corresponding period of the 1921 season. Production of suits during September was over 20 per cent less than during last September and totaled only two-thirds of the August output. Shipments were also smaller. On the other hand, six tailors to the trade indicate increases of nearly 50 per cent over figures for both August and last September in all items—that is, orders, production, and shipments.

#### SILK TEXTILES.

Sales of broad silks during September in district No. 3 (Philadelphia) were larger than during the previous month and also exceeded sales in September, 1921. The demand, however, is not yet considered to be satisfactory and is poor for some lines. Production schedules in the Philadelphia district average not more than 60 per cent of capacity. Prices of raw silk advanced considerably in the few weeks prior to the middle of October and reached the highest point since 1920, but purchases were curtailed, and quotations have recently fallen to some extent. Manufacturers have made but slight advances in the prices of goods.

Paterson and North Hudson manufacturers reported very substantial gains in production during September and October, and in the former city 40 per cent of the total available looms were being operated on October 21. This is to be compared with 30 per cent on September 23, 1922, 22 per cent on August 28, 1922, and 21 per cent on October 22, 1921. Production in the less important center of North Hudson is greater in per cent of capacity than in Paterson, but recent increases have been smaller, and fewer looms were active on October 21 than on the corresponding date last year. Part of the recent improvement in these centers is attributed to settlement of labor disputes, but most of it is due to larger demands for merchandise.

#### HOSIERY.

During September and early October the hosiery industry in district No. 3 (Philadelphia) experienced a belated improvement, and a fair volume of orders for future delivery was received. The silk and silk fiber lines, which have had a poor demand until recently, shared in this betterment, as well as the cotton wear. The cheaper lines are selling best, and the recent gain in sales has been particularly favorable to makers of seamless hosiery. Reports regarding heather goods are conflicting. Returns from manufacturers of various lines show an increase of over 100 per cent in orders booked during

September as compared with those of August by firms selling to wholesalers, and of 34 per cent by those selling to retailers. Both groups report approximately 40 per cent improvement in orders as compared with September, 1921. Shipments were larger than in August, but smaller than during last September. Production also fell below that of a year ago, but in the case of firms selling to the retail trade gained 13 per cent above the output for August. Stocks on hand were larger than on September 30, 1921, whereas unfilled orders were smaller.

In district No. 6 (Atlanta) cotton-hosiery mills reported a further increase in orders during September, although the total volume booked was less than in September, 1921. Production declined slightly from the August output, but exceeded that of last September, and the number of employees at the end of the month was larger than on both August 31, 1922, and September 30, 1921. Unfilled orders on hand were one-sixth smaller than at the end of August, despite the increases in orders booked, thereby indicating a larger volume of shipments.

#### UNDERWEAR.

Underwear production, both in dozens and in per cent of normal, declined during September and was less than during any month within the past year except July. The output for 52 mills reporting for September totaled 513,572 dozens. Comparative reports from 40 mills showed decreases of from 8 to 11 per cent in unfilled orders, new orders, shipments, cancellations, and production, which were largely due to curtailment in the winter lines.

Ten firms in district No. 3 (Philadelphia) also report declines in winter underwear during September as compared with August in all items except shipments, which were one-eighth larger. Orders fell off over 25 per cent, production 4 per cent, and unfilled orders 36 per cent. On the other hand, 14 firms in the Philadelphia district making summer garments note increases in all items except shipments as compared with August. Their reports, however, indicate that business is much less favorable than it was a year ago, as production declined 36 per cent, shipments nearly one-half, and orders booked 85 per cent as compared with September, 1921. Stocks, on the other hand, more than doubled.

#### SHOES AND LEATHER.

Prices of Chicago packer hides increased during the first three weeks of October and sales were in considerable volume. There have been further advances in prices of goat and sheep skins, but the gains are comparatively small.

Tanning activity varied materially in different branches of the industry and in different sections of the country during October. Tanners in district No. 7 (Chicago) reported some reduction in sales during September, which they attributed to a resistance to rising prices. District No. 3 (Philadelphia), on the other hand, states that sales of heavy leather to both the shoe and belting trades are large. Upper leathers are also moving freely, and tanneries in Philadelphia have advanced wages 20 per cent. Demand for chamois and hat leathers is especially strong. Prices of glove leather are advancing, and glove factories are operating on a larger scale than in August.

Shoe production totaled 28,961,051 pairs in September, as compared with 28,077,392 pairs in August. Eight concerns in district No. 1 (Boston) report that September production was 11.6 per cent less than in August, but 11.7 per cent greater than in September, 1921. Shipments by seven of these firms decreased 11.8 per cent as compared with August, and unfilled orders declined 23.4 per cent. In district No. 3 (Philadelphia) 44 reporting firms increased their output 1.6 per cent during September. New orders were 38.7 per cent larger than in August and the volume of unfilled orders increased 3.3 per cent. Shipments and stocks declined 1.4 per cent and 14.1 per cent, respectively. Retail shoe sales in the Philadelphia district also increased 38.8 per cent during September and were 18.2 per cent larger than in September, 1921. The rate of turnover is also higher than a year ago. Prices paid by retailers are rising, but this has been only reflected to a small degree in consumers' prices. Production of 34 concerns in district No. 7 (Chicago) was 2.4 per cent less than in August, but 39.1 per cent larger than in September, 1921. September shipments were 8.5 per cent smaller than in August, while both stocks and unfilled orders declined during the month. Sales of 11 reporting interests in district No. 8 (St. Louis) were 12 per cent less in September than in August. Trade in men's shoes is exceptionally good in that district. Sales of women's shoes, however, are less than usual at this season, due to radical changes in styles.

#### PAPER.

Recent gains in the paper industry have been pronounced and were general among the various grades and the different sections of the country. Newsprint production and shipments during August were the largest recorded, and stocks were the smallest since January, 1920. Production of the other principal grades of paper and production and shipments of wood pulp during August exceeded similar figures for any other month since the fall of 1920, when output

was at its highest. Newsprint statistics for September show a purely seasonal decline in production below the August figure, but shipments increased further. Stocks continued their decline.

District No. 1 (Boston) reports show that quotations on finished paper have not advanced in proportion to the increased demands and to the advances in raw material prices. Both mills and wholesalers in district No. 3 (Philadelphia) received excellent demand for all grades of paper during September and October, and nearly all mills are operating at capacity. Some manufacturers are refusing future orders at current prices. The paper and pulp industry in district No. 4 (Cleveland) showed continued improvement, and in district No. 7 (Chicago) employment in paper factories was equal to that during August and one-fifth larger than during last September. Dealers in the Chicago district report gains in sales during September.

#### LUMBER.

Lumber cut declined during the latter part of September, and the total cut during the month for 551 mills reporting to the National Lumber Manufacturers' Association amounted to 1,207,220,000 feet, in comparison with 1,326,684,000 feet for 535 mills in August. Railroad shipments of forest products decreased from 260,282 cars in August to 246,441 cars in September, owing largely to a shortage of cars.

Four lumber associations in district No. 12 (San Francisco) report declines of 1.9 per cent in production, 8.6 per cent in orders, and 0.8 per cent in shipments for September, as compared with August. Comparisons with September, 1921, show large increases for all items, varying from 19 per cent in orders to 58 per cent in production. Logging operations continued to increase during September, and the supply of logs was 10 per cent larger on October 1 than on September 1. Some shingle mills have been closed on account of labor disputes and an inadequate supply of railroad cars.

Reports of 115 mills belonging to the Southern Pine Association in district No. 6 (Atlanta) showed that production, orders, and shipments registered pronounced declines during September, while stocks increased. Some plants have been obliged to close on account of inability to obtain cars. Operations of 43 southern pine mills in district No. 11 (Dallas) were also curtailed during September. Good grades of lumber are in better demand than the cheaper varieties. In district No. 9 (Minneapolis) production and shipments of eight reporting companies declined in September, but there was an

increase of 52 per cent in the volume of new orders.

#### BUILDING.

The value of contracts awarded in seven Federal reserve districts (compiled from statistics gathered by the F. W. Dodge Co.) totaled \$244,261,613 in September, which was 15.3 per cent less than in August and 7.4 per cent greater than in September, 1921. September was the fourth successive month in which a decline was registered by total contracts let, but there continued to be a wide divergence of movement in the several districts. Districts No. 2 (New York), No. 3 (Philadelphia), No. 5 (Richmond), and No. 9 (Minneapolis) showed decreases in the value of contracts, the greatest decline amounting to 43 per cent in district No. 3. Increases occurred in districts No. 1 (Boston), No. 4 (Cleveland), and No. 7 (Chicago), each increase being slightly in excess of 9 per cent. The volume of residential building decreased slightly during September in five of these seven Federal reserve districts, but these decreases were more than counterbalanced by increases of 19 per cent in district No. 2 (New York) and 36 per cent in district No. 4 (Cleveland). Statistics of number and value of building permits issued in 168 cities are published on page 310.

Demand for building materials continues to be strong, and prices have been advancing for several months. Both cement and brick production reached the highest level this year during August, but have been somewhat curtailed since then, as it has been difficult to secure railroad cars in which to ship them from factories.

#### EMPLOYMENT.

The volume of employment and the average wage per worker both increased during September. Employment at 2,653 manufacturing establishments scattered throughout the United States increased 2 per cent, while the total pay roll increased 3.8 per cent. Car building and repairing plants, cotton-finishing factories, and woolen mills reported the largest increases in number employed. Factories manufacturing agricultural implements, automobiles, and tobacco decreased their forces. There is still a considerable surplus of clerical workers in the large cities.

Reports from district No. 1 (Boston) indicate that employment increased during September. The industries which showed the largest gains were textiles, shoes, jewelry, cordage, and celluloid. The granite industry is still much curtailed. Some unemployment exists in district No. 2 (New York), especially

among clerical workers. The outstanding feature in that district, however, is the increase of employment in the metal and machine industries. Employment in the coal and steel industries of district No. 3 (Philadelphia) showed marked improvement during September. There is a pronounced shortage of unskilled labor. Railroad shops and locomotive factories have also largely increased their forces. The Pennsylvania State Department of Labor reports that the volume of unemployment in six cities of Pennsylvania declined 81.6 per cent during the first nine months of 1922. District No. 4 (Cleveland) also reports a shortage of common labor. Blast furnaces and steel mills in the Pittsburgh section have increased their operations. The seasonal slackening in the automobile and rubber-tire business has caused some unemployment in Toledo and Akron.

The lumber industry is employing many additional workers in district No. 5 (Richmond). Employment has increased also in the textile, leather, and metal industries. There is a surplus of tobacco workers. The shortage of railroad cars has resulted in some reduction of employment at coal mines and lumber mills in district No. 6 (Atlanta). There is a considerable demand for cotton pickers.

Reports from 219 firms in district No. 7 (Chicago) showed that the number employed increased 0.8 per cent during September and the average pay per man increased 1.8 per cent. Manufacturers of automobiles and agricultural machinery curtailed their forces 9.5 per cent and 7.2 per cent, respectively. On the other hand, factories manufacturing building materials, machine tools, steel, stoves, musical instruments, and shoes reported substantial gains. A number of plants in district No. 8 (St. Louis) which have been embarrassed by a shortage of fuel increased their operations during September. Employment has improved in the packing industry, and road building continues to absorb large numbers of unskilled workers. The demand for farm labor continues to be strong in district No. 9 (Minneapolis), and unemployment is largely confined to striking railroad shopmen. In districts No. 10 (Kansas City) and No. 11 (Dallas) a surplus of unskilled labor has developed. Reports from 348 industrial plants in the Kansas City district, however, showed an increase of 3.2 per cent in the number of employees. There is some unemployment among skilled building craftsmen and oil workers in Texas. Shortages of bricklayers and carpenters are reported from district No. 12 (San Francisco). The supply of steel workers and clerical workers in California still exceeds the demand.

WHOLESALE TRADE.

PERCENTAGE OF INCREASE (OR DECREASE) IN NET SALES IN SEPTEMBER, 1922, AS COMPARED WITH THE PRECEDING MONTH (AUGUST, 1922).

[Minus sign (-) denotes decrease.]

District.	Groceries.		Dry goods.		Hardware.		Drugs.	
	Per cent.	Number of firms.	Per cent.	Number of firms.	Per cent.	Number of firms.	Per cent.	Number of firms.
No. 2.....	7.9	42	0.1	8	7.6	11	6.7	6
No. 3.....	1.4	67	27.4	22	5.3	35	0.1	16
No. 4.....	4.7	7	13.9	5	15.4	3	-0.4	3
No. 5.....	2.9	45	2.1	15	9.8	19	8.0	13
No. 6.....	-0.8	37	-2.2	21	5.3	24	7.0	3
No. 7.....	5.9	40	6.8	10	-0.5	17	0.2	13
No. 8.....	-3.5	16	-2.8	5	3.3	3	.....	.....
No. 9.....	-6.0	52	-19.4	6	-5.3	13	.....	.....
No. 10.....	8.5	7	-5.2	5	3.8	12	3.3	5
No. 11.....	22.6	11	-5.2	11	21.4	12	4.3	8
No. 12.....	8.4	31	6.7	15	1.0	22	-4.9	9

PERCENTAGE OF INCREASE (OR DECREASE) IN NET SALES IN SEPTEMBER, 1922, AS COMPARED WITH THE SAME MONTH LAST YEAR (SEPTEMBER, 1921).

[Minus sign (-) denotes decrease.]

District.	Groceries.		Dry goods.		Hardware.		Drugs.	
	Per cent.	Number of firms.	Per cent.	Number of firms.	Per cent.	Number of firms.	Per cent.	Number of firms.
No. 2.....	5.9	42	-5.5	8	21.6	11	8.0	6
No. 3.....	-1.5	67	-0.2	22	16.0	35	5.2	16
No. 4.....	3.6	7	-1.1	5	24.7	3	-4.8	3
No. 5.....	-0.2	45	-8.5	15	9.2	19	3.5	13
No. 6.....	4.7	37	-22.6	21	9.6	24	19.1	3
No. 7.....	4.7	40	2.3	10	18.1	17	2.8	13
No. 8.....	-7.3	16	6.5	5	13.7	3	.....	.....
No. 9.....	-1.6	52	-0.3	6	14.0	13	.....	.....
No. 10.....	-4.7	7	-8.1	5	9.0	12	-6.5	5
No. 11.....	17.4	11	-1.0	11	33.0	12	2.0	8
No. 12.....	13.9	31	1.7	15	17.2	22	1.0	9

Further general improvement occurred in wholesale trade during September. This trend was particularly pronounced in hardware and furniture, in which lines sales were in most districts materially greater during September than during either August, 1922, or September, 1921. This was no doubt due to the large volume of building completed this year. In dry goods recessions from the August figures were noted in 5 of the 11 reporting districts, and business was poorer than during last September in every district except No. 7 (Chicago), No. 8 (St. Louis), and No. 12 (San Francisco). Groceries were materially better than last year in districts No. 11 (Dallas) and No. 12 (San Francisco), but in other sections changes were smaller, ranging from a decrease of 7.3 per cent in district No. 8 (St. Louis) to an increase of 6 per cent in district No. 2 (New York).

Scattered reports from dealers in farm implements, auto supplies, and auto tires indicate seasonal declines in their sales during September, but trading in these lines was in excess of that of a year ago. Sales of drugs were generally larger. In boots and shoes, of the seven reporting districts all except No. 6 (Atlanta) and No. 8 (St. Louis) show improvement over August. On the other hand, only the Atlanta district reported a substantial gain as compared with September, 1921, and sales were larger in but two other districts.

RETAIL TRADE.

Distribution at retail has shown a marked improvement during September. Seasonal demand is in large measure responsible, but the improvement is also due to increased industrial activity and the filling of demands previously delayed by labor difficulties. September sales of 502 department stores were substantially larger in August and were 11.9 per cent larger than in September, 1921. The warm weather during September tended to reduce fall buying of clothing, but, on the other hand, radical style changes had a stimulating effect on sales of women's garments, so that in general clothing sales showed satisfactory increases. Demand in most districts was for medium or low-priced goods. Increased sales compared with last September were reported in all districts, ranging from 0.7 per cent in district No. 10 (Kansas City) to 18.8 per cent in district No. 4 (Cleveland). With the exception of a 12 per cent decline in district No. 3 (Philadelphia), all districts report larger stocks on hand than at the end of August. Districts No. 1 (Boston), No. 11 (Dallas), and No. 12 (San Francisco) are the only districts showing an increase in stocks compared with last year. The substantial gains in sales compared with a smaller augmentation of stocks increased the rate of turnover during September. The ratio of outstanding orders at the end of September to purchases for 1921 was 8.6 per cent, which was slightly lower than at the beginning of the month.

PRICES.

In September, for the first time in the current year, the general level of wholesale prices moved downward, the index numbers of the Federal Reserve Board and the Bureau of Labor Statistics showing decreases of 1 and 2 points, respectively. The most influential factor in this movement was the drop in coal and coke prices. Pig iron and the metals, however, still continued to rise. The prices of agricultural products, which fell so markedly the previous

month, recovered to some extent during September. Lumber prices rose considerably.

The Federal Reserve Board index shows that goods in a semimanufactured state are still steadily increasing, particularly steel products. As with raw agricultural products, so in the case of foods and staples, there were diverging price trends. Flour and meats continued to decline, while butter, eggs, and milk showed decided increases. Nearly all of the chief imported commodities increased in price during September.

In the Bureau of Labor Statistics index the fuel and lighting group declined 27 points, but both of the groups of metals and metal products and building materials rose 8 points. A rise of 2 points occurred in each of the three groups of farm products, cloth and clothing, and chemicals and drugs. Foods remained unchanged.

#### FOREIGN TRADE.

The most striking fact disclosed by the preliminary foreign trade returns for September is the radical decline in the value of imports. From the year's high level of \$281,400,000 in August there was a reduction of approximately \$50,000,000, or over 17 per cent, in September. Exports, on the other hand, increased from \$301,800,000 in August to \$317,000,000 in September, with the result that the excess of exports amounted to \$85,000,000, in contrast to the very low balance of \$20,000,000 in the previous month. Compared with the same period of last year, exports have been at a lower level this year to date, while imports have been higher, in consequence of which the favorable balance of trade has been materially reduced. The trends in the volume of merchandise imported and exported, as shown by the Federal Reserve Board's foreign trade index, have recently corresponded more or less with the changes in the reported values, and from this point of view also imports are higher and exports are lower than they were a year ago.

#### GOLD AND SILVER MOVEMENTS.

Net gold imports for the month of September were \$27,917,000, compared with \$18,136,000 during August. Of the \$29,316,000 which

came to the United States during the month the largest amount, \$8,442,000, was imported from Great Britain, \$4,843,000 from the Netherlands, and \$2,070,000 from France. The movement of gold from England is partly in connection with the payment of \$50,000,000 of interest on Great Britain's debt to the United States. The statement also shows the importation of \$971,000 from China, of \$674,000 from Mexico, and of \$651,000 from Colombia. Net gold imports for the nine months ending September of the present year totaled \$201,265,000, compared with \$547,631,000 for the corresponding period in 1921. Net imports of gold since August 1, 1914, aggregated \$1,743,354,000, 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	<sup>1</sup> 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 Sept. 30, 1922.....	214,408	13,143	201,265
Total.....	3,175,874	1,432,520	1,743,354

<sup>1</sup> Excess exports.

Silver imports for September were \$6,370,000 and silver exports \$3,735,000, the net result being a gain of silver amounting to \$2,635,000. The bulk of the silver imported during the month, \$4,155,000, came from Mexico, \$891,000 from Peru, and \$727,000 from Canada. Silver exports, on the other hand, went largely to Hongkong, China, and British India. Net exports of silver since August, 1914, totaled \$436,124,000, as may be seen from the following exhibit:

[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	<sup>1</sup> 11,667
Jan. 1 to Sept. 30, 1922.....	53,163	46,026	<sup>1</sup> 7,137
Total.....	497,467	933,591	436,124

<sup>1</sup> Excess imports.

**State Banks and Trust Companies.**

**Admissions.**

The following list shows the State banks and trust companies which were admitted to membership in the Federal reserve system during the month ending October 31, 1922, on which date 1,657 State institutions were members of the system:

	Capital.	Surplus.	Total resources.
<i>District No. 1.</i>			
Federal Trust Co., Boston, Mass. ....	\$1,500,000		\$20,300,992
<i>District No. 2.</i>			
Westwood Trust Co., Westwood, N.J.	100,000	\$20,000	138,608
Bank of Europe, New York, N. Y. . . .	450,000	225,000	7,866,302
<i>District No. 8.</i>			
Greenwood Bank & Trust Co., Greenwood, Miss. ....	200,000	50,000	955,667
<i>District No. 12.</i>			
Cowlitz Valley Bank, Kelso, Wash. . . .	30,000	10,000	207,582

*Absorbed by State member bank.*—Metropolitan Trust Co. and the Back Bay National Bank, both of Boston, Mass., absorbed by the Federal Trust Co. of Boston.  
*Change in name.*—Gandy State Bank, South Whitley, Ind., to Mayer State Bank, South Whitley, Ind.  
*Voluntary liquidation.*—Bank of Murtaugh, Murtaugh, Idaho.

**Fiduciary Powers Granted to National Banks.**

During the month of October 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.
Marietta, Ohio. ....	4	Citizens National Bank	1 to 7 and 9.
Springfield, Ohio. ....	4	Mad River National Bank	1 to 7 and 9.
Rocky Mount, N. C. ....	5	Planters National Bank	1 to 9.
Washington, D. C. ....	5	Second National Bank	1 to 8.
Delphi, Ind. ....	7	Citizens National Bank	1 to 9.
Past St. Louis, Ill. ....	8	Security National Bank	1 to 9.
Lawrence, Kans. ....	10	Merchants National Bank	1 to 8.
Kansas City, Mo. ....	10	Gate City National Bank	1 to 9.
Do. ....	10	Continental National Bank and Trust Co.	1 to 9.
Long Beach, Calif. ....	12	Long Beach National Bank	1 to 9.
San Antonio, Tex. ....	11	Frost National Bank	1 to 9.

**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 September 23, to October 27, 1922, inclusive:

	Number of banks.	Amount of capital.
New charters issued. ....	13	\$1,265,000
Restored to solvency. ....	1	25,000
Increase of capital approved <sup>1</sup> . ....	16	1,065,000
Aggregate of new charters, banks restored to solvency, and banks increasing capital. ....	30	2,355,000
Liquidations. ....	9	850,000
Reducing capital <sup>2</sup> . ....	3	575,000
Total liquidations and reductions of capital. ....	12	1,425,000
Consolidations of national banks under act of Nov. 7, 1918. ....	3	2,300,000
Aggregate increased capital for period. ....		2,355,000
Reduction of capital owing to liquidations, etc. ....		1,425,000
Net increase. ....		930,000

<sup>1</sup> Includes one increase in capital of \$50,000 incident to a consolidation under act of Nov. 7, 1918.  
<sup>2</sup> Includes two reductions in capital aggregating \$475,000 incident to consolidations under act of Nov. 7, 1918.

**Commercial Failures Reported.**

In point of number, failures in the United States now make a closer comparison with the totals of a year ago, 1,215 defaults being reported to R. G. Dun & Co. during three weeks of October, as against 1,135 for the corresponding period of 1921. The returns for September, the latest month for which complete statistics are available, disclose 1,566 commercial insolvencies for about \$36,900,000 of liabilities. Both as to number and amount, this is the best monthly exhibit for a year past, and the September indebtedness is slightly less than that of the same month of last year. Separated according to Federal reserve districts, the reductions in number of failures, as compared with the number for September, 1921, are reported by the first, third, sixth, ninth, eleventh, and twelfth districts, although these decreases are more than offset by the increases in the other six districts. In respect of the liabilities, the September totals are smaller than those of the corresponding month of last year in the first, seventh, ninth, tenth, and eleventh districts, the improvement in the seventh and eleventh districts being especially marked.

**FAILURES DURING SEPTEMBER.**

District.	Number.		Liabilities.	
	1922	1921	1922	1921
First. ....	118	124	\$1,479,198	\$2,725,247
Second. ....	376	317	12,209,811	10,439,409
Third. ....	61	63	1,107,680	978,713
Fourth. ....	128	118	3,848,535	2,815,406
Fifth. ....	128	85	4,260,453	1,692,840
Sixth. ....	120	125	2,765,041	2,328,764
Seventh. ....	212	179	3,863,884	6,777,026
Eighth. ....	100	80	2,417,725	2,383,404
Ninth. ....	50	57	575,947	980,471
Tenth. ....	66	61	738,243	1,042,641
Eleventh. ....	70	104	1,480,222	2,872,281
Twelfth. ....	137	153	2,152,387	1,984,635
Total. ....	1,566	1,466	36,908,126	37,020,837

## RULINGS OF THE FEDERAL RESERVE BOARD.

**Bills of exchange drawn in good faith against actually existing values within the meaning of section 13 of the Federal reserve act.**

The Federal Reserve Board was recently asked to rule upon the question whether growers' drafts drawn on and accepted by cooperative marketing associations doing business in the manner described in the rulings published on page 1199 of the October, 1921, BULLETIN, and page 931 of the August, 1922, BULLETIN, are bills of exchange drawn in good faith against actually existing values, so as to be excluded from the 10 per cent limitation prescribed in the third paragraph of section 13 of the Federal reserve act on the aggregate amount of paper of any one borrower which a Federal reserve bank may rediscount for any one member bank.

Each of the associations referred to is a non-stock and nonprofit corporation whose members consist exclusively of growers of the particular crop to be marketed by the association, who have agreed to sell and deliver their entire crops to the association. The agreements also provide in substance that title shall pass to the association at the time of delivery, that the association shall have absolute control over the commodities delivered and over the resale thereof, and that the association shall have power to borrow money upon such commodities and pledge the commodities for money borrowed. The price at which the commodities are sold by the growers to the association is not fixed at the time of that sale, but the commodities are pooled according to grade, and after all of a particular pool has been sold the proceeds are distributed pro rata among the producers who have contributed to that pool.

The board ruled that where a member of such an association delivers his crop to the association, and at substantially the same time draws a draft on the association, which is accepted by it and discounted by the drawer at his own bank, such a draft is a bill of exchange drawn against actually existing values within the meaning of the third paragraph of section 13, and is, therefore, excepted from the limitation in question.

This ruling is in line with prior rulings of the board in which it has been held that a bill of exchange drawn by the seller of goods sold and delivered on the purchaser and accepted by the purchaser may be treated as a bill of exchange drawn against actually existing values, when it is drawn at the time of, or within a reasonable time after, the sale and delivery of the goods, so as to warrant the assumption that the goods are in the possession of the purchaser, either in their original form or in the shape of the proceeds of sale.

In connection with this ruling the board was also requested to make a ruling which would

embody a comprehensive definition of the phrase "bills of exchange drawn in good faith against actually existing values" within the meaning of the third paragraph of section 13 of the Federal reserve act. The question under what circumstances a bill of exchange may be thus considered to be drawn in good faith against actually existing values is a question which the board finds impracticable to answer comprehensively, because it is a question of fact, and the question whether in any given case a bill of exchange should be held to have been drawn in good faith against actually existing values necessarily depends upon the circumstances of that case. It seems desirable, however, to review and summarize prior rulings in which the board has laid down certain general principles dealing with this subject, and it is believed that these general principles are sufficiently comprehensive to furnish valuable guides in answering most of the questions which may arise in this connection. If situations should arise which are not sufficiently covered thereby the board prefers to deal with them as they arise and on the basis of the circumstances involved in each case.

1. *Bills of exchange arising out of bona fide sales.*—In all the cases in which the board has been asked to determine whether a particular bill of exchange is a bill of exchange drawn against actually existing values the bill in question has grown out of a purchase and sale transaction, and the board has uniformly held that it must be a bona fide sale and that the bill must be drawn for the whole or part of the purchase price in order to qualify it as a bill of exchange drawn in good faith against actually existing values. The board has held, for example, that a bill drawn by the owner of goods against his agent or against a fictitious drawee, for the purpose of borrowing money rather than of paying for goods sold, can not be considered as drawn against actually existing values. (1916 BULLETIN, p. 684.) Whether or not a bill of exchange must grow out of a sale transaction in order to be considered as drawn against actually existing values is a question which does not appear to have been specifically raised, and the board will not pass upon it at this time. For the purposes of this review, however, it will be assumed that the bills of exchange discussed herein do arise out of bona fide sales, involving an actual transfer of title from seller to buyer.

2. *Bills must be in form and substance valid bills of exchange.*—The Federal Reserve Board has uniformly held that in order to be considered as a bill of exchange drawn in good faith against actually existing values, a bill must primarily be a valid and negotiable bill of exchange drawn in good faith. Bills drawn against a fictitious or "dummy" drawee, or in



which the drawer or prior indorsers are released, have for this reason been held not to conform to the requirements of the term "bills of exchange drawn in good faith," irrespective of the question of the value against which they may be drawn. (1916 BULLETIN, pp. 227, 463, 608; 1919 BULLETIN, p. 1055; 1922 BULLETIN, p. 933.)

3. *Bills discounted before acceptance.*—Bills of exchange may be considered as drawn against actually existing values even before acceptance, but in such case they must be accompanied by shipping documents, warehouse receipts, or other such documents securing title to the goods sold. When a bank discounts a bill prior to acceptance, it has no recourse to the drawee, who has as yet incurred no obligation on the instrument, and if it desires to treat the bill as drawn against existing value, it must be in a position to enforce a claim against the existing value which is the foundation of the bill, and must consequently have a lien in some form against the goods sold, evidenced by a bill of lading, warehouse receipt, or some other documentary evidence of title. (1916 BULLETIN, p. 683; 1917 BULLETIN, p. 196; 1919 BULLETIN, p. 1055; 1922 BULLETIN, p. 933.)

4. *Accepted bills.*—As seen above, a bill of exchange accompanied by documents securing title to the goods sold may be considered as drawn against actually existing values, and this is true whether the bill be discounted before or after acceptance. Ordinarily, however, upon acceptance by the drawee, the attached documents will be removed, and if a bank then discounts the bill it will rely solely upon the obligations of the parties to the bill and have no direct claim to the goods sold. In such a case the board has held that the bill may still be considered as drawn against actually existing values if it is drawn contemporaneously with, or within a reasonable time after, the shipment or delivery of the goods sold, and there are reasonable grounds to believe at the time the bill is drawn that the goods are in existence in the hands of the drawee, in their original or manufactured form, or in the shape of the proceeds of their sale. In other words, in order that bills of exchange not secured by documents of title may be considered as drawn against actually existing values, it must appear that the drawer has furnished to the drawee some commodity of value which, when converted into money, will enable the drawee to pay the bill at maturity, and that this commodity is in existence in some form in the hands of the drawee at the time the bill is drawn. (1917 BULLETIN, pp. 196, 287; 1918 BULLETIN, p. 975; 1919 BULLETIN, p. 1055; 1922 BULLETIN, p. 933.)

Bills of exchange not secured by documents conveying title, which are drawn by the seller against the purchaser and accepted before the sale or delivery of the goods to the purchaser, should not be considered as drawn against

actually existing values, because at the time the bill was drawn the goods were not in the possession of the drawee. (1918 BULLETIN, p. 975.)

5. *Bankers' acceptances.*—The board has also ruled that bankers' acceptances of the kinds described in section 13 of the Federal reserve act should be considered as bills of exchange drawn in good faith against actually existing values. The amendment of October 22, 1919, to section 5200 of the Revised Statutes expressly included such bankers' acceptances within the classification of "bills of exchange drawn in good faith against actually existing values," and while this amendment does not amend section 13 of the Federal reserve act, it was the board's opinion that the phrase "bills of exchange drawn in good faith against actually existing values," as used in section 13, should constructively be held to include bankers' acceptances of the kinds described in that section. (1919 BULLETIN, p. 1055; 1922 BULLETIN, p. 933.)

6. *Distinctions between section 5200 of the Revised Statutes and section 13 of the Federal reserve act.*—Care should be taken to distinguish between the provisions of section 5200 of the Revised Statutes and section 13 of the Federal reserve act with regard to bills of exchange drawn in good faith against actually existing values. The two provisions, while to some extent similar, and consequently easily confused, are different in two important respects: (1). The third paragraph of section 13 is a limitation on the rediscount power of Federal reserve banks, and section 5200 a limitation on the lending power of national banks; (2) there is only one express exception to the limitation of section 13 and several to the limitation of section 5200. Paper which is not subject to the limitation of section 5200 of the Revised Statutes, therefore, may be subject to the limitation contained in the third paragraph of section 13 of the Federal reserve act.

#### Edge Act Corporation Organized.

On August 24, 1922, the Federal Reserve Board approved the articles of association and organization certificate of the Federal Pacific Banking Corporation, a corporation organized under the provisions of section 25(a) of the Federal Reserve Act, commonly known as the "Edge Act." The capital of this corporation is \$2,000,000 and its home office is in San Francisco, Calif. It is incorporated for the purpose of engaging in the business of international or foreign banking or other international or foreign financial operations. Pending the issue of a final permit to commence business the corporation has authority to exercise only those powers which are incidental and preliminary to its organization.

## THE FIRST THREE YEARS OF GERMAN REPARATION.<sup>1</sup>

### INTRODUCTION.

The history of the first three years of reparation is an account of a gradual evolution of ideas, largely in response to economic conditions. At the outset, beginning with the armistice, through the British general election and the discussions of Versailles, the main consideration was, How much ought Germany to pay? Thus, in the treaty Germany was declared responsible for all the loss and damage caused by the war. Economic conditions, however, showed Germany's incapacity to pay this huge amount; hence a reduction in the demands, by delimitation in the peace treaty of the claims to be laid against her for satisfaction. It was decided she should pay only the amount of damages to persons and property. The determination of the exact amount of Germany's reparation liabilities was postponed under the terms of the treaty in order to permit of more exact computation of the damages suffered than was possible at that stage.

During the second period—from the peace treaty to the second London ultimatum—the Reparation Commission had the power in fixing her liability to consider in greater detail Germany's paying potentialities. The amount was finally fixed at 132 billions of gold marks—a figure which obviously would have been unacceptable at the Peace Conference.

For some time after that reparation remains, on the surface, a settled question. Then, owing to accumulating evidence of not far distant default, begins the third series of conferences and parleys, lasting up to the most recent of all. These negotiations have been characterized by concessions, one after the other, to the economic facts of the situation. In Great Britain the trade depression and the recognition of the effect of Germany's payments upon the export trade of the Allies have tended to lay peculiar emphasis on these factors. France, however, has still to receive any considerable portion of what she has already expended on the restoration of her devastated areas. Germany's prospects are critical.

It has been estimated that the war cost, in pure material expenditure, some 84 billions

of dollars,<sup>2</sup> in terms of 1913 prices. Of the 132 billions of gold marks which Germany was called upon to pay for damage to persons and property, France, on account of her enormous losses through devastation, was to receive 52 per cent and Great Britain 22 per cent. So far Germany has paid in cash and kind a net amount of about 7 billions of gold marks, to be divided between the Allies, and in the meantime the French Government has expended nearly 50 billions of francs (paper) on the restoration of the devastated areas, the work being still far from completion.

It has now become apparent that reparation is not a problem to be treated as a disconnected unit for politico-economic negotiations. A third important development since the armistice has been the growth abroad of the idea of the inseparability of reparation from international debts, of international payments from internal industrial prosperity, of internal prosperity from the location of political boundaries. No distinct point of time can be named from which these developments date. They are psychological, and have evolved themselves, gradually assuming their due proportion, becoming observable little by little.

The problem has now reached the stage where this development is easily perceptible. For this purpose no more than a plain statement of historical fact is necessary. The purpose here is to present a brief account of the chief events in the history of the reparation problem, without partisan criticism or the elaboration of any particular thesis as the foundation for any proposed remedy for the ills of the present situation.

As a preliminary guide to the more detailed survey which appears in the subsequent articles, the following table presents a condensed chronological statement of the outstanding dates and events of which mention will be made:

#### CHIEF DATES AND EVENTS IN THE FIRST THREE YEARS OF GERMAN REPARATION.

Nov. 11, 1918...	Armistice concluded. Germany to make "reparation for damage done."
June 28, 1919...	Treaty of Versailles signed. Germany to pay for damages to persons and property.
Apr. 19-26, 1920...	Conference of San Remo. Mr. Lloyd George suggests meeting with German representatives.
May 14-16, 1920...	Conference of Lympe. Franco-British commission of experts set up to consider methods of payment.

<sup>1</sup> This is the first of a series of four articles prepared by Mr. W. F. Crick, of the Division of Analysis and Research. This series is intended to bring together in connected form such facts as are necessary to a clear understanding of the reparation situation as it presents itself to-day. The present article deals with those terms of the treaty of Versailles which concern the reparation problem. The second article will relate the history of the subsequent negotiations as far as the fixing of Germany's liability in April, 1921. A third article will bring up to date the subsequent modifications of the reparation demands; while the fourth will discuss the fulfillment of the demands made at various stages in the negotiations, including the payments to date.

<sup>2</sup> Estimate of Mr. Harvey E. Fisk, "French Public Finance."

June 19-22, 1920...I. ympne-Boulogne conversations. International loan for Germany suggested.

July 2-4, 1920...Brussels Conference. France to receive 52 per cent of German payments, Britain 22 per cent.

July 5-16, 1920...Spa Conference. German delegates present. Percentages confirmed. Coal demands reduced.

Dec. 16-22, 1920...Brussels Conference of allied and German experts. Suggestion made that Allies be given a first charge on German customs receipts.

Jan. 24-30, 1921...First Paris Conference. Forty-two annuities and 12 per cent levy on exports agreed on. "Sanctions" formulated.

Mar. 1-7, 1921...First London Conference. German conditional counterproposal to pay 30 billions of gold marks rejected. Materials and labor for reconstruction offered. Ultimatum delivered.

Apr. 24, 1921...German proposal to United States Government, conditional on loan. Offer to take over part of allied debt to United States. United States Government refuses transmission of proposal to Allies.

Apr. 27, 1921...Decision of Reparation Commission announced. Germany to pay 132 billions of gold marks and Belgian debt to Allies, in annuities of 2 billions plus 26 per cent on exports. Guarantees committee set up.

Apr. 29, 1921...Second London Conference assembled.

May 5, 1921...Second ultimatum to Germany. Occupation of Ruhr threatened.

May 11, 1921...Unconditional acceptance of decision by Germany.

Oct. 6, 1921...Loucheur-Rathenau agreement signed at Wiesbaden, arranging for direct supply of restoration materials to France.

Oct. 20, 1921...Reparation Commission approves the agreement in principle.

July 20, 1922...Amended agreement comes into operation.

Jan. 8, 1922...Cannes Conference assembled. Program for 1922 agreed on. January and February payments reduced.

Mar. 21, 1922...Reparation Commission announces details of conditional partial moratorium for 1922—720 millions in cash, 1,450 millions in kind to be paid for the year.

May 24, 1922...Committee of experts meets to consider loan to Germany. Finds loan impossible under present schedule of payments.

July 12, 1922...Germany presents formal request for 2½-years' moratorium.

Aug. 7-14, 1922...Third London Conference. France refuses to grant moratorium without further guarantees.

Aug. 31, 1922...Reparation Commission grants six-months' moratorium, payment to be in treasury bills, guaranteed in manner satisfactory to Belgian Government.

For the sake of brevity, no account is given in the following discussion of the negotiations

which went on at Versailles regarding the reparation sections of the treaty. These, while of great value as showing the existence in embryo of policies which later became clearly defined, are primarily diplomatic rather than economic.

### I. THE TREATY OF VERSAILLES.

While the present article can not claim to be a complete digest of the treaty provisions, certain clauses of minor importance having been omitted, it is believed to contain all the vital provisions directly related to the subject of reparation. The précis form has been thought preferable to the annotated text, both from considerations of space and from a desire to reduce the diplomatic terminology necessarily employed to a rendering to which the general reader is more accustomed. For purposes of verification the reader is referred to the footnotes to which in all cases the references are relegated.

For the sake of simplicity and order the present chapter is divided into four sections, into which the various provisions of the treaty have been sorted. These are as follows:

- A. General principles and provisions.
- B. The Reparation Commission: Its powers and duties.
- C. What Germany is to pay.
- D. How Germany is to pay.

#### A. GENERAL PRINCIPLES AND PROVISIONS.

The opening provision of the part<sup>1</sup> of the treaty devoted to reparation was inserted evidently to placate those who insisted upon the moral right of all the allied belligerents to claim payment of the whole cost of the war from Germany. In it the Allies affirmed, and Germany accepted, full responsibility for all the loss and damage suffered by the Allies. The following article, however, reverting to inescapable facts, recognized that the resources of Germany are not adequate to make complete reparation. Hence, as a compromise, Germany undertook to make reparation for all "damage done to the civilian population \* \* \* and their property \* \* \* by land, sea, and from the air," and for damages, defined in detail below, such as pensions, allowances, etc.<sup>2</sup> In addition, Germany was to make special provision, by an issue of bearer bonds to the Reparation Commission, payable May 1, 1926,<sup>3</sup> for the reimbursement of Belgium for all sums borrowed from the Allies up to November 11, 1918, plus interest at 5 per cent. Furthermore, Germany was to make

<sup>1</sup> Part VIII.

<sup>2</sup> Annex I.

<sup>3</sup> Or, at Germany's option, on any previous May 1

restitution of cash, animals, securities, and property seized, which could be identified, and which in no case was to be credited to her as payment of a part of her reparation liabilities. Certain property, chiefly works of art and historical valuables, was specifically cited for restitution.<sup>4</sup> As an addition to actual reparation, Germany was also to pay the salaries and expenses of the instruments set up to exact reparation, namely, the Reparation Commission and its staff and the Army of Occupation.

In order to carry out these obligations, Germany submitted to the direct application of her economic resources to the physical restoration of the invaded areas, the values of any goods supplied and services rendered being, of course, credited to her reparation account. She undertook, moreover, to "pass, issue, and maintain in force any legislation, orders, and decrees that might be necessary to give complete effect to" the reparation provisions of the treaty—an elastic clause, particularly as it is not clear whose judgment as to what must be done, and when, is final. Reparation, it is recognized, shall not only have priority over the service or liquidation of any domestic loan, but shall be a first charge on the assets and revenues of the German Empire and its constituent States. Further, the principle is recognized that German taxation should be at least as heavy, "proportionately" (another vague term, not conjoined to any specific basis of comparison), as that of the Powers represented on the Reparation Commission. Germany admits that, in case of "voluntary"<sup>5</sup> default in reparation payments, the Allies shall have the right to take steps such as "economic and financial prohibitions and reprisals, and in general such other measures as the respective Governments may determine to be necessary in the circumstances,"<sup>6</sup> none of which steps shall be regarded by Germany as acts of war. As regards the valuation of goods, etc., handed over by Germany in part payment of reparation, the Reparation Commission is left, in most cases, with a free hand, to place upon them such values as it considers just. Exception to this rule is made in the case of coal to be handed over (see p. 1294), while in assessing the total claims against Germany the principle is to be followed that damages for the restoration of devastated areas shall be assessed at the cost at the time of carrying out the work. Another heavy responsibility placed

upon Germany was that of indemnifying those nationals who should be dispossessed of property and interests by the Allies under certain exceedingly broad powers given to the Reparation Commission by article 260. This most remarkable provision will be dealt with in a later section.<sup>7</sup> The same responsibility lies upon Germany in connection with the cession of the Saar district, etc.

As opposed to the severity of these conditions, there are three principles favorable to Germany enunciated in the treaty. Firstly, in accordance with Mr. Lloyd George's memorandum of March 25, 1919,<sup>8</sup> the period during which Germany was to make reparation was fixed at 30 years, with the proviso that if any balance remained over to be paid at the end of that period it might, at the discretion of the Reparation Commission, be postponed for later settlement or otherwise dealt with as the allied Governments might determine. Secondly, it was laid down that in determining Germany's liability and considering Germany's capacity to pay, the commission should give her the opportunity of presenting arguments. Thirdly, in determining the details of reparation, the economic life and efficiency of Germany were to be considered by the commission. It was recognized at the time of the making of the treaty that Germany's industrial efficiency was severely handicapped by shortage of food and raw materials. Hence, it was provided that such supplies of food and raw materials as were essential to enable Germany to meet her obligations should be imported, while the payments required to be made before May 1, 1921 (20 billions of gold marks) should be considered as inclusive of payment for these commodities. Furthermore, in deciding what should be required of Germany in the way of deliveries of animals, machinery, reconstruction materials, etc., the commission was to "take into account such domestic requirements of Germany as it deemed essential for the maintenance of Germany's social and economic life," so that "the industrial life of Germany be not so disorganized as to affect adversely the ability of Germany to perform the other acts of reparation."

#### B. THE REPARATION COMMISSION.

The treaty set up, as an instrument for the execution of its reparation provisions, the Reparation Commission, a body with enormous duties and very considerable powers. The legal status of the commission is that of an

<sup>4</sup> Part VIII, Sec. II.

<sup>5</sup> It is not clear what constitutes "voluntary" default. Presumably, under the powers given in Annex II, §12 (see p. 1291, column 2), the Reparation Commission would judge as to the circumstances of the default.

<sup>6</sup> Annex II, §18. Even on the principle of *eiusdem generis*, these powers are extremely wide, especially as there is presumably no higher authority to which could be taken for adjudication the question of the legality of any particular measure taken.

<sup>7</sup> See p. 1292, column 1.

<sup>8</sup> "The duration for payments of reparation ought to disappear, if possible, with the generation which made the war."

<sup>9</sup> See, on most points, Annex II of Part VIII of the treaty.

agent appointed to fix, collect, and distribute Germany's reparation payments. Its duties and powers are, however, more or less strictly defined.

Under the terms of the treaty the constitution of the commission is somewhat novel. It consists of one delegate each from Great Britain, France, Italy, the United States, Japan, Belgium, and the Serb-Croat-Slovene State. Only five of these, however, may take part and vote at any particular session. The first four powers named<sup>10</sup> have this privilege at all sessions; but of the last three only one participates, each one when matters specially affecting it are under discussion. Thus Japan is included when maritime matters are being discussed, Belgium when restoration of her devastated regions is concerned. Its proceedings are to be in private unless determined otherwise for special reasons. It is not "bound by any particular code or rules of law or by any particular rules of evidence or of procedure, but shall be guided by justice, equity, and good faith." Hence its methods of procedure could scarcely be prescribed in more elastic terms, or better protected from possible juridical criticism. The commission is to continue in existence until all amounts due are received and distributed by it among the Allies.

The most important task allotted to the commission was the determination of Germany's total liability under the treaty and the arrangement of a "schedule prescribing the time and manner for securing and discharging the entire obligation within a period of 30 years from May 1, 1921." Clearly, this was an undertaking requiring an immense amount of investigation and, in addition, a still larger amount of foresight. The results of this work were to be communicated to Germany not later than May 1, 1921, and during the course of its work Germany was to be given an opportunity to be heard by the commission. In addition, this side of the commission's work involved the determination of Belgium's debts to the Allies, with interest thereon at 5 per cent, which Germany was to pay.

Beyond these, in the matter of reparation in kind, the commission was intrusted with the duty of supplying Germany with the tonnage and specifications of ships to be built and delivered; the total requirements of the Allies in the shape of animals, machinery, reconstruction materials, etc.; the amounts of coal required to be delivered; and the requirements of the Allies in the form of dyestuffs and chemical drugs. This function was, of course, mainly of a routine nature, since the figures com-

<sup>10</sup> The United States has not availed itself of this right, being represented, however, at the deliberations of the commission by an unofficial observer.

municated would in general be a mere aggregation of the individual claims of the Allies. Nevertheless, in view of certain restrictions on the totals to be demanded (which are dealt with in their appropriate place) the problem might resolve itself into one of the allocation of available commodities between the various claimants.

Furthermore, to the commission was allotted the duty of valuing the receipts on account of reparation. These included all the various kinds of commodities (except coal) to be delivered, the rights and properties in the Saar district, the Government properties taken over with ceded areas,<sup>11</sup> and in general any "transfers under the present treaty of property, rights, concessions, or other interests." Again, the commission was to decide what portion of the German Federal and State debts should be taken over by the Powers to whom territory was ceded.<sup>12</sup>

The management of the bond issues to be made by Germany, both as required in the treaty and as later to be determined by the commission, was placed in the hands of that body.

Besides these various duties, the commission was given other powers of considerable value—powers which subsequently it has had frequent cause to exercise. In the first place, to the commission itself was given the right to interpret the reparation clauses of the treaty. Secondly, it might from time to time review Germany's resources and capacity to pay. In the course of such examination it is required to ascertain that reparation shall have a claim prior to the service or liquidation of any domestic loan, and that German taxation is as heavy "proportionately" as that of the Powers represented on the commission. In accordance with these periodic investigations, the commission was given power to extend the date or modify the form of payment. This latter power is somewhat limited by the proviso that, for certain very important steps, a unanimous vote of the commission is required. Such actions include the postponement of any payment beyond 1930, the amount and conditions of issues of bonds and the time and manner of distributing them, the interpretation of provisions in the reparation part of the treaty, and the cancellation of any part of the debt. Further, in no case might it cancel any part of the debt unless specifically authorized so to do by the component governments. Thirdly, the commission was given complete power over German exports of gold until May 1, 1921. Up to that date no gold was permitted to leave the country without

<sup>11</sup> Art. 256. See p. 1293, column 1. <sup>12</sup> Art. 254. See p. 1295, column 1.

the approval of the Reparation Commission. And, lastly, for the period of one year the commission was given the power to name any rights or interests held by German nationals in any public utility undertakings in Russia, China, Turkey, Austria, Hungary, Bulgaria, or former German territory which it could require the German Government to acquire and hand over to it, the German Government assuming the obligation of indemnifying its dispossessed nationals.<sup>13</sup> The rights and interests so acquired would be valued by the commission itself and such value would be credited to Germany's reparation account. It is not clear in whose power lay the interpretation of this particular provision, which is included in the financial clauses,<sup>14</sup> and not in the reparation part, of the treaty, but it is perfectly obvious that enormous powers of expropriation were thereby placed in the hands of the commission.

#### C. WHAT GERMANY IS TO PAY.

In addition to actual damages for which Germany was liable to pay compensation, there were two other liabilities imposed on her. Firstly, she was to restore all cash, animals, securities, and property seized, in such cases in which they could be identified. Secondly, she agreed to pay the expenses of the army of occupation and the salaries and expenses of the Reparation Commission. The size of the second liability will be better realized when the time comes to consider the carrying out of the treaty.

The main item in the account, however, is that composed of "damage done to the civilian population of the Allies and their property \* \* \* by land, sea, and from the air." This damage was very specifically defined in a later section of the treaty.<sup>15</sup> The categories of damages for which Germany was to make compensation were as follows:

- (1) Damage to injured persons and surviving dependents by personal injury to or death of civilians.
- (2) Damage to civilians and dependents caused by cruelty, violence, or maltreatment (including the results of imprisonment, deportation, internment, exposure at sea, forced labor).
- (3) Damage to civilians and their dependents by acts injurious to health, capacity to work, or honor.
- (4) Damage by maltreatment of prisoners of war.

<sup>13</sup> Art. 260. The treaty contains several other provisions affecting private property rights. For example—art. 297(b)—the Allies "reserve the right to retain and liquidate all property, rights, and interests belonging \* \* \* to German nationals, or companies controlled by them, within their territories, colonies, possessions, and protectorates, including territories ceded to them by the present treaty." Further (art. 74) the French Government was empowered to "retain and liquidate" all the property, rights, and interests which German nationals, or societies controlled thereby, possessed in Alsace-Lorraine on Nov. 11, 1918. Germany agreed to compensate directly her dispossessed nationals, and there was no corresponding credit to be given to reparation account.

<sup>14</sup> Part IX.  
<sup>15</sup> Annex I.

(5) Capitalized cost of pensions to disabled and dependents, on the basis of the French scales at the time of the treaty.

(6) Assistance rendered by the allied and associated Powers to prisoners of war and their dependents.

(7) Separation allowances, on the basis of the French scales at the times of payment.

(8) Damage for forced or unjustly paid labor.

(9) Damage to property of the allied and associated Powers or of their nationals through seizure, injury, or destruction.

(10) Damage in the form of levies, fines, etc., imposed by Germany on the civilian population.

Over and above these charges Germany, as stated above, was to reimburse Belgium for all sums borrowed from the allied and associated Powers up to November 11, 1918, together with interest at 5 per cent per annum from the dates of the granting of the loans. This amount is payable in gold marks on May 1, 1926, or (at Germany's option) on any previous May 1.

In addition, interest at the rate of 5 per cent per annum was to be charged against Germany from May 1, 1921 (the date of the fixing of the amount), on the total amount due to the Allies, less payments up to that date and less the amount covered by bonds already issued to the Reparation Commission. Another item of interest to be added to the total due from Germany was that on expenditures arising out of the repair of material damage undertaken between November 11, 1918, and May 1, 1921.

The fact that no definite amount was stated in the treaty as representing Germany's total liability did not mean that until the amount was fixed (i. e., until May 1, 1921) there should be no payments. Partly in order to cover current expenses, Germany was to pay during 1919, 1920, and the first four months of 1921 a sum of 20 billions of gold marks, the manner of payment to be determined by the commission. Out of this amount would be paid the expenses of the armies of occupation as well as the cost of such goods and raw materials as the commission found it necessary for the sake of economic efficiency to import. Any balance remaining over would be credited to Germany's reparation account.

It is fairly clear from a study of these provisions that the Peace Conference recognized, on the one hand, the validity of the French contention that it was impossible at the moment to estimate with any reasonable precision the claims to be laid against Germany, and, on the other hand, the fact that it was impossible to determine for some 30 years ahead a nation's capacity to produce a net surplus to contribute to the reparation of the Allies' damages. Hence the treaty's elasticity with reference to this matter. Hence, on the one hand, the postponement of the determination of Ger-

many's liability and, on the other hand, the various provisions for postponement of installments, for periodic revision of the claims, and for cancellation of any portion of the liabilities.

#### D. HOW GERMANY IS TO PAY.

In this section the subject becomes a matter of provisions for elasticity of another sort—qualitative elasticity. And here there are three main considerations underlying the whole of this portion of the treaty. Firstly, the needs of the Allies in the way of commodities were given prior claim. Secondly, the maintenance of German efficiency was to be sought. And thirdly, the avoidance of injury to the industries of the Allies by way of loss of markets was aimed at. Consequently many of the provisions relating to the supplying of commodities to the Allies were made in the form of options, which might or might not be exercised, according as the Allies weighed the benefits and injuries which might follow from their fulfillment.

As a covering clause, it was laid down that payment might be required in gold, chattels, properties, commodities, business rights, concessions, ships, securities of any kind, or currencies of any State—their values in gold to be determined by the commission. Furthermore, it was stated specifically that credit should be given to Germany in respect of the following:

(a) Any final balance in favor of Germany under Part III, Section V, which refers to the cession of Alsace-Lorraine; Part X, Section III, which refers to the settlement of debts between nationals of the late enemy countries through clearing houses; Part X, Section IV, which provides for compensation for damages or injury to or seizure of property rights in enemy countries.

(b) Amounts due to Germany in respect of transfers under Part III, Section IV, dealing with the cession of the Saar Basin; Part IX, which has to do with property, etc., ceded with German territory; Part XII, which provides for the surrender by Germany of some of her tugs and boats plying on rivers internationalized by the treaty (Rhine, Elbe, Oder, etc.).

(c) "Amounts which, in the judgment of the Reparation Commission, should be credited to Germany on account of any other transfers under the present treaty of property, rights, concessions, or other interests." But in no case was credit to be given for cash, animals, securities, and property restored to their owners from whom they had been seized.

In accordance with the plan agreed upon at the Peace Conference the main bulk of Germany's indebtedness was to be covered by bond issues as an acknowledgment of the obligation. The details of the issues were as follows:

A first issue of 20 billions of gold marks, in bearer bonds, to be delivered to the commission forthwith, payable without interest on or before May 1, 1921. These bonds were to be amortized by the payment of the 20 billions of gold marks due prior to that date.

A second issue of gold bearer bonds, to be delivered forthwith, to the amount of 40 billions of marks, bearing interest at the rate of 2½ per cent per annum during the years 1921 to 1926, and at 5 per cent thereafter, with the addition of a further 1 per cent, beginning 1926, for amortization.

An undertaking, in writing, to be handed to the commission at once, to issue, at such time as the commission was satisfied of Germany's ability to meet the interest and sinking-fund obligations involved, a further 40 billions of gold marks of 5 per cent bearer bonds, of which the time and mode of payment of interest and principal would be as ordered by the commission.

These bonds, when distributed by the commission, might be disposed of outright to individuals in place of Governments. Germany's liability to the Governments would be then by so much reduced, being transferred to the individual holders of the bonds. In this manner the circulation of the bonds is perfectly in accordance with the provisions of the treaty.

The payments in kind which Germany was to make, or might be called upon to make, were very varied and were stated with careful exactitude. The various categories will be considered in detail. •

1. *Reconstruction materials.*<sup>16</sup>—By the end of 1919 the allied Governments were to file with the Reparation Commission lists showing (a) what animals, machinery, equipment, tools, etc., destroyed during the war, they desired to have replaced by similar articles; and (b) what reconstruction materials, machinery, furniture, etc., they desired to have Germany manufacture for them for purposes of restoration.

The commission, in view of these requests, would then formulate their total demands and present them to Germany. As a check on the commission, however, there were inserted in this portion of the treaty, not only a general principle, stating that Germany's own requirements were to be considered,<sup>17</sup> but also a special requirement that articles actually in use in Germany should only be seized if there were no free stock available. Furthermore, in no case should more than 30 per cent of the equipment, etc., of any one establishment or undertaking be seized.

The following immediate advances of animals were required of Germany, the details of breed, etc., being specified:

	To France.	To Belgium.
Horses.....	30,500	10,200
Bulls.....	2,000	2,000
Milch cows.....	90,000	50,000
Heifers.....		40,000
Rams.....	1,000	200
Sheep.....	100,000	20,000
Goats.....	10,000	
Sows.....		15,000

<sup>16</sup> Annex IV.

<sup>17</sup> See p. 1290, column 2.

The delivery of agricultural machinery, as provided for in the January, 1919, renewal of the armistice agreement, covering a wide variety of machines, was to continue. The commission, of course, was to fix the value of all such deliveries and give credit for the same to Germany's reparation account.

2. *Coal, etc.*<sup>18</sup>—Some large options were accorded to the Allies by Germany to demand the delivery of vast quantities of coal. These options were as follows:

To France—delivery of 7,000,000 tons per annum for 10 years, plus an amount equal to the deficit in the actual production of the mines of the Nord and Pas de Calais in each year, as compared with their pre-war annual production. The total amount delivered, however, was not to exceed 20,000,000 tons in any of the first five and 8,000,000 tons in any one of the last five years. Delivery during each of the three years following the treaty of 35,000 tons of benzol, 50,000 tons of coal tar, and 30,000 tons of sulphate of ammonia.

To Belgium—delivery of 8,000,000 tons of coal annually for 10 years.

To Italy—4,500,000 tons of coal in the year ending June, 1920; 6,000,000 in the next year; 7,500,000 in the following; 8,000,000 in 1922-23, and in each of the succeeding six years, 8,500,000 tons.

The prices for coal were not to be fixed by the commission, but were prescribed in the treaty. Those for benzol, coal tar, and sulphate of ammonia were to be the same as those charged to German nationals. Prices for sea-borne coal were to be the same as the German export price f. o. b. German ports, or British export price f. o. b. British ports, whichever were the lower. For overland coal, the German pit-head price to German nationals, plus the lowest freight to the frontiers, provided that the pit-head price were not greater than that of British coal for export. The Reparation Commission was to notify Germany of the deliveries required and to credit Germany's account with the value thereof.

3. *Saar Basin.*<sup>19</sup>—All the coal deposits, concessions, machinery, equipment, means of communication, and buildings belonging to the mines in the district, as defined in the treaty, were ceded to France for a period of 15 years, their value to be assessed by the Reparation Commission and Germany to indemnify her dispossessed nationals.

4. *Dyes and chemical drugs.*<sup>20</sup>—Germany gave the Allies the option to require as part of reparation payments such dyestuffs and chemi-

cal drugs as the commission might fix, but in no case were the amounts demanded to exceed 50 per cent of the German stock of each particular kind demanded. In addition, until January 1, 1925, the Allies were given the option to demand delivery during any particular six months of amounts of specified kinds up to 25 per cent of the German production of those kinds in the preceding six months.

5. *Shipping.*<sup>21</sup>—Germany agreed to make good, ton for ton and class for class, all allied merchant ships and fishing boats lost or damaged owing to the war, and at the same time "waived all claims of any description against the allied and associated Governments in respect of the detention, employment, loss, or damage of any German ships or boats." Hence all German shipping already in the hands of the Allies was to become their property, on condition that each paid into the reparation account the excess of the fair value of the ships retained over that of the ships apportioned to it to replace war losses.

By the treaty Germany, as a contribution toward this obligation, ceded to the Allies the property in all German merchant ships of 1,600 tons gross and upward; one-half of the German merchant ships between 1,000 and 1,600 tons gross; one-fourth of the German steam trawlers; one-fourth of the other German fishing boats (fractions being calculated in terms of tonnage and totals including shipping under construction). All of this shipping was to be handed over to the Allies within two months of the treaty's coming into force. Germany, moreover, undertook to build for the Allies during the next five years such shipping as should be specified by the commission.

In addition, claims were waived to all German vessels sunk during the war which later might be salvaged, and, as regards shipping, Germany was to restore within two months all identifiable boats of inland navigation coming into her possession since August 1, 1914, and to make good the losses of the Allies in river craft by cession of an equal amount of her own, provided that the amount should not exceed 20 per cent of Germany's river fleet as on November 11, 1918.

6. *Submarine cables.*<sup>22</sup>—The treaty named certain specific submarine cable rights belonging to Germany which she was to renounce in favor of the principal allied and associated Powers,<sup>23</sup> their value being credited to reparation account.

<sup>21</sup> Annex III.

<sup>22</sup> Annex VII.

<sup>23</sup> Great Britain, France, Italy, United States, Japan.

<sup>18</sup> Annex V.

<sup>19</sup> Art. 45.

<sup>20</sup> Annex VI.



7. *Miscellaneous.*—In addition to the above, Germany was to be credited with—

(a) The value of nonmilitary material handed over at the time of the armistice.<sup>24</sup>

(b) The value of public utility interests demanded by and delivered to the Reparation Commission.<sup>25</sup>

(c) The value of German Government property in areas ceded to the Allies, which was to be paid direct to the commission by the recipient Governments (France<sup>26</sup> and Belgium being exempted from this provision).

(d) The proportion taken over by the recipient Governments with ceded areas of the debt of the German Empire and of the States to which the areas belonged, as these debts stood on August 1, 1914, the proportion taken over to be determined by the commission and paid direct to the commission (France being exempted from this provision respecting Alsace-Lorraine, in consideration of Germany's having refused to take over a part of the French debt in 1871).

Following the transmission to Germany of the draft of the treaty, a long memorandum of "observations" thereon was prepared by the German peace delegation and remitted to the Allies. Count Brockdorff-Rantzau, spokesman for Germany, therein made an offer of a lump sum of 100 billions of marks, 20 billions thereof being payable by May 1, 1926, the remainder, without interest, over 50 to 60 years. It was pointed out by the Allies, however, in rejecting this proposal, that at 6 per cent the present value of the amount would be only about 30 billions of marks. The Allies' reply made only minor modifications in the treaty, but gave Germany an opportunity to submit within four months from the signing of the treaty a scheme, together with estimates, evidence, and arguments, for the liquidation of her reparation indebtedness by a lump-sum payment, by the carrying out of reconstruction work, by supplying labor, materials, technical service, etc. Such scheme and evidence, it was stated, would be carefully considered by the Allies, and a reply given within two months.

NOTE.—For purposes of calculating the periods mentioned in the treaty, the date is used when the first procès verbal of ratification by Germany and three of the principal allied and associated Powers was completed.<sup>27</sup> The treaty was signed on June 28, 1919, and was ratified as follows: Germany—July, 1919. Great Britain, France, Italy, and Japan—October, 1919. On the other hand the "date of the coming into force of the treaty" is for each Power the date of ratification by that Power.<sup>27</sup>

#### ADDENDUM—OTHER TREATIES.

The various other treaties which were concluded subsequently to the Versailles treaty are,

<sup>24</sup> Art. 250. This includes various items, two of the most important being: (Art. VI) "Stores of food of all kinds for the civil population, cattle, etc., shall be left in situ;" (Art. VII) "5,000 locomotives and 150,000 wagons in good working order, with all necessary spare parts and fittings, shall be delivered to the associated Powers within 31 days." Further, 5,000 motor lorries were to be delivered within 30 days.

<sup>25</sup> Art. 260, see p. 1292, column 1.

<sup>26</sup> "In view of the terms on which Alsace-Lorraine was ceded to Germany in 1871." The reason for Belgium's exemption is not specifically stated.

<sup>27</sup> Miscellaneous provisions.

in comparison with it, of relatively small importance. That between the Allies and Bulgaria, signed on November 29, 1919, at Neuilly, imposed a payment of 2½ billions of gold francs as reparation, in half-yearly payments. The July 1, 1920, and January 1, 1921, payments were to represent interest at 2 per cent on the total from January 1, 1920. Thereafter, each half-yearly payment would include interest at 5 per cent on the outstanding capital sum, the whole of which would be extinguished by January 1, 1958. An interallied commission was to be set up at Sofia to consist of one member each from the British Empire, France, and Italy, and of a nonvoting member representative of Bulgaria. In the event of default in reparation payments, this body might control, to any extent and for any period it might think necessary, the collection of taxes, sources of revenue, disbursement of the proceeds, etc. Reparation payments were to be made through this body to the Reparation Commission set up under the Versailles treaty. While the interallied commission had no power of itself to reduce or postpone payments, it might recommend to the Reparation Commission a reduction of any particular payment, or of the capital sum, and the latter might grant a reduction or postponement by a majority vote. Bonds covering a part or the whole of the amount due might be called for by the Reparation Commission, which might dispose of them as it thought fit, such bonds being a direct obligation of the Bulgarian Government.

The treaty with Austria, signed at St. Germain-en-Laye on September 10, 1919, was, in its general provisions, almost identical with the Versailles treaty. It recognized Austria's responsibility for damages caused by her aggression and her inability to pay the whole cost thereof. The authority for the execution of the reparation provisions was the commission appointed under the Versailles treaty, with the added provision that a special section of the commission was to be appointed to deal with Austria. It was given only consultative powers, except so far as the commission chose to delegate other powers to it. By May 1, 1921, the commission was to determine Austria's total liability, and by that date Austria was to pay such an amount as the commission demanded, out of which, as in the case of Germany, would be paid the expenses of the forces of occupation and the cost of approved imports. The Austrian section of the commission was to be composed of delegates from the United States, Great Britain, France, Italy, Greece, Poland, Rumania, the Serb-Croat-Slovene State, and Czechoslovakia. Of

these the first four were in voting to have two votes each. The remaining States were to have one common representative. In working out the claims against Austria the commission was ordered to take account of the diminution of the country's resources resulting from the territorial provisions of the treaty. The system of covering the indebtedness by bonds, as set out in the Versailles treaty, was applied with small modifications to Austria.

As regards payments in kind demanded forthwith, several categories of demands were dealt with. The Austrian merchant fleet not being large enough to compensate the Allies for all their damages, the whole of that fleet was ceded to the Allies, together with river craft up to 20 per cent of the total possessed; all this to be delivered within two months.

The following animals were to be handed over as an immediate advance:

Kind of animals.	To Italy.	To the Serb-Croat-Slovene State.	To Rumania.
Milch cows.....	4,000	1,000	1,000
Heifers.....	1,000	300	500
Bulls.....	50	25	25
Calves.....	1,000	1,000	1,000
Working bullocks.....	1,000	500	500
Sows.....	2,000		
Draft horses.....		1,000	1,000
Sheep.....		1,000	1,000

In addition, during the six months following the treaty, such furniture as the commission demanded was to be supplied.

Five-year options were accorded the Allies to demand annual delivery of timber and timber manufactures, iron and iron alloys, and magnesite, these amounts to bear the same relation to the Allies' pre-war annual importations from Austria-Hungary as the resources of the present Austria bore to those of the pre-war Austro-Hungarian Empire.

The treaty with Turkey was signed at Sèvres on August 10, 1920. All reparation claims, except as provided elsewhere, were waived by the Allies, owing to the large reductions in Turkish revenues due to the territorial rearrangements made under the treaty. A financial commission was created, consisting of delegates from France, the British Empire, and Italy, with a consultative Turkish representative, with large powers over the economic life of the country. It was to approve the budgets presented to the Parliament, to supervise execution thereof, to regulate and improve the currency, and to conserve and increase Turkey's resources. This commission was to have at its disposal all the Turkish revenues, which were to be applied in the first instance to the payment of its own salaries and expenses, and in

the second of the expenses of the forces of occupation. Turkey was to pay for all loss or damage suffered by civilian nationals of the Allies in respect of their persons or property through the negligence or the action of Turkish authorities prior to the treaty. Furthermore, Turkey agreed to make reparation to the European Commission of the Danube for damages sustained by that body. At the same time, all claims held against Turkey by Germany, Austria, Bulgaria, and Hungary were transferred to the Allies.

The United States Senate having voted against ratifying the treaty of Versailles, a separate bipartite treaty was concluded with Germany at Berlin, signed on August 25, 1921, and ratified by both parties in October of that year. The brevity of this treaty is due to the fact that it consisted in the main of a reservation of most of the rights accruing to the United States by the terms of the Versailles treaty, together with a repudiation of the "entanglements" and responsibilities into which it led them. The preamble to the treaty of Berlin contained a part of the joint resolution of Congress, approved by the President on July 2, 1921, from which the following is quoted:

\* \* \* There are expressly reserved to the United States and its nationals any and all rights, privileges, indemnities, reparations, or advantages, together with the right to enforce the same, to which it or they have become entitled under the terms of the armistice signed November 11, 1918, or any extension or modification thereof, or which were acquired or are in the possession of the United States of America by reason of its participation in the war or to which its nationals have thereby become rightfully entitled, or which under the treaty of Versailles have been stipulated for its or their benefit; or to which it is entitled as one of the principal allied and associated Powers, or to which it is entitled by virtue of any act or acts of Congress, or otherwise.

Germany accords these rights, which are mentioned specifically as being those contained in Section I, Part IV, and in Parts V, VI, VIII, IX, X, XI, XII, XIV, and XV of the Versailles treaty. Further,

\* \* \* while the United States is privileged to participate in the Reparation Commission, according to the terms of Part VIII of that (the Versailles) treaty, the United States is not bound to participate in any such commission unless it shall elect to do so.

#### REFUNDING LOAN OF OCTOBER 16, 1922.

On October 9 the Secretary of the Treasury issued the following letter to banks and trust companies in the United States:

I am sending you herewith a copy of the official Treasury Department circular announcing the offering of 4½ per cent Treasury bonds of 1947-1952, for which subscription books open to-day. The offering is for \$500,000,000, or there-

abouts, with the right reserved to the Secretary of the Treasury to allot additional bonds to the extent that 4½ per cent Victory notes or Treasury certificates maturing December 15 are tendered in payment.

The new bonds will be 25/30 year bonds, dated October 16, 1922, maturing October 15, 1952, and redeemable at the option of the United States on and after October 15, 1947. The bonds will be issued in both coupon and registered form, in denominations of \$100 and upward. Applications will be received through the Federal reserve banks, and the Treasury is prepared to make deliveries promptly upon allotment and payment. Subject to the limitations on the amount of the offering, allotments will be made in full, in the order of receipt of application, upon subscriptions for amounts not exceeding \$10,000 for any one subscriber, and upon subscriptions for which either 4½ per cent Victory notes or Treasury certificates maturing December 15 are tendered in payment. Other applications for amounts exceeding \$10,000 for any one subscriber will be received subject to allotment.

This is a refunding issue, and it affords a particularly favorable opportunity to holders of 4½ per cent Victory notes to acquire a long-time Government bond on attractive terms in place of Victory notes which will mature or be redeemed within the next few months. I am, therefore, addressing this letter to the heads of all banking institutions in the country, and asking you to provide every possible facility for investing in the new bonds. I hope that you will also make a special effort to bring the offering to the attention of your customers, large and small, for it is the Treasury's desire to secure the widest possible distribution of the bonds among investors.

I think you will be interested in this connection to know what has already been accomplished in the refunding of the short-dated debt and what still remains to be done. On April 30, 1921, when the Treasury first announced its refunding program, the gross public debt, on the basis of daily Treasury statements, amounted to about \$24,000,000,000, of which over \$7,500,000,000 was maturing within about two years. On September 30, 1922, the total gross debt on the same basis stood at about \$22,800,000,000, and of the early maturing debt about \$4,000,000,000 had already been retired or refunded, chiefly into short-term Treasury notes with maturities spread over the next four fiscal years. There will fall due this fiscal year about \$1,100,000,000 of Treasury certificates of indebtedness, about \$625,000,000 maturity value of war-savings certificates of the series of 1918, and about \$1,800,000,000 of Victory notes. Of the Treasury certificates, about \$48,000,000 represents Pittman Act certificates which will be retired this year through the recoinage of silver bullion, while about \$100,000,000 of loan certificates maturing October 16, 1922, will be paid out of funds already in hand. The retirement of these certificates will leave only tax certificates outstanding, and it will in any event continue to be desirable, with income and profits tax payments as large as they are, for the Treasury to have outstanding at least \$1,000,000,000 of tax certificates in amounts and with maturities conforming to the quarterly tax payments. This correspondingly reduces the amount of necessary refunding into other securities.

After October 16, 1922, the next maturities fall on December 15, and include about \$870,000,000 face amount of 4½ per cent Victory notes called for redemption, and about \$420,000,000 of maturing tax certificates of Series TD and TD2-1922, against which the Treasury will receive in December about \$250,000,000 of income and profits taxes. On January 1, 1923, the \$625,000,000 of war-savings certificates become payable, but the Treasury has already announced, as you know, a new offering of Treasury savings certificates with a view to refunding as much as possible of the maturity into obligations of the same general character and with the same appeal to the needs of the small investor. The Treasury will shortly announce special facilities for the exchange of maturing war-savings certificates for the new Treasury savings certificates, and plans in this manner

to provide for a substantial part of the war-savings maturity. The only Treasury certificates maturing in the second half of the fiscal year 1923 are about \$266,000,000 on March 15, 1923, and about \$273,000,000 on June 15, 1923, both of which are covered by the income and profits tax payments estimated for those dates. On May 20, 1923, the remaining \$930,000,000 of 4½ per cent Victory notes will mature according to their terms.

The maturities which remain and have to be refunded the Treasury will meet through issues of refunding securities, properly adjusted to market conditions, and I believe it will be able to meet them, as it has in the past, without disturbance to the markets and without strain on the financial machinery. During the course of the refunding operations which have been in progress the Treasury has issued from time to time Treasury certificates of indebtedness, Treasury notes, and Treasury savings certificates, all relatively short-term. These operations have been successful and have been accomplished without disturbance to the market for outstanding securities. With the announcement of the bonds now offered, the Treasury is adding to its list a refunding issue of long-time bonds, on a basis which should prove particularly attractive to investors. These bonds will provide, through exchanges and otherwise, for a substantial part of the heavy maturities falling on December 15, and the success of the offering will leave only a normal amount of financing to be placed on that date.

It is four years since the Treasury has offered to the people of the United States an issue of long-time Government bonds. During that period it has been financing itself on a short-term basis, and it has succeeded, with your cooperation, in placing with investors throughout the country a great volume of Treasury certificates and Treasury notes. Now that the time has come for a longer-term operation, I am looking forward with confidence to your continued support, and hope that, as with previous offerings of Government securities, you will give your best efforts to the distribution of the new Treasury bonds among investors.

#### UNITED STATES OF AMERICA.

#### FOUR AND ONE-QUARTER PER CENT TREASURY BONDS OF 1947-1952.

(Dated and bearing interest from October 16, 1922. Due October 15, 1952. Redeemable at the option of the United States at par and accrued interest on and after October 15, 1947. Interest payable April 15 and October 15.)

The Secretary of the Treasury invites subscriptions, at par and accrued interest, from the people of the United States, for 4½ per cent Treasury bonds of 1947-1952, of an issue of gold bonds of the United States authorized by the act of Congress approved September 24, 1917, as amended. The amount of the offering will be \$500,000,000, or thereabouts, with the right reserved to the Secretary of the Treasury to allot additional bonds up to a limited amount to the extent that 4½ per cent Victory notes or Treasury certificates of indebtedness of Series TD or TD2-1922 are tendered in payment.

#### DESCRIPTION OF BONDS.

The bonds will be dated October 16, 1922, and will bear interest from that date at the rate of 4½ per cent per annum payable April 15 and October 15 in each year, on a semi-annual basis. The bonds will mature October 15, 1952, but may be redeemed at the option of the United States on and after October 15, 1947, in whole or in part, at par and accrued interest, on any interest day or days, on four months' notice of redemption given in such manner as the Secretary of the Treasury shall prescribe. In case of partial redemption the bonds to be redeemed will be deter-

mined by such method as may be prescribed by the Secretary of the Treasury. From the date of redemption designated in any such notice, interest on the bonds called for redemption shall cease. The principal and interest of the bonds will be payable in United States gold coin of the present standard of value.

Bearer bonds with interest coupons attached will be issued in denominations of \$100, \$500, \$1,000, \$5,000, and \$10,000. Bonds registered as to principal and interest will be issued in denominations of \$100, \$500, \$1,000, \$5,000, \$10,000, \$50,000, and \$100,000. Provision will be made for the interchange of bonds of different denominations and of coupon and registered bonds and for the transfer of registered bonds, without charge by the United States, under rules and regulations prescribed by the Secretary of the Treasury.

The bonds shall be exempt, both as to principal and interest, from all taxation now or hereafter imposed by the United States, any State, or any of the possessions of the United States, or by any local taxing authority, except (a) estate or inheritance taxes, and (b) graduated additional income taxes, commonly known as surtaxes, and excess-profits and war-profits taxes, now or hereafter imposed by the United States, upon the income or profits of individuals, partnerships, associations, or corporations. The interest on an amount of bonds and certificates authorized by said act approved September 24, 1917, and amendments thereto, the principal of which does not exceed in the aggregate \$5,000, owned by any individual, partnership, association, or corporation, shall be exempt from the taxes provided for in clause (b) above.

Any of the bonds which have been owned by any person continuously for at least six months prior to the date of his death, and which upon such date constitute part of his estate, shall, under rules and regulations prescribed by the Secretary of the Treasury, be receivable by the United States at par and accrued interest in payment of any estate or inheritance taxes imposed by the United States, under or by virtue of any present or future law upon such estate or the inheritance thereof. The bonds will be acceptable to secure deposits of public moneys, but do not bear the circulation privilege and are not entitled to any privilege of conversion.

#### APPLICATION, ALLOTMENT, AND PAYMENT.

Applications will be received at the Federal reserve banks, as fiscal agents of the United States. Banking institutions generally will handle applications for subscribers, but only the Federal reserve banks are authorized to act as official agencies.

Within the limitation on the amount of the offering, applications from any one subscriber for an amount of bonds not exceeding \$10,000 will be allotted in full, and allotments thereon may be made upon application. Applications for amounts in excess of \$10,000 will be received subject to allotment. The right is reserved to reject any subscription for an amount in excess of \$10,000, and to allot less than the amount of bonds applied for and to close the subscriptions at any time without notice. The Secretary of the Treasury also reserves the right to make allotment in full upon applications for smaller amounts, and to make reduced allotments upon or to reject applications for larger amounts, and to make classified allotments and allotments upon a graduated scale; and his action in these respects will be final.

Payment at par and accrued interest for any bonds allotted must be made on or before October 16, 1922, or on later allotment; provided, however, that persons who desire to make payment in installments may pay 50 per cent on October 16, 1922, or on later allotment, and the balance on November 15, 1922, with accrued interest to that date on the deferred installment. Any qualified depository will be permitted to make payment by credit for bonds allotted to it for itself and its customers up to any

amount for which it shall be qualified in excess of existing deposits, when so notified by the Federal reserve bank of its district, except upon subscriptions for which Victory notes or Treasury certificates of indebtedness of Series TD or TD2-1922 are tendered in payment. Treasury certificates of indebtedness of Series D-1922, maturing October 16, 1922, of Series TD-1922 and TD2-1922, both maturing December 15, 1922 (with any unmatured coupons attached), and Victory notes of the 4½ per cent series, whether or not called for redemption, will be accepted at the Federal reserve banks at par, with an adjustment of accrued interest, as of October 16, 1922, in payment for any Treasury bonds of 1947-52 now offered which shall be subscribed for and allotted. Victory notes in coupon form must have all unmatured coupons attached, and if in registered form must be duly assigned to the Secretary of the Treasury for redemption, in accordance with the general regulations of the Treasury Department governing assignments. Payments must be made when and as herein provided under penalty of forfeiture of any installment previously paid and of all right and interest in the bonds allotted.

As fiscal agents of the United States, Federal reserve banks are authorized and requested to receive subscriptions and to make allotments thereon on the basis and up to the amounts indicated by the Secretary of the Treasury to the Federal reserve banks of the respective districts. Allotment notices will be sent out promptly upon allotment, and the basis of allotment will be publicly announced.

Bonds will be delivered promptly after allotment and upon payment, and coupon bonds may be delivered prior to October 16, 1922, to subscribers for amounts not in excess of \$10,000 who make payment in full upon allotment. The Federal reserve banks may issue interim receipts pending delivery of the definitive bonds.

Further details may be announced by the Secretary of the Treasury from time to time, information as to which, as well as forms for application, may be obtained from the Treasury Department, Division of Loans and Currency, Washington, D. C., or from any Federal reserve bank.

A. W. MELLON,  
*Secretary of the Treasury.*

TREASURY DEPARTMENT,  
OFFICE OF THE SECRETARY,  
October 9, 1922.

#### Foreign Branches of American Banking Institutions.

Following is a list of foreign branches and affiliations of American banking institutions, including national banks, trust companies, and other corporations organized under American State charters. This list does not contain the names of institutions having no foreign branches, though organized to finance foreign trade or to undertake foreign financial operations, particularly the two so-called Edge corporations, organized under section 25 (a) of the Federal reserve act. Nor does it include the names of a few banks controlled by American capital and operating in Mexico and Central America under charters granted by the respective foreign Governments. The banks are grouped under two general heads—(1) national and other member banks, and (2) all other institutions.

## MEMBER BANKS.

*Bankers Trust Co., New York, N. Y.:*

Branches—

Paris, France.

*Equitable Trust Co., New York, N. Y.:*

Branches—

London, England.

Paris, France.

Mexico City, Mexico.

Representatives—

Bombay, India.

Calcutta, India.

Hongkong, China.

Yokohama, Japan.

Berlin, Germany.

Do not conduct regular banking business, but execute foreign exchange and investment transactions under specific instructions of Equitable Trust Co., New York.

*Farmers Loan & Trust Co., New York, N. Y.:*

Farmers Loan & Trust Co. (Ltd.), London (two offices). A British company—all stock owned by Farmers Loan & Trust Co., New York, N. Y.

Representatives—

London, England.

Paris, France.

(No banking business transacted.)

*First National Bank, Boston, Mass.:*

Branch—

Buenos Aires, Argentina.

*Guaranty Trust Co., New York, N. Y.:*

Branches—

London, England.

Paris, France.

Brussels, Belgium.

Havre, France.

Liverpool, England.

Antwerp, Belgium.

*National City Bank of New York, New York, N. Y.:*

Branches—

Argentina: Buenos Aires, Rosario.

Belgium: Antwerp, Brussels.

Brazil: Pernambuco, Rio de Janeiro, Santos, São Paulo.

Chile: Santiago, Valparaiso.

Cuba: Artemisa, Bayamo, Caibarien, Camaguey, Cardenas, Ciego de Avila, Cienfuegos, Colon, Guantanamo, Habana (subbranches, Galiano, Cuatro Caminos), Manzanillo, Matanzas, Nuevitas, Pinar del Rio, Placetas del Norte, Remedios, Sagua la Grande, Sancti Spiritus, Santa Clara, Santiago, Yaguajay.

England: London—City Branch, West End Branch.

France: Paris.

Italy: Genoa.

Peru: Lima.

Porto Rico: Ponce, San Juan.

Russia: Moscow,<sup>1</sup> Petrograd.<sup>1</sup>

Uruguay: Montevideo, Calle Rondeau (sub-branch).

Venezuela: Caracas.

## OTHER INSTITUTIONS.

*American Foreign Banking Corporation, New York:*

Branches—

Habana, Cuba.

Cristobal, Panama, Canal Zone.<sup>2</sup>

Panama City, Panama.<sup>2</sup>

Rio de Janeiro, Brazil.

Mexico City, Mexico.

*Asia Banking Corporation, New York:*

Branches—

Shanghai, China.

Hankow, China.

Peking, China.

Tientsin, China.

Hongkong, China.

Manila, Philippine Islands.

Canton, China.

Singapore, Straits Settlements.

*Bank of Central and South America, New York:*

Branch at Hamburg, Germany (Monckeberg, Ecke Paulstrasse).

Owens or controls the following affiliated banks taken over from the Mercantile Bank of the Americas:

*Banco Mercantil Americano de Caracas* (Venezuela) (100 per cent of stock owned): Caracas, La Guayra, Maracaibo, Valencia.

*Banco Mercantil Americano del Peru* (99.9 per cent of stock owned; 1 share owned by a member of the executive committee): Lima, Arequipa, Callao, Chiclayo, Piura, Trujillo.

*Banco Mercantil Americano de Colombia* (100 per cent of stock owned): Medellin, Barranquilla, Bogotá, Cali, Cartagena, Girardot, Manizales.

*National Bank of Nicaragua* (51 per cent of stock owned; remainder owned by Government of Nicaragua): Managua, Bluefields, Granada, Leon.

*Banco Mercantil de Costa Rica* (82.26 per cent of stock owned; remainder held in small lots by various local people): San José.

*Empire Trust Co., New York, N. Y.:*

Branch—

London, England.

*Equitable Eastern Banking Corporation, New York, N. Y.:*

Branch—

Shanghai, China.

Representatives—

Bombay, India.

Hongkong, China.

Yokohama, Japan.

Do not conduct regular banking business, but carry out specific instructions of Equitable Eastern Banking Corporation, mainly in foreign exchange transactions.

*International Banking Corporation, New York, N. Y.:*

Branches—

China: Canton, Hankow, Harbin, Hongkong, Peking, Shanghai, Tientsin.

Dominican Republic: Barahona, La Vega, Puerto Plata, Sanchez, San Francisco de Macoris, San Pedro de Macoris, Santiago de Los Caballeros, Santo Domingo City.

England: London.

France: Lyons.

India: Bombay, Calcutta, Rangoon (Burma).

Japan: Kobe, Tokyo (subbranch), Yokohama.

Java: Batavia, Soerabaya.

Philippine Islands: Cebu, Manila.

Spain: Barcelona, Madrid.

Republic of Panama: Colon, Panama.

Straits Settlements: Singapore.

Mercantile Bank of the Americas, New York City, in process of liquidation. (See Bank of Central and South America.)

Mercantile Overseas Corporation, New York City, owns and administers the Mercantile Overseas Corporation in Guayaquil, Ecuador.

Park-Union Foreign Banking Corporation in liquidation, conducted in the office of the Asia Banking Corporation, New York.

<sup>1</sup> Temporarily closed.

<sup>2</sup> Formerly branches of Commercial National Bank, Washington.

## BUSINESS AND FINANCIAL CONDITIONS ABROAD.

### THE RAILWAY SITUATION IN GREAT BRITAIN AND FRANCE.

Following the period of Government operation of railways in Great Britain and France, which was inaugurated early in the war, important legislation was enacted almost simultaneously in the two countries affecting the future operation of the railways and their relations to the respective Governments. A little more than a year has now elapsed since the new legislation went into effect, and sufficient data are now available to justify a review of these recent developments and the steps leading up to them.

#### GREAT BRITAIN.

##### THE END OF GOVERNMENT CONTROL.

At the very beginning of the war the British Government assumed control of all the most important railways of the United Kingdom, leaving only certain minor lines under the management of their owners. Early in the war the Government also had declared itself in favor of extending control over the railways for a period of two years after the war, and of continuing the guarantee of net earnings for such a period. It was realized that this would require additional legislation, inasmuch as the railways were taken over under the act of 1871 which permitted Government control only so long as an emergency existed. Nothing very definite, however, in the direction of a post-war policy for the railways was outlined until in August, 1918, the Government appointed a select committee on transport to study the problem. The committee, in presenting its second report in November, 1918, gave the following as its preliminary conclusions:

Your committee considers—

- (1) That the organization of the transport agencies of the country—and particularly of the railways—can not be allowed to return to its pre-war position.
- (2) That the temporary arrangements for the control of railways and canals during the war would not be satisfactory as a permanent settlement.
- (3) That unification of the railway system is desirable under suitable safeguards, whether the ownership be in public or private hands.

The committee proceeded to enumerate several possible ways of carrying out these recommendations, some involving private and others public ownership. All of the general plans, it is interesting to note, pointed in the direction of further amalgamation and unification.

On February 26, 1919, the Government introduced a bill into Parliament "to establish a

Ministry of Ways and Communications," the name being changed a little later to "Ministry of Transport." Very wide powers were granted to the new Minister of Transport, the duties of the Board of Trade in relation to railways, inland waterways, roads, harbors, and piers being transferred to him. The Board of Trade, on the other hand, retained its functions pertaining to trade and foreign commerce. The bill provided that for a period of two years longer the new ministry should retain possession and control of the railways which had been taken over by the Government in the early days of the war. Among other things, it was provided that the Minister of Transport should prepare within two years a program of future action. Important among the provisions of the bill was that creating a rates advisory committee. The Minister of Transport had to refer all questions of changes in rates to this committee for their advice, but all executive power lay with him.

Soon after the bill was passed and went into effect, the date being August 15, 1919, a railway advisory committee was formed to carry on certain of the functions of the railway executive committee, which as a department of the Board of Trade during the war had carried into effect the plans and orders of the Government. With the passing out of existence of the railway executive committee, the railways formed also a standing committee of general managers to represent their interests.

On June 24, 1920, the Minister of Transport's proposals for the permanent management of the railways were given to Parliament in the form of a "white paper." The idea of nationalization of the railways was rejected, but the principle of the elimination of competition was upheld as promoting economy of operation. The railroads of the United Kingdom under this scheme were to be amalgamated into seven groups, each managed by a board of directors elected by the shareholders, but on which the employees were also to be represented. As to revenue, Parliament was to lay down the principle that rates and fares should be such as to give the companies a net revenue equivalent to pre-war amounts. If there was any surplus beyond this the Government was to have a share. Disputes concerning wages and working conditions were to be put before the central wages board and the national wages board. The Ministry of Transport was to have authority to require companies to make capital expenditures, to impose standards as to equipment and plant, and to compel cooperation between roads.

Certain parts of this plan were subjected to widespread criticism. The railways objected to the proposed grouping, to workers being represented in the management, to the State taking part of the revenue, and especially to the future powers of the State in relation to the railroads. Finally, after much public discussion and debate, a modified plan for dealing with the railways was incorporated in a bill which on May 11, 1921, was introduced into the House of Commons, and was passed by Parliament in August.

#### THE RAILWAYS ACT OF 1921.

The act of 1921, which took effect on August 15, 1921, is divided into six parts as follows:

- I. Reorganization of the railway system.
- II. Regulation of railways.
- III. Railway rates.
- IV. Management and wages board.
- V. Light railways.
- VI. General.

*Part I.*—The new grouping of railroads is somewhat different from that proposed by the "white papers" and more nearly in accord with the ideas of the railway association. There are to be four groups—the North-western, Midland, and West Scottish; the Northeastern, Eastern, and East Scottish; the Western; and the Southern. Schemes for amalgamation and absorption of subsidiary companies are to be presented to the Minister of Transport not later than January 1, 1923, and to be referred by him to an amalgamation tribunal. These schemes were to come into effect not earlier than June 30, 1922, nor later than July 1, 1923. The progress already made in carrying the amalgamations into effect will be referred to below.

*Part II.*—The rights of the State are considerably cut down as compared with the former plan. The railway and canal commission or the Minister of Transport can, however, require a railway company to afford reasonable services and facilities to the public, and to make capital expenditures involving an outlay of not more than £100,000 in any one case.

*Part III* gives effect to the proposals of the rates advisory committee's report of 1920 on the revision of rates. A new body, the railway rates tribunal, was established, consisting of one person experienced in commerce, one in railroads, and a lawyer who must be the chairman, besides a staff of ten persons.

The functions of this important tribunal, resembling in many respects the Interstate Commerce Commission of the United States, relate to—

- (a) Alterations of classifications.
- (b) Variations or cancellation of through rates.

- (c) The institution of new group rates, or the cancellation, modification or continuance of existing ones.
- (d) The variation of any toll payable by the trader.
- (e) The determination of the amount to be allowed for terminal or private siding privileges.
- (f) The reasonableness of any charge made by a company.
- (g) The reasonableness of contentions as to damage in transit or liability as to damage.
- (h) All questions concerning passengers' luggage.

The classification of articles in the first place is to be by the rates advisory committee which is to continue until that work is done. Schedules are to be submitted to the new tribunal under this classification and after they have been approved are to be put into effect. From that time they will be the only lawful rates. Subsequent changes can be made only on application to the tribunal. All exceptional rates are to cease to exist after the day the schedules go into effect, but new exceptional rates can be made if they are not less than 5 per cent or more than 40 per cent below the schedule. These rates must be reported to the minister fourteen days beforehand. The rates charged on the roads are to yield an amount, allowing for efficient and economical management, equal to the net revenue in 1913 with allowance for interest on capital expenditures not yielding a return in 1913. The tribunal is empowered to change rates so that the revenue will conform to this standard.

*Part IV.*—In case of disagreement between the railways and the trades unions, the act provides that all questions as to wages, hours, and conditions of work are to be referred to the central wages board or, on appeal, to the national wages board. The central wages board as reconstituted consists of eight representatives of the companies and eight of the employees.

Such, briefly, was the legislation enacted and machinery set up at the time the railways were returned by the Government to their owners on August 16, 1921.

#### PROGRESS OF AMALGAMATIONS.

As a result of this legislation, approximately 120 separate railway undertakings, including all the railways of Great Britain, large and small, are to be combined into four distinct groups or corporate entities. Under the terms of the act of 1921 the necessary amalgamation schemes are to come into operation not later than July 1, 1923, and the present companies are allowed until the end of 1922 to come to voluntary agreements among themselves upon the terms of union. Where the companies can not agree, the amalgamation tribunal decides the matters at issue. The tribunal, moreover, must approve all amalgamation proposals in detail before they go into effect.

The chief difficulties so far encountered in carrying the new plan into effect have arisen out of the conflicting interests of stockholders in the different railways to be combined. Since the railway act specifies which of the four great groups each railway company shall enter, the questions at issue have centered around the financial terms to be arranged between the present companies. This has involved a nice adjustment, not merely between companies that have always been in a strong position and others that for years have never paid a dividend, but also between the different classes of stockholders and bondholders in the same company. Under these circumstances it is not surprising that the progress toward unification has been slow; perhaps rather it is to be wondered at that, with all the difficulties in the way and the numerous interests involved, so much has already been accomplished.

Progress has thus far been mostly in the nature of preliminary consolidations of two or more companies within the proposed larger groups. Several such consolidations have been negotiated, voted upon favorably by the stockholders affected, and approved by the amalgamation tribunal. For instance, the Great Western Railway—the most important company in the new western group—by the end of February of this year had come to terms with five of the six other constituent companies in its group, and on March 25, 1922, this preliminary amalgamation was approved by the amalgamation tribunal. In the northwestern group the London & North-Western Railway, which had already absorbed the Lancashire & Yorkshire, announced that a preliminary agreement had been effected in March of this year with the important Midland Railway. The problems of consolidation have been especially difficult in the northeastern group, which includes several of the strongest railways of Great Britain along with others in a much less favorable position. Nevertheless, in July six of the more prominent railways in this group announced the financial terms for consolidation that their directors had determined upon. This plan is to be submitted in due course to the stockholders of the six companies concerned and, if approved, will then be laid before the amalgamation tribunal for its sanction. In the southern group the terms of a preliminary scheme of amalgamation, as agreed upon by the directors of the London & South-Western Railway and the other constituent companies of the southern group, were announced on October 20, 1922. Additional plans are being actively negotiated in the different groups, the details of which, however, have not been announced.

#### CHANGES IN RATES.

The rate situation in Great Britain has been somewhat unusual. Throughout the war freight rates remained essentially unchanged at about the pre-war level. After the war, however, since the railroads were not making expenses and the Government was averse to meeting its guarantee from general taxes, the Minister of Transport asked for a revision of rates. Accordingly, on December 16, 1919, the rates advisory committee announced its policy for revision. Rates on short hauls were to be increased more proportionately than rates on long hauls, and those on valuable goods more than on less valuable goods. Increases were to be in the form of percentage increases, for the most part, with small advances in flat rates. On January 15, 1920, this first interim revision went into effect, bringing increases ranging from 25 per cent to 100 per cent. The first revision, however, proved inadequate, for the roads were showing a deficit at the rate of £54,500,000 annually, which the Government desired to have made up in 11 months. The committee, therefore, recommended further increases in freight rates, which were put into effect in September, 1920. These several changes taken together resulted in advancing the general level of freight rates to about 100 per cent above the pre-war level.

Shortly after the railways were returned to their owners on August 16, 1921, certain reductions were made in the hope of stimulating business. On November 1, 1921, the English and Welsh companies reduced rates on raw materials to assist the steel trade, and on January 1, 1922, reductions were made in coal rates, those on certain other raw materials, and on iron and steel in Class B. Class A and Class B rates generally, rates on iron and steel in Class C, and some others were reduced as from May 22, 1922. Finally, on August 1, 1922, there was a general reduction of rates by the English and Welsh companies, especially affecting those rates that had not already been reduced. These recent changes have brought both class and exceptional rates down to 75 per cent above pre-war instead of 100 per cent above that level. The Scottish railway companies, while not reducing rates on local traffic, announced that as from August 1, 1922, through traffic of all classes would be charged the same rates as obtained on the English and Welsh lines. The amount involved in these reductions represents a considerable saving to the business community, and the changes are expected to exercise a favorable influence upon trade.



FRANCE.

The close relations existing between the railways of France and the treasury draw attention to the fact that the railroad problem in that country is one not merely of industrial economics but also of public finance. The end of the war left French railways in a very unsatisfactory condition, which became worse in the trying months of 1920 and 1921. Since the passage of the law of October 29, 1921, a distinct improvement has taken place and the situation is now much more promising.

The French railways may be divided into three groups. In the first group is the company known as the State Railways (Chemins de Fer de l'État), which is the successor of the Railway of the West, bought out by the State in 1908, and operated by the Government since the beginning of 1909. The securities of the West are still quoted, but it is regarded as a concern in liquidation. The second group, Compagnies d'Intérêt Général, includes the five great railway corporations, and, since the war, the Chemins de Fer d'Alsace et de Lorraine et du Guillaume-Luxembourg. These latter lines are administered by the State, and being small, are not of great importance. The third group is composed of minor lines (Compagnies Secondaires) of which the largest are the Algerian State Railways and the Oran Railway, both in Africa. That group will not be considered in this article.

The following table shows the size of the principal lines:

Railway.	Date of organization.	Expiration of concession.	Total line in operation.
			Kilometers.
State Railway <sup>1</sup> .....	June, 1855		9,011
Paris-Lyon-Méditerranée (without Algerian lines).....	July, 1857	1958	9,781
Nord.....	Sept., 1845	1950	3,830
Orléans.....	Aug., 1838	1956	7,469
Est.....	Dec., 1845	1954	5,027
Midi.....	Nov., 1852	1960	4,117
Lines of Alsace-Lorraine and Guillaume-Luxembourg.....			2,228

<sup>1</sup> The date of organization is that of the Chemins de Fer de l'Ouest which was purchased by the State in 1906.

The total length of lines now in operation is 41,463 kilometers, or about 26,000 miles. The six systems (excluding the lines acquired during the war) represented about two-thirds of the mileage and 95 per cent of the railway revenue of the entire country before the war.

Prior to the war the relations of the railroad corporations to the Government were defined by the "Conventions of 1883," and it was expected that except in the eventuality of purchase by the State, these conventions would

provide a satisfactory basis for the relations between the railroads and the public until the expiration of the several concessions. Under these conventions the railways were regarded as monopolistic enterprises, conceded to private corporations, but held under the control of the State, to prevent abuse of their privileges. There was no idea of competition between the lines; each system serves a distinct territory. The railway corporations were closely associated in their finances with the public treasury, to the extent of aid for extension of lines and a guaranty of interest on their bonds and of dividends on their stocks. The amount of this guaranty was based upon the actual conditions existing at the time of the conventions. This guaranty of return was not a gift from the treasury, but took the form of advances made to cover deficits, bearing interest at 4 per cent. When any line had paid off its advances from the State, the dividends might be increased up to specified amounts. Beyond that limit the surplus was to be shared by the company and the State.

On the whole, the conventions worked well. Length of line doubled in the 30 years between 1883 and 1913, growing from 20,700 kilometers to 41,000 kilometers. Rates declined about 28 per cent. Financially the plan proved a marked success. The Est, Paris-Lyon-Méditerranée, and the Nord had paid off the advances from the Government, the Paris-Lyon-Méditerranée having even paid into the Government about 12,000,000 francs under the provisions for the division of surplus. The Midi was nearly in equilibrium, while the Orléans, making the poorest showing of the private lines, had a total deficit of only 17,000,000 francs. The State Railway had a deficit of about 84,000,000 francs, counting certain charges inherited from the period of its private operation.

There were, however, some important drawbacks to the system. The approaching expiration of the concessions, varying with the different roads between 1914 and 1960, caused uncertainty as to their ultimate future, and this, of course, was reflected in their credit, so that borrowing became increasingly expensive.

The system of rate making was unsatisfactory, the rates having some flexibility within the limits of the established schedule called the "cahier des charges". Theoretically, the initiative in rate charges was to come from the railroads, subject to the approval of the Ministry of Public Works. The tendency was to keep the rates low, which, however, did not cause hardships to the roads until the violent price changes incident to the war. The rate schedules were exceedingly involved, while the variations

of rates on the different lines emphasized the need of a system of charges uniform on all the lines. Another disadvantage lay in the individualism of the various lines, leading to a serious lack of standardization of equipment, and to the failure to cooperate with inland waterways.

The financial structure of the railroads, which will be taken up in detail later, also brought certain disadvantages. Out of a total capitalization in 1913 of about 18,000,000,000 francs, 16,000,000,000 francs represented bonded indebtedness, while the shares with voting power constituted only about one-ninth of the capital engaged. As much of the stock was held by small owners, it was not difficult nor very expensive for interested persons to secure control of any railroad. The proportion of bonds to stocks is even higher now.

From these considerations, the conclusion seems warranted that, although the Conventions of 1883 did not produce an ideal basis for the conduct of French railways, they had achieved, on the whole, satisfactory practical results.

#### FRENCH RAILWAYS DURING THE WAR.

This situation was changed for the worse from the outbreak of the war. A centralized system of military administration was immediately imposed on them from necessity. Almost one-tenth of their personnel was called away to military duty, although the great majority of railway workers of military age were simply mobilized at their respective jobs. But the necessities of recruiting personnel, whether because of increased traffic, or reductions of force by mobilization, death, retirement, or other causes, occasioned the companies no small difficulties.

Further, the rise in commodity prices, while rates remained practically stationary during most of the war period, obliged the companies to take advantage of the State guaranties mentioned above. This left two of the lines, the Nord and the Paris-Lyon-Méditerranée, in a most difficult position, as their concessions expired December 31, 1914. Their arrangements with the Government were, however, extended and they were allowed to meet their deficits by the issue of securities, pending final arrangements to be made after the conclusion of hostilities. To make matters worse, a considerable part of the lines of the Nord and the Est was in the zone of war or actually in the hands of the enemy. Even when the lines were not actually subject to the rigors of the front, rough usage, abnormal traffic, and undermaintenance caused costly depreciation.

Following the conclusion of hostilities, little time was lost in returning the railways to private control. Without waiting to determine eventual policy, this was done by a decree of February 3, 1919. But the situation of the roads became rapidly worse. Prices, especially of coal, continued to rise, reflecting, as they had not completely done during the war, the serious depreciation of the franc.

While wage costs had greatly increased during the war, the largest single increment under this head came with the obligatory eight-hour law of April 23, 1919. This law is the principal reason for the enormous increase in the number of employees, which rose from 393,000 in 1913 to 467,000 in 1920. The law was put into force abruptly, with the result that the railways whose old personnel had already been depleted, and to an extent disorganized by the war, were obliged to hire great numbers of untrained, not to say incompetent, employees, thus adding an extra burden.

The following table shows the situation of the roads during these years:

RECEIPTS AND DEFICITS OF THE SIX FRENCH RAILWAYS, 1913-1920.<sup>1</sup>

[In millions of francs.]

Year.	Receipts.	Deficit.
1913.....	2,020	79
1914.....	1,733	311
1915.....	1,815	272
1916.....	2,233	217
1917.....	2,433	287
1918.....	2,969	448
1919.....	3,851	1,369
1920.....	5,333	2,772

<sup>1</sup> Source: Bulletin Financier of the Crédit Suisse, June 30, 1922. Later figures show the 1921 deficit as 2,981,000,000 francs.

As might be expected, the stocks and bonds of these companies reflected the gravity of their financial situation, despite the guaranty of revenue. The following table from L'Economiste Français, shows the change:

[Price, in francs.]

Railway.	Common stock (par value 1,000 francs).		3 per cent bonds, Series A (par value 500 francs).	
	July, 1914.	Feb., 1920.	July, 1914.	Feb., 1920.
Nord.....	1,692	930	404	307
Est.....	905	651	425	322
Orléans.....	1,300	910	417	336
Paris-Lyon-Méditerranée.....	1,231	701	404	309
Midi.....	1,095	795	416	312

The most urgent need was for an increase in rates which would correspond to increased costs and to the depreciation of the currency. The pressure of this condition is shown by the fact

that the coal bill of the railways was 183,000,000 francs in 1913 and 781,000,000 francs in 1919, while wages and allowances had risen from about 800,000,000 francs in 1913 to 2,745,000,000 francs in 1919. An increase in rates of 25 per cent, granted by the law of March 31, 1918, had proved insufficient, as prices continued to rise during that year and the following down to the spring of 1920. The deficits continued to mount, adding to the embarrassments of the treasury, burdened with the charges of the war and facing those of reconstruction. To make the railroads self-supporting, a further increase was granted (law of February 14, 1920). The passenger rates were raised 45 per cent for third-class passengers, 50 per cent for second, and 55 per cent for first class. Freight rates in general advanced 115 per cent. The drastic effect of this increase is shown by the fact that it raised some tariffs to 500 per cent of their pre-war scale. In comparison with the advances in commodity prices, the average increases in freight rates do not seem to be excessive.

The two acts outlined above—the return of the lines to private control and the increase of rates—prepared the way for a general discussion of the whole railway question in France. As was stated earlier, the Conventions of 1883 had worked well, but the experience of over 30 years had shown the advisability of some changes. The situation arising from the war and its aftermath made a complete revision of policy imperative. First of all, as the table above has shown, the advances by the Government to the roads, as measured by the annual deficits, had reached figures which practically precluded repayment. But to offset these liabilities, the roads had enormous counter-claims against the Government. The financial relations of the treasury and the roads were in an almost inextricable tangle. Apart from this was the older and more persistent problem of providing France with a unified, self-supporting railway system, instead of a number of more or less individualized railway systems, requiring frequent advances from public funds, and reluctant to cooperate with each other or with other forms of transportation.

Numerous projects were proposed, varying from Government ownership of all lines to a private monopoly of the combined systems. The *Confédération Générale du Travail* advanced a scheme for nationalization, and the great strike of May 1, 1920, centered around this demand. But extreme plans found little favor with the French public, of whom perhaps 3,000,000 are holders of railway securities. There was a strong feeling against

the bureaucratic administration of business affairs, which even many of those theoretically inclined toward nationalization regarded as too high a price to pay for the possible advantages.

During the years of 1920 and 1921 the needs of French transportation received thorough consideration and discussion, which led to the conventions between the Government and the lines, signed June 28, 1921, reproduced in the law of October 29, 1921, embodying the plan of M. Le Troquer, Minister of Public Works. The result is a system which provides for close cooperation between the lines, while retaining flexibility and the advantages of private initiative. The benefits of Government control seem to have been retained, and to counteract its disadvantages incentives are provided to stimulate efficiency of operation and encourage economy. The plan provides for a superior council (*Conseil Supérieur des chemins de fer*), with the president appointed by governmental decree, and 60 members. Of these, 30 represent the railroads, of which 12 represent the employees, being elected by them. The other 30 are to represent the public interest, 10 of them being public officials, and all appointed by the ministry. The Director of Railways, an official of the Ministry of Public Works, sits with the council as representative of Government. Of the members at present representing the public interest on the council, seven are delegates from municipal chambers of commerce, five from important industries, four from the agricultural associations, three from maritime enterprises, and three from miscellaneous organizations. This council has exceptionally wide powers, as it must be consulted on all questions of common interest to all the lines, in technical, commercial, administrative, and financial matters. It considers the construction of new lines, relations with other forms of transport, such as waterways, the question of rates, signals, policing, agreements with foreign lines, etc. The Minister of Public Works is not absolutely bound by decisions of the council, but in case of a difference the minister must accord the council a second hearing.

The minister is given great authority, especially in the matter of rates. He can lower particular rates at will, and effect general reductions on the advice of the council. He can enforce his decisions by legal means, while under the conventions, the only weapon of the Government was the threat of purchasing the recalcitrant road. As for raising rates, the superior council is to propose them and the Minister of Public Works may accept or reject them; but such proposed increases become automatically effective unless the minister, on consultation with the Minister of

Finances, files objection within one month. However, in case the proposed rates exceed certain fixed limits, they must be submitted to Parliament.

The roads agreed to construct certain new lines, bearing one-fifth of the expense, instead of the guaranty of 25,000 francs per kilometer under the conventions. The State's share, at its request, may be advanced by the roads, to be repaid by annuities.

#### FINANCIAL PROVISIONS OF THE LAW OF OCTOBER, 1921.

The State agreed to restore the lines destroyed or damaged by war to their condition of August 2, 1914, and the roads waived any further claims for damages. The guaranty of revenue is assumed to have ceased in 1914, and thus the amounts advanced under the guaranty of revenues down to January 1, 1921, are considered offset by the claims of the companies against the Government, the slate being wiped clean.

From its receipts each road will keep the sums necessary to meet its operating expenses, interest on bonds, limited dividends, other costs, and its bonus or premium (*prime de gestion*). Lines showing a deficit may draw upon a common fund (*fonds commun*). Surpluses of the more favored roads are paid into the common fund, to which for the present money is advanced from the State treasury; and from 1921 to 1926, inclusive, all deficits in the common fund are to be met by the State. In case this fund becomes too large, all advances having been paid off and reserves established, the surplus belongs to the State—though this eventuality is virtually impossible, as such a contingency would call for a reduction of rates. This plan establishes the financial solidarity of the railway systems, and rates are to be adjusted with that fact in mind.

But while this plan contemplates that the stronger roads, such as the Est, Nord, and the Paris-Lyon-Méditerranée, will assist in supporting the weaker lines, all are given an incentive for efficiency and economy. In the Conventions two sorts of dividends had been provided for—the guaranteed dividend (*revenu garanti*) and the possible dividend (*dividende réservé*). The latter might be paid, when earned, before division of surplus with the State became obligatory. The possible dividend was, of course, materially larger than the guaranteed dividend—in the Est more than twice as large. The guaranteed dividend remains, the other having been abolished under the new law; but to provide incentive a new scheme was devised,

called a "*prime de gestion*" (bonus for operation). This is divided into two phases, the "*prime du réseau*" (bonus for the company) and "*prime du personnel*" (bonus for the employees). These are determined by rather complex calculations, being based on the improvement shown over the results of the year 1920. In the year 1921 one-third of this bonus went to the companies and two-thirds to the employees. Finally, provisions were made for the amortization of bonds before the eventual expiration of the concessions or franchises, and for the purchase of any line by the State in case it was found advisable.

One of the most interesting features of the whole scheme is that forbidding strikes, inserted to prevent the recurrence of the critical days of 1920. Every dispute between roads and employees becomes the object of compulsory arbitration before a tribunal of five members, two representing the employees, two representing the interested road, and a fifth to be designated by those members of the superior council not personally connected with the railroads.

Except for the powers reserved by the State or entrusted to the council the individual railroads preserve their liberty of action as of before the war. They are free to choose their own officers and employees and to maintain their own discipline.

Although the law was made retroactive to January 1, 1921, that year hardly offers a fair test of its worth. But the results were moderately satisfactory, as is shown by the following table covering the year 1921:

[In millions of francs.]

Railway.	Receipts.	Operating expenses.	Capital charges.	Total deficit.
Nord.....	985	1,060	169	244
Est.....	910	907	163	160
Paris-Lyon-Méditerranée.....	1,670	1,734	362	426
Orléans.....	924	1,094	217	387
Midi.....	420	499	104	183
État.....	995	1,486	196	687
Total.....	5,904	6,780	1,211	2,087

These figures, taken from *L'Economiste Européen*, are the latest available. They do not exactly correspond with the figures published in the official *Bulletin de Statistique*, as the latter includes some sums received but not earned during 1921, etc. They show a notable reduction of the 1920 deficit; and one line—the Est—succeeded in meeting its operating expenses. About one-third of the total deficit is that of the *État*, a system which serves an agricultural region comparatively thinly popu-

lated. The following table shows the bonus due each road for the year 1921:

	Francs.
Est.....	4,340,000
Midi.....	955,000
Orléans.....	717,000
Nord.....	5,049,000
Paris-Lyon-Méditerranée.....	966,000

The bonus for the Est passed the figure, after which one-half of the surplus must be paid to the common fund.

For the six main systems other data show improvement. The average operating ratio was 63 per cent in 1913, 134 per cent in 1920, and had declined to 114 per cent in 1921. The average number of employees, given as 393,000 in 1913, rose to 467,000 in 1920, and shows a small decline to 462,000 last year, though the item of salaries and wages increased. This was 810,000,000 francs in 1913, 3,290,000,000 francs in 1920, and 3,410,000,000 francs in 1921.

CURRENT OPERATIONS.

One of the most significant facts is that the railways seriously damaged by the war have been doing very well. The table below summarizes the damage done and the repairs effected up to July 1, 1922, for all the French railways affected by the war:

- Railway, main lines:
  - Destroyed, 2,404 kilometers.
  - Reconstructed, completely.
  - Bridges destroyed, 1,503.
  - Bridges repaired, all.
- Railway, local lines:
  - Destroyed, 2,407 kilometers.
  - Restored, 1,328 kilometers.
  - Bridges destroyed, 481.
  - Bridges damaged, 517.
  - Bridges finally repaired, 539.

In addition, reparation deliveries from Germany included 2,600 locomotives and 70,000 cars.

The figures for the current year show marked improvement over those of last year. The gross receipts of the larger French railways during the period from January 1 to September 2, 1922, were as follows:

Railway.	Gross receipts, Jan. 1 to Sept. 2, 1922.	Increase over same period 1921.	Percentage of increase.
	<i>Francs.</i>	<i>Francs.</i>	
État.....	658,995,000	52,945,000	8.74
Paris-Lyon-Méditerranée.....	1,142,580,000	66,030,000	6.1
Nord.....	693,240,000	68,984,000	10.9
Orléans.....	589,935,000	4,983,000	.85
Est.....	634,340,000	65,509,000	11.13
Midi.....	300,095,765	12,173,815	4.22
Alsace-Lorraine and Guillaume-Luxembourg.....	309,919,000	29,325,000	10.45

The excellent showings made by the Nord and Est reflect the activity in restoring the devastated regions which they serve.

GENERAL COMMENTS ON FRENCH RAILWAY FINANCE.

In considering French railways, one important fact must always be held in mind. The private companies are only concessionaires. At the expiration of their concessions, the lines go to the State. Consequently all bonds are scheduled for amortization before the concessions expire. Elaborate provision has been made for the payment of equities existing at that time, and also, as was stated above, for the purchase, under exceptional circumstances, of any line before the expiration of its concession.

The following table prepared by the Crédit Suisse shows the capital structure of these lines, as of the end of 1921:

[In millions of francs.]

Railway.	Stocks.	Bonds.
État.....		3,478
Orléans.....	300	4,377
Nord.....	232	4,000
Est.....	292	2,268
Midi.....	125	1,142
Paris-Lyon-Méditerranée (minus Algerian lines).....	400	8,013
Total.....	1,349	23,339

In comparison with American railroads, this arrangement seems to have too large a proportion of bonded indebtedness—18 to 1. But actually, under the Conventions of 1883 or the law of 1921, the proportion between the two makes comparatively little difference.

The capitalization per mile is on the average, rather higher than that of American lines, if the franc is taken at par.

Railway.	Total capitalization (francs).	Kilometers operated at end of 1921.	Miles operated (3 miles = 1 kilometer).
État.....	3,478,000,000	9,011	5,625
Orléans.....	4,677,000,000	7,800	4,875
Nord.....	4,292,000,000	3,830	2,395
Est.....	2,560,000,000	5,027	3,140
Midi.....	1,267,000,000	4,119	2,575
Paris-Lyon-Méditerranée.....	8,413,000,000	9,781	6,113

Railway.	Capitalization per mile.	In dollars at 5 fr. = \$1.
	<i>Francs.</i>	
État.....	618,000	123,600
Orléans.....	960,000	192,000
Nord.....	1,792,000	358,400
Est.....	815,000	163,000
Midi.....	492,000	98,400
Paris-Lyon-Méditerranée.....	1,375,000	275,000

While many problems remain to be solved, the outlook for the French railways seems hopeful. There is still considerable dissatis-

faction over the rigid acceptance of the eight-hour day, which has recently been somewhat modified in the case of the clerical forces. But so far the railways have avoided the crisis which this fall has tied up a part of the shipping industry. The system of labor representation and the "prime du personnel" have promoted good relations and allayed unrest. Train schedules are nearly at their pre-war normal of service. Electrification is being pushed, notably on the P. L. M., Orléans, and Midi, and numerous other improvements are being installed. There is agitation for reduced rates, but, realizing the need of securing the financial stability of the lines, the Supreme Council has decided to continue the present average rates until May, 1923, the general principle being that the rates should correspond with the level of prices. The law, which was passed by a large majority a year ago, seems to have met the expectations of its sponsors. Altogether, so far as can be observed at this time, the railways of France are at present in a satisfactory condition, with good prospects of improvement, unless involved in general political or economic disturbances not associated with their own industry.

### THE GERMAN COAL SITUATION.

Germany to-day faces a coal shortage that tends to influence the entire economic future of the country. The abundance of cheap coal, coupled with labor paid for in paper marks, have been the main secrets of Germany's ability to produce goods cheaper than any other nation since the armistice. The prevailing coal shortage, however, has changed this situation to a very large extent. Not only has it tended to bring the price of German coal near the world price level but it has also necessitated the importation of large quantities of foreign coal. It has further increased the cost of production to such a degree that at the present time the coal question is one of the most important economic problems which the country faces. Coal output has to be considered in connection with reparation payments, since large quantities of coal must be delivered monthly to the Allies. It plays also an important rôle in Germany's balance of trade, and above all it exercises great influence on the productive capacity of the country. The loss of the Lorraine iron mines, which makes Germany's industries largely dependent upon foreign iron ore, enhanced further the importance of Germany's coal resources. Despite the fact that Germany is in possession of Westphalia, which contains the largest reserves of coking coal in Continental Europe, inducing

many to believe that the present coal shortage is artificial, it is nevertheless true that a severe coal shortage exists. This shows that Germany's difficulties are not merely of a financial nature, growing out of the depreciation of her currency, but also that her industries rest upon an unstable basis. A survey, therefore, of the present coal situation and the causes of the prevailing coal shortage is useful since it enables one to understand the instability of Germany's economic situation and the reasons why it has become steadily worse.

### PRODUCTION AND FOREIGN TRADE.

The output of coal in Germany immediately after the outbreak of the war (see Table I) showed an erratic downward movement. This was caused partly by the decrease in the number of employees who were mobilized for war service and partly by the decreased demand, since Germany was unable to export coal abroad to the same extent as before the outbreak of hostilities. The production of coke, however, was well maintained throughout the entire war period, mainly due to the great demand for by-products of coke for war purposes.

While the output of coal and coke has thus been lower during the last few years than that of 1913, the output of lignite has increased considerably. This increase is due to several causes, prominent among which are the transfer of coal fields to other countries, which made coal scarcer, and the fact that many German industries and private households who are unable to purchase the more expensive coal meet their fuel needs by the much cheaper lignite. In addition, several new inventions have made the use of lignite more profitable.

In discussing Germany's coal supply mention should also be made of the production of briquets, which are made both of coal and lignite. Coal briquets contained for the period 1913 to 1919, about 93 per cent of coal, the rest being tar (pitch).

From the figures of production alone, however, it is impossible to ascertain what the present coal situation is. The coal exports and imports of the country must first be analyzed before conclusions as to consumption and the resulting coal shortage can be drawn.

Both exports and imports (see Table II) show almost the same downward tendency. During the war coal was Germany's principal commodity in her trade with neutral countries, such as Scandinavia, Holland, and Switzerland, where it was exchanged primarily for foodstuffs. The rapid increase in the coal exports in 1920 and 1921 is due largely to deliveries for repara-

tion account, the free exports being smaller than those of the previous years.

A brief analysis of imports by countries of origin (see Table III) shows also that distinct changes have taken place during the last few years. Coal imports from Holland, Belgium, and the territories of the former Austro-Hungarian Empire have decreased to a very large extent. The Dutch imports represent mainly transshipments from England and reflect the general status of Holland's present coal trade. The great quantity of American coal imported during 1920 is due mainly to various trade restrictions prevailing in Europe after the armistice.

Coal exports, on the other hand, have been largely influenced by reparation deliveries, which are also the main cause of the great change in the countries of destination. Before the war Austria-Hungary and Holland were Germany's best coal customers, while during 1921 France, Belgium, and Italy held the leading places. "Free exports" of coal from Germany, that is, those not included in reparation deliveries, are of even less importance than shown by the official figures, if it is borne in mind that shipments to Poland, Danzig, Memel, and Austria are regulated by the peace treaty, and exports to the Saar Basin by the Wiesbaden agreement. Thus, only shipments to Czechoslovakia, Holland, Switzerland, and Scandinavian countries may be regarded as "free exports."

CONSUMPTION.

If the amount of coal produced in Germany is added to that of coal imports, and the coal exports are deducted, the result gives the approximate amount of coal for domestic consumption. (See Table IV.) A mere presentation of figures showing total coal available for consumption would, however, not give a true picture of the situation, since territorial changes have resulted in a decrease of the population in Germany. For this reason per capita consumption figures have been computed. Coal consumed in Germany during 1921 was less by 40,000,000 metric tons than the consumption in 1913. This figure, however, is too large, since it refers also to the territories which have been ceded to other countries. Alsace-Lorraine, the Saar Basin, Luxemburg, and the eastern Provinces ceded to Poland consumed about 23,000,000 tons. Thus the territory constituting the present Germany consumed during 1913 about 158,000,000 tons, as compared with 134,000,000 tons for 1920 and 139,000,000 tons for 1921, an underconsumption or shortage of about 20,000,000 metric tons. This does not take account of the altered needs of industry, which

are discussed later. This figure gains further in importance if one considers that Germany's exports of coal for 1921 have also decreased by 19,000,000 metric tons as compared with 1913. In calculating the amount of coal consumed in Germany, lignite has been converted into terms of coal by assuming that 9 tons of German lignite and 3 tons of Bohemian lignite are each equal to 2 tons of coal.

The report of the Reichs Kohlenrat (Federal Coal Council) for the year 1921 contains interesting data, comparing the use of domestic coal for the years 1913, 1920, and 1921. These figures are presented in the following table in condensed form:

CONSUMPTION OF DOMESTIC COAL IN GERMANY.

[Quantities in thousands of metric tons.]

Year.	Available fuel at end of year.	Total exports.		Deliveries to Entente.		Available supply for domestic consumption.	
		Weight.	Percentage of total supply.	Weight.	Percentage of total supply.	Weight.	Index (1913=100).
1913.....		45,422				148,392	100.0
1920.....	137,620	24,232	17.6	15,634	11.4	113,000	76.4
1921.....	147,119	27,213	18.5	18,598	12.6	119,000	80.8

Year.	Domestic consumption.			
	Railroads.	Gas, water, and electricity.	Industry, household, and agriculture.	
			Weight.	Index (1913=100).
1913.....	14,004	11,628	122,760	100.0
1920.....	16,590	14,867	83,000	67.4
1921.....	16,782	14,697	89,000	72.1

According to the above figures, the amount of German coal made available for domestic needs during 1921 shows a decrease of 28,000,000 metric tons, or of 19.2 per cent as compared with 1913.

It is of interest to note that while industry, the household, and agriculture received less fuel during 1920 and 1921, railways, gas, water, and electrical plants received more coal during the past two years than during 1913. Railways during 1921 received 2,780,000 tons more than in 1913, and gas, water, and electrical plants 3,070,000 tons more. This increase is due largely to the greater use of coal of a lower quality. The situation of the railroads with regard to coal reserves is, however, precarious. Reserves on hand on July 15, 1922, were, according to reliable sources, 750,000 metric tons, as compared with 3,500,000 metric tons for the same date in 1913. The consumption

of foreign coal by the Federal railways, it was stated, is such that without this coal the traffic efficiency would suffer considerably.

The above-mentioned shortage of 20,000,000 metric tons of coal during 1921 has further increased during 1922, mainly due to the continuous decrease in the coal output. Production, for instance, amounted in July to 9,589,000 metric tons and in August to 10,206,000 metric tons, which is, respectively, 1,995,000 metric tons and 1,378,000 metric tons below the monthly average production for the first six months of the present year.

The coal situation has further been aggravated by the greater requirements for coal for domestic consumption. During the war Germany was forced to develop new industries and to create commodities which she previously bought from abroad. Due to the lack of petroleum, which is mainly imported, Germany was compelled to establish many gas and electrical plants in order to provide light for many small towns and villages which previously depended entirely upon petroleum for lighting purposes. The loss of the iron and steel factories located in Alsace-Lorraine also necessitated the establishment of new plants which further increased the demand for coal.

#### CAUSES OF THE PRESENT COAL SITUATION.

The facts in the present coal situation having been analyzed, it is now desirable to review the causes that have brought about the existing shortage. These are mainly the cession of important coal fields by Germany, the forced coal deliveries for reparation account, and the decrease in the output of the mines retained by Germany. In addition to these major causes there are also others of less importance, such as the great drought, which made the carrying of coal on the rivers very difficult, and the railroad strike in February, 1922, which greatly disturbed the distribution of coal.

(a) *Cession of Upper Silesia.*—Through the loss of the Lorraine, Saar, and Upper Silesian coal fields Germany's pre-war capacity decreased as compared with that of 1913 by about 49,700,000 metric tons, or 26.15 per cent. By far the most important coal fields lost, however, are those of Upper Silesia, which during 1913 produced 43,801,000 metric tons of coal. The output of the part ceded to Poland amounted in 1913 to 33,000,000 metric tons, or 75 per cent of the total Upper Silesian output. Not including the Saar, the Palatinate, and the Lorraine coal fields, this in itself represents a loss of about 20 per cent of Germany's total coal output. The largest proportion of coal produced in Upper Silesia was shipped to Ger-

many (see Table V), where many industrial sections depend on Silesian coal.

The decrease during 1921 is to be ascribed to the occupation of Upper Silesia by the Polish irregulars. The output for the first six months in 1922 amounted to 16,185,000 metric tons, the distribution of which, after deducting the quantity used by the mines themselves, was as follows:

	Metric tons.
Former plebiscite area .....	1,334,000
Germany.....	5,700,000
Poland.....	1,670,000
Austria.....	1,105,000
Czechoslovakia.....	260,000
Italy.....	543,000
Danzig.....	123,000
Memel.....	54,000
Hungary.....	82,000

From these figures it is evident that the Upper Silesian coal was mainly used by Germany, and that henceforth Germany will have to import large quantities of coal from Poland. The statement is often made in the German press that the transfer of the majority of coal mines in operation in Upper Silesia to Poland decreases the quantity of coal available for needs in Germany, since the exportation of coal from Poland into Germany is not assured. This is based upon the fact that many mines in Polish Upper Silesia have changed their ownership. Of the total coal mines, 11.5 per cent formerly owned by the Prussian State are now the property of the Polish Government. In addition, other mines have been acquired by British, French, and Polish companies. According to the peace treaty and the Geneva agreement, Poland is bound to permit the export of coal to Germany for 15 years. Polish railroads, however, have in several instances refused to carry coal from Upper Silesia into Germany. To indicate the real loss which Germany suffered from the cession of Upper Silesia, the coal fields which have not been opened should also be considered. Before the war Germany's coal wealth to a depth of 1,200 meters was estimated at 184,768,000,000 metric tons, of which 96,000,000,000 metric tons are in the ceded part of Upper Silesia.

(b) *Coal deliveries.*—Coal deliveries under the peace treaty are the second cause of the present coal situation. Including coke and lignite, coal shipped to the Entente in accordance with article 236 of the treaty of Versailles amounted to 2,419,000 metric tons for 1919, to 15,632,000 metric tons, or 11.36 per cent of the total available supply, for 1920, and to 18,069,000 metric tons, or 12.64 per cent, for 1921. The total shipments of coal to Belgium, France, and Italy up to July 1, 1922, under the terms of the peace treaty, amounted to about 47,000,000 metric



tons. German coal shipments to France alone from the date of the armistice on November 11, 1918, to January 1, 1922, amounted to 27,202,300 metric tons. Distribution, by periods, was as follows:

	Metric tons.
Under the protocol of Luxemburg:	
Nov. 11, 1918, to Aug. 31, 1919.....	4,371,700
Under the peace treaty:	
Sept. 1, 1919, to Jan. 10, 1920.....	2,145,200
Jan. 10, 1920, to Dec. 31, 1920.....	10,635,000
Jan. 1, 1921, to Dec. 31, 1921.....	10,049,000

Total coal deliveries for the first six months in 1922 amounted to 9,600,000 metric tons. Reparation deliveries are fixed for three months in advance. For May, June, and July they were 1,916,000 metric tons and for the three months from August to October, inclusive, 1,725,000 metric tons. It was further stipulated that should Germany's coal production increase sufficiently, deliveries to the Allies should be increased by about 20 per cent. Loss of the Upper Silesian coal fields and the decrease of the Ruhr output reduced Germany's productive capacity to such an extent that the deliveries for August, September, and October had to be decreased to 1,610,000 metric tons.

During several months Germany was unable to deliver the stipulated amount of coal. Since, however, the Reparation Commission insisted upon delivery in full, an agreement was reached between the interested parties whereby Germany was allowed to purchase coal in Great Britain and ship it at her expense to France and Belgium. The huge shipments of coal for reparation account and the increased imports of British coal for domestic German consumption have brought about an unusual transport situation. German coal is being shipped down the Rhine to provide French railways, gas and electrical plants with fuel, while the same barges carry British coal up the Rhine for southern and central German consumption. To avoid this double cost of transportation, the German Government made a proposal that it be permitted to ship British coal direct from Great Britain to France and Belgium, but this was not agreed to by the Reparation Commission.

As already indicated, France, Belgium, and Italy are the largest recipients of German coal. Deliveries during 1921, amounting to 18,000,000 metric tons of coal, and of coke and briquets converted to coal equivalents, were distributed as follows:

[In thousands of metric tons.]

	Coal.	Coke.	Briquets.
France.....	6,504	3,838	475.6
Belgium.....	2,598	134	75.5
Italy.....	2,544	62.8	

The forced coal deliveries disturbed to a very large extent the "free coal shipments," especially those of Great Britain. Her exports of coal to the above-named countries have decreased rapidly. For instance, France, which during 1913 imported from Great Britain 12,776,000 metric tons of coal, imported during 1921 only 6,396,000 tons, showing thus a loss of imports of British coal about equal to the increase in the imports of German coal. Italy's coal imports from England show a still greater decrease, declining from 9,647,000 metric tons in 1913 to 2,905,000 tons in 1920 and to 3,383,000 tons in 1921. It would, however, be erroneous to ascribe this great slump in the British coal exports entirely to reparation deliveries, for the total coal exports from Great Britain decreased from 58,100,000 tons in 1913 to 20,100,000 tons in 1920 and to 18,800,000 tons in 1921. During the last few months of 1922 British coal exports showed an upward movement, mainly due to increased German imports.

(c) *Decrease of output.*—A third cause of the present coal shortage is the decline in the output of almost all German coal mines. Coal production fell from an average working day's output of about 480,000 metric tons in January and February and 500,000 tons in March to about 403,000 tons in June. The greatest drop in the coal output took place in the Ruhr Valley, where the six-month daily average for 1922 is 319,161 metric tons, as compared with 384,020 tons for 1913. The monthly output of coal in this district during 1921 and 1922, as compared with that of 1913, is shown in the following table:

Month.	1913	1921	1922
	Metric tons.	Metric tons.	Metric tons.
January.....	389,493	332,904	322,090
February.....	383,088	340,609	322,416
March.....	382,560	307,407	353,802
April.....	383,445	303,655	325,637
May.....	381,915	299,123	310,844
June.....	383,455	307,033	298,036
Six-month average.....	384,020	314,962	319,181
July.....	375,939	296,817	302,469
August.....	376,740	299,394	
September.....	372,958	302,072	
October.....	366,484	309,514	
November.....	380,261	320,522	
December.....	377,279	318,991	
Twelve-month average.....	379,840	310,866	

The decrease in the coal output is the direct result of the labor situation and above all of the shortening of the working day. Up to November 18, 1918, a shift was 8½ hours; from that time until April 1, 1919, 8 hours; from then until April 9, 1919, 7½ hours; and since then 7 hours. The abolition of overtime, which started in March, 1921, was not entirely offset by the

increase in the number of employees, and meant a loss of approximately 38,000 metric tons daily, or an annual loss of about 11,000,000 metric tons. After prolonged negotiations between employers and unions, an agreement was reached on August 24, 1922, according to which the Ruhr miners pledged themselves to work two hours overtime three days a week. These additional six hours a week, it was estimated, would increase the total German coal output by about 500,000 metric tons a month, and will tend to decrease considerably the imports of foreign coal.

The productive capacity of the mines was further seriously affected by the emigration of miners to other trades and districts. According to a report of the Federal coal council, more than 25,000 miners left the Ruhr coal mines to engage in other trades. The number of employed miners decreased from 561,158 during April to 545,640 in May, and to 535,861 in June. A slump in the building trade, which set in during the end of the second quarter of the year, induced many miners to return to the coal mines. It was reported that during July the number of employees increased by about 3,600.

#### EFFECTS OF THE COAL SHORTAGE.

The immediate results of the prevailing coal shortage are manifold and tend to influence the productive capacity of German industries, the balance of trade, and practically all phases of Germany's economic life. In German circles it is also feared that a severe lack of coal, coupled with unemployment, may not be without serious effects upon the internal political situation.

Many German industrial concerns have been unable to provide themselves with coal for the winter, and it is generally believed that a large percentage of them will be forced either to close or to decrease their activity, which in turn will cause unemployment. The railways, which during 1920 and 1921 had coal reserves for about 25 days, report that their present stock is only for 12 days, and is steadily decreasing. On June 1, 1922, the consumption of coal by the mines had been decreased by 10 per cent, and since this reduction did not bring satisfactory results, a further 10 per cent decrease was decided upon on June 20, 1922. Gas and electrical plants, which previously were using only two or three kinds of coal, are at the present time forced to experiment with more than 45 different kinds, which further tends to increase the cost of gas and electricity. These plants are also suffering from a severe coal shortage. Thus, for instance, the monthly average of coal to be

consumed by gas plants, as fixed by the Federal coal commissioner, was 624,000 tons, it being assumed that this amount would cover two-thirds of their actual needs. As a matter of fact, however, they received only the following quantities:

	Metric tons
1922—January.....	265,000
February.....	286,000
March.....	234,000
April.....	327,000
May.....	341,000

The large gas plants of Mannheim, Nürnberg, Dresden, and Leipzig reported that during July they had supplies only for two, three and one-half, five, and six days, respectively. Other important gas and electrical plants, especially those located at the northwest coast, depend almost entirely upon British coal, large quantities of which it is reported are also consumed by many industries located in central and southern Germany. Use of British coal for domestic consumption has increased rapidly, since even railways have been forced to purchase large quantities of foreign coal. Imports of coal from Great Britain for the year 1913 amounted to about 9,000,000 metric tons, or to about 750,000 metric tons per month, while those for July, 1922, were about 1,200,000 metric tons, an increase of 62 per cent.

The shortage of coal and the ever-increasing importance of foreign coal forced the German Government to suspend the import tariff of 40 per cent ad valorem on coal. At first this tariff was abolished only for four months, namely, from March 31 to August 1, 1922. When the coal shortage became more acute, the period was extended until March 31, 1923. The result of this action was an immediate increase in imports, as may be seen from the following table:

#### IMPORTS OF COAL, COKE, AND BRIQUETS.

[In metric tons.]

Month.	Coal.	Coke.	Briquets.
1922.			
March.....	284,979	514	3,302
April.....	336,921	4,038	1,515
May.....	333,704	9,838	336
June.....	789,799	34,456	3,941
July.....	1,542,223	27,619	5,365
August.....	1,721,173	52,460	7,218

Total coal imports for the first six months amounted to 2,102,215 metric tons, as compared with 552,857 metric tons for the last half of 1921, and as already stated imports are steadily increasing.

The consumption of foreign coal tends to increase the unfavorable balance of trade and

thus exercises a depressing influence on mark exchange. Since the imported coal is in almost all cases paid for in gold or in high valued foreign currencies, it necessitates an additional sale of paper marks. Foreign coal also brings in a new element of uncertainty in the price calculation of German manufacturers. Whereas

until recently the cost of coal could almost entirely be figured on a mark basis, at present the use of foreign coal makes such a calculation impossible. All these factors tend to increase the cost of production of German goods, make exports more difficult, and may ultimately lead to serious unemployment.

Table I.—PRODUCTION OF COAL, COKE, AND LIGNITE IN GERMANY.

[In thousands of metric tons.]

Year.	Coal.						Coke.	Lignite.	Briquets.	
	Ruhr.		Upper Silesia.	Saar.	Other districts.	Total.			Coal.	Lignite.
	Actual.	Percentage of total.								
1913.....	114,487	59.8	43,435	13,217	18,970	190,109	34,630	87,233	6,993	21,493
1914.....	98,285	60.8	36,996	10,032	16,072	161,385	28,597	83,694	6,194	21,098
1915.....	86,778	59.1	38,107	8,334	13,598	146,867	27,217	87,948	6,583	22,750
1916.....	94,563	59.2	41,723	8,903	13,980	159,169	34,202	94,150	6,299	23,484
1917.....	99,365	59.2	42,752	10,265	15,365	167,747	34,700	95,543	5,556	21,541
1918.....	96,017	60.6	39,648	9,989	12,600	160,908	34,428	100,599	5,484	22,709
1919.....	71,154	60.9	25,701	8,981	10,871	116,707	22,710	93,648	4,061	19,301
1920.....	88,408	67.3	31,686	.....	11,247	131,341	25,177	111,880	4,938	24,273
1921.....	94,115	68.9	29,639	.....	12,456	136,210	27,921	123,011	5,688	28,243
1922 (first 6 months).....	.....	.....	.....	.....	.....	69,505	14,607	65,887	2,006	14,221

Table II.—IMPORTS AND EXPORTS OF FUEL.

[In thousands of metric tons.]

Year.	Imports.						Exports.					
	Coal and coal briquets.	Coke.	Total coal. <sup>1</sup>	Lignite.	Lignite briquets.	Total lignite. <sup>2</sup>	Coal and coal briquets.	Coke.	Total coal. <sup>3</sup>	Lignite.	Lignite briquets.	Total lignite. <sup>4</sup>
1913.....	10,566	593	11,357	6,987	121	7,350	36,877	6,411	45,422	60	861	2,643
1914.....	6,496	360	6,976	5,628	131	6,021	29,166	3,858	34,310	47	805	2,460
1915.....	2,550	89	2,668	5,133	147	5,574	18,066	3,714	23,018	39	522	1,605
1916.....	1,378	105	1,518	5,296	130	5,686	20,768	4,134	26,280	37	502	1,543
1917.....	511	105	651	3,917	95	4,202	16,026	3,004	20,031	25	353	1,084
1918.....	200	25	233	3,015	56	3,183	13,575	2,409	16,787	31	243	760
1919.....	49	.....	49	1,868	38	1,982	5,749	3,421	10,310	13	246	751
1920.....	334	2	335	2,356	42	2,482	15,541	5,228	22,512	72	261	4,342
1921.....	1,369	8	1,370	2,757	.....	2,757	19,325	5,434	26,570	<sup>5</sup> 36	986	2,994
1922 (6 months) <sup>6</sup> .....	2,193	52	2,181	1,188	.....	15,987	4,280	5,097	.....	9	176	.....

<sup>1</sup> Coke converted into coal.

<sup>2</sup> Lignite briquets converted into lignite.

<sup>3</sup> Figures of coke converted to coal equivalents.

<sup>4</sup> Figures of lignite briquets converted to lignite equivalents.

<sup>5</sup> Estimated.

<sup>6</sup> Reparations deliveries not included.

Table III.—IMPORTS OF COAL, COKE, AND BRIQUETS INTO GERMANY, BY COUNTRIES.

[Metric tons.]

Country.	1913	1919	1920	1921	Country.	1913	1919	1920	1921
Great Britain.....	9,203,543	.....	12,877	577,488	France.....	17,007	20	984	.....
Netherlands.....	545,700	2,148	45	71,427	United States.....	.....	46,230	258,906	96,541
Austria-Hungary.....	516,763	<sup>1</sup> 386	<sup>1</sup> 37,757	<sup>1</sup> 68,504	Africa.....	.....	.....	3,005	.....
Belgium.....	847,498	.....	3,521	540	Saar.....	.....	.....	26,542	543,439

<sup>1</sup> Czechoslovakia.

Table IV.—CONSUMPTION OF FUEL.

[Thousands of metric tons.]

Year.	Coal.	Lignite.	Total coal and lignite. <sup>1</sup>	Per head of population.	Year.	Coal.	Lignite.	Total coal and lignite. <sup>1</sup>	Per head of population.
				<i>Tons.</i>					<i>Tons.</i>
1913.....	156,044	91,940	179,742	2.68	1918.....	144,354	103,022	168,664	2.54
1914.....	134,051	87,253	156,118	2.33	1919.....	106,446	94,879	128,412	2.11
1915.....	126,518	91,917	149,422	2.25	1920.....	109,163	110,020	134,715	2.23
1916.....	134,408	98,323	158,784	2.41	1921.....	111,010	122,774	139,519	2.31
1917.....	148,367	98,661	172,161	2.62					

<sup>1</sup> Figures of lignite converted into terms of coal.

Table V.—SHIPMENTS OF UPPER SILESIA COAL.

Year.	Total production of Upper Silesia.	Shipments to—					
		Plebiscite area of Upper Silesia.	Poland, Austria, and Hungary.	Italy.	Czechoslovakia, Danzig, and Memel.	Germany. Outside of Upper Silesia.	Percentage of total production.
1920.....	27,857	8,322	5,119	660	1,121	12,550	45.05
1921.....	25,983	7,736	5,103	929	952	11,257	43.32

## CURRENT ECONOMIC CONDITIONS IN ARGENTINA AND BRAZIL.

## ARGENTINA.

*Foreign trade.*—Notwithstanding the fact that there are at present in the economic situation of Argentina a number of unfavorable factors, such as the drop in imports and exports, reduced stocks of wheat, wool, and linseed, and excessive rainfalls, economic readjustment is progressing satisfactorily and general conditions remain favorable. The difficulty in collecting items drawn on the interior, due to a recent drop in Argentine exchange, has tended to restrict imports and purchases on a large scale, whereas the closing of the crop season has resulted in a reduction of exports. Figures showing the exports of some of the principal Argentine products during the first nine months of the current year, as compared with the same period of 1921, are indicated in the following table:

Commodity.	Exports from Jan. 1 to Sept. 30 (000 omitted).	
	1921	1922
Wheat..... tons..	1,561	3,204
Corn..... do....	2,125	1,437
Linseed..... do....	1,001	731
Flour..... do....	35	77
Beef <sup>1</sup> ..... quarters..	3,258	3,230
Mutton..... carcasses..	1,930	2,306

<sup>1</sup> Figures for 3 months.

*The live-stock industry.*—According to a report of the agricultural statistics division of the Government of Argentina, the number of loans on live stock and agricultural products has been gradually decreasing; and since prices for cattle are materially improving the live stock and agricultural industries may be considered as approaching more normal conditions. Figures showing the number and amount of live stock and agricultural loans for the first semester of the current year, are as follows:

Month.	Number of loans.	Amount in paper pesos.
1922.		
January.....	1,085	24,371,603
February.....	1,149	28,314,554
March.....	1,345	24,518,668
April.....	1,714	21,339,825
May.....	1,185	20,278,429
June.....	1,120	23,358,436
Total.....	7,598	142,214,516

The classification of these loans as reported by the division of agricultural statistics follows:

Loans on—	Number.	Amount in paper pesos.
Live-stock collateral.....	3,217	93,933,292
Other products.....	3,477	44,194,665
Machinery and tools.....	904	4,084,559
Total.....	7,598	142,214,516

The report further states that up to June 30, 1921, the total number of operations amounted to 116,330, with a value of 1,438,775,115 paper pesos, and the number of loans effected was 49,601 for a total value of 842,602,624 paper pesos. Further forced liquidation of cattle loans seems less probable at present than at the middle of the current year. The speculators and middlemen who had become prominent during the war period have been eliminated. The Banco de la Nación has been a powerful factor in the improvement of the cattle industry of Argentina through the extension of long-term credits. According to an official statement of the Minister of Agriculture issued on September 2, 1922, the estimated number of cattle in Argentina was placed at 28,000,000 and the number of sheep at 46,000,000. The number of meat cattle in Argentina will probably show a decrease in the next few years until a new level is reached, but the quality of cattle, it is stated, is likely to improve. Considerable attention has been devoted to the raising of dairy cattle and these will probably increase in number. The general tendency in the sheep industry has been toward the raising of fewer sheep and producing a better quality of wool. With regard to the hog industry, it appears that more attention is now being given to it and a steady increase in the number of animals available for export is anticipated. In the production of live stock in Argentina there is the advantage of low costs on account of cheap land and labor as well as of mild weather conditions.

*Government finances.*—The customs revenue of the Argentine Government for the first seven months of the current year amounted to 140,198,009 paper pesos. This sum compares unfavorably with the customs receipts for the same period in 1921, which amounted to 151,189,466 paper pesos. Comparing the estimate of revenue from this source for the period above mentioned with the actual receipts, a deficit appears of 22,949,153 paper pesos.

President Irigoyen recently sent to the Argentine Chamber of Deputies a bill which would authorize the municipality of Buenos Aires to issue bonds in an amount not to exceed 30,000,000 paper pesos, with interest at the rate of 5 per cent. The purpose of this issue is to provide funds to be used exclusively for the paving of streets in the municipality of Buenos Aires. The service and amortization of these bonds would be derived from a tax to be levied on the properties benefited by the paving. Whether the Argentine Congress will approve the bill is still uncertain. Another financial project of importance submitted to Congress by the executive has been an amendment to Law 11174 of October 13, 1921, which

stipulates that the Government shall place at the disposal of the Argentine Transandine Railway Co. an amount not to exceed 2,500,000 gold pesos for financial purposes. The terms of the contract entered into by the Government with the Argentine Transandine Railway Co. provide for joint administration of the Chilean and Argentine Transandine Roads, and according to the message of the executive this company has requested that an additional 1,500,000 pesos be granted by the Government to be used in financing the electrification of 45 kilometers of the Argentine line connecting with the Chilean line. The committee of public works of the Chamber of Deputies has reported on a bill which was submitted by the executive in 1919, and again in 1921. This bill provides for the construction of a surface water drainage system in the Federal capital. The executive has been authorized to proceed with the construction of such a drainage system and to issue national sanitary work bonds in an amount not to exceed 120,000,000 pesos, in series, as the work proceeds. These bonds are to bear interest from date of issue at the rate of 6 per cent per annum, with cumulative amortization of 1 per cent, and service is to be met out of the revenues derived from the works to be constructed under the terms of the authorization.

The executive of Argentina, in a message to Congress, has recommended the cancellation of the indebtedness of the Republic of Paraguay as outlined in article 3 of the peace treaty of February 3, 1876. This indebtedness originated from damage to public property and expenses of the Paraguayan war. The bill as recommended by the President follows:

The public debt, recognized and accepted by the Republic of Paraguay under the terms of the treaty of peace of February 3, 1876, as owing to the Argentine Republic on account of indemnity for the expenses of the war incurred by the latter (art. 3, par. 1), and on account of damage to public property (par. 2), is hereby declared canceled, as are also the interest payments stipulated in article 4 of the said treaty.

The President of Argentina sent a message to Congress on September 8, 1922, asking approval of an ad referendum contract that had been entered into by the National Government with two New York banking firms for a loan of up to \$212,000,000 American currency, as the equivalent of the sum of 500,000,000 Argentine paper pesos at par of exchange. This conditional loan has for its purpose the consolidation of the national floating debt and the repayment of the Government's indebtedness to the Banco de la Nación Argentina, and is to be known as the foreign loan of 1922. The message of the President to Congress ex-

plains that the contract provides for a loan of \$100,000,000 American currency, with the option on the part of the bankers to loan \$112,000,000 more, at 6½ per cent interest. The loan is to be floated at 97, and provides for a 1 per cent cumulative annual amortization.

*General strikes in Buenos Aires.*—The Department of Labor of Argentina has published statistics showing that during the period of six years from 1916 to 1921 a total of 120 strikes took place in Buenos Aires affecting 663,902 workmen, as shown in the following table:

Year.	Number of strikes.	Number of workmen.	Average number of workmen per strike.
1916.....	9	24,853	2,750
1917.....	15	103,126	7,008
1918.....	17	43,625	2,566
1919.....	37	249,715	6,679
1920.....	30	115,483	3,849
1921.....	12	128,100	10,675
Total.....	120	663,902	5,589

Of the total number of strikes, 42 were successful and affected 135,641 workmen; 52 strikes, affecting 460,541 workmen, were unsuccessful; and the other 26 strikes, affecting 67,720 workmen, were partially successful. The causes of the strikes in the Federal capital were as follows:

Causes assigned.	Number of strikes.	Number of workmen.
Wages.....	55	135,036
Hours.....	6	4,175
Organization.....	37	277,136
Working conditions.....	8	37,000
Various causes.....	14	210,555

According to the estimates of the Department of Labor, the total loss to workmen for the six years under review amounts to about 48,000,000 paper pesos. The classification of the strikes by industries for the same period was as follows:

Industries.	Number of strikes.	Number of workmen.
Foodstuffs.....	8	9,483
Clothing.....	12	79,525
Lumber.....	17	18,220
Typographical.....	1	1,800
Metallurgical.....	8	20,050
Building.....	17	32,700
Transportation.....	35	220,526
Tanning.....	1	1,200
Electrotechnical.....	1	1,000
Paper.....	1	700
Various.....	19	276,698

## BRAZIL.

*Foreign trade.*—General trade conditions, as reported in the October BULLETIN (p. 1191), have not undergone material change. The recent decline in Brazilian exchange has been generally attributed to the shortage of coffee bills, to the present reduction of exports, and to the fact that there has been a large demand for foreign exchange to cover future purchases. The financial problems facing the Government have also been given as a reason for the present depression in trade. The opinion has been freely expressed by business men in Brazil that measures will have to be taken looking toward the improvement of the exchange situation; otherwise cancellation of foreign purchases may be expected, entailing disturbance of markets and of business in general. It is hoped, however, that with the stabilization of political conditions and the stimulation of trade afforded by the centennial celebration, a marked improvement may be expected shortly. The condition of the cotton, rice, and cocoa crops is reported to be satisfactory, and the heavy rain-falls in the State of São Paulo increase the probabilities of a large coffee crop for the 1922-23 season. The live-stock industry, on the other hand, is still considerably depressed.

Coffee shipments during the first semester of 1922 amounted to 65 per cent of all exports. This percentage had only been equalled in 1919. The price of coffee has shown a remarkable increase during the present year. The following table shows the amount, value, and average value per bag of coffee exported from Brazil during the first semester of the years 1913 and 1919 to 1922, inclusive:

First semester—	Thousands of bags.	Value, in contos of reis.	Average value per bag, in milreis.
1913.....	4,096	209,769	51
1919.....	7,425	659,921	89
1920.....	5,434	492,968	85
1921.....	5,731	584,777	67
1922.....	5,995	657,251	110

Exports of cocoa during the same period in 1922 amounted to 15,519 tons, against 26,872 tons in the first semester of 1921, thus showing a considerable reduction. On the other hand, the exports of sugar during the same periods amounted to 113,549 tons and 69,652 tons, respectively. Exports of hides did not undergo material change, but exports of frozen and chilled meat from Brazil suffered a severe reduction. During the first six months of 1921

Brazil exported 55,741 tons of meat and during the same period in 1922 this amount was reduced to 12,358 tons.

The extent to which prices of export and import commodities in Brazil still continue inflated as compared with the year 1913 is shown in the following table of values of exports and imports in 1921 on the basis of 1913 values:

	12 months.		6 months, 1922.
	1913	1921	
<b>EXPORTS.</b>			
Volume (tons).....	1,382,600	1,919,000	975,000
Actual values (contos).....	981,707	1,709,722	1,088,664
Value on basis of 1913 (contos).....		1,362,490	692,250
Difference in favor of actual values.....		347,232	316,414
Difference (per cent).....		25.5	45.6
<b>IMPORTS.</b>			
Volume (tons).....	5,922,000	2,578,000	1,598,000
Actual values (contos).....	1,007,495	1,089,839	705,075
Value on basis of 1913 (contos).....		413,416	274,856
Difference in favor of actual values.....		1,246,423	430,219
Difference (per cent).....		281.2	156.4

According to the above table, the actual value of exports in currency was 25.5 per cent higher in 1921 than the value of these exports on the basis of 1913 unit values, and 45.6 per cent higher in 1922. Owing to the considerable fall in exchange, actual values of imports in currency are much higher in 1921 and 1922 than on the basis of 1913 values. During the first semester of the current year, notwithstanding the continued fall in exchange, the actual currency value of imports was only 156.4 per cent higher than in terms of 1913 unit values, as compared with 281.2 per cent in 1921. This reduction undoubtedly has been the result of deflation of prices abroad.

*Government and State finances.*—The condition of the finances of the Federal and State Governments of Brazil have followed a course parallel to the general economic development of the country, as is indicated by the frequent attempts on the part of various State and city governments of Brazil to float loans in the United States in addition to the internal loans placed with local institutions in Brazil. Since 1907 the receipts and expenditures of the Government of Brazil have shown a continued deficit. The following table gives the figures of revenues and expenditures and yearly deficits since 1913:

[In thousands of milreis.]

Year.	Receipts.		Expenditures.		Annual deficit (—), or surplus (+).	
	Gold.	Paper.	Gold.	Paper.	Gold.	Paper.
1913.....	153,704	394,322	91,208	629,690	+62,496	-235,368
1914.....	78,665	280,721	52,343	505,620	+26,322	-224,899
1915.....	48,315	209,144	79,023	516,620	-30,708	-307,476
1916.....	62,130	342,134	88,635	517,391	-26,505	-175,457
1917.....	65,966	368,062	105,454	571,239	-39,488	-203,177
1918.....	104,969	378,787	80,002	692,603	+24,967	-313,816
1919.....	81,469	430,330	122,275	676,758	-40,806	-246,428
1920.....	119,383	459,782	104,358	480,044	+15,025	-20,262
1921.....	62,149	468,235	53,034	547,589	+9,115	-79,354
1922.....	92,276	727,673	85,931	831,155	+6,345	-1103,482

<sup>1</sup> Budget as approved.

The municipality of Rio de Janeiro has obtained authorization to float a loan for \$30,000,000 in the United States. The finance committee of the lower house in granting to the prefect authority to contract this loan recommended also the indorsement of the Federal Government. The loan is to be guaranteed by real estate taxes and transmission of property taxes, and the proceeds will be "used for the consolidation of a considerable part of the debt of the prefeitura." The terms of the loan are not yet known. The debt of the city of Rio de Janeiro in United States dollars, pounds sterling, and Brazilian currency is given as follows:

	United States dollars.	Pounds sterling.	Brazilian currency, contos of reis.
Loans with Federal guaranty.....	13,000,000	1,291,480	.....
Loans without Federal guaranty.....	12,000,000	6,116,940	112,086
Total debt.....	25,000,000	7,408,420	112,086

According to official reports the municipality of Rio de Janeiro is in need of funds not only to meet expenditures arising out of several improvements under way, but also in order to meet the budget deficits. The following table shows the municipal revenues collected and expenditures effected during the years 1920 and 1921, in milreis:

	1920	1921
Receipts.....	57,397,614	65,544,883
Expenditures.....	76,093,355	82,326,627
Deficit.....	18,695,741	16,781,744

The governor of the State of Bahia has started negotiations for a loan of 70,000 contos of reis to be used in the consolidation of the foreign debt. The interest mentioned in this connection is 6 per cent and the price of issue 95. A loan for \$5,000,000 was floated early in October by the State of Bahia. The interest rate was placed at 8 per cent and the price of issue at 99½ for the first \$2,000,000, and at 100½ for the balance of \$3,000,000. The proceeds of this loan, which matures on October 1, 1942, are to be used for the construction of State highways. According to the terms of the contract, the Government of the State of Bahia is under obligation to meet the conditions of this loan in preference to any other loans present or future. It is reported that the authorities of the State of Ceara are negotiating for a loan in the United States for \$2,000,000, the proceeds of which are to be used for improvements in the city of Fortaleza.

According to recently published reports, the Government of the State of Sergipe is negotiating with a southern banking institution for a loan of \$500,000, to be used in the electrification of the street car and lighting system of Aracaju, the capital of the State. This State, which is the smallest in Brazil, has no foreign debts. As a supplement to the financial information regarding the State of São Paulo given in the October BULLETIN (p. 1193), the following table is presented showing the financial condition of that State as of December 31, 1921:

ASSETS.		In milreis.
Property of the State.....		337,272,894
Bonds and other securities.....		2,881,660
Active debts.....		120,786,161
Balance for the year 1922.....		99,882,169
Balance in savings accounts.....		40,736,173
Compensation account in the liabilities.....		75,558,598
<b>Total assets.....</b>		<b>677,117,655</b>
LIABILITIES.		
External debt.....		201,008,535
Internal debt.....		266,583,000
Floating debt.....		30,970,219
Credits from savings, deposits, etc.....		82,618,717
Valorization operation: Balance from Federal loan of £3,000,000 is £569,190 at exchange of 16d.....		8,337,850
State patrimony—net assets.....		11,840,735
Compensation account in the assets.....		75,558,598
<b>Total liabilities.....</b>		<b>677,117,655</b>

On August 24, 1922, the President of Brazil signed a law providing for a credit in an amount not to exceed 400,000 contos of reis to be used in assisting agricultural enterprises. According to the terms of the decree, the loans will be handled by the Banco do Brasil, which will open an agricultural credit department. The Government is authorized to issue, through the department mentioned, bonds of the public debt up to the amount above indicated. This department is authorized to issue mortgage bonds at a rate of interest not to exceed 5 per

cent, and will be charged with floating mortgage loans issued by the agricultural credit banks which are to be established in the different States and under their respective guaranties. The full amount of bonds, it is reported, will not be offered for sale at once, since this would have a detrimental effect on the market, but the Banco do Brasil will use a considerable part of its own resources until it is found desirable to make use of the Government bonds.

## ECONOMIC AND FINANCIAL CONDITIONS IN MEXICO.

In the September and October issues of the BULLETIN (pp. 1080 and 1195) the commercial, agricultural, and mining conditions, as well as the condition of the live-stock industry, the petroleum industry, and foreign trade in Mexico were discussed. The following article contains a discussion of the country's monetary conditions and an analysis of the railroad situation.

### MONETARY CONDITIONS.

According to the currency law of the Mexican Republic, dated March 25, 1905, which remained in force until the Carranza régime, the theoretical unit of the monetary system of that country is represented by 75 centigrams of pure gold. This unit is denominated a peso. The old duro or silver peso, which contains 24.4388 grams of pure silver, is declared to have a legal value equal to the said 75 centigrams of pure gold. The Mexican peso is divided into 100 cents, and the coins in use at present are of the following denominations:

Gold coins—20 pesos, 10 pesos, 5 pesos, 2½ pesos, 2 pesos.

Silver coins—1 peso, 50 cents; 25 cents, 10 cents.

Nickel coins—5 cents.

Bronze coins—5 cents, 2 cents, 1 cent.

According to the currency law above referred to, the gold coins are composed of 900 thousandths of fine gold and 100 thousandths of copper. The peso consists of 9,027 ten-thousandths of pure silver, and 973 ten-thousandths of copper. Its equivalent in American currency is \$0.4985. The other silver coins are composed of 800 thousandths of silver and 200 thousandths of copper. The bronze coins are composed of 95 parts of copper, 4 of tin, and 1 of zinc. The nickel coins are made of commercially pure nickel.

The right of coining belongs exclusively to the executive. Under ordinary conditions new silver coins are struck and issued in exchange



for gold coin or bullion in the proportion of 75 centigrams of pure gold per peso. This ruling ceases to bear effect when the bullion value of the silver coins is greater than their coinage value at the legal parity adopted. Gold coins and silver pesos are unlimited legal tender, but the other silver coins are legal tender only to an amount not exceeding 20 pesos in one single payment. Nickel and bronze coins are legal tender in amounts not exceeding 1 peso in one and the same payment. Mexico was placed on a gold basis in 1916. The country now has only a metallic circulation, with gold as a basis and silver and bronze coins used as subsidiary currency. It is interesting to note that in 1895 there were 13 mints in Mexico. This number was reduced to four in 1904, due to the betterment in the facilities for transportation of the mineral from the mine to the mint. At the present time there is only one mint in operation in the Republic, which is located in Mexico City.

A decree enacted on November 13, 1918, modified the currency law of 1905. No change was made in the theoretical unit of the monetary system, but the old peso ceased to be coined and was no longer to be considered as legal tender. The silver coins continued to be in denominations of 10, 20, and 50 cents, 800 thousandths fine with 200 thousandths copper. According to this decree, the law of March 25, 1905, was to continue in force with its additions and amendments, when not in conflict with the provisions of the decree of November 13, 1918.

A great scarcity of circulating medium has been felt in Mexico since early in 1918. Due to the increase in the price of silver in foreign markets, the silver coins of Mexico began to disappear from circulation. In order to meet the situation, the Government authorized the issue of gold coins of a value of 2 and 2.50 pesos. A decree enacted on November 13, 1918, provided that the old 1-peso pieces should not be used as coin, since they had practically disappeared from circulation. The same decree ordered as substitution for the fractional circulating currency the coining of new silver pieces, as follows: One-peso coins, with a weight of 18 grams—14½ grams fine; 50 centavos, with a weight of 9.265 grams—7.25 grams fine; coin of 20 and 10 centavos, with an amount of pure silver and a weight in proportion to the other pieces.

In March, 1921, an order was issued by the Government to the effect that no gold should leave Mexico without proper official authorization, and in order to further avoid the exportation of gold from the country in exchange for

American bills, a new decree was issued on June 6, 1921, prohibiting the circulation of foreign currencies, the text of which follows:

ARTICLE I. From and after July 1, next, the importation and circulation in the Republic of bank notes of all kinds of foreign currency except gold is and shall be prohibited. The forms of currency to which this article refers may not be used as conventional and substituted symbols of the national currency.

ARTICLE II. Persons disobeying the terms of this decree by the importation or circulation of any forms of currency to which it refers, shall be liable to a fine equal to twice the amount, calculated in domestic gold currency, of the forms of currency which they have attempted to introduce or circulate, and shall be liable, likewise, to the confiscation of such currency imported or circulated.

ARTICLE III. The penalties mentioned in the foregoing article shall be applied by the judicial authorities of the federation, and in each case the actual currency in question which it has been attempted to import or circulate shall remain under bond in the respective administrative office.

The vicissitudes through which Mexico has passed on account of the revolutionary paper money issues started in 1913, when the Government of General Huerta obliged the banks of issue to emit notes in amounts far superior to those authorized under the banking law of 1897 which was then in force. The circulation of these notes was made obligatory, and the banks were not obliged to exchange them. The paper currency of the State banks was made legal tender throughout the Republic by a decree issued on January 7, 1914, subject to the following conditions:

(1) The interested banks to conserve in their vaults the metallic reserves provided for in their concessions.

(2) Creation of a special fund to be known as the "guarantee fund of the fiduciary circulation" to be established to guarantee redemption of bills in coin, in case of any institutions being unable to meet their responsibilities. This fund to be formed by each bank paying in coin an annual assessment of three-fourths of 1 per cent of its authorized emission of notes, up to \$5,000,000; one-half of 1 per cent of any amount exceeding \$5,000,000, and less than \$10,000,000; one-fourth of 1 per cent for amounts more than \$10,000,000 and less than \$20,000,000; and one-eighth of 1 per cent for sums beyond that amount. Payments to be made in advance during the first three business days of the months of January and July.

(3) The guarantee fund to be supervised by four unremunerated commissioners, two elected by the State banks, one by the clearing house of the capital, and one by the department of finance. It is further stipulated that the guarantee fund shall be deposited as a special deposit with the national bank, or with any other banking institution designated by the Government finance department.

Another decree was issued on the same date authorizing banks to issue notes in amounts three times the value of their cash on hand. The value of the notes issued by the State banks under the above stipulations decreased in value gradually, and the present quotations for these notes on the Mexico City Stock Exchange are either nominal or exceedingly low in comparison with their face value.

The first revolutionary paper money was issued by the Carranza faction according to the provisions of a decree dated April 26, 1913. This issue, known as the Monclova issue or "dos caritas," was not to exceed 5,000,000 pesos, but in December of the same year it was found necessary to increase the amount by 20,000,000 pesos, and in February of the following year the amount was raised again by 50,000,000. This last issue was called the Constitutionalist issue. Upon the arrival of the Carranza army in Mexico City in August, 1914, it was found necessary to convert the previous issues and to emit additional paper currency to meet the expenses of the campaign in the south. Therefore, on November 19, 1914, authorization was given by the Carranza government for a new issue of 130,000,000 pesos. At the same time the metallic currency in the country had disappeared from circulation. Small pieces of cardboard were printed to take the place of the small coins. In the north, under authorization of Carranza, other paper currencies were issued by several factions, among which were notable those of Villa, Obregón, and Pablo González. The printing of the different issues was poor and counterfeiting was common. At a certain period there were 22 kinds of paper currency in circulation, and it is estimated that the total amount of paper money issued during the first two periods of the Mexican revolution amounted to 671,954,221 pesos. The printing of the constitutionalist issues was continued in Veracruz while the Carranza government was established there. The final issue of paper money was also authorized by the Carranza government in Mexico City. This paper money was known as "infalsificables" (noncounterfeitable). According to the decree authorizing this issue a metallic reserve was to be deposited with the treasury amounting to 20 cents Mexican for every infalsificable peso issued. The constitutionalist issues were exchanged for infalsificables at a certain rate. All business transactions with paper money issued by the constitutionalist government were prohibited under heavy penalties. Of this issue 400,000,000 pesos were put in circulation. Their value as currency suffered a gradual depreciation, and upon the reestablishment of the country's monetary system on a metallic basis in 1918, the redemption of the infalsificable issue was effected through the payment of railroad fares, freight charges, and import and export duties in that currency according to the terms of a Government order. A decree effective March 1, 1920, provided for a surtax of 10 per cent on all imports and exports. This tax was to be met in Mexican gold or infalsificables at the rate of 1 peso to 10 centavos. The purpose of this

decree was to withdraw from circulation the infalsificable issues. According to recent reports the infalsificable issue has supposedly been eliminated, but the decree is still in force.

In the peninsula of Yucatán the Comisión Reguladora established its paper currency, to be used as circulation medium in that section of the country. This paper, rated in 1920 at 85 centavos to the Mexican peso, was subsequently repudiated. Of the 60,000,000 pesos printed, 40,000,000 were burned by the Government and the balance left in circulation.

#### THE RAILROADS OF MEXICO.

The first railroad in the Mexican Republic was built in 1854, when a line 10 miles long was laid between the port of Vera Cruz and the village of Tejería. Some time afterwards the Central Government of Mexico granted a concession to an English syndicate to build a railroad from Veracruz to the capital, and the main line was finally opened on January 1, 1873. After this date, an era of considerable railroad building was inaugurated, under the supervision of General Diaz, who became President of the Republic in 1876. The average yearly railway construction in Mexico from 1877 to 1882 was 482 miles. In 1875 there were in that country 360 miles of railroads; in 1886 there were 3,675 miles; in April, 1897, there were 7,126 miles, and at the end of 1900 there were 8,460 miles completed under Federal concession. These figures do not include lines built under State concessions. In 1905 the length of the railroad lines was increased to 10,557 miles, and, according to the message of President Diaz delivered on September 16, 1910, on the one hundredth anniversary of the independence of Mexico, there were in operation in that country 15,260 miles of railways under Federal jurisdiction and 3,007 miles under State jurisdiction.

Railways in Mexico have been built, as in other Latin American countries, each one to serve a special purpose, and no special attention has been given to develop any general plan. In consequence, some parts of the country are thickly covered with railways, whereas other sections have remained undeveloped on account of the lack of railways or other means of quick transportation. As an example of this the case of the port of Acapulco may be taken. Acapulco is the best natural port of the country situated in the State of Guerrero, which is one of the richest States of Mexico on account of its fertile soil and mines, but due to the mountainous character of this State no railroad construction has been undertaken so far. The same applies to the port of Mazatlán, which is

separated from the central plateau by the western range of mountains.

The incorporation of several railway lines into the National Railways of Mexico was started in 1903, when the Government began to purchase the controlling interest of three of the most important railways in the country. The consolidation did not take place, however, until 1909. The Government owned 50.3 per cent of the stock. This company gradually absorbed other roads, and in 1914 it became by far the most important railway system of the Mexican Republic. The mileage of the National Railways of Mexico and date of incorporation into the system are shown in the following table:

Name of railroad.	Mileage.	Year incorporated.
National R. R. Co. of Mexico.....	1,379	1909
Mexican Central Ry. Co.....	3,428	1909
Mexican International R. R. Co.....	1,905	1910
Hidalgo & Northeastern R. R. Co.....		1909
Mexican Pacific Ry. Co.....		1909
Vera Cruz & Isthmus Ry. Co.....	220	1913
Pan American R. R. Co.....	297	1914
Mexican Southern Co. and Inter-oceanic Ry. of Mexico <sup>1</sup> .....	7,409	1908

<sup>1</sup> Including other subsidiaries of the National R. R. Co. of Mexico and the Mexican Central Ry. Co. (Ltd.) operated under rental contract.

The concessions granted by the government of General Diaz to private companies for railroad construction provided for the surrender of the roads to the Government after a certain period, which usually amounted to 90 years, upon the payment by the Government of compensation for rolling stock, buildings, and materials on hand at the date of the transfer.

On December 4, 1914, the Carranza government enacted a decree seizing the National Railways of Mexico as well as those privately owned, and under an official bureau started to operate all the Mexican railway lines under the name of Constitutionalist Railways of Mexico.

At the time of the Government seizure the National Railways of Mexico owned 5,896 miles of track and controlled an additional 2,716 miles. The following lines were owned: The National Railway, with 1,218 miles, extending from Nuevo Laredo to Mexico City. This is one of the most important railways in Mexico, since it is the shortest route to all parts of the country from the eastern section of the United States. Next in importance is the Mexican Central, with a mileage of 3,516 miles, extending from Ciudad Juarez to Mexico City and traversing the great central uplands. Of importance also are the Mexican International Railway and the Vera Cruz &

Isthmus Railway, which connects the port of Vera Cruz with the Tehuantepec Railway. Another important line controlled by the National Railway System is the Pan American Railway, which starts at the station of Picacho on the Tehuantepec Railroad and extends to the border of Guatemala. The most important narrow-gauge lines belonging to this system are the Inter-oceanic Railway, which is 736 miles in length, running from Vera Cruz to Mexico City, and the Mexican Southern, 282 miles in length, connecting the city of Puebla with Ejutla in the State of Oaxaca.

The most important privately owned railways in Mexico are the following: The Mexican Railway, which extends from the port of Vera Cruz to Mexico City, is 340 miles in length. The Tehuantepec Railway, which crosses the isthmus from Puerto Mexico to Salina Cruz, was owned jointly before the revolution by the Mexican Government and its builders, Messrs. Pearson & Co., of London, each having an equal amount of capital invested. This line has 220 miles of track. The Mexican Northwestern Railway was incorporated under the laws of Canada. It runs from Ciudad Juarez to Chihuahua and has 512 miles of track. The Southern Pacific Railway of Mexico is owned by the Southern Pacific Railway of the United States. The United Railways of Yucatan had 500 miles of railway in operation in 1918.

The seizure of the Mexican railroad lines by the Carranza government in December, 1914, marks the beginning of an era of disintegration of the railroad system. Military needs were given preference, and, although practically all lines suffered considerably, those of the north show the consequences of the revolution more severely; their buildings, stations, large sections of tracks, and bridges were destroyed and their rolling stock also destroyed or rendered unfit for service. According to the report for the fiscal year ending June 30, 1918, the total mileage given to the Constitutionalist Railways of Mexico was placed at 7,494 miles, of which 613 were not in operation for various reasons. Two years before, in 1916, the disintegration of the railways had already become manifest. The following table comparing the rolling stock of the National Railways of Mexico on June 30, 1913, and the rolling stock belonging to the Constitutionalist Railways in 1916, will give a clear idea of the considerable reduction due mainly to destruction during that period of three years. Attention must be called to the fact that the system of Constitutionalist Railways comprised at that time all the railways of Mexico with few exceptions

Rolling stock.	National railways, 1913.		Constitutionalist railways, 1916.	
	Standard gauge.	Narrow gauge.	Standard gauge.	Narrow gauge.
Passenger coaches.....	435	118	414	101
Freight cars.....	16,861	1,831	13,222	1,397
Locomotives (gauge not specified).....	729		679	

The scarcity of freight cars brought about disorganization of trade. This situation was still further aggravated by the action of local authorities, who in 1915 almost paralyzed all movements of freight by placing all sorts of restrictions on supplies leaving the section under their jurisdiction.

Only those repairs which were essential to the continuance of traffic were made while the railways were in the hands of the Carranza government. In a report prepared by the director general of the Constitutionalist Railways and published on June 30, 1921, the following estimates were given as the cost of immediate repairs needed in the National Railways' property.

#### ESTIMATED COSTS OF NEEDED REPAIRS ON NATIONAL RAILWAYS.

[In Mexican pesos; peso=\$0.4985.]

Tracks (includes purchase of 16,080 cross-ties, 86,671 tons of rails, accessories, and tools) ..	27,393,617
Buildings (repairing and reconstruction).....	2,774,000
Signal, water, and fuel stations (repairing and reconstructing).....	769,000
Loading platforms, fences, and other small structures.....	379,000
Bridges.....	8,558,048
Rolling stock:	
To replace equipment destroyed or con- demned during revolution.....	5,000,000
To repair equipment now in use.....	4,000,000
Total.....	48,873,665

From the time when the railroads were seized until November, 1916, practically all revenues collected by the Constitutionalist Railways were in paper money. All rates were increased from time to time, but never in proportion to the severe decline in value of the several issues of paper currency then in circulation. In November, 1916, the old rates were reestablished, to be collected in coin or "infalsificables" (the last paper issue of the Carranza government) at their market value, with the result that the finances of the railways were greatly improved. The net earnings of the National Railways during the year 1912-13 were placed at \$10,563,168. This amount was reduced to \$1,143,305 in the year 1913-14. At that time the railways under Government

control defaulted, and interest payments have been in arrears since. Dividend payments stopped likewise, and during the year 1917-18 earnings amounted to only \$1,067,386. At the end of the following fiscal year there resulted a deficit of 22,372,606 gold pesos, and for 1919-20 the deficit increased to 23,557,264 gold pesos. The profit and loss statement of the National Railways as of June 30, 1920, shows a total deficit of 169,445,025 gold pesos. According to the latest reports the net earnings for the year 1920-21 have been placed at 16,012,675 pesos. This amount is more than half the sum needed in 1923 to meet the debt service and interest on the debentures of this system of railways under the agreement recently concluded between the international bankers' committee and the Finance Minister of the present Government of Mexico. This agreement is now awaiting approval by the Mexican Senate.

The most important line which remained in operation throughout the year 1919 was that running from Laredo to Mexico City. Interest was still being centered in military operations mainly and congestion of merchandise at the customhouse of Laredo was the cause of much general concern. The same situation prevailed in the port of Vera Cruz, where at the beginning of 1921 it was estimated that from 40,000 to 50,000 tons of freight were held for transportation to the interior. The Mexican Railway, a British company, was seized first in November, 1914, and during the entire period under Government supervision only the most necessary repairs were made. This has been one of the most prosperous railroads of Mexico. The net earnings for 1913 amounted to 5,006,906 pesos, but only small payments on account of compensation were made by the Carranza government during its control. The second seizure of the road took place in 1917, but in 1921 it was returned to its owners.

The contract of operation of the Tehuantepec Railway by Messrs. S. Pearson & Son was canceled immediately after the seizure of the property in April, 1917. The amount of \$3,750,000 in treasury bonds bearing interest not to exceed 3 per cent was paid by the Carranza government for the acquisition of the property and for losses sustained during the revolution. The Mexican Northwestern Railway of Mexico is reported to have suffered the most on account of the revolution. Several of the most important battles were fought in villages on this line. The Southern Pacific Railway was not seized until 1917, but its losses from revolutionary causes have been considerable. It is reported that the losses sustained by this line between 1910 and 1913 amounted to \$4,020,000.

On June 1, 1921, President Obregon appointed a personal representative to study the railroad situation, with a view to bringing about increased efficiency. Steps were taken toward the reorganization of the National Railways System, and new locomotives were purchased in the United States, the results of which were soon apparent in the increased movement of merchandise from important centers. New consideration is again being given to the construction of the Tampico-Mexico City and Acapulco railway, which would form a trans-continental highway and be of great benefit to the country. Other plans are being formed for the construction of new railroads, but no definite reports are available with regard to the materialization of these plans.

The latest estimate available with regard to the amount of capital invested in the railways of Mexico was prepared by the American consul at Chihuahua in 1912. The total amount of American capital invested in Mexican railway stocks was placed at \$235,464,000, and in railway bonds at \$408,926,000. English capital invested in railway stocks was reported at \$81,237,800 and at \$87,680,000 in bonds; French capital in railway bonds at \$17,000,000; Mexican capital in railway stocks at \$125,440,000 and at \$12,275,000 in bonds. Other countries were reported as having invested \$75,000 in stocks and \$38,535,380 in bonds.

The first steps toward the resumption of payments on the obligations of the National Railways of Mexico were taken during the conference held between the committee of international bankers and the Mexican Secretary of Finances in June, 1922. According to the plan of readjustment, the following bonds, notes, and other national railway securities are included in the readjustment plan:

- National Railways of Mexico guaranteed general mortgage 4 per cent 70-year sinking fund redeemable gold bonds, due October 1, 1977.
- Vera Cruz & Pacific Railroad Co. first-mortgage 4½ per cent gold bonds, due July 1, 1934.
- National Railways of Mexico prior lien 4½ per cent 50-year sinking fund redeemable gold bonds, due July 1, 1957.
- National Railroad Co. of Mexico prior lien 4½ per cent gold bonds, due October 1, 1926.
- National Railroad Co. of Mexico first consolidated mortgage 4 per cent gold bonds, due October 1, 1951.
- The Mexican International Railroad Co. first consolidated mortgage 4 per cent gold bonds, due September 1, 1977.
- Pan American Railroad Co. first-mortgage 5 per cent gold bonds, due January 1, 1924.
- Pan American Railroad Co. general mortgage 5 per cent gold bonds, due January 1, 1937.
- Mexican Central Railway Co. (Ltd.), 5 per cent priority bonds, due July 1, 1939.
- Mexican Central Railway Co. (Ltd.), equipment bonds, assumed by the National Railways of Mexico, as follows:
  - (a) First series dated April 1, 1897.
  - (b) Second series dated October 2, 1899.
  - (c) Series No. 8 dated August 17, 1906.
  - (d) Series No. 10 dated January 1, 1907.
  - (e) Series No. 11 dated March 22, 1907.

National Railways of Mexico 6 per cent secured gold notes (secured by Government obligations):

- (a) National Railways of Mexico secured gold notes, series B.
- (b) National Railways of Mexico 6 per cent 3-month secured gold notes.
- (c) National Railways of Mexico 6 per cent 3-year secured gold notes.
- (d) National Railways of Mexico 6 per cent secured gold notes, series C.

National Railways of Mexico 6 per cent secured notes (secured by National Railways of Mexico bonds):

- (a) National Railways of Mexico 2-year 6 per cent secured gold notes, due June 1, 1915.
- (b) National Railways of Mexico 6 per cent secured notes, due July 1, 1916.

Tehuantepec National Railway 5 per cent gold loan, series A, due June 30, 1953.

Tehuantepec National Railway 4½ per cent gold loan, series B, due June 30, 1953.

The following table shows in tabulated form the amounts of the different railway obligations included in the agreement:

National Railways guaranteed 4s.....	\$50,748,575
Vera Cruz & Pacific 4½s.....	7,000,000
National Railways prior lien 4½s.....	84,804,115
National Railroad prior lien 4½s.....	23,000,000
National Railroad 4s, 1951.....	24,740,000
Mexican International prior lien 4s, 1977.....	4,208,500
Mexican International prior lien 4½s.....	5,850,000
Pan American 5s, 1934.....	2,003,000
Pan American 5s, 1937.....	1,484,000
Mexican Central priority 5's.....	1,374,000
National Railways equipment 5s.....	1,112,456
National Railways notes.....	33,662,131
Tehuantepec second mortgage 4½s.....	2,000,000
Miscellaneous.....	1,750,000
Total railroad debt.....	243,734,777

The text of the agreement in connection with the reorganization of the National Railway System follows:

The holders of outstanding railway bonds and notes shall present their existing securities to be stamped with the agreement of the Mexican Government assuming the payment of principal, interest, and a sinking fund of the securities. For all amounts paid by the Mexican Government on account of the railroads for such interest, principal, and sinking fund the Government will be a creditor of the railways in the same manner as is provided in the executive decree and plan of readjustment and union of the Mexican Central Railway Co. (Ltd.) and National Railroad Co. of Mexico with respect to payments made on account of its guaranty of the general mortgage 4 per cent bonds of the National Railways of Mexico.

The liens created on the railway properties by the present mortgages and indentures in favor of the railway securities now outstanding are to be held by a trustee or trustees satisfactory to the international committee, and are not to be enforced unless the Government is in default in its obligations under this plan, when they may be enforced in favor of the holders of railway securities.

The Government will make prompt return of the railways to private management, details of which are to be arranged.

Ten per cent annually of the gross receipts of the railways is to be set aside and paid over currently, as herein provided, toward the Government debt service, including the railway debt, and proper provision is to be made therefor in the rates by surcharge or otherwise.

Until the full cash payment of current interest on the bonds is resumed, the net operating revenues of the railways are to be added to the fund provided for the Govern-

ment debt service, and thereafter are to be applied to the service of the railway securities.

The Mexican Government recognizes the obligation to restore the railroads, including rolling stock, to the same condition that they were in when the Government took them over, and will make every effort to do it (viz, such restoration) as soon as possible.

Railway notes that have matured, or are about to mature, will be extended for a reasonable length of time.

The full debenture interest would require more than \$11,000,000 per annum, whereas the net earnings amount at present to about \$8,000,000. It seems, therefore, that under the above arrangement the holders of bonds of the Mexican railways will be benefited if the agreement is confirmed, but the holders of the stock of this system must wait for some time before any earnings can be applied to the payment of dividends.

NOTE.—Mexican foreign trade figures for 1921 as reported in the table on page 1198 of the October, 1922, BULLETIN, must be corrected in view of later information from official sources. The bureau of special taxes of the Secretary of Finance in Mexico gives imports in 1921 as 525,018,093 pesos, exports as 729,426,933 pesos, and the excess of exports as 204,408,840 pesos. The large favorable balance of trade indicated by these figures is to be accounted for by increases in exports of petroleum and other mineral products, which as a group are reported at 661,590,857 pesos in 1921, or over 90 per cent of the total export trade.

## CURRENCY AND BANKING IN SOUTH AFRICA.<sup>1</sup>

### I. INTRODUCTORY.

Among the financial developments in South Africa during the past few years, the most striking is the establishment of a central bank in a gold-producing country, which has temporarily abandoned the gold standard. The resemblance between many of the provisions of the legislation creating the bank to those of the Federal reserve act adds further interest to a consideration of these developments. It is desirable, therefore, before coming to a description of the financial organization of the country to present certain facts concerning its resources, industry, and trade.

It would be difficult to find a country whose products are so homogeneous as are those of South Africa. Gold is the foundation of the country's prosperity. Although mining began at a fairly early date, it was not until the early nineties that, owing to the introduction of the cyanide process, production reached large proportions. In 1888 its value was less than

<sup>1</sup> In the preparation of this article the chief sources of information have been the official publications of the Union Government (office of census and statistics), the Journal of the Institute of Bankers in South Africa, besides various British and foreign periodicals, pamphlets, and scientific journals.

£1,000,000 and in 1892 over £4,500,000. In 1898 over £16,000,000 were produced, and in 1916, the peak year, with no gold premium, the figure approached closely to £40,000,000. With regard to other industries, it is worthy of notice that in the year ended June 30, 1920, with a total factory output for the Union valued at nearly £93,000,000, the value added to materials brought to factories was but £39,000,000. This amount is considerably less than the total value of the gold and diamond output for 1920—£34,500,000 and £14,750,000, respectively. The fact that of the total factory output mentioned, £35,000,000 consisted of food and drink, £7,250,000 of building and contracting materials, and £4,500,000 of heat, light, and power, suggests that such manufacturing as the Union does undertake is almost wholly for home consumption.

The foreign trade figures bear out this fact in no uncertain manner. The following tables show the relative importance of the various classes of South African imports and export in pre-war and post-war years.

IMPORTS OF VARIOUS CLASSES, BY VALUE.<sup>1</sup>

[Expressed as percentages of total.]

	1913	1914	1919	1920	1921 *
Living animals.....	0.66	0.34	0.86	0.51	0.59
Articles for use in agriculture (including agricultural machinery from 1919).....	1.82	1.77	2.00	1.73	2.58
Food and drink.....	13.14	16.97	9.55	13.82	10.81
Raw materials for manufacture.....	9.82	8.55	8.73	8.73	8.01
Manufactured articles.....	69.28	71.93	77.48	73.96	76.95
Imports from Rhodesia.....	.28	.44	1.38	1.25	1.06
	100.00	100.00	100.00	100.00	100.00

<sup>1</sup> Including Government stores; excluding specie.

<sup>2</sup> Excluding Government stores and specie.

EXPORTS OF VARIOUS CLASSES, BY VALUE.<sup>3</sup>

[Expressed as percentages of total.]

	1913	1914	1919	1920	1921 *
Living animals.....	0.06	0.09	0.05	0.08	0.08
Agricultural and pastoral products.....	18.39	22.76	32.26	29.23	28.46
Product of mines.....	77.90	71.31	61.45	60.51	61.11
Other articles.....	.64	.90	1.37	1.93	1.65
Exports to Rhodesia.....	.82	1.34	.85	1.48	1.78
Imports reexported.....	2.19	3.60	4.02	6.72	6.92
	100.00	100.00	100.00	100.00	100.00

<sup>3</sup> Including ships' stores; excluding specie.

<sup>4</sup> Excluding ships' stores and specie.

These figures show the great predominance of manufactures in the import trade and of minerals in the export trade, the latter, however, showing a steady decline, with an increasing importance of agricultural products.

At the same time, the homogeneity of the imports is much less marked than of the exports. The seven leading imports together comprised only 38.8 per cent of the total. But, on the other hand, in 1920 the six leading exports were gold (£35,500,000), sheep's wool (£16,000,000), diamonds (£11,500,000), coal (£5,000,000), hides and skins (£4,250,000), and wattle bark (£1,000,000); and these together comprised 82.8 per cent of the total exports.

In foreign trade, South Africa is predominantly dependent upon Great Britain, both as a source of imports and as a market for exports. Hence, in part, the important influence exerted by British upon South African banking methods. The following trade figures are indicative of the large place occupied by the United Kingdom in South Africa's foreign trade.

IMPORTS FROM VARIOUS PARTS OF THE WORLD, BY VALUE.<sup>1</sup>

[Expressed as percentages of total.]

	1913	1914	1919	1920	1921 <sup>2</sup>
United Kingdom.....	56.77	59.37	46.89	54.83	54.76
Other parts of British Empire.....	11.98	13.01	16.46	12.83	11.43
Total British Empire..	68.75	72.38	63.35	67.66	66.19
Foreign countries.....	31.25	27.62	36.65	32.34	33.81
	100.00	100.00	100.00	100.00	100.00

<sup>1</sup> Including Government stores; excluding specie.  
<sup>2</sup> Excluding Government stores, not allocated.

EXPORTS TO VARIOUS PARTS OF THE WORLD, BY VALUE.<sup>3</sup>

[Expressed as percentages of total.]

	1913	1914	1919	1920	1921 <sup>4</sup>
United Kingdom.....	88.67	84.99	75.54	68.37	75.36
Other parts of British Empire.....	3.05	5.08	6.13	9.02	6.61
Total British Empire..	91.73	90.07	81.67	77.39	81.97
Foreign countries.....	6.45	6.93	15.54	17.69	12.45
Shipped as stores and through post.....	1.82	3.00	2.79	4.92	5.58
	100.00	100.00	100.00	100.00	100.00

<sup>3</sup> Excluding specie.  
<sup>4</sup> South African produce.

Owing to the absence of a mint in South Africa, exports of specie are negligible in importance, while imports are naturally of much greater extent. In 1920, for example, they amounted to over £4,000,000, almost wholly from the United Kingdom, the currency standard being the English sovereign. It is inter-

esting to observe the increased importance of exports to foreign countries during and since the war.

The Union comprises an area slightly larger than that included in the three States of Texas, New Mexico, and Oklahoma. It has, too, a slightly larger population, with this important distinction—that whereas in the three States mentioned there are only about 750,000 negroes, there are in South Africa but 1,500,000 whites. Hence industry in South Africa is based upon low-paid native labor to an extent which renders the prosperity of the gold-mining industry largely dependent upon a plentiful supply of colored workers. In December, 1920, there were over 190,000 natives employed on mines and works in the Transvaal, 97,000 of whom were recruited from Portuguese territory.

Of the four Provinces in the Union—the Cape, Natal, Transvaal, and the Orange Free State—the second is by far the most thickly populated. Outside of this area the population clusters thickly around the gold mining areas of the Transvaal, the diamond fields of the Cape Province, and the industrial areas at the southeast and southwest corners of the Cape, while elsewhere, owing to vast areas of semidesert and desert, the population becomes progressively sparse.

II. BANKING DEVELOPMENT PRIOR TO THE ACT OF 1920.

The growth of banking in South Africa has continued steadily, though slowly, during the past 30 years. The following table has been extracted from a more complete one, compiled by the Union government from figures furnished by the banks themselves:

PRINCIPAL ASSETS AND LIABILITIES OF SOUTH AFRICAN BANKS, 1891-1921, ON DECEMBER 31 OF EACH YEAR.

[Thousands of pounds sterling.]

ASSETS.

Year.	Coin and bullion.	Advances.	Bills discounted.	Securities.	Total.
1891.....	4,473	4,209	5,611	2,065	21,546
1896.....	9,280	10,693	7,926	3,495	42,451
1901.....	8,809	15,311	8,362	6,365	54,244
1906.....	8,110	23,765	11,417	3,684	65,317
1911.....	7,851	26,669	14,477	4,537	72,284
1916.....	6,961	33,878	14,398	7,740	87,230
1920.....	12,153	60,651	30,488	8,707	137,295
1921.....	19,009	50,568	24,346	10,140	127,726

<sup>1</sup> Including gold certificates.

## LIABILITIES.

Year.	Notes.	Demand deposits.	Time deposits.	Reserve fund.	Paid-up capital.	Total.
1891.....	939	6,415	5,630	764	2,596	21,546
1896.....	2,047	20,183	6,813	1,213	3,222	42,451
1901.....	2,251	22,607	10,172	2,124	7,219	54,244
1906.....	2,075	20,076	20,977	3,398	5,057	65,317
1911.....	2,379	23,322	21,070	3,025	4,797	72,284
1916.....	3,432	30,907	24,379	2,793	5,197	87,230
1920.....	9,469	58,717	43,615	4,213	5,543	137,295
1921.....	9,183	49,403	41,595	4,303	5,463	127,726

Perhaps the most noteworthy feature of the table lies in the fact that, while cash reserves have only doubled, the total liabilities have increased six-fold. The situation is in part improved by the fact that, in addition to coin and bullion, the banks held in 1921 some £6,500,000 as balances with the reserve bank. Nevertheless, in South Africa, as elsewhere, a much larger credit structure now stands upon the available supplies of metal than was the case 30 years ago. That this is not by any means a pure war development is proved by comparing the increases between 1891 and 1911, with those between 1914 and 1921.

Some of the figures for the years 1905 to 1921 have been plotted on the accompanying graph. From these curves it will be seen that South Africa provided no exception to the world-wide expansion of credit and currency during, and for a short time after, the war. As elsewhere, prices, and hence banking figures, appear to have become more or less stabilized on a considerably higher level, with a much smaller metallic basis for the credit structure.

Along with the growth of banking resources has gone a steady reduction in the number of banks doing business. In the statistics for 1891, quoted above, the returns of eight banks are included. In 1892, however, the African Banking Corporation absorbed the Worcester Commercial Bank (Ltd.). In 1900 a new bank—the Robinson S. A. Banking Co.—was founded, only to be liquidated five years later. In 1910 the National Bank of South Africa absorbed the National Bank of the Orange Free State, in 1912 the Bank of Africa, and in 1914 the Natal Bank. In 1920 the African Banking Corporation amalgamated with the Standard Bank, the latter giving its name to the new concern. This left but three banks—the Standard, National, and Netherlands. In addition, there remained the Stellenbosch—a small local bank—while the number was added to by the inclusion in 1921 of the Colonial Banking and Trust Co. The National City Bank of New York entered the South African field in 1920, but withdrew in 1921.

By far the greater part of the banking business of the country is now transacted by two banks. The largest bank at the present time is the Standard, with deposit liabilities (on April 30, 1922) of £36,000,000, followed by the National Bank of South Africa with £31,000,000. No other bank (excepting the reserve bank) has deposits of over £1,000,000.

The banking structure is similar to that of the United Kingdom in that it consists of a system of branches of big banks all over the country, rather than of independent banks of all sizes. The National, with its head office in Pretoria, and the Standard, with its in London, have 418 and 370 branches, respectively, throughout the Union as well as in southwest Africa, Basutoland, and other British territories. The Netherlands Bank, whose head office is at Amsterdam, operates in the Provinces of the Cape, Transvaal, and the Orange Free State, while the Stellenbosch has no branches, operating only in the town from which it takes its name. The Colonial is not a check-paying bank, although it publishes returns under the acts of 1917 and 1920.

Even before 1920 there were four laws in operation to control banking, principally with the object of protecting the public in the matter of note issue. These are still effective, subject to the amending provisions of the act of 1920. The earliest of these was the Cape Colony Act No. 6 of 1891, which required note-issuing banks having their head offices outside the Province to deposit Government securities in exchange for bank notes up to the par value of the bonds. These notes were then guaranteed by the Union government and became legal tender throughout the Province. It should be noted that, by the locality clause, only the Stellenbosch would be exempted from the deposit of bonds. The Transvaal Law No. 2 of 1893 and Orange Free State Ordinance No. 20 of 1902 permitted banks to issue notes up to the amount of their paid-up capital, with a cash reserve of one-third. No such laws were ever enacted in Natal. In 1917, by the passage of the Union Act No. 7 of that year, all banks were required to furnish the treasury with detailed returns of assets and liabilities at the end of each quarter, and such further returns as the treasury might need to ensure compliance with the bank-note laws.

Out of these legal requirements grew a somewhat complex currency system, in which, apart from distinctions as to issuer, there were, on account of the provisions of the Cape Colony law, two classes of bank notes—legal tender and other—both of which were redeemable in gold at the bank of issue. These were com-



bined for convenience in the table and diagram below, but are carefully distinguished in the returns. Up to 1914 they were roughly equal in amount, but from that date the non-legal tender notes secured a predominance, their amount in 1921 being over four times as large as that of legal-tender notes.

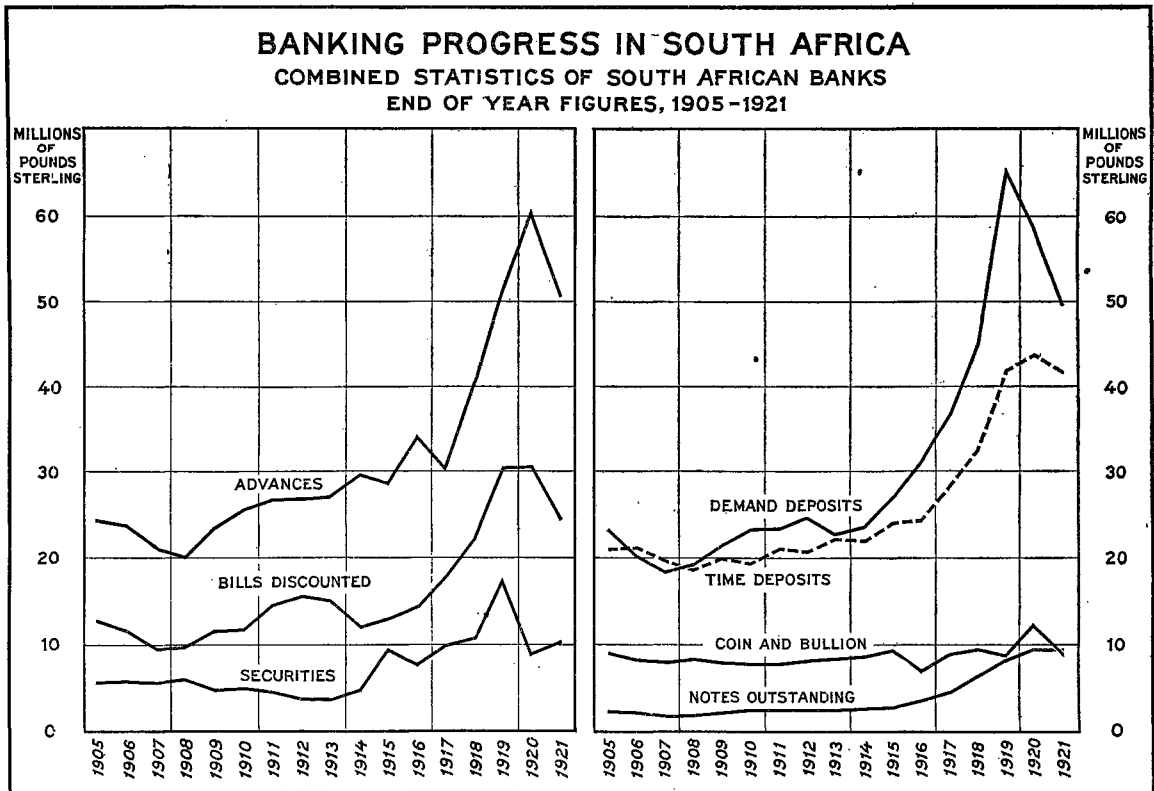
The gold in circulation was the English sovereign, minted in England and shipped over, for besides the notes already mentioned British gold coin, and subsidiary silver and copper to the same amounts as under English law, were legal tender. The position regarding the gold coinage became very acute during the war, the banks having the greatest difficulty in persuading the Imperial Government to consent to the export of gold coin in the required amounts—a fact which was in part responsible for the large expansion of note issues shown in the figures above.

The inconveniences of the situation were accentuated by the heavy illicit exports, which the Government, through geographical considerations, was unable to prevent. The export of gold coin was, as in other countries, prohibited at the outbreak of war. But the high price of gold in the eastern markets and the comparative ease of carrying it over the border attracted a great deal of coin out of the country. Furthermore, the practice of paying

the native workers in the Witwatersrand in gold, coupled with the fact that many of these were from Mozambique, a Portuguese colony, gave increased facilities for evasion of the law. The treasury estimate placed the gold disappearing from circulation between April 1, 1918, and March 31, 1920, at nearly £3,000,000, despite the strengthening of the embargo in September, 1919, to prohibit export to Mozambique.

After the war, to great difficulties were added heavy losses on the part of the banks in replenishing their gold reserves, owing to the removal of war restrictions on the bullion market in July, 1919, and the immediate appearance of a premium in terms of sterling. So that at the time the banks were paying as high as 28 shillings for bullion to be coined into a sovereign in England they were legally bound to pay out upon demand a sovereign for every 20-shilling note presented for redemption.

During the war, then, South Africa was as far from a gold standard as was Great Britain, though it could not conserve its gold supplies, even under those circumstances, owing to its inability to cope with illicit gold exports. Moreover, expansion of the currency was facilitated by the permission granted to issue notes of £1 and of 10s., the old limit having been £5. The result was a rise in prices, which put the



gold mines in a most unfavorable position. Throughout the war the gold output was sold at the fixed price of 77s. 9d. per standard ounce, by agreement between the Bank of England, the mining companies, the South African banks, and the Union government. This meant that while costs of production, freight, etc. (which the producers were required to pay), were rising, the price of the product was unaffected. A new agreement was effected, however, between the Bank of England and the Union government, which came into operation on July 24, 1919. This allowed for the sale of the gold in London by the producers' agents, N. M. Rothschild & Sons, at the best price obtainable. At the same time the imperial treasury authorized the Bank of England to issue licenses for the reexport of gold within five weeks of its arrival in London. So that practically a free market for bullion (as distinct from specie) was then reopened.

Nevertheless, the comparative unprofitableness of production up to that time, forcing elimination of some of the least profitable mines, together with general deterioration of mineral resources, caused a noticeable decline in gold production, as suggested in the following table:

GOLD PRODUCTION AND PRICES IN SOUTH AFRICA, 1914-1921.

Year.	Gold output of Transvaal (value in £).	Wholesale price index.
1914.....	35,656,814	100
1915.....	38,628,437	117
1916.....	39,489,522	134
1917.....	38,306,381	154
1918.....	35,758,636	168
1919.....	35,389,091	181
1920.....	34,635,947	245
1921.....		192

<sup>1</sup> Not including premium.

It was established by the low-grade mines commission, set up by the Government in June, 1919, and corroborated by expert opinion, that many mines were saved by the gold premium, and could only exist under its encouragement. Twenty-one mines, producing over £1,000,000 of gold per month, were included in this category. These are experiencing great difficulty in adjusting costs to the falling price of gold, and the problem, in relation to the economic future of the country, is being found exceedingly difficult of solution. The disappearance of the gold premium will, of course, coincide with the return of sterling to parity with the dollar, and the bad effects of this movement upon the gold industry will

be in proportion to the lag between the rise in the exchange value of sterling and the corresponding fall in South African commodity prices and wages. Hence the gold producers in general are not eager for the return to the gold standard and the disappearance of the premium, while the banks and the general public are strongly in favor of a reversion to the pre-war conditions of currency and exchange.

### III. STEPS LEADING TO THE PASSAGE OF THE ACT OF 1920.

Such, briefly, was the position which the act of 1920 was intended to ameliorate. One of the principal directions of agitation was along the line of the effort to establish a mint in South Africa to obviate the difficulties and expense incidental to replenishing the coinage by imports of specie from England. For a decade past, the question had been discussed, but in December, 1916, had received a quietus by a minute addressed to the imperial secretary of state for the colonies by the lords of the treasury. In this document the opinion was expressed that the establishment of a mint would not be advantageous to the Union government, the assumption being that a gold-producing country is ill advised to coin all or most of the gold it produces, unless its specie requirements are likely to absorb most of the gold coined. South Africa, of course, falls far short of this standard. The position became so acute, however, that early in 1919 the Minister of Finance announced that steps would be taken to establish the desired gold mint, and legislation was passed in the following session to that end.

In other respects numerous suggestions were made, some authorities holding the view that the alleviation of the post war difficulties was procurable through an immediate return to a free gold market. The leading opponent of this view was Mr. (now Sir) Henry Strakosch. In view of these differences of opinion, the Government called a conference, which met in October, 1919, to advise them on the questions of establishing "natural" exchanges between South Africa and the rest of the world and a free market for gold in the Union. The resolutions adopted by the conference were as follows:

1. (a) That the establishment of natural exchanges and of a free market for gold in the Union is desirable; (b) that to this end the establishment of a mint and a refinery should proceed with the utmost dispatch; (c) that the gold producers be requested to take steps to secure a modification of their selling agreement with the Bank of England, so as to permit of the termination at short notice; (d) that the embargo on the export of specie from the Union be not continued after the establishment of the mint.

2. During the course of their investigations the conference have been impressed with the necessity for one uniform bank act for the whole of the Union and would impress upon the Government the urgency of the introduction of such a measure in the next session of Parliament which should provide, *inter alia*, stringent provisions against inflation of currency.

At the beginning of 1920, in response to a request from the Prime Minister, Mr. Henry Strakosch expressed his views on the problem, his opinion being published in pamphlet form. In this much-discussed monograph, a return to "natural exchanges" was determinedly opposed, it being argued that such action would produce violent fluctuations in exchange on all countries not on a gold standard, and hence jeopardize trade with England; that it would encourage imports from abroad and exports of capital and impede home production. Hence it would be impossible to return to and maintain a gold standard. On the contrary, the report suggested the issue by the Government of gold certificates having 100 per cent gold backing, but inconvertible so long as gold commanded a premium; and the establishment by private capital of a central reserve bank, following in principle the Federal Reserve System of the United States, which would hold the reserves of the country and have a monopoly of note issue based on 40 per cent gold and 60 per cent short-term commercial paper.

The next step was the appointment, in March, 1920, of a select committee to inquire into the effects of the embargo on the cost of living and the question of its removal, and the desirability and practicability of modifying the laws relating to banking and currency. The committee considered at great length the pamphlet and oral evidence of Mr. Strakosch, and that they were much influenced by his opinions is patent from the arguments adduced and recommendations made in the report. Among other things, the report stated (a) that the removal of the embargo might in time completely denude the country of its specie reserves; (b) that a sudden rise of the exchanges to gold parity would seriously injure the Union's industries and produce a financial crisis in gold mining, and would encourage the withdrawal of capital from the Union, discouraging its entry; (c) that the Union currency should be restored gradually but definitely to an effective gold basis; and (d) that a central reserve bank should be established.

Immediately upon the receipt of this report a bill based thereon was introduced into Parliament. The bill met with much opposition, on the ground that the issue of the proposed gold certificates constituted a definite abandonment of the gold standard, throwing open the road to inflation. There was, how-

ever, no cleavage of opinion along party lines and, with one amendment, the bill as presented was passed in July, 1920, the act coming into operation on December 17 of that year.

#### IV. THE CURRENCY AND BANKING ACT, 1920.

*The gold problem.*—In order to regularize and gradually to improve the situation with respect to the premium on gold and the efforts to return to a gold standard, the first chapter of the act provided for the issuance by the treasury of gold certificates to an amount equal to the face value of good-weight coin and £3.17.10½ per standard ounce of bullion or light coin presented there, subject, in the latter case, to a brassage charge to be fixed by regulation. These were to be full legal tender and redeemable in gold on demand at the treasury. But when there existed a premium on gold in the Union the Governor-General might proclaim the suspension of redeemability while the premium lasted, and during that time the treasury might require any bank to deposit there a part or all of the gold coin held by it or on its behalf, receiving gold certificates in exchange. The opponents of the bill in Parliament secured their only success in this chapter by the insertion of a clause limiting the term of the suspension provisions to June 30, 1923.

*Constitution of the Central Reserve Bank.*—The banking provisions of the act are in many respects copied directly after the United States Federal reserve act, to the appropriate sections of which references will be made. These will be found on page 1331 at the conclusion of this section of the article.

The bank, situated at Pretoria, was to have a capital of £1,000,000, which might be increased by the board of directors with the consent of the treasury. Not more than one-half of this was to be subscribed by the banks in the Union, in proportion to their paid-up capital and surplus, in each case a minimum of 5 per cent being set. The remaining half was to be offered to the public at par, any amount not subscribed to be taken up by the treasury. The liability of shareholders was limited to the amount unpaid on their shares.<sup>a</sup>

The management of the bank was entrusted to a board of 11 directors. Two of these, appointed by the Governor-General for a term of five years, being men of tested banking experience, were to act as governor and deputy governor of the bank, giving their whole time to the bank's affairs and receiving a salary fixed by the board. These were to have no interest in any other bank. Three directors were to be appointed by the Governor-General, and three, elected by the nonbank stockholders,

were to be actively engaged, one in agriculture, one in commerce, and one in industry. These six might not be directors, officers, or employees of any other bank, nor members of Parliament or of any provincial council. The remaining three, experienced in banking or finance, were to be nominated by the stockholding banks and appointed by the Governor-General, but no stockholding bank could vote in the election of directors. These last nine were to be elected for a three-year term, the early terms being so arranged that one director of each class would retire annually. All were to be British subjects, resident in the Union.<sup>b</sup>

The profits of the bank, after allowing for bad and doubtful debts, depreciation, superannuation of staff, and "all such items as are usually provided for by bankers," were to be apportioned to a 6 per cent cumulative dividend on paid-up capital and to a reserve fund until the reserve equaled 25 per cent of the paid-up capital. Thereafter, one-half of the surplus over the 6 per cent was to go to reserve, one-quarter to the Government, and one-quarter to the stockholders, so long as the last quarter did not exceed 4 per cent on the paid-up capital. Any surplus over 4 per cent would go to the Government. After the reserve had been built up to 100 per cent of paid-up capital, dividends might be paid up to 10 per cent, the surplus going to the Government.<sup>c</sup> But so long as the export of gold or the convertibility of gold certificates was restricted, no dividends in excess of 6 per cent might be paid, the difference between 6 per cent and 10 per cent being devoted to the strengthening of the bank's gold reserves.

*Powers and duties of the bank.*—The bank was given the power to appoint agents and correspondents and to establish branches inside and, with the consent of the treasury, outside, the Union;<sup>d</sup> to act as bankers and financial agents for the Government; and to fix its discount rates. Its business consisted in part of the issue of notes, the receiving of deposits, and the collecting of money for corporations and individuals. It might buy, sell, or rediscount promissory notes, bills of exchange, or other commercial paper bearing at least two good signatures, having not more than 90 days to run; agricultural and live-stock paper having up to six months to run up to 20 per cent of its total discounts; and paper for carrying or trading in Union government securities up to 90 days provided it bore the indorsement of a bank. It might further buy or sell sight drafts, acceptances, or bills drawn in or on outside countries.<sup>e</sup>

As a further guaranty of liquidity the bank was empowered to buy or sell only those se-

curities of the Government or local authorities which had less than six months to run.<sup>f</sup> But it might invest not more than the amount of its capital and reserve in the securities of any government up to two years maturity, and might invest its staff and superannuation funds in any Union government securities. At the same time it was permitted to buy and sell any securities for its customers. The bank was specifically prohibited from investing in real estate and from purchasing any bank shares, or loaning on their security.

The collateral against which it might loan or advance included stock, debentures or bills of the Union government or local authorities having not more than six months to run, eligible paper, and gold coin and bullion or documents of their shipping or storage. Advances on mortgages of fixed property were prohibited. Other miscellaneous powers included dealing in and lending gold and bullion, taking custody and management of moneys, securities, and other valuables, and acting as agent for any bank, domestic or foreign. On the other hand, sundry restrictions prohibited it from engaging in trade in any way, making unsecured loans or advances, drawing or accepting bills payable otherwise than on demand, accepting deposits for a fixed term, and paying interest on current accounts.

*Currency reform.*—The Central Reserve Bank was given the sole right of note issue for 25 years. But until the complete substitution of reserve bank notes for those of other banks becomes practicable these latter may continue to be issued, under certain conditions: a 40 per cent gold reserve must be kept against the circulation, and, in addition to the duty heretofore levied under an act of 1911, a 3 per cent tax on the amount of circulation in excess of that outstanding on December 31, 1919, must be paid.

When the bank was in a position to issue its own notes, it was provided that the treasury should fix a date on which the other banks should cease to issue or reissue theirs. From that date all previous laws relating to note issues would be invalid, and each bank would pay, for a period of two years, a tax of one-fourth of 1 per cent per month on its outstanding circulation. Two years thereafter all banks were to pay over the amount of their outstanding notes to the reserve bank, which would then assume the liability for their redemption.

The notes of the bank are redeemable on demand at the place of issue in gold specie or gold certificates, and are good for payment of taxes, duties, fees, etc., payable to the Union or provincial governments. They are secured

by a minimum of 40 per cent gold and for the remainder of their par value by commercial paper, as well as by a first charge on all the bank's assets.<sup>f</sup> The provisions for the suspension of the reserve requirements under a graduated tax on the deficits are identical, in fact if not in terminology, with those of the Federal reserve act.<sup>g</sup>

*Reserves.*—In addition to the reserve against notes, the bank must keep a 40 per cent specie or bullion reserve against deposits and bills payable.<sup>f</sup> Not more than 20 per cent of this amount may be in the form of silver, and only one-quarter may be held outside the Union, and then only when permitted by the treasury and when earmarked for the bank's account. All banks in the Union are required to keep a reserve at the central bank of 13 per cent against their demand liabilities<sup>1</sup> (other than notes) and 3 per cent against time liabilities, to the public.<sup>h</sup> For three years, however, a minimum of 10 per cent on the former is conceded. The penalties for infraction of this rule are heavy, for, besides having to pay a fine at the rate of 10 per cent per annum on the deficit, a bank may make no new loans nor pay any dividends until the reserve is brought up to the required level.

*Publicity.*—The treasury is empowered at any time to inspect the books and records of the reserve bank and to demand returns from any other bank.<sup>i</sup> The bank must supply weekly returns, in the form specified,<sup>j</sup> as well as copies of the annual accounts, to be published by the treasury, and all banks in the Union are required to furnish the treasury with monthly returns. In these must be shown the amounts of notes issued or payable in the Union, and in circulation; demand and time liabilities to the public in the Union; gold and subsidiary coin and gold certificates held in the Union; and the reserve balances at the central bank.

*Distinctions between the act of 1920 and the Federal reserve act.*—A fundamental distinction exists between the bases of the Federal Reserve System and the South African Central Reserve Bank. It lies in the fact that at the time of the South African act the great bulk of the business was done by three banks, now reduced by fusion to two. With the two or three other financial institutions which have retained their autonomy, these compose the entire corporate membership of the reserve bank. In this respect of concentration of banking functions is seen perhaps most conspicuously the influence of British methods. Partly owing to this factor, and in part to centralized legislative machinery, the South African act required all

banks in the Union to subscribe to the reserve bank, while in the United States only the 8,000 national banks were compelled to join the Federal Reserve System, or forfeit their national charters, the 20,000 State banks being left free to determine their own course.

Two points in the act call for distinctive mention. In the first place, the provisions for the reform of the currency, looking toward uniformity and centralization of issue, go much further than do those of the Federal reserve act. In this matter again, there is a striking similarity to British methods. The act of 1844, providing for the eventual surrender of all private bank-note issues in England to the Bank of England, while much slower in its action,<sup>1</sup> had the same end in view and was as thorough in method.<sup>2</sup> The result of this change from the American to the British model is that the powers of emission of the banks in South Africa must be surrendered, while those of the national banks in the United States only may, in a very much longer period.

The second important distinction lies in the nature of the bank's dealings. Here again the English pattern is followed. The Bank of England is far from being a bank solely for bankers and the Government. On the other hand, apart from their fiscal functions, the Federal reserve banks are in the main bankers' banks, their open-market operations being restricted by law and moderate in volume. The South African Central Reserve Bank is permitted to deal with the public, and the prescribed form of weekly statement requires three separate subitems—"Government," "bankers," and "other" deposits. To the extent to which the bank utilizes these powers, then, it is in direct competition with the other institutions operating in the Union.

Finally, it is noteworthy that the institution founded under this act is the first true central bank to be established in the British dominions.

REFERENCES TO COMPARABLE SECTIONS OF THE FEDERAL RESERVE ACT.

- a* Section 2.  
*b* Section 1; section 4, as amended June 21, 1917 (section 2), and September 26, 1918; section 10, as amended March 3, 1919, and June 3, 1922.  
*c* Section 7, as amended March 3, 1919.  
*d* Section 3, as amended June 21, 1917 (sections 1, 6).

<sup>1</sup> The last private note issue (that of Fox, Fowler & Co.) lapsed, by absorption, in 1921; but for several years past the private circulation had been of practically negligible importance.

<sup>2</sup> After the passing of the act no bankers, except those already issuing, were to issue notes and then not in excess of their circulation at that time: no bank whose issue lapsed for any reason, could resume the issue of notes: by the act of 1833, joint-stock banks were expressly permitted to establish themselves in London, without the power to issue notes, hence a note-issuing bank, on combining with one of these, lost its right of issue; if a country bank lost its right to issue, the bank might be authorized by the Queen in Council to increase its fiduciary issue by two-thirds of the amount of the lapsed issue. This right has not been fully taken advantage of.

<sup>1</sup> That is, liabilities payable within 30 days or subject to less than 30 days' notice.

<sup>e</sup> Section 13, as amended March 3, 1915, September 7, 1916, and June 21, 1917 (sections 4, 5); section 14, as amended September 7, 1916, and June 21, 1917 (section 6); section 15.

<sup>f</sup> Section 16, as amended September 7, 1916, and June 21, 1917 (section 7).

<sup>g</sup> Section 11.

<sup>h</sup> Section 19, as amended August 15, 1914, and July 21, 1917 (section 10), and September 26, 1918 (section 14).

<sup>i</sup> Section 21.

<sup>j</sup> Section 11.

## V. THE ACT IN OPERATION.

*Gold.*—In accordance with the provisions of the act, the issue of gold certificates by the treasury was begun immediately after its coming into operation and proceeded so rapidly that by February 12, 1921, there were £8,123,067 of this form of money outstanding. During the ensuing 16 months, however, the increase was comparatively slow, only £2,000,000 being added by June 3, 1922. There being a premium on gold, the redeemability of the certificates was suspended immediately. This, however, does not permit of any reduction of gold backing, an amount of gold being held equal to that of the certificates outstanding.

The act has produced no perceptible improvement in gold production. On the contrary, in 1921, 8,114,581 ounces fine were mined—a reduction of 39,000 from the 1920 figure. In the first five months of 1922, largely owing to strikes and political disturbances, only 1,791,347 ounces were mined in the Union.

The price of gold in London has fallen very considerably since the time of the act's passage. On December 31, 1920, it was £5 16s.1d. per ounce fine. By June 30, 1921, it was 110 shillings, and the end of the year saw it below the 100 mark. On September 29, 1922, it had reached £4 13s.10d. While the decline in the premium on gold has been large, it by no means follows that it will entirely disappear by June 30, 1923, when the suspension provision lapses.

This contingency was early foreseen in South Africa itself, and Sir Henry Strakosch was again called upon to make recommendations as to the manner in which the limitation clause of the suspension of redeemability provision should be dealt with. In his memorandum the author pointed out that to return to gold parity demanded the most drastic deflation, which might seriously damage the country's industries. Moreover, since the external purchasing power of a currency unit responds more readily than its internal purchasing power to changed monetary conditions, the country's specie reserves would be seriously depleted. Furthermore, even if by a "huge effort of deflation" the progress toward coincidence between internal and external purchasing power were accelerated, the violent fluctuations in the case

of other countries would have similar disturbing effects to those of a disparity in the case of the South African currency. Apart from exchange difficulties, however, the lag in the case of internal purchasing power would force several of the gold mines to close down, and physical conditions would in many cases make permanent the cessation of operations. Quoting Doctor Vissering and Professor Cassel in support of his view, Sir H. Strakosch was led to the conclusion that "to resume specie payments \* \* \* at a definite and early date would be disastrous." The select committee of 1920 having reported that "it was not practicable to fix any definite time limit" for that step, the author recommended the deletion from the act of the clause limiting irredeemability to June 30, 1923.

In October, 1921, the Government called a conference to consider this same question. The conference gave its opinion that a definite attempt to bring about the necessary deflation by June 30, 1923, might result in a grave and violent crisis. Accordingly it suggested the provisional extension of inconvertibility until June 30, 1925, with the proviso that if in the meantime gold should reach its normal price, the Governor-General's power to suspend redemption should automatically lapse. At the same time the reserve bank should be authorized to take steps to prevent any further inflation of the currency. On the other hand, the conference recommended the immediate abolition of all restrictions on the export of gold bullion—a step on the advisability of which two members of the conference strongly disagreed with their six colleagues. In addition the somewhat novel suggestion was made that, "if necessary, the law be altered so as to prevent a debtor discharging his obligations (unless with the consent of the creditor) in any form of money other than that specified in the contract." At the time of writing no definite decision has been arrived at by the Government, but it would seem very unlikely that an automatic return to convertibility on July 1, 1923, will be permitted, through failure to amend or delete the limitation clause.

*Banking.*—The foundation of the Central Reserve Bank in December, 1920, was accompanied by the appointment as governor of Mr. W. H. Clegg. This fact is of peculiar significance in that Mr. Clegg had spent 34 years in the service of the Bank of England, having risen at the time of the appointment to the office of chief accountant in that institution.

Of the total capital to be raised, £300,000 was allotted to banks, the remainder being offered to the public at par. Up to June 18, 1921, however, when the list was closed, the

amount applied for was only £365,000, leaving £335,000 to be taken up by the Government. This fact gives rise to a situation in which, by contrast with the Federal Reserve System, the Government has a large interest as stockholder in the operations of the bank.

The reserve bank notes, in denominations of £1, £5, £20, and £100, were ready for issue in January, 1922, and by July 29, 1922, the amount in circulation was nearly £6,500,000. At the same time between December 31, 1921, and June 30, 1922, the circulation of the other banks within the Union was reduced by less than £1,250,000.

The nature and growth of the bank's operations up to the present time are indicated in the following table:

LIABILITIES AND ASSETS OF THE SOUTH AFRICAN RESERVE BANK ON JULY 16, 1921, AND JULY 29, 1922.

[In pounds sterling.]

	July 16, 1921.	July 29, 1922.
<b>LIABILITIES.</b>		
Capital paid up.....	293,391	1,000,000
Reserve.....		2,081
Notes in circulation.....		6,328,646
Bankers' deposits.....	5,853,195	5,551,894
Other liabilities.....	6,253	57,871
<b>Total.....</b>	<b>6,152,839</b>	<b>13,041,492</b>
<b>ASSETS.</b>		
Gold coin and bullion.....	15	248,350
Gold certificates.....	5,402,181	8,927,103
Subsidiary coin.....	11	250,022
Bills discounted.....	250,000	317,836
Loans to Government.....		2,200,000
Other loans and advances.....	500,000	56,800
Investments.....		1,000,000
Other assets.....	632	41,381
<b>Total.....</b>	<b>6,152,839</b>	<b>13,041,492</b>

The bank's net profit for the nine months ending March 31, 1922, was £45,524. This, it will be seen, represents just about 6 per cent per annum on the capital stock.

The following composite statements of the institutions furnishing returns under the act of 1920 give some indication of the reaction of the other banks to the new arrangements:

LIABILITIES TO THE PUBLIC IN THE UNION.

	June 30, 1921.	June 30, 1922.
Legal-tender notes.....	£1,787,326	£1,341,623
Other notes.....	6,747,567	6,255,014
Demand deposits.....	41,836,838	40,231,422
Time deposits.....	29,770,116	27,067,854
<b>Total.....</b>	<b>80,191,847</b>	<b>74,895,943</b>

CASH RESERVES IN THE UNION.

	June 30, 1921.	June 30, 1922.
Gold coin and bullion.....	£1,398,287	£543,547
Subsidiary coin.....	1,130,031	1,449,706
Gold certificates held in Union.....	3,967,259	2,782,179
South African reserve bank notes.....		4,229,298
Balances in South African Reserve Bank.....	5,698,850	6,142,220
<b>Total.....</b>	<b>12,194,427</b>	<b>15,146,950</b>
Percentage of reserve to deposits.....	15.21	20.22

The changes since 1920<sup>1</sup> are, of course, most conspicuous on the assets side. The gold, gold certificates, and subsidiary coin have been reduced by 61 per cent, while this gap has been filled by £6,250,000 of balances at the reserve bank and by reserve-bank notes. It will be noted that the amount of balances more than meets the normal reserve requirements of the act.

The statement prescribed for the Central Reserve Bank in Schedule II of the act is in some respects similar to that required of the Federal reserve banks. Thus, in the item "gold coin and bullion," the amount held outside the Union must be separately stated, but by contrast with the American returns, gold certificates are also separately stated. There is no distinction as to the security behind bills discounted, but they are split up into "domestic" and "foreign." Deposits are divided, along the American lines, into "Government," "bankers," and "other," though the last has a different meaning, consisting of deposits made by the public.

**PRICES IN URUGUAY.**

The National Bureau of Labor of the Uruguayan Government has recently released the following table of average prices and corresponding index numbers of articles of prime necessity for the years 1913 to 1921, inclusive. The prices prevailing in 1913 have been taken as the base and the index numbers of all commodities for that year are given as 100. The list of commodities is primarily one of food-stuffs, and the table, therefore, suggests the trend of the cost of living in Uruguay since the outbreak of the war. It may be noted from this table that general prices reached a peak in 1920, when several commodities had advanced to more than 250 per cent of their level in 1913. The index numbers for 1921, on the other hand, show the result of the liquidation period which

<sup>1</sup> See table on pp. 1325, 1326.

began during 1920. It is of particular interest to note the striking decrease in the prices of beef and mutton, two of the most important Uruguayan products. The severe drop in prices of meat is responsible to a large extent for the difficult economic problems which Uruguay has been obliged to face during the last two years.

AVERAGE ANNUAL PRICES OF SELECTED COMMODITIES IN URUGUAY.

Year.	Edible oils.		Rice.		Sugar.		Farina.		Spaghetti.		Hardtack.		Beef tallow.		Corn meal.	
	Average price per kilo.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.
1913.....	0.40	100.0	0.14	100.0	0.15	100.0	0.11	100.0	0.11	100.0	0.12	100.0	0.28	100.0	0.08	100.0
1914.....	.55	137.5	.18	128.6	.20	133.3	.09	81.8	.12	109.1	.12	100.0	.25	89.3	.09	112.5
1915.....	.53	132.5	.20	142.9	.23	153.3	.09	81.8	.16	145.5	.15	125.0	.24	85.7	.09	112.5
1916.....	.53	132.5	.20	142.9	.25	166.7	.10	90.9	.13	118.2	.11	91.7	.27	96.4	.08	100.0
1917.....	.67	167.5	.23	164.3	.29	193.3	.12	109.1	.16	145.5	.13	108.3	.30	107.1	.10	125.0
1918.....	1.06	265.0	.27	192.9	.32	213.3	.14	127.3	.15	136.4	.13	108.3	.31	110.7	.10	125.0
1919.....	1.02	255.0	.31	221.4	.35	233.3	.15	136.4	.16	145.5	.15	125.0	.36	128.6	.10	125.0
1920.....	1.14	285.0	.36	257.1	.41	273.3	.14	127.3	.22	200.0	.18	150.0	.43	153.6	.12	150.0
1921.....	1.04	260.0	.28	200.0	.31	206.7	.11	100.0	.23	209.1	.19	158.3	.33	117.9	.12	150.0

Year.	Wheat flour.		Eggs.		Milk.		Crushed corn.		Flour bread.		Beans.		Table salt.		Coarse salt.	
	Average price per kilo.	Index number.	Average price per dozen.	Index number.	Average price per liter.	Index number.	Average price per liter.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.
1913.....	0.08	100.0	0.22	100.0	0.08	100.0	0.10	100.0	0.10	100.0	0.19	100.0	0.04	100.0	0.02	100.0
1914.....	.09	112.5	.29	131.8	.06	75.0	.11	110.0	.14	140.0	.19	100.0	.08	200.0	.02	100.0
1915.....	.12	150.0	.28	127.3	.07	87.5	.10	100.0	.15	150.0	.24	126.3	.09	225.0	.03	150.0
1916.....	.09	112.5	.29	131.8	.08	100.0	.10	100.0	.13	130.0	.23	121.1	.08	200.0	.03	150.0
1917.....	.12	150.0	.31	140.9	.08	100.0	.11	110.0	.14	140.0	.23	121.1	.10	250.0	.04	200.0
1918.....	.10	125.0	.32	145.5	.08	100.0	.12	120.0	.14	140.0	.22	115.8	.10	250.0	.04	200.0
1919.....	.11	137.5	.35	159.1	.09	112.5	.10	100.0	.14	140.0	.22	115.8	.11	275.0	.05	250.0
1920.....	.15	187.5	.41	186.4	.10	125.0	.12	120.0	.18	180.0	.24	126.3	.13	325.0	.04	200.0
1921.....	.16	200.0	.38	172.7	.09	112.5	.12	120.0	.20	200.0	.23	121.1	.13	325.0	.04	200.0

Year.	Semola.		Vinegar.		"Mate" tea.		Beef.		Mutton.		Pork.		Sweet potatoes.		Irish potatoes.	
	Average price per kilo.	Index number.	Average price per liter.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.	Average price per kilo.	Index number.
1913.....	0.16	100.0	0.08	100.0	0.28	100.0	0.22	100.0	0.30	100.0	0.42	100.0	0.05	100.0	0.06	100.0
1914.....	.16	100.0	.11	137.5	.30	107.1	.17	77.3	.21	70.0	.33	78.6	.05	100.0	.08	133.3
1915.....	.19	118.8	.11	127.5	.30	107.1	.20	90.9	.20	66.7	.37	88.1	.06	120.0	.11	133.3
1916.....	.16	100.0	.20	250.0	.30	107.1	.21	93.5	.24	80.0	.40	95.3	.06	120.0	.08	133.3
1917.....	.18	112.5	.12	150.0	.30	107.1	.20	90.9	.24	80.0	.44	104.8	.05	100.0	.11	133.3
1918.....	.19	118.8	.14	175.0	.30	107.1	.22	100.0	.24	80.0	.45	107.1	.07	140.0	.12	200.0
1919.....	.19	118.8	.15	187.5	.33	117.9	.27	122.7	.26	86.7	.45	107.1	.06	120.0	.10	166.7
1920.....	.22	137.5	.16	200.0	.44	157.1	.27	122.7	.29	93.7	.45	107.1	.06	120.0	.10	166.7
1921.....	.22	137.5	.16	200.0	.40	142.9	.19	86.4	.21	70.0	.42	100.0	.05	100.0	.10	166.7

Year.	Alcohol.		Denatured alcohol.		Charcoal.		Wood.		Kerosene.		Tobacco.		Matches.	
	Average price per liter.	Index number.	Average price per liter.	Index number.	Average price per sack.	Index number.	Average price per 100 pieces.	Index number.	Average price per liter.	Index number.	Average price per kilo.	Index number.	Average price per dozen boxes.	Index number.
1913.....	0.46	100.0	0.26	100.0	1.25	100.0	1.00	100.0	0.08	100.0	1.40	100.0	0.08	100.0
1914.....	.51	110.9	.27	103.8	1.03	82.4	1.04	104.0	.09	112.5	1.79	127.9	.19	237.5
1915.....	.55	119.6	.23	88.5	.98	78.4	.97	97.0	.09	112.5	1.82	130.0	.19	237.5
1916.....	.58	126.1	.25	96.2	.89	71.2	.99	99.0	.10	125.0	1.82	130.0	.19	237.5
1917.....	.66	143.5	.27	103.8	.83	66.4	.98	98.0	.12	150.0	1.88	134.3	.26	250.0
1918.....	.74	160.9	.30	115.4	1.22	97.6	1.03	103.0	.16	200.0	1.92	137.1	.22	275.0
1919.....	.88	191.3	.27	103.8	1.31	104.8	1.22	122.0	.17	212.5	1.86	132.9	.22	275.0
1920.....	1.09	237.0	.26	100.0	1.25	100.0	1.17	117.0	.17	212.5	1.98	141.4	.25	312.5
1921.....	1.47	319.6	.27	103.8	1.25	100.0	1.16	116.0	.17	212.5	2.01	143.6	.24	300.0



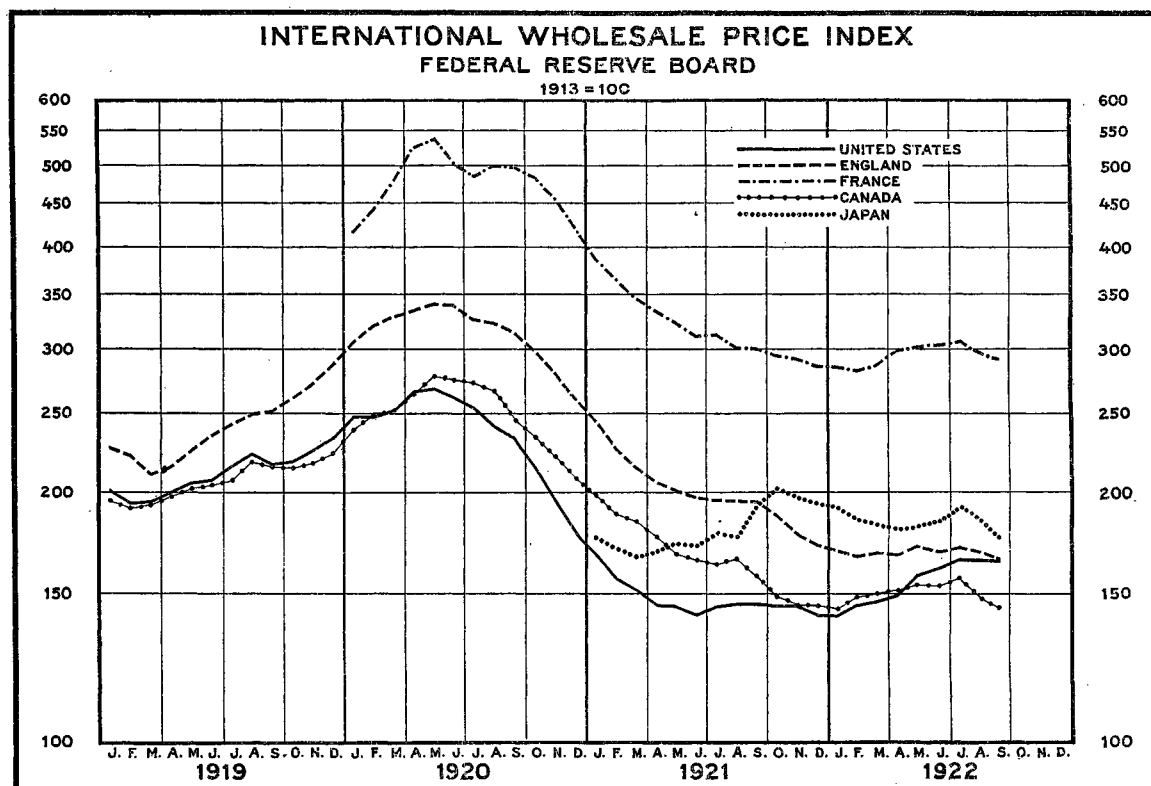
## PRICE MOVEMENT AND VOLUME OF TRADE.

### INTERNATIONAL WHOLESALE PRICE INDEX.

During September the trend of wholesale prices in all countries covered by the Federal Reserve Board's index was downward, ranging from a decrease of one point in the United States to eight points in Japan. Prices in England were only one point higher than those in the United States with reference to 1913. When all indexes are converted to a gold basis, the closest approximation is between British and Canadian prices.

The prices of raw materials and of consumers' goods declined in all five countries during September. Producers' goods, or commodities in a semimanufactured state, on the other hand, either increased or remained unchanged, except in Japan, where there was a decided general decrease in this group. Prices within the trade groups show that, whereas goods exported from all these countries, except France, decreased, the prices of goods imported rose with the exception of those in Japan.

Prices in general are falling from the July level, which in all five countries was the peak of the current year to date. In England prices have been relatively steady, with a spread of but seven points during the year. The July peak in Japanese prices came in a two months' sudden rise from the year's low point in May. In the other countries (United States, France, and Canada), prices increased steadily from the beginning of the year up to July. The decline during August and September has, however, brought prices in Japan, England, and Canada to the lowest point of 1922.



## 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	241	207	211	211	221	199	199	199
1920, average.....	239	314	478	250	239	239	242	185	223	223
1921, average.....	148	201	321	167	148	148	159	124	150	175
1921, .....										
September.....	146	194	301	158	192	146	148	113	141	186
October.....	145	187	295	149	202	145	149	111	136	193
November.....	145	177	292	145	197	145	144	109	133	189
December.....	142	172	287	145	193	142	147	117	135	186
1922, .....										
January.....	142	170	286	144	191	142	148	121	137	181
February.....	146	167	283	149	185	146	150	128	145	176
March.....	147	168	287	150	182	147	151	134	145	173
April.....	149	167	299	152	180	149	151	143	148	171
May.....	158	171	302	154	180	158	156	143	152	171
June.....	161	169	303	153	184	161	154	138	151	176
July.....	165	171	306	154	192	165	156	131	152	184
August.....	165	168	297	149	184	165	154	122	149	176
September.....	164	165	292	144	176	164	150	116	144	169

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES.<sup>1</sup>

[Average prices in 1913=100.]

Year and month.	Goods produced.	Goods imported.	Goods exported.	Raw materials.	Producers' goods.	Consumers' goods.	All commodities.
1919, average.....	214	174	221	209	198	221	211
1920, average.....	242	191	235	235	237	244	239
1921, average.....	148	108	136	141	142	160	148
1921, .....							
September.....	144	106	149	138	133	162	146
October.....	143	107	146	140	132	158	145
November.....	142	108	143	141	128	157	145
December.....	140	111	141	140	127	153	142
1922, .....							
January.....	139	110	139	141	127	150	142
February.....	143	110	142	145	127	155	146
March.....	144	111	144	147	126	157	147
April.....	146	115	144	150	129	156	149
May.....	155	119	155	164	137	160	158
June.....	158	124	162	167	141	164	161
July.....	162	128	165	177	143	163	165
August.....	162	127	162	184	144	156	165
September.....	161	128	157	181	147	154	164
October.....	161	135	163	179	150	156	165

<sup>1</sup> A complete description of the United States index number, as originally published, may be found in the May, 1920, BULLETIN, pages 499-503. Revisions in prices or weights appear in the BULLETINS for June, 1920; June, 1921; and May, 1922.

INDEX NUMBERS OF WHOLESALE PRICES IN ENGLAND.<sup>1</sup>

[Average prices in 1913=100.]

Year and month.	Goods produced.	Goods imported.	Goods exported.	Raw materials.	Producers' goods.	Consumers' goods.	All commodities.	Converted to gold basis.
1919, average.....	238	247	275	226	261	241	241	221
1920, average.....	315	294	438	291	355	292	314	242
1921, average.....	207	171	183	197	178	219	201	159
1921, .....								
September.....	199	170	171	195	165	212	194	148
October.....	192	163	175	187	166	200	187	149
November.....	182	154	164	177	153	191	177	144
December.....	176	152	158	173	147	186	172	147
1922, .....								
January.....	174	149	158	171	147	181	170	148
February.....	171	148	151	168	144	181	167	150
March.....	172	147	153	170	142	183	168	151
April.....	171	148	152	167	143	183	167	151
May.....	175	153	155	169	146	191	171	156
June.....	172	154	158	167	148	186	169	154
July.....	172	158	158	168	147	190	171	156
August.....	170	155	159	170	143	183	168	154
September.....	165	157	154	166	143	177	165	150
October.....	160	161	149	165	143	170	163	145

<sup>1</sup> A complete description of the British index may be found in the February, 1922, issue of the BULLETIN, pages 147-153.

INDEX NUMBERS OF WHOLESALE PRICES IN FRANCE.<sup>1</sup>

[Average prices in 1913=100.]

Year and month.	Goods produced.	Goods imported.	Goods exported.	Raw materials.	Producers' goods.	Consumers' goods.	All commodities.	Converted to gold basis.
1920, average.....	466	536	512	506	433	474	478	185
1921, average.....	322	313	288	341	248	348	321	124
1921.								
September.....	298	314	276	328	240	309	301	113
October.....	291	314	291	319	238	304	295	111
November.....	290	304	294	315	233	305	292	109
December.....	284	303	283	313	230	294	287	117
1922.								
January.....	284	295	277	308	229	299	286	121
February.....	282	286	275	300	227	300	283	128
March.....	288	282	272	305	229	306	287	134
April.....	302	282	274	318	228	327	299	143
May.....	305	288	279	322	226	333	302	143
June.....	305	295	292	327	230	327	303	138
July.....	306	303	297	332	236	325	306	131
August.....	295	309	296	329	233	303	297	122
September.....	287	320	301	322	234	296	292	116

<sup>1</sup> A complete description of the French index may be found in the August, 1922, issue of the BULLETIN, pp. 922-929.INDEX NUMBERS OF WHOLESALE PRICES IN CANADA.<sup>1</sup>

[Average prices in 1913=100.]

Year and month.	Goods produced.	Goods imported.	Goods exported.	Raw materials.	Producers' goods.	Consumers' goods.	All commodities.	Converted to gold basis.
1919, average.....	207	204	220	197	188	227	207	199
1920, average.....	249	253	268	235	255	270	250	223
1921, average.....	168	164	181	155	174	183	167	108
1921.								
September.....	158	155	175	147	159	174	158	141
October.....	148	153	149	136	153	166	149	136
November.....	144	151	138	131	152	164	145	133
December.....	144	151	137	131	149	164	145	135
1922.								
January.....	143	151	139	132	147	161	144	137
February.....	148	150	152	138	147	164	149	145
March.....	150	150	151	140	146	166	150	145
April.....	152	151	153	142	146	169	152	148
May.....	153	157	154	145	147	168	154	152
June.....	151	162	149	143	150	168	153	151
July.....	153	165	154	143	152	171	154	152
August.....	146	136	144	136	154	166	149	149
September.....	140	170	133	133	154	157	144	144
October.....	141	171	134	135	155	158	145	145

<sup>1</sup> A complete description of the Canadian index may be found in the July, 1922, issue of the BULLETIN, pp. 801-806.INDEX NUMBERS OF WHOLESALE PRICES IN JAPAN.<sup>1</sup>

[Average prices in 1913=100.]

Year and month.	Goods produced.	Goods imported.	Goods exported.	Raw materials.	Producers' goods.	Consumers' goods.	All commodities.	Converted to gold basis.
1921, average.....	186	154	173	154	188	193	181	175
1921.								
September.....	197	167	175	159	199	207	192	185
October.....	208	172	185	171	209	217	202	193
November.....	204	162	183	167	193	215	197	189
December.....	201	154	192	167	192	209	193	186
1922.								
January.....	198	153	197	168	191	203	191	181
February.....	192	151	186	163	183	198	185	176
March.....	187	153	175	157	183	195	182	173
April.....	186	151	176	157	183	192	180	171
May.....	185	157	183	164	182	189	180	171
June.....	188	166	192	168	191	191	184	176
July.....	197	167	196	170	195	203	192	184
August.....	189	160	189	161	187	196	184	176
September.....	179	156	189	159	176	185	176	169

<sup>1</sup> A complete description of the Japanese index may be found in the September, 1922, issue of the BULLETIN, pp. 1052-1059.

COMPARATIVE WHOLESALE PRICE LEVELS IN PRINCIPAL COUNTRIES.  
ALL-COMMODITIES INDEX NUMBERS.<sup>1</sup>

Year and month.	EUROPE.												
	Belgium; Ministry of Labor. <sup>2</sup>	Bulgaria; General Statistical Bureau.	Denmark; Finans-tidende. <sup>3</sup>	France; General Statistical Bureau. <sup>4</sup>	Germany; Frankfurter Zeitung. <sup>5</sup>	Germany; Federal Statistical Bureau. <sup>6</sup>	Italy; Riccardo Bachì. <sup>8</sup>	Netherlands; Central Bureau of Statistics. <sup>7</sup>	Norway (Christiania); Oekonomisk Revue. <sup>9</sup>	Poland; Central Statistical Office.	Spain; Institute of Geography and Statistics. <sup>10</sup>	Sweden; Göteborgs Handels och Sjöfartstidning. <sup>11</sup>	Switzerland; Dr. J. Lorenz. <sup>3</sup>
	(128)		(33)	(45)	(98)	(38)	(100)	(53)	(93)	(58)	(74)	(47)	(71)
1913.....		100		100		100	100	100		100		100	
1914.....	<sup>13</sup> 100	103	<sup>14</sup> 100	101	<sup>15</sup> 100	106	95	105	<sup>16</sup> 115	<sup>17</sup> 100	101	<sup>12</sup> 100	100
1915.....		137	138	137	137	142	133	145	159		119	145	
1916.....		<sup>18</sup> 208	164	187	187	153	202	222	233		141	185	
1917.....		667	228	262	262	179	299	286	341		166	244	
1918.....		830	293	339	339	217	409	392	345		207	339	
1919.....		1,166	294	357	357	416	364	297	322		204	330	
1920.....		1,940	382	510	510	<sup>19</sup> 1,997	624	282	377		221	347	
1921.....		2,006	250	345	345	<sup>19</sup> 2,127	1,911	578	269		190	211	195
1921.													
September.....	364	1,758	224	344		2,067	580	180	287		183	182	181
October.....	372	2,052	202	331		2,460	599	169	286		185	175	184
November.....	374	2,061	186	332		3,416	595	165	276		184	174	182
December.....	369	2,155	183	326		3,487	595	165	269		183	172	178
1922.													
March.....	350	2,287	182	307	5,427	5,433	533	161	240	73,729	176	164	171
April.....	344	2,514	178	314	6,722	6,355	527	161	236	75,106	185	165	163
May.....	348	2,695	177	317	7,379	6,458	524	165	231	78,634	176	164	161
June.....	356	2,436	179	325	7,841	7,030	537	166	230	87,694	177	164	160
July.....	360	2,489	180	325	9,140	9,957	558	159	232	101,587		165	161
August.....	360	2,526	180	331	13,935	17,990	571	147	227	135,786		163	163
September.....	364	2,531	173	329	28,919	27,420	582		225	152,365		158	163
October.....	385		176	337	44,089	56,600	601		221			155	163
November.....			180		94,492								169

Year and month.	EUROPE—continued.		NORTH AND SOUTH AMERICA.			ASIA AND OCEANIA.					AFRICA.		
	United Kingdom; Board of Trade.	United Kingdom; Statist. <sup>4</sup>	United States; Bureau of Labor Statistics.	Canada; Department of Labor. <sup>11</sup>	Peru; Department of Statistics. <sup>20</sup>	Australia; Bureau of Census and Statistics. <sup>4</sup>	China (Shanghai); Ministry of Finance. <sup>21</sup>	Dutch East Indies; Statistical Bureau.	India (Calcutta); Department of Statistics. <sup>6</sup>	Japan (Tokyo); Bank of Japan. <sup>6</sup>	New Zealand; Department of Statistics.	Egypt (Cairo); Department of Statistics.	South Africa; Office of Census and Statistics.
	(150)	(45)	(404)	(271)	(58)	(92)	(147)		(75)	(56)	(106)	(23)	(187)
1913.....	100	100	100	100	100		<sup>22</sup> 100		<sup>24</sup> 100	100	100		
1914.....		101	98	101	104	<sup>15</sup> 100		<sup>23</sup> 100	96	104	<sup>25</sup> 100		100
1915.....		126	101	110	120	141			112	97	123		102
1916.....		159	127	135	146	132			128	117	134		127
1917.....		206	177	177	176	155			147	147	151		145
1918.....		226	194	206	212	170		232	180	192	175		158
1919.....		242	206	217	220	180	133	281	198	236	178		170
1920.....	314	295	226	246	238	218	140	226	204	259	212		231
1921.....	201	182	147	182	205	167	145	186	181	200	201		
1921.													
September.....	191	175	141	172	205	160	148	188	187	207	197		169
October.....	185	163	142	169	203	156	146	175	184	219	195		143
November.....	176	161	141	168	195	151	144	170	180	214	191		171
December.....	171	157	140	170	190	148	146	166	180	209	188		160
1922.													
March.....	163	157	142	167	190	146	152	164	182	201	180		153
April.....	163	158	143	166	187	148	150	164	182	197	180		148
May.....	164	159	148	167	186	155	146	166	187	194	177		141
June.....	163	159	150	165		156	144	167	183	197	175		139
July.....	163	157	155	166		157	145	168	181	201	177		138
August.....	159	152	155	164		155	142	162	178	195	177		139
September.....	157	150	153	163		158	139		176	193	174		138
October.....			154	162			143		177	190			

<sup>1</sup> The number of commodities or quotations used in the computation of each index is indicated by figures in parentheses at head of each column.  
<sup>2</sup> Average of last half of month.  
<sup>3</sup> First of month.  
<sup>4</sup> End of month.  
<sup>5</sup> Beginning of month—not always the 1st.  
<sup>6</sup> Average for the month.  
<sup>7</sup> Based upon price of 52 commodities during 1920; 53 during 1921.  
<sup>8</sup> 38 commodities prior to 1920; 76 commodities during 1921. Average for the month.  
<sup>9</sup> End of year and end of month.  
<sup>10</sup> 15th of the month.  
<sup>11</sup> Middle of month.  
<sup>12</sup> July 1, 1913, to June 30, 1914=100.

<sup>13</sup> April, 1914=100.  
<sup>14</sup> July 1, 1912, to June 30, 1914=106.  
<sup>15</sup> July, 1914=100.  
<sup>16</sup> Dec. 31, 1913, to June 30, 1914=100.  
<sup>17</sup> January, 1914=100.  
<sup>18</sup> December figure.  
<sup>19</sup> January figure.  
<sup>20</sup> Average for month until September, 1921; thereafter prices as of 15th of month.  
<sup>21</sup> As of last Wednesday in month.  
<sup>22</sup> February, 1913=100.  
<sup>23</sup> As of Jan. 1.  
<sup>24</sup> End of July, 1914=100.  
<sup>25</sup> Jan. 1, 1913, to July 31, 1914=100.

The foreign index numbers published on the preceding page are constructed by various foreign statistical offices, and are sent to the Federal Reserve Board by cable. The BULLETIN for January, 1920, contains a description of the French, Australian, Japanese, and Canadian indexes. A description of the method used in the construction of the Swedish index number appeared in the BULLETIN for February, 1921; the British index number, compiled by the Board of Trade, was described in the March, 1921, BULLETIN; and the Italian index number was discussed in the April, 1921, issue. The December, 1921, BULLETIN contains a description of the index published by the Federal Statistical Bureau for Germany, and the indexes for Switzerland, Netherlands, Norway, Bulgaria, Egypt, the Union of South Africa, the Dominion of New Zealand, and Peru. The index number for the Dutch East Indies was described in the BULLETIN for March, 1922, that for Poland in the BULLETIN for July, 1922, while a description of the Belgian index may be found in the October, 1922, issue. The revised index of the United States Bureau of Labor Statistics was first published in the July, 1922, BULLETIN; and a description of the Frankfurter Zeitung's revised index was given in the issue for September, 1922. Lack of space prevents the publication of group index numbers for many of these countries except occasionally, but they can be obtained at any time upon request. Reference may be made to the September, 1922, BULLETIN, pp. 1092-1100, for a more complete series of group index numbers than appears in this issue.

In only a few of the index numbers is 1913 used as the basis in the original computations. In most cases in which 1913 appears as the basis for the computation the index numbers have been shifted from their original bases. The computations in such cases are, therefore, only approximately correct. In certain of the index numbers July, 1914, or the 12 months' period immediately preceding is used as the base.

A description of the international price index numbers of the Federal Reserve Board for the United States, England, Canada, France, and Japan may be found in the BULLETINS for May, 1920; February, 1922; July, 1922; August, 1922; and September, 1922, respectively. A comparative summary table showing the Board's international index for these five countries appears on page 1336.

Index numbers showing the price levels of separate groups of commodities in the United States and a few foreign countries are presented on the following pages. Group index numbers computed by the Federal Reserve Board as part of its international series of price indexes will be found on pages 1336, 1337 of this issue.

The revised series of group index numbers for the United States, showing the Federal Reserve Board's regrouping of the new index of the Bureau of Labor Statistics, based upon 404 quotations, was published for the first time in the September, 1922, BULLETIN. A similar regrouping by the Federal Reserve Board of the old index of the Bureau of Labor Statistics first appeared in the October, 1918, issue.

**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	106	100	100	100
1919.....	250	221	211	180	213	179	211	206
1920.....	255	186	312	236	229	214	231	226
1921.....	134	110	166	185	142	135	159	147
1921.								
September.....	141	105	154	168	137	126	155	141
October.....	135	107	162	174	138	126	154	142
November.....	130	103	175	178	137	125	153	141
December.....	130	103	169	179	137	125	151	140
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

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
1921.										
September.....	124	142	178	181	116	156	131	179	118	141
October.....	124	140	180	189	116	159	131	180	118	142
November.....	121	139	180	197	114	163	129	178	119	141
December.....	120	136	180	199	113	158	127	178	121	140
1922.										
January.....	122	131	176	195	112	157	124	178	117	138
February.....	131	135	174	191	110	156	123	177	117	141
March.....	130	137	172	191	109	155	125	175	117	142
April.....	129	137	171	194	113	153	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

GROUP INDEX NUMBERS—FRANCE—GENERAL STATISTICAL BUREAU.

Year and month.	Animal foods. (8)	Vegetable foods. (8)	Sugar, coffee, and cocoa. (4)	All foods. (20)	Minerals. (7)	Textiles. (6)	Sundries. (12)	All industrial materials. (25)	All commodities. (45)
1913 average.....	100	100	100	100	100	100	100	100	100
1919 average.....	392	313	253	336	272	444	405	373	357
1920 average.....	503	427	422	439	449	737	524	550	510
1921 average.....	380	350	343	355	275	355	374	338	345
1921.									
October.....	345	305	305	323	262	391	365	338	331
1922.									
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

GROUP INDEX NUMBERS—GERMANY—FRANKFURTER ZEITUNG.

[July, 1914=100.]

Year and month.	Foodstuffs and luxuries. (26)	Textiles and leather. (16)	Minerals. (18)	Miscellaneous. (17)	Industrial finished products. (21)	All commodities. (93)
July, 1914.....	100	100	100	100	100	100
January, 1920.....	1,972	3,407	2,749	1,101	1,343	1,997
January, 1921.....	2,019	3,840	2,780	1,776	1,594	2,127
January, 1922.....	3,840	7,163	5,178	3,149	3,159	4,238
1922.						
Beginning of—						
July.....	6,323	13,938	12,168	6,881	6,750	9,140
August.....	13,691	21,910	18,355	10,993	8,519	13,935
September.....	29,175	36,398	42,618	21,605	19,352	28,919
October.....	38,595	72,688	54,905	32,134	35,025	44,089
November.....	88,980	153,896	128,982	72,038	57,683	94,492

GROUP INDEX NUMBERS—GERMANY—FEDERAL STATISTICAL BUREAU.

[1913=100.]

Year and month.	Goods produced. (16)	Goods imported. (22)	All commodities. (38)	Year and month.	Goods produced. (16)	Goods imported. (22)	All commodities. (38)
1913 average.....	100	100	100	1922.			
1919 average.....	385	558	416	June.....	6,540	9,479	7,030
1920 average.....	1,253	2,652	1,486	July.....	9,168	13,854	9,957
1921 average.....	1,786	2,533	1,911	August.....	15,080	32,490	17,990
1921.				September.....	24,280	43,110	27,420
October.....	2,235	3,585	2,460	October.....	49,850	90,340	56,600

## GROUP INDEX NUMBERS—ITALY—RICCARDO BACHI.

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.....	100	100	100	100	100	100	100	100	100
1922.....									
January.....	112	114	73	72	64	92	112	94	92
June.....	109	97	76	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	124	96	96

GROUP INDEX NUMBERS—SWEDEN—GÖTEBORGS HANDELS OCH SJÖFARTSTIDNING.<sup>1</sup>

[July 1, 1913-June 30, 1914=100.]

Year and month.	Vegetable foods (16)	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)
1913-14.....	100	100	100	100	100	100	100	100	100	100	100
1919.....	261	409	340	804	258	286	308	211			330
1920.....	262	296	312	1,007	278	371	675	215	324	291	347
1921.....	210	220	227	285	159	243	310	107	144	228	211
1921.....											
September.....	183	208	207	223	130	191	178	108	166	191	182
1922.....											
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

<sup>1</sup> Formerly published in Svensk Handelstidning.

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

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)
1913 average.....	100	100	100	100	100	100	100	100	100	100	100
1920 average.....	273	263	278	272	406	252	480	362	274	340	314
1921 average.....	194	219	214	209	237	179	192	173	196	197	201
1921.....											
September.....	195	200	201	199	207	161	213	163	190	187	191
1922.....											
June.....	154	173	179	169	157	139	187	167	163	160	163
July.....	156	170	181	169	155	138	191	168	162	160	163
August.....	151	169	161	160	151	142	186	167	160	159	159
September.....	142	174	132	156	149	140	185	169	161	158	157

## GROUP INDEX NUMBERS—CANADA—DEPARTMENT OF LABOR.

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. (264)
1913.....	100	100	100	100	100	100	100	100	100	100	100	100	100
1919.....	227	199	192	206	222	285	213	173	228	171	201	205	217
1920.....	263	198	204	261	258	303	192	203	245	268	255	204	246
1921.....	150	149	157	172	181	189	110	150	240	211	218	177	182
1921.....													
September.....	144	133	141	170	170	183	100	143	235	189	206	171	172
1922.....													
June.....	143	144	117	180	153	180	99	137	213	173	221	162	165
July.....	143	143	120	178	154	184	100	138	216	178	234	160	166
August.....	130	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

## COMPARATIVE RETAIL PRICES IN PRINCIPAL COUNTRIES.

In the following table are presented statistics showing the trend of retail prices and the cost of living in the United States and certain other countries:

INDEX NUMBERS OF RETAIL PRICES AND COST OF LIVING.

Year and month.	Retail prices.				Cost of living.								
	United States.	France <sup>1</sup> (Paris).	Italy.	Sweden.	Austria (Vienna).	Belgium.	Germany (46 cities).	Germany (Berlin).	Poland.	Switzerland.	United Kingdom.	India (Bombay).	South Africa.
1913.....			<sup>2</sup> 100										
1914.....	<sup>3</sup> 100	<sup>3</sup> 100		<sup>3</sup> 100	<sup>3</sup> 100	<sup>4</sup> 100	<sup>5</sup> 100	<sup>6</sup> 100	<sup>7</sup> 100	<sup>7</sup> 100	<sup>3</sup> 100	<sup>3</sup> 100	<sup>3</sup> 100
1920.....	199	371	454	298			813	1,080			249		155
1921.....	150	337	548	237		434	1,047	1,236	28,622	210	226	173	133
1921.													
September..	150	329	542	228		422	1,062	1,212	39,817	203	220	185	130
October.....	150	331	581	218		439	1,145	1,340	48,656	199	210	183	128
November....	149	326	583	211		451	1,397	1,767	47,628	192	203	182	127
December...	147	323	585	202	53,300	447	1,550	1,934	46,740	189	199	179	124
1922.													
January....	139	319	576	190	66,900	418	1,640	1,903	46,883	186	192	173	122
February....	139	307	559	189	77,000	394	1,989	2,177	48,085	175	188	165	120
March.....	136	294	546	185	77,800	372	2,302	2,740	52,358	170	186	165	120
April.....	136	304	524	182	87,200	368	3,175	3,177	58,627	162	182	162	122
May.....	136	317	530	178	109,300	365	3,462	3,455	63,914	156	181	163	122
June.....	138	307		179	187,100	373	3,779	4,149	68,406	155	180	163	121
July.....	139	297	522	179	264,500	372	4,990	6,122	78,798	159	184	165	120
August.....	136	289		181	593,200	369	7,029	10,271	90,823	154	181	164	120
September..	137	291		180	1,130,600		11,376	16,368			179		
October....	140	290		178			19,504	21,306			178		

<sup>1</sup> Average for the month.<sup>2</sup> Average for the year.<sup>3</sup> July.<sup>4</sup> Apr. 15, 1914=100.<sup>5</sup> 1913-1914=100.<sup>6</sup> August, 1913-July, 1914=100.<sup>7</sup> June.

The American index number, constructed by the Bureau of Labor Statistics, was based upon the retail prices of 22 articles of food, weighted according to family consumption, until January, 1921, when it was increased to 43 articles reported by dealers in 51 important cities. The method of weighting continues the same, although the actual "weight" applied has been changed. The original basis, that of the year 1913, has been shifted to July, 1914.

The retail price index for Paris, compiled by the French General Statistical Office, consists of retail prices of 13 different commodities, weighted according to the average annual consumption of a workingman's family of four persons. Eleven of the commodities included in this index are foods, and the other two are kerosene and alcohol.

The Italian retail price index for the most important cities, computed by the Italian Ministry of Labor, consists of retail prices of 21 commodities. Of the commodities included, 20 are foods and the other commodity is charcoal.

The Swedish index number consists of the retail prices of foodstuffs, fuel, and lighting and is based upon the prices of 51 articles in 44 towns (in 1920, 50 articles in 49 towns), weighted according to the budget of a workingman's family which before the war had a yearly income of 2,000 kronor.

The Austrian index, computed by the Paritätische Kommission, includes food, clothing, fuel, lighting, and rent. Prices, collected from cooperative associations and firms, are those ruling on Vienna markets. An average is obtained for each article and weighted according to the theoretical weekly expenditure of a normal person.

The Belgian index number of cost of living, constructed by the Ministry of Labor, consists of the retail prices of 30 commodities, weighted according to a standard budget based on an inquiry into the expenditures of 848 families of the laboring and small middle classes.

The German cost of living index for 46 cities is furnished

by the Federal Statistical Bureau and includes food, fuel, light, and rent.

The Berlin index, computed by Dr. R. Kuczynski, is based on the minimum cost of subsistence for a working-class family of four persons in Berlin. The groups included in the budget are food, clothing, heating, lighting, and rent.

The Polish Central Statistical Office furnishes an index including food, clothing, heating, lighting, rent, and miscellaneous expenditures. Official prices are used for State-controlled goods, but when the official ration is less than a standard budget the balance is reckoned at the trade price. The system of weighting is according to a theoretical budget for a working-class family of four persons in Warsaw.

The Swiss index number, computed by the social statistics service of the Bureau of Labor, is based on an investigation into household budgets made in 1920, and refers to about one-third of the entire cost of living of the family of a skilled worker.

The British index number of the cost of living, constructed by the Ministry of Labor, consists of the retail prices not only of foodstuffs, but of other articles as well. Retail clothing prices, rents, and the cost of fuel, lighting, and miscellaneous household items are also taken into consideration. The index number is weighted according to the importance of the items in the budgets of working-class families.

The Indian index, including food, clothing, heating, lighting, and rent, is computed by the labor office secretariat. Prices are collected twice a week from 10 retailers in Bombay. The index is weighted according to the average aggregate expenditure of the whole of India during five years before the war.

The South African index, computed by the Office of Census and Statistics, includes food, heating, lighting, and rent. Until December, 1919, it was weighted according to a standard budget, but since then the aggregate expenditure method has been adopted.



INDEXES OF INDUSTRIAL ACTIVITY IN FOREIGN COUNTRIES.

UNITED KINGDOM.

Year and month.	PRODUCTION.				Raw cotton, visible supply. <sup>1</sup>	EXPORTS.			IMPORTS.				SHIPPING.		Unemployed among approximately 12,000,000 insured persons.
	Coal.	Pig iron.	Steel ingots and castings.	Finished steel.		Iron and steel manufactures.	Cotton manufactures.	Coal.	Raw cotton.	Raw wool.	Raw wet hides.	Hides, dry and salted.	Vessels under construction.	Vessels cleared.	
Monthly average:	Long tons (000).	Long tons (000).	Long tons (000).	Long tons (000).	Bales (000).	Long tons (000).	Sq. yds. (000,000).	Long tons (000).	Pounds (000,000).	Pounds (000,000).	Pounds (000).	Pounds (000).	Gross tons (000).	Tons (000).	Per cent.
1913.....	23,953	855	639	.....	.....	414	<sup>2</sup> 596	6,117	181	67	6,927	5,139	2,003	5,652	.....
1920.....	19,108	670	756	646	1,397	271	374	2,078	158	73	4,025	6,277	3,603	3,049	.....
1921.....	13,696	218	302	238	1,234	142	244	2,055	98	63	4,792	2,469	3,313	3,032	.....
1921.															
August.....	16,589	94	434	321	1,194	77	214	3,103	63	75	6,088	1,549	.....	3,777	13.2
September.....	16,517	158	429	322	1,060	133	268	3,407	74	63	7,655	2,636	3,283	4,104	12.2
October.....	19,100	236	405	304	1,123	156	345	3,406	733	57	6,407	4,226	.....	4,056	12.8
November.....	17,875	272	444	330	1,216	194	366	3,594	195	67	8,967	4,504	.....	3,944	15.7
December.....	22,594	275	381	292	1,271	205	333	4,309	166	84	7,875	3,800	2,640	4,003	16.2
1922.															
January.....	17,693	288	228	271	1,298	253	342	4,021	134	90	4,557	4,186	.....	3,919	16.2
February.....	19,764	300	415	321	1,240	224	254	4,014	99	112	12,184	12,882	.....	3,903	15.2
March.....	19,921	390	549	369	1,112	296	307	5,201	83	123	4,568	4,102	2,236	4,814	14.6
April.....	22,875	394	404	294	1,181	258	305	4,097	101	117	3,164	3,590	.....	4,184	14.4
May.....	19,146	408	462	334	1,143	272	345	5,057	120	138	2,094	2,471	.....	5,104	13.5
June.....	19,369	369	400	316	1,111	236	315	4,794	127	97	2,772	3,393	1,920	4,975	12.7
July.....	23,135	399	473	342	890	252	447	5,064	111	79	7,390	2,982	.....	4,823	12.3
August.....	19,151	412	528	.....	864	270	381	6,146	81	107	7,281	4,422	.....	5,885	12.0
September.....	25,681	430	556	.....	853	279	400	7,083	60	52	7,339	3,616	1,617	5,731	11.9

<sup>1</sup> Figures for end of the month.

<sup>2</sup> Expressed in yards.

<sup>3</sup> Figures for 5 weeks.

FRANCE.

Year and month.	PRODUCTION.		Cotton stocks at Havre. <sup>1</sup>	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.	Receipts of principal railways. <sup>2</sup>	
Monthly average:	Metric tons (000).	Metric tons (000).	Bales <sup>3</sup> (000).	Metric tons (000).	Metric tons (000).	Metric tons.	Metric tons.	Metric tons (000).	Tons (000).	Francs (000).	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	2,005	1,412	479,894	3,022
1921.....	280	255	169	1,333	3,165	16,666	206	1,472	1,802	518,397	20,671
1921.											
August.....	255	232	132	1,035	2,593	10,700	202	1,065	2,039	518,517	9,706
September.....	244	236	131	1,172	3,993	11,769	261	1,874	1,972	697,979	7,486
October.....	256	260	181	1,252	2,809	25,757	385	1,301	2,007	.....	5,348
November.....	15,827	295	192	1,515	5,161	29,059	277	3,291	1,862	483,216	3,730
December.....	301	302	208	2,507	5,197	30,835	382	2,895	1,992	641,887	4,175
1922.											
January.....	312	315	188	1,554	3,396	14,870	502	1,676	1,735	454,323	4,658
February.....	323	317	163	1,520	4,126	14,714	467	2,153	1,744	468,175	4,385
March.....	386	367	127	1,570	4,434	20,973	408	2,081	1,934	472,779	3,546
April.....	383	324	138	1,794	3,787	17,391	207	1,538	2,088	608,764	2,447
May.....	442	364	169	1,538	4,396	18,090	404	2,058	2,340	472,607	1,636
June.....	416	358	145	1,799	4,307	32,380	391	1,829	2,473	504,431	958
July.....	428	369	153	1,936	4,223	26,325	566	1,631	2,523	651,720	602
August.....	447	397	135	1,788	4,512	16,291	579	1,767	2,399	546,310	606
September.....	.....	.....	99	2,616	4,138	.....	.....	.....	.....	720,210	410

<sup>1</sup> End of the month figure.

<sup>2</sup> Railways included are: State Railways, Paris-Lyon-Méditerranée, Nord, Orléans, Est, Midi, Alsace-Lorraine, and Guillaume-Luxembourg.

<sup>3</sup> Bale of 50 kilograms.

<sup>4</sup> Figures do not include Lorraine.

<sup>5</sup> Excludes the Alsace-Lorraine and Guillaume-Luxembourg Railways.

## GERMANY.

Year and month.	PRODUCTION.		EXPORTS. <sup>1</sup>				IMPORTS. <sup>1</sup>				SHIPPING.		UNEMPLOYMENT.	
	Coal and coke.	Lignite.	Iron and iron manufactures.	Machinery and electrical supplies.	Dyes and dye-stuffs.	Coal. <sup>2</sup>	Raw wool.	Half manufactured silk.	Cotton. <sup>3</sup>	Iron ore. <sup>4</sup>	Arrivals of vessels in Hamburg.		Applicants for every 100 available positions.	Unemployed persons receiving State aid.
	Metric tons (000).	Metric tons (000).	Metric tons.	Metric tons.	Metric tons.	Metric tons.	Metric tons.	Metric tons.	Metric tons.	Metric tons.	Number.	Tons. (000).	Number.	Number (000).
Monthly average:														
1913.....	17,003	7,266	541,439	60,919	21,812	2,881,126	16,608	920	43,424	1,224,951	1,256	1,182	169	366
1920.....	13,043	9,303	145,883	46,772	8,462	608,749	4,025	232	12,490	537,535	401	374	165	310
1921.....	13,664	10,241	203,681	39,037	8,530	518,937	11,860	393	30,894	619,194	700	794	165	310
1921.														
August.....	13,974	10,606	240,071	37,456	9,618	613,739	14,725	328	52,433	356,397	942	955	142	267
September.....	13,885	10,359	225,331	34,615	10,156	649,158	17,688	447	28,766	564,827	957	1,018	132	232
October.....	14,373	10,567	246,115	33,067	10,255	576,048	12,506	774	29,739	919,822	915	1,047	128	186
November.....	14,052	10,479	233,204	35,697	9,953	569,657	12,628	346	27,242	937,268	838	881	136	150
December.....	14,343	11,029	214,812	46,397	9,212	640,877	10,984	388	28,813	790,811	503	873	148	149
1922.														
January.....	14,640	10,978	221,743	39,470	9,552	752,340	10,400	347	23,426	941,972	745	875	150	165
February.....	13,655	10,091	172,709	45,689	9,332	669,433	26,202	383	17,915	492,705	461	716	145	203
March.....	15,931	12,260	211,979	48,813	12,299	795,200	26,988	440	26,130	809,722	894	969	113	213
April.....	13,800	10,634	200,677	46,112	11,095	795,940	24,091	462	24,070	865,778	972	1,112	113	116
May.....	14,670	11,437	209,432	47,354	12,629	701,941	25,619	486	26,112	1,519,365	1,143	1,244	107	65
June.....	11,416	10,487	213,220	49,347	16,335	528,766	15,723	436	22,037	1,159,329	1,092	1,287	103	29
July.....	11,972	11,411	212,365	44,162	12,671	199,961	14,119	435	26,085	961,768	793	1,065	106	20
August.....	12,780	12,147	198,408	50,978	12,616	121,359	11,011	459	20,915	996,962	1,005	1,171	109	15
September.....	10,157										945	1,208	122	

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

<sup>2</sup> Not including coal for reparations account.

<sup>3</sup> Includes linters.

<sup>4</sup> Includes manganese ore.

<sup>5</sup> Average based on 6 months.

<sup>6</sup> Coal, excluding coke.

## SWEDEN.

Year and month.	PRODUCTION.		EXPORTS.		IMPORTS.	TRANSPORTATION.			Unemployed workmen per 100 vacancies.
	Pig Iron.	Iron and steel ingots.	Unplaned boards.	Paper pulp.	Coal.	Vessels entered.	Vessels cleared.	Freight carried on State railways.	
	Metric tons (000).	Metric tons (000).	Cubic meters (000).	Metric tons (000).	Metric tons (000).	Net tons (000).	Net tons (000).	Metric tons (000).	Number.
Monthly average:									
1913.....	61	49	328	71	408	1,147	1,147	830	112
1920.....	39	37	306	73	234	677	692	991	107
1921.....	26	17	162	40	122	519	482	589	276
1921.									
August.....	17	15	205	66	148	592	536	575	235
September.....	16	16	325	49	279	609	536	566	227
October.....	16	16	370	54	219	670	595	691	263
November.....	18	22	361	99	192	601	578	721	384
December.....	19	17	356	104	246	575	582	558	473
1922.									
January.....	18	13	87	28	114	442	409	485	482
February.....	17	17	25	11	62	285	255	630	479
March.....	22	22	63	36	197	617	509	730	381
April.....	19	21	66	21	206	524	485	622	368
May.....	24	31	99	76	230	600	633	578	257
June.....	21	24	500	80	172	596	738	645	215
July.....	19	27	608	89	214	625	787	715	203
August.....			539	104	294	694	836	765	172
September.....			508	113	229				

JAPAN.

Year and month.	PRODUCTION.			Raw silk stocks, Yokohama market.	EXPORTS.				IMPORTS.			TRANSPORTATION.		
	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 rail-ways.	Re-ceipts of State rail-ways.
Monthly average:	Bales (000).	Hiki <sup>1</sup> (000).	Pounds (000).	Bales.	Piculs. <sup>2</sup>	Piculs.	Piculs.	Yards (000).	Piculs (000).	Piculs.	Piculs (000).	Tons (000).	Tons (000).	Yen (000).
1913.....	126			53,111	16,857	2,302	113,374	7,921	537	13,162	132	2,075	2,923	11,723
1920.....	151			58,477	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	73,064	23,210	718	22,277	312	2,324	4,342	31,182
July.....	140	158	44,632	56,283	22,684	1,447	54,158	24,406	671	38,610	182	2,419	4,229	29,971
August.....	136	144	46,244	55,012	25,808	1,896	44,479	19,080	899	17,799	323	2,552	4,141	32,958
September.....	149	136	45,559	59,450	22,563	1,632	36,996	13,309	893	32,246	101	2,328	4,286	30,580
October.....	159	145	45,969	53,535	24,006	1,253	53,506	13,289	685	34,013	218	2,491	4,625	34,960
November.....	168	170	45,658	48,832	29,169	1,855	53,484	16,707	696	14,639	296	2,611	4,610	31,729
December.....	178	169	46,781	44,766	37,250	1,857	68,032	20,382	646	24,064	371	2,718	4,922	32,520
January.....	168	166	46,488	40,561	16,924	1,080	61,414	19,124	1,161	41,724	462	2,749	4,102	28,576
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	532	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.....	190	173	52,791	18,547	29,569	2,176	139,037	29,713	490	68,415	890	3,024	4,965	32,180
July.....	181			45,484	34,541	1,793	51,660	25,284	433	37,431	872	2,987		

<sup>1</sup> One hiki equals two pieces.

<sup>2</sup> 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, India, Canada, Brazil, Japan, and the United States.

FOREIGN TRADE OF UNITED KINGDOM.

[In thousands of pounds sterling.]

Year and month.	IMPORTS.					EXPORTS.					Reex-ports.	Total exports and reex-ports.	
	Food, drink, and tobacco.	Raw materials and articles mainly unmanufactured.	Articles wholly or mainly manu-factured.	Miscel-laneous, includ-ing parcel post.	Total.	Food, drink, and tobacco.	Raw materials and articles mainly unmanufactured.	Articles wholly or mainly manu-factured.	Miscel-laneous, includ-ing 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	161,337	4,245	12,126	93,312	1,523	111,206	18,563	129,769	
1921.....	47,271	22,598	20,421	268	90,557	3,122	5,297	49,055	1,126	58,600	8,921	67,521	
September.....	48,410	20,465	17,905	338	87,119	3,300	6,997	44,009	942	55,248	8,595	63,843	
October.....	44,475	21,256	18,691	320	84,742	3,466	7,359	50,328	1,113	62,265	10,386	72,651	
November.....	41,246	29,946	17,913	154	89,259	3,586	7,046	51,094	1,169	62,895	9,823	72,718	
December.....	39,063	27,792	18,291	165	85,312	3,137	7,446	47,364	1,378	59,375	9,204	68,579	
January.....	33,972	24,565	17,710	241	76,488	2,861	7,032	51,824	1,429	63,147	8,459	71,606	
February.....	32,257	20,220	16,576	322	69,375	2,754	6,869	48,000	712	58,335	10,174	68,509	
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	

FOREIGN TRADE OF FRANCE.<sup>1</sup>

Year and month.	IMPORTS.					EXPORTS.					
	In thousands of francs.				In thousands of metric tons.	In thousands of francs.				In thousands of metric tons.	
	Food.	Raw materials.	Manufactured articles.	Total.		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.....	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
1921.											
September.....	691,972	1,204,213	329,494	2,225,679	3,993	146,467	444,891	1,087,413	95,852	1,774,653	1,172
October.....	717,091	1,191,860	318,000	2,226,951	2,809	132,424	482,376	1,041,594	103,078	1,759,472	1,252
November.....	564,012	1,446,125	323,593	2,333,730	5,161	157,180	478,875	992,256	120,343	1,748,654	1,515
December.....	754,671	1,856,148	543,445	3,154,264	5,197	259,605	549,495	1,193,161	180,059	2,182,320	2,507
1922. <sup>2</sup>											
January.....	352,572	887,253	247,827	1,487,652	3,396	121,526	458,460	994,852	63,903	1,638,741	1,554
February.....	385,021	1,137,855	324,150	1,847,026	4,126	153,892	448,455	1,106,507	144,458	1,853,312	1,520
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	1,743,000	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 <sup>3</sup> .....	483,356	1,082,371	285,448	1,851,184	4,307						1,799
July.....	476,813	1,200,764	318,169	1,995,746	4,223	113,435	374,959	885,029	59,619	1,433,042	1,936
August.....	510,597	1,696,903	352,229	1,959,729	4,512	179,407	408,005	931,066	157,836	1,676,000	1,788
September.....	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

<sup>1</sup> Not including reexport trade.<sup>2</sup> Imports calculated on basis of actual declared value.<sup>3</sup> Value of exports not available. Beginning with June, exports calculated on 1921 value units.

## FOREIGN TRADE OF GERMANY.

Year and month.	IMPORTS. <sup>1</sup>			EXPORTS. <sup>2</sup>		
	Gold and silver (in thousands of marks).	Merchandise.		Gold and silver (in thousands of marks).	Merchandise.	
		In millions of marks.	In thousands of metric tons.		In millions of marks.	In thousands of metric tons.
Monthly average:						
1913.....	36,553	890	6,073	8,450	841	6,141
1920.....	17,756	9,910	1,570	17,773	5,776	1,651
1921 <sup>3</sup> .....			2,194	34,901	8,295	1,715
1921.						
August.....	35,765	9,382	2,111	13,514	6,370	1,828
September.....	26,674	10,642	2,533	26,832	7,492	1,871
October.....	60,893	13,814	3,005	30,013	9,681	1,973
November.....	5,312	12,273	2,535	44,073	11,886	1,908
December.....	4,922	13,702	2,086	86,227	14,468	1,930
1922.						
January.....	132,336	12,641	2,309	134,054	14,394	2,027
February.....	46,409	12,001	1,475	57,425	14,482	1,747
March.....	7,566	22,919	2,645	46,898	21,285	2,153
April.....	12,315	28,266	2,889	51,451	22,948	2,176
May.....	31,910	32,417	3,810	75,844	27,080	2,093
June.....	18,018	34,364	4,029	109,298	30,232	1,880
July.....	37,215	45,748	4,798	124,178	35,708	1,636
August.....	39,445	56,472	4,676	152,906	60,295	1,407

<sup>1</sup> Not including philanthropic gifts.<sup>2</sup> Not including deliveries on reparations account.<sup>3</sup> Average for 8 months. Figures covering first 4 months of 1921 are not available.

NOTE.—Currencies have not been converted to a common unit, nor are methods of valuation the same in all countries. In England, Sweden, India, Japan, and Brazil imports are given c. i. f. values; exports and reexports current f. o. b. values. In France and Italy the value of foreign trade is estimated not in terms of current prices, but in terms of those of some earlier period, usually the preceding year. In the Netherlands imports are given in declared values for about 110 articles of the import schedule. In other cases official valuations are applied to both imports and exports. Canadian imports and exports are quoted at the fair market value at the point of origin. In the United States imports represent either actual foreign market value or the export value including any export tax imposed by the country of exportation, whichever is higher; exports are expressed in terms of their value at the time of exportation, with the exception of reexports from bonded warehouses, which are expressed in their import value.

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

Year and month.	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.
Monthly average:														
1913.....	304	210	( <sup>2</sup> )	( <sup>2</sup> )	71	68	56	31	84	82	134	205	61	53
1920.....	1,322	650	278	142	281	191	89	107	174	146	173	272	195	162
1921.....	1,041	1,657	187	114	106	91	103	101	141	142	280	214	135	104
1921.														
June.....			189	121	93	69	58	60	128	123	195	165	148	107
July.....	557	441	171	105	98	94	62	56	163	162	177	173	110	99
August.....	981	587	187	143	103	113	65	62	104	144	208	196	132	106
September.....	962	659	197	136	126	105	60	60	101	183	197	200	129	96
October.....	1,101	683	179	115	101	99	60	81	112	166	235	182	130	112
November.....	1,125	718	176	107	95	103	64	88	96	155	264	199	152	121
December.....	1,521	856	180	97	112	108	60	87	113	175	232	218	161	146
1922.														
January.....	1,309	620	152	86	77	61	51	47	92	199	276	230	179	87
February.....	1,056	716	153	86	49	38	54	47	101	161	189	222	198	101
March.....	1,169	719	180	113	109	71	79	61	131	172	215	277	208	115
April.....	1,313	691	167	93	102	60	48	33	127	187	178	239	185	129
May.....	1,248	586	194	108	97	90	66	70	127	141	191	273	169	154
June.....			151	101	93	104	62	73	129	149	164	192	157	146
July.....			164	105	83	113	61	72	109	154	182	244	142	144
August.....			179	100	105	132	67	74	146	182	212	252	137	145
September.....			165	128	109	123							134	149

<sup>1</sup> Italian yearly figures for 1921 based on average for six months only.

<sup>2</sup> Dutch figures for 1913 not comparable with later figures.

FOREIGN TRADE OF UNITED STATES.

[In thousands of dollars.]

Year and month.	IMPORTS.							EXPORTS.								
	Merchandise.							Merchandise.								
	Gold.	Silver.	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.	Total merchandise. <sup>1</sup>	Gold.	Silver.	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.	Total merchandise. <sup>2</sup>
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	64,908	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	287,071	685,668
1921.....	57,606	5,270	71,090	25,331	30,737	28,669	51,577	209,085	1,901	4,298	82,002	57,681	55,809	33,323	135,450	373,760
1921.																
September.....	66,515	4,565	60,815	16,588	18,465	26,324	53,973	179,283	2,449	4,947	68,391	67,860	62,936	28,295	91,296	325,774
October.....	47,110	7,510	59,460	23,326	23,883	27,707	51,665	188,028	7,576	4,782	121,322	40,205	48,018	28,129	98,323	343,597
November.....	51,860	5,912	70,039	29,338	26,205	30,398	53,365	211,027	607	4,804	88,545	30,052	41,449	33,260	95,538	294,437
December.....	31,685	5,516	94,016	32,707	25,473	32,083	51,171	237,373	2,162	7,145	89,950	28,737	38,282	35,145	98,370	296,306
1922.																
January.....	26,571	6,496	82,639	27,498	25,900	30,272	49,811	217,195	863	3,977	72,838	31,054	43,019	35,143	91,810	278,898
February.....	28,701	4,771	80,971	22,370	27,762	34,041	49,375	215,743	1,732	7,092	55,895	27,799	45,164	32,193	84,684	250,748
March.....	33,488	6,953	86,910	28,756	36,014	42,820	59,880	256,178	963	4,302	73,001	34,507	58,899	43,632	112,765	330,267
April.....	12,244	4,800	69,804	25,711	32,482	37,252	50,820	217,073	1,579	5,109	79,511	31,174	47,372	37,969	113,876	318,100
May.....	8,994	5,512	88,088	31,264	34,785	39,398	58,254	252,817	3,407	5,677	64,441	34,143	50,376	40,467	112,112	307,689
June.....	12,969	6,346	91,146	26,170	37,346	46,471	58,439	260,391	1,601	6,004	70,219	41,000	55,485	39,086	121,284	334,684
July.....	42,987	6,957	87,298	27,596	38,511	48,398	49,464	252,128	645	6,289	60,024	41,958	40,226	35,676	109,544	301,313
August.....	19,092	4,944	110,285	22,489	42,404	48,430	55,858	281,412	956	3,861	47,872	61,339	40,071	35,708	104,871	301,804
September.....	24,464	6,370	86,818	18,769	24,023	41,026	54,058	228,795	1,399	3,735	66,619	55,142	42,231	35,566	106,542	313,092

<sup>1</sup> Including miscellaneous merchandise imported.

<sup>2</sup> Including miscellaneous and foreign merchandise exported.

## FOREIGN TRADE INDEX.

There are presented below the usual indexes designed to reflect the movements in foreign trade of the United States, with the fluctuations due to price changes eliminated. The commodities chosen for these indexes are those for which prices are compiled by the Federal Reserve Board in the preparation of its international price index.<sup>1</sup>

## INDEX OF VALUE OF FOREIGN TRADE IN SELECTED COMMODITIES AT 1913 PRICES.

(Monthly average values, 1913=100.)

	Exports.				Imports.			
	Raw materials (12 commodities).	Producers' goods (10 commodities).	Consumers' goods (7 commodities).	Total (29 commodities).	Raw materials (10 commodities).	Producers' goods (12 commodities).	Consumers' goods (5 commodities).	Total (27 commodities).
1913, year..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1919, year..	88.9	155.1	183.6	115.3	157.5	192.9	147.5	168.4
1920, year..	92.2	158.7	133.6	107.5	135.8	227.5	138.8	168.8
1921, year..	103.1	116.9	124.1	108.9	113.6	162.8	141.4	135.6
1921.								
January....	105.2	208.6	126.2	120.2	74.5	130.9	123.9	102.6
February....	91.0	182.4	119.4	104.1	118.2	143.7	135.4	130.1
March.....	78.0	135.1	120.2	92.7	160.6	177.2	178.9	169.5
April.....	76.5	132.5	116.4	90.5	153.3	177.6	185.1	167.1
May.....	87.6	96.4	110.8	100.3	98.7	150.0	162.1	127.2
June.....	107.9	94.2	132.2	111.5	94.5	152.3	130.4	120.8
July.....	111.6	78.6	138.8	112.9	99.3	126.6	121.4	112.6
August.....	142.7	99.6	160.7	142.1	118.3	165.1	129.8	136.0
September..	115.7	89.7	142.3	118.6	102.8	137.7	99.3	114.6
October....	121.7	107.0	113.2	118.4	96.1	173.5	116.5	126.9
November..	95.1	100.2	106.2	98.1	115.1	199.4	149.2	150.6
December..	93.8	96.0	107.8	96.9	133.0	219.1	164.8	168.7
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	236.1	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	96.0	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	143.3	182.7	90.6	148.6

Volume of exports in September was practically the same as in August. Raw materials and producers' goods showed increases, but were counterbalanced by declines in consumers' goods. The only raw materials which declined during September were wheat, corn, lumber, and refined copper. Cotton and bituminous coal showed the most pronounced gains, and the total of raw materials exported was larger than for any month this year. Small gains in all producers' goods except sole and

<sup>1</sup> 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.

upper leather and structural steel and steel plates brought the total considerably above last month. A continued decrease in the exports of sugar was mainly responsible for the lowering of total exports of consumers' goods. Lard and illuminating oil also decreased.

All classes of imports registered decided declines during September. Refined copper was the only incoming raw material which showed a gain over August. Raw silk and cotton each declined more than 30 per cent and tobacco over 50 per cent. Large decreases were also noted in hides and skins, lumber, tin, and pulp wood. In producers' goods the most marked reductions occurred in imports of india rubber and cane sugar, while burlap showed the only pronounced gain. As is usual in September, all items listed as consumers' goods showed decreases. Imports of tea declined 18 per cent, coffee 14 per cent, olive oil and cocoa over 30 per cent, and bananas over 40 per cent.

## 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. For the methods used in constructing the index see the August, 1921, BULLETIN, pages 931-934.

## RELATIVE OCEAN FREIGHT RATES IN UNITED STATES AND EUROPE TRADE.

(January, 1920, rates=100.)

Month.	United States Atlantic ports to—					
	United Kingdom.	French Atlantic.	Netherlands and Belgium.	Scandinavia.	Mediterranean.	All Europe.
1921.						
January.....	60.7	30.2	34.1	42.9	43.2	43.3
February.....	54.7	27.7	29.2	30.9	43.8	38.5
March.....	49.3	24.6	28.3	30.8	42.2	35.9
April.....	50.1	32.6	36.6	29.4	35.7	39.0
May.....	50.6	35.0	38.2	31.3	34.6	40.1
June.....	42.7	34.7	38.3	31.3	34.0	37.6
July.....	42.5	33.2	37.0	29.0	34.7	36.8
August.....	42.9	33.4	36.7	28.4	34.3	36.7
September....	41.8	32.7	35.8	28.2	33.6	36.0
October.....	37.0	28.5	30.7	26.7	33.3	32.3
November....	33.5	25.0	25.2	24.0	32.9	28.8
December....	32.4	22.7	22.9	23.3	32.3	27.2
1922.						
January.....	31.7	22.7	23.3	23.4	32.2	27.1
February....	34.7	25.7	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

**SAVINGS DEPOSITS.**

Comparison of savings deposits on October 1, 1922, with deposits on September 1, 1922, and October 1, 1921, are shown for 881 banks distributed throughout all sections of the United States. The figures for districts No. 1 and No. 2 are those of large mutual savings banks, but in all other districts reports of other banks are included to make the figures thoroughly representative. In all districts where reporting commercial banks subdivide their time deposits, statistics of savings deposits subject to notice (excluding time certificates of deposit) are used. This is in accordance with the definition given in the board's regulation D, series of 1920.

During September the volume of savings deposits increased in nine Federal reserve districts. Declines were registered in districts No. 3 (Philadelphia), No. 6 (Atlanta), and No. 11 (Dallas). The largest gain was shown in district No. 5 (Richmond) and amounted to 1.8 per cent. During the year ending October 1 savings deposits increased in all districts. The most important increases were 12.8 per cent in district No. 8 (St. Louis) and 13.2 per cent in district No. 11 (Dallas).

[Amounts in thousands of dollars.]

District.	Number of banks.	Oct. 1, 1922.	Sept. 1, 1922.	Oct. 1, 1921.
No. 1 (Boston).....	64	1,108,924	1,104,435	1,061,285
No. 2 (New York).....	30	1,744,493	1,728,310	1,657,023
No. 3 (Philadelphia).....	80	420,090	422,128	409,904
No. 4 (Cleveland).....	18	383,995	380,941	379,358
No. 5 (Richmond).....	93	274,199	269,220	245,192
No. 6 (Atlanta).....	78	159,103	159,694	151,942
No. 7 (Chicago).....	219	785,767	778,906	765,278
No. 8 (St. Louis).....	35	117,136	116,715	108,788
No. 9 (Minneapolis).....	15	80,827	79,195	76,611
No. 10 (Kansas City).....	61	90,327	88,636	81,950
No. 11 (Dallas).....	113	73,454	73,699	64,888
No. 12 (San Francisco).....	75	782,673	772,150	709,498
Total.....	881	6,020,988	5,974,079	5,706,722

**REPORT OF KNIT GOODS MANUFACTURERS OF AMERICA.**

The total production of winter and summer underwear for August is compared with previous months in the following table:

1922	Number of mills reporting.	Actual production (dozens).
April.....	53	522,035
May.....	47	518,150
June.....	47	564,893
July.....	50	422,872
August.....	49	519,511
September.....	52	513,572
Winter underwear (September).....	42	318,220
Summer underwear (September).....	27	195,352

Order and production report for month ended September 30, 1922, follows. The number of mills reporting was 43.

	Dozens.
Unfilled orders 1st of month.....	1,370,492
New orders received during month.....	494,998
Total (A).....	1,865,490
Shipments during month.....	586,863
Cancellations during month.....	8,597
Total (B).....	595,460
Balance orders on hand Oct. 1 (A-B).....	1,270,030
Production.....	457,941

Forty representative mills which reported for August and September, 1922, furnish the data for the following table:

[In dozens.]				
	August (40 mills).	September (40 mills).	Gain.	Loss.
Unfilled orders end of month.....	992,183	826,806	.....	165,377
New orders.....	363,476	291,309	.....	72,167
Shipments.....	505,110	456,686	.....	48,424
Cancellations.....	11,782	8,597	.....	3,185
Production.....	399,503	358,342	.....	41,161

**NOVEMBER ESTIMATE OF CORN PRODUCTION.**

Following is a table showing, by Federal reserve districts, the preliminary estimate of corn production issued by the United States Department of Agriculture as of November 1, 1922, compared with the forecast made in October and the estimate for 1921:

PRODUCTION OF CORN, BY FEDERAL RESERVE DISTRICTS. (Nov. 1, 1922, estimate of the Department of Agriculture. In thousands of bushels.)

Federal reserve district.	Preliminary estimate for 1922 (Nov. 1).	Oct. 1, 1922, forecast.	Preliminary estimate for 1921.
Boston.....	13,220	13,256	14,447
New York.....	33,564	36,200	42,872
Philadelphia.....	64,000	59,416	69,416
Cleveland.....	208,100	204,684	209,377
Richmond.....	180,288	177,638	173,687
Atlanta.....	207,651	204,128	250,255
Chicago.....	978,997	966,204	967,277
St. Louis.....	394,428	391,149	416,543
Minneapolis.....	270,167	265,326	302,344
Kansas City.....	392,203	388,448	442,153
Dallas.....	141,641	140,178	180,803
San Francisco.....	11,849	11,712	11,193
Total.....	2,896,108	2,853,399	3,080,372

The preliminary estimate shows an increase of 43,000,000 bushels in corn production, compared with the forecast made in October, the crop being larger in every important producing district. Compared with 1921, however, this year's corn crop is lower by 194,000,000 bushels, and compared with the average for the five years 1917-1921, this year's corn production falls short by about 52,000,000 bushels, or 2 per cent.

### PRODUCTION AND SHIPMENT OF FINISHED COTTON FABRICS.<sup>1</sup>

	August.				September.			
	White goods.	Dyed goods.	Printed goods.	Total.	White goods.	Dyed goods.	Printed goods.	Total.
<b>Total finished yards billed during month:</b>								
District 1.....	16,088,423	24,544,825	9,814,405	52,627,483	12,260,208	21,574,598	10,145,265	47,246,265
District 2.....	8,026,229	1,664,778	3,285,016	16,684,216	6,892,553	2,034,862	1,375,782	15,327,972
District 3.....	7,761,719	6,630,080	.....	14,391,799	7,855,034	7,534,986	.....	15,390,020
District 5.....	8,252,955	57,769	.....	8,310,724	8,278,347	10,862	.....	8,289,209
District 6.....	642,979	1,743,314	.....	2,386,293	456,394	1,610,432	.....	2,066,826
District 8.....	.....	.....	.....	2,478,968	.....	.....	.....	2,221,251
<b>Total.....</b>	<b>40,772,305</b>	<b>34,640,766</b>	<b>13,099,421</b>	<b>96,879,483</b>	<b>35,742,536</b>	<b>32,765,740</b>	<b>11,721,047</b>	<b>90,541,543</b>
<b>Total average per cent of capacity operated:</b>								
District 1.....	69	82	53	66	57	75	50	61
District 2.....	73	44	32	50	72	35	28	54
District 3.....	97	82	.....	89	100	83	.....	92
District 5.....	66	.....	.....	66	76	.....	.....	76
District 6.....	0	.....	.....	72	0	.....	.....	57
District 8.....	.....	.....	.....	100	.....	.....	.....	93
<b>Average for all districts.....</b>	<b>72</b>	<b>77</b>	<b>49</b>	<b>66</b>	<b>69</b>	<b>71</b>	<b>46</b>	<b>65</b>
<b>Total gray yardage of finishing orders received:</b>								
District 1.....	12,962,333	22,413,399	8,445,379	46,372,919	14,440,389	27,877,701	8,836,215	54,911,459
District 2.....	5,434,130	2,714,687	2,982,776	13,800,942	8,363,226	3,354,301	4,301,759	21,338,973
District 3.....	7,935,135	7,252,513	.....	15,187,633	8,490,015	6,985,722	.....	15,475,737
District 5.....	6,976,466	35,324	.....	7,031,790	9,495,300	60,649	.....	9,555,949
District 6.....	89,372	2,516,157	.....	2,605,529	68,873	1,946,637	.....	2,015,510
District 8.....	.....	.....	.....	2,249,921	.....	.....	.....	2,553,278
<b>Total.....</b>	<b>33,397,436</b>	<b>34,952,085</b>	<b>11,408,155</b>	<b>87,248,754</b>	<b>40,857,803</b>	<b>40,225,010</b>	<b>13,137,974</b>	<b>105,850,906</b>
<b>Number of cases of finished goods shipped to customers:</b>								
District 1.....	6,174	7,424	3,318	28,353	4,866	7,004	2,775	26,905
District 2.....	3,022	139	.....	7,692	4,503	340	.....	9,883
District 3.....	4,797	2,690	.....	7,487	5,285	3,034	.....	8,519
District 5.....	1,501	.....	.....	3,783	1,584	.....	.....	4,235
District 6.....	0	.....	.....	0	0	.....	.....	0
District 8.....	.....	.....	.....	733	.....	.....	.....	502
<b>Total.....</b>	<b>15,494</b>	<b>10,253</b>	<b>3,318</b>	<b>48,048</b>	<b>16,238</b>	<b>10,378</b>	<b>2,775</b>	<b>49,844</b>
<b>Number of cases of finished goods held in storage at end of month:</b>								
District 1.....	5,113	5,685	2,397	23,743	4,812	5,612	2,543	22,423
District 2.....	5,605	361	.....	12,476	6,848	532	.....	12,832
District 3.....	294	410	.....	7,314	285	475	.....	7,700
District 5.....	.....	.....	.....	1,351	.....	.....	.....	1,356
District 6.....	.....	.....	.....	430	.....	.....	.....	378
District 8.....	.....	.....	.....	212	.....	.....	.....	201
<b>Total.....</b>	<b>11,012</b>	<b>6,456</b>	<b>2,397</b>	<b>45,526</b>	<b>11,145</b>	<b>6,619</b>	<b>2,543</b>	<b>44,890</b>
<b>Total average work ahead at end of month (expressed in days):</b>								
District 1.....	2.4	11	10	8.1	4.2	15	14	11
District 2.....	9.3	4.3	4.7	5.4	13	6.2	12	9.4
District 3.....	14	12	.....	13	15	18	.....	17
District 5.....	14	.....	.....	14	12	.....	.....	12
District 6.....	0	.....	.....	18	0	.....	.....	37
District 8.....	.....	.....	.....	7.6	.....	.....	.....	10
<b>Average for all districts.....</b>	<b>7.9</b>	<b>10</b>	<b>9.3</b>	<b>8.7</b>	<b>9.1</b>	<b>14</b>	<b>14</b>	<b>12</b>

<sup>1</sup> The National Association of Finishers of Cotton Fabrics at the request of the Federal Reserve Board have arranged for a monthly survey within 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 34 out of 58 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, 72 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 for 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.**

The indexes of domestic business continued to move upward during September, especially those representing agricultural and mineral products. Wheat receipts were smaller than in the corresponding month last year, whereas rye receipts were more than double those for last September. Wheat flour production which has increased each successive month since April reached a total of 13,785,000 barrels. Both receipts and shipments of live stock from 15 western markets were larger than any previous month this year. The number of cattle slaughtered under Federal inspection showed a slackening, which is customary during September.

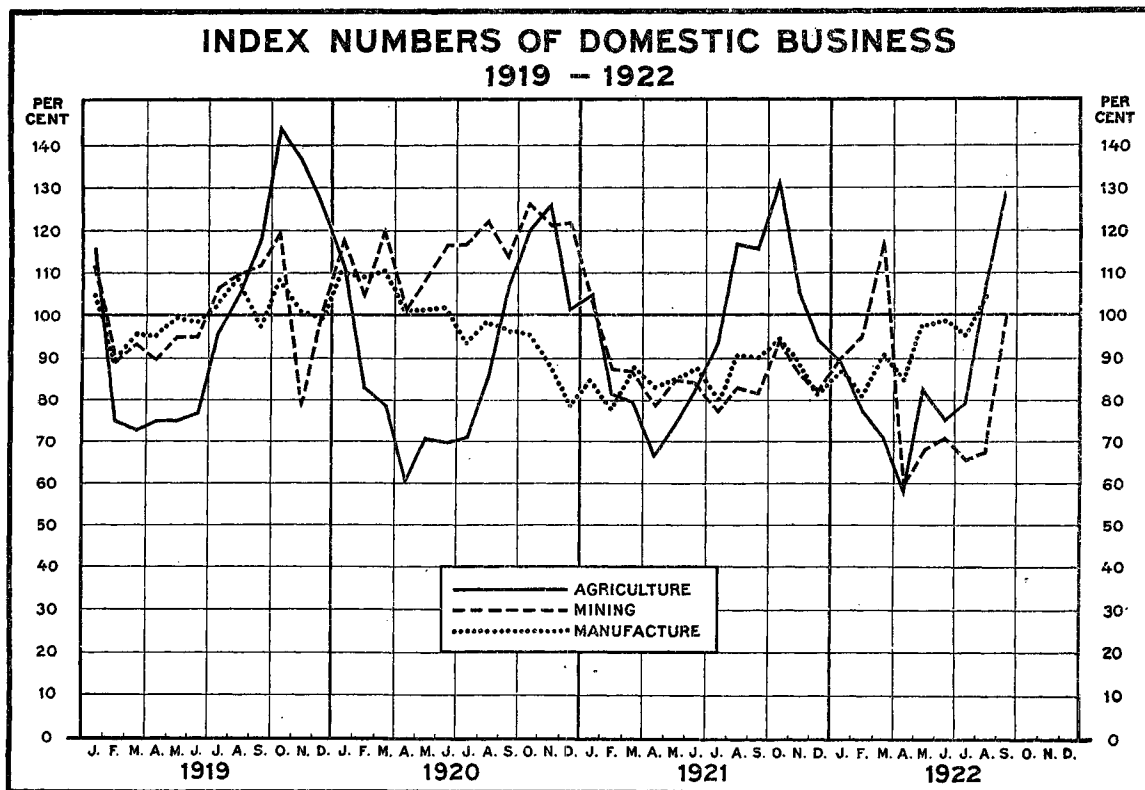
The consumption of both raw cotton and raw silk by manufacturing establishments decreased slightly during September as compared to August but were well in advance of the consumption for the corresponding month last year. Stocks of cotton showed the regular seasonal increase during September.

The output of bituminous coal in September rose to 40,964,000 tons compared to 22,328,000

tons in August, while the anthracite mines produced 4,979,000 tons as compared to 161,000 tons in August. Beehive and by-product coke output increased in September.

The production of both pig-iron and steel ingots reached the highest level since 1920 in October. Copper production declined somewhat from the high August total, but with the exception of last month was higher than for any other month since December, 1920. The output of slab zinc is still mounting, while stocks continue to decline. Tin consumption by factories increased materially over that for August and stocks at the end of the month declined more than 50 per cent.

The number and value of permits issued in 168 selected cities declined but were much larger than those for last September. Freight car loading of all commodities except coal and live stock were less in September than in August but the increases in these two commodities were so decided that the total car loadings for September were slightly larger than for August.



INDEXES OF DOMESTIC BUSINESS.

[Monthly average of 1919=100.]

AGRICULTURAL MOVEMENTS.

Date.	Total agricultural <sup>1</sup>	Total animals.	Total grains.	Cotton.	Fruit.	Leaf tobacco.
1921.						
January.....	105.0	96.5	97.9	110.8	94.6	195.7
February.....	81.1	73.9	66.7	77.1	95.5	297.4
March.....	79.4	76.4	77.5	57.8	137.4	181.1
April.....	66.3	74.2	60.5	51.3	175.1	24.1
May.....	73.6	77.3	71.7	67.4	139.0	8.9
June.....	82.2	81.9	96.0	57.8	183.3	4.1
July.....	93.4	68.1	151.9	52.7	123.8	12.1
August.....	116.7	85.4	195.5	56.0	86.4	54.7
September.....	115.3	85.9	151.6	114.7	79.9	79.3
October.....	130.9	107.0	121.3	195.3	69.9	107.6
November.....	104.6	99.2	65.3	163.2	34.7	188.5
December.....	93.9	82.0	79.0	133.4	83.6	117.0
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.....	<sup>2</sup> 106.7	86.5	153.8	48.3	43.1	<sup>2</sup> 55.2
September.....	<sup>2</sup> 128.8	106.6	150.6	139.5	38.0	<sup>2</sup> 83.9

<sup>1</sup> Combination of 14 independent series.

<sup>2</sup> Partly estimated.

MINERAL PRODUCTS.

Date.	Total mineral products <sup>1</sup>	Bituminous coal.	Anthracite coal.	Crude petroleum.	Iron.	Copper.	Zinc.	Lead.
1921.								
January.....	102.8	105.5	100.8	120.3	94.8	80.0	65.9	109.1
February.....	87.5	80.8	104.8	111.2	76.0	71.2	45.2	94.3
March.....	86.8	79.6	100.8	130.2	62.6	83.0	40.0	86.1
April.....	78.7	72.2	104.8	127.3	46.8	47.6	42.1	77.8
May.....	84.7	87.3	102.0	133.6	47.9	22.6	45.9	78.0
June.....	83.9	88.7	105.9	128.4	41.8	18.1	49.5	74.6
July.....	76.7	79.6	95.9	128.1	33.9	16.6	39.4	72.4
August.....	82.8	90.5	97.9	130.2	37.4	19.9	37.2	87.8
September.....	81.6	91.9	96.9	116.3	38.7	19.5	36.6	79.7
October.....	93.9	114.6	103.1	113.2	48.9	22.9	37.0	100.4
November.....	86.0	94.2	93.3	120.0	55.5	20.8	53.8	103.3
December.....	82.0	81.1	81.4	133.3	64.7	17.3	56.0	103.2

<sup>1</sup> Combination of 7 independent series.

INDEXES OF DOMESTIC BUSINESS—Continued.

MINERAL PRODUCTS—continued.

Date.	Total mineral products.	Bituminous coal.	Anthracite coal.	Crude petroleum.	Iron.	Copper.	Zinc.	Lead.
1922.								
January.....	90.0	98.5	85.1	137.1	64.3	24.1	60.3	101.0
February.....	94.9	107.3	92.0	129.7	63.9	34.8	57.3	93.4
March.....	117.1	131.5	119.1	149.1	79.9	58.0	67.5	93.0
April.....	58.6	41.3	.3	141.9	81.3	71.7	65.6	88.8
May.....	67.9	53.1	.6	147.7	90.5	83.7	69.8	89.0
June.....	70.6	58.4	1.1	143.8	92.6	89.0	72.6	89.1
July.....	65.4	44.5	1.6	148.0	94.2	85.0	81.2	84.4
August.....	67.5	58.3	2.2	147.1	71.1	93.9	79.9	96.7
September.....	99.9	107.3	67.7	143.8	79.8	89.1	84.3	95.3

PRODUCTION OF MANUFACTURED GOODS.

Date.	Total manufacture <sup>1</sup>	Steel.	Lumber.	Paper.	Petroleum.	Textiles.	Leather.	Food.	Tobacco.
1921.									
January.....	84.5	87.6	67.7	87.8	127.7	72.0	63.5	88.2	87.8
February.....	77.4	69.6	75.7	79.5	106.8	73.1	62.8	77.4	94.1
March.....	87.8	62.5	89.3	84.4	113.0	90.8	72.0	83.1	106.1
April.....	83.1	48.3	87.5	81.7	113.8	91.5	75.8	84.0	95.5
May.....	84.4	50.3	100.4	72.4	114.7	95.0	83.2	82.2	99.3
June.....	87.1	39.9	89.6	70.2	110.1	101.9	81.1	85.1	106.8
July.....	80.1	31.9	85.3	65.6	108.3	94.5	76.3	85.5	100.6
August.....	90.7	45.3	99.7	75.6	110.6	103.4	85.7	98.5	117.2
September.....	90.2	46.7	92.9	78.6	110.2	105.5	80.3	92.8	111.6
October.....	94.0	64.3	103.1	90.8	119.7	104.8	86.2	99.8	115.8
November.....	89.5	66.0	100.6	95.8	117.1	100.4	90.9	89.4	102.9
December.....	81.3	56.8	92.2	94.7	119.6	99.7	93.0	85.2	76.8
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	93.4
April.....	84.7	97.0	98.1	99.9	124.4	91.3	70.7	84.9	89.6
May.....	95.1	107.8	121.1	112.3	132.2	108.9	70.4	98.8	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.....	100.9	94.4	101.5	107.8	139.1	110.7	79.5	101.7	121.6

<sup>1</sup> Combination of 34 independent series.

COMMODITY MOVEMENTS.

	Per cent of average same month 1919-1921.			Per cent of average same month 1919-1921.		
	Sept., 1922.	Aug., 1922.	Sept., 1921.	Sept., 1922.	Aug., 1922.	Sept., 1921.
	Sept., 1922.	Aug., 1922.	Sept., 1921.	Sept., 1922.	Aug., 1922.	Sept., 1921.
<b>GRAIN AND FLOUR.</b>						
Receipts at 17 interior centers (000 omitted):						
Wheat (bu.).....	59,769	62,644	64,670	99.3	93.6	107.4
Corn (bu.).....	34,732	22,058	37,334	140.2	134.2	150.7
Oats (bu.).....	22,880	26,519	21,792	86.3	77.1	82.2
Rye (bu.).....	11,979	14,085	5,488	203.5	319.5	99.7
Barley (bu.).....	5,081	4,121	5,086	89.6	77.1	89.7
Total grain (bu.).....	134,441	129,427	134,370	109.6	101.5	109.6
Flour (bbls.).....	3,924	2,990	3,421	141.2	121.8	123.1
Total grain and flour (bu.).....	152,100	142,880	149,765	112.5	103.1	110.8
Shipments at 14 interior centers (000 omitted):						
Wheat (bu.).....	32,941	51,883	42,727	90.4	128.8	117.3
Corn (bu.).....	17,873	19,964	27,706	132.0	175.9	204.7
Oats (bu.).....	14,366	17,849	15,342	99.1	116.0	105.8
Rye (bu.).....	10,043	11,903	5,542	247.0	402.8	136.3
Barley (bu.).....	3,055	2,152	3,676	90.1	57.0	108.4
Total grain (bu.).....	78,278	103,748	94,993	108.2	140.7	131.4
Flour (bbls.).....	6,404	4,846	5,474	143.2	116.7	122.4
Total grain and flour (bu.).....	107,098	125,553	119,625	115.8	135.9	129.4
<b>GRAIN AND FLOUR—Continued.</b>						
Stocks at 11 interior centers at close of month (000 omitted):						
Wheat (bu.).....	18,708	11,852	29,727	65.3	58.4	103.8
Corn (bu.).....	8,072	4,390	7,795	158.5	143.1	153.1
Oats (bu.).....	29,562	32,048	52,137	96.9	132.7	170.9
Rye (bu.).....	3,736	2,213	2,482	67.4	50.2	44.8
Barley (bu.).....	1,295	980	2,266	55.3	58.8	96.7
Total grain (bu.).....	61,373	51,483	94,406	85.1	96.1	130.9
Total visible supply (000 omitted):						
Wheat (bu.).....	36,610	30,586	87,197	57.7	98.0	137.5
Corn (bu.).....	13,041	8,229	13,262	209.3	97.9	197.1
Oats (bu.).....	37,458	40,073	37,764	.....	.....	.....
Receipts at 9 seaboard centers (000 omitted):						
Wheat (bu.).....	18,879	32,480	33,050	61.1	115.5	196.9
Corn (bu.).....	3,943	6,260	2,215	282.7	433.9	158.8
Oats (bu.).....	5,403	3,847	2,222	152.5	105.2	62.7
Rye (bu.).....	4,452	3,808	1,186	228.2	210.2	60.8
Barley (bu.).....	4,500	2,827	4,769	154.2	63.4	163.4
Total grain (bu.).....	37,180	49,222	43,442	91.3	124.6	106.7
Flour (bbls.).....	1,778	1,705	2,358	87.6	103.4	116.2
Total grain and flour (bu.).....	45,181	56,895	54,051	90.6	121.3	108.4

COMMODITY MOVEMENTS—Continued.

	Sept., 1922.	Aug., 1922.	Sept., 1921.	Per cent of average same month 1919-1921.			Sept., 1922.	Aug., 1922.	Sept., 1921.	Per cent of average same month 1919-1921.		
				Sept., 1922.	Aug., 1922.	Sept., 1921.				Sept., 1922.	Aug., 1922.	Sept., 1921.
<b>GRAIN AND FLOUR—Continued.</b>												
Stocks at 8 seaboard centers at close month (000 omitted):												
Wheat (bu.).....	10,277	11,208	17,627	56.8	75.8	97.4						
Corn (bu.).....	1,007	782	999	130.3	106.2	129.3						
Oats (bu.).....	2,768	2,814	1,863	134.8	158.0	90.7						
Rye (bu.).....	558	339	1,640	36.6	37.1	107.7						
Barley (bu.).....	2,356	3,414	3,812	59.0	75.0	95.4						
Total grain (bu.).....	16,966	18,557	25,941	64.1	81.6	98.1						
Wheat flour production (bbls.).....	13,785	12,271	13,349	112.1	104.6	108.6						
<b>LIVE STOCK.</b>												
Receipts at 59 principal markets (head, 000 omitted):												
Cattle and calves...	2,359	2,137	1,894	108.0	110.2	86.7						
Hogs.....	3,043	3,016	2,647	122.8	128.8	103.9						
Sheep.....	2,217	1,913	2,555	72.4	69.6	83.4						
Horses and mules (43 markets).....	39	23	21	53.2	40.0	28.7						
Total.....	7,658	7,089	7,117	98.2	99.5	91.2						
Shipments at 54 principal markets (head, 000 omitted):												
Cattle and calves...	1,234	1,031	906	118.0	118.6	86.6						
Hogs.....	1,143	1,052	948	125.0	122.7	103.7						
Sheep.....	1,233	885	1,376	68.1	57.8	76.0						
Horses and mules (43 markets).....	36	22	20	50.7	41.6	28.5						
Total.....	3,646	2,990	3,250	94.9	90.3	84.6						
Receipts at 15 western markets (head, 000 omitted):												
Cattle and calves...	1,839	1,639	1,417	109.8	111.4	84.6						
Hogs.....	2,033	2,183	1,784	121.1	123.6	106.3						
Sheep.....	1,315	1,185	1,652	61.3	64.9	77.0						
Horses and mules.....	29	17	15	61.4	40.5	31.7						
Total.....	5,216	5,024	4,868	94.1	98.4	87.8						
Shipments at 15 western markets (head, 000 omitted):												
Cattle and calves...	984	810	698	123.4	124.7	87.6						
Hogs.....	618	646	584	114.0	114.4	107.7						
Sheep.....	678	517	840	54.6	55.8	67.7						
Horses and mules.....	27	16	15	57.5	42.7	31.8						
Total.....	2,307	1,989	2,137	81.6	91.3	81.4						
Shipments of stockers and feeders from 34 markets (head, 000 omitted):												
Cattle and calves...	596	446	391	121.7	131.1	79.7						
Hogs.....	33	30	38	64.8	85.4	74.1						
Sheep.....	525	350	551	55.3	52.3	58.2						
Total.....	1,154	826	980	77.5	79.1	65.8						
Slaughter at principal centers under Federal inspection (head, 000 omitted):												
Cattle.....	796	761	689	100.8	102.6	87.2						
Calves.....	353	345	321	107.4	108.4	97.7						
Hogs.....	2,747	2,888	2,423	128.8	129.9	113.6						
Sheep.....	1,013	1,024	1,249	82.3	87.4	101.5						
Total.....	4,910	5,018	4,682	109.6	112.6	104.5						
Meats, cold storage holdings at close of month (lbs., 000 omitted):												
Beef.....	53,566	48,291	59,822	47.1	40.9	52.6						
Pork products.....	489,514	619,671	471,901	74.5	75.6	71.9						
Lamb and mutton.....	3,539	3,376	5,993	26.8	40.9	45.4						
<b>LIVE STOCK—Continued.</b>												
Exports of certain meat products (lbs., 000 omitted):												
Beef—												
Canned.....	287	258	287	51.2	55.4	51.1						
Fresh.....	209	300	239	6.6	10.3	7.6						
Pickled and other cured.....	2,841	2,621	2,837	108.1	106.8	108.7						
Hog products—												
Bacon.....	30,448	32,591	44,718	63.7	64.0	93.6						
Hams and shoulders.....	20,592	18,761	17,138	139.3	68.9	115.9						
Lard.....	61,120	68,907	104,741	97.5	123.4	167.1						
Pork, pickled.....	4,009	3,384	2,990	133.2	133.8	99.3						
<b>DAIRY PRODUCTS.</b>												
Receipts at 5 principal markets (000 omitted)												
Butter (lbs.).....	46,419	62,494	50,546	103.8	112.2	113.1						
Cheese (lbs.).....	17,729	19,819	919	156.3	125.5	96.8						
Eggs (cases).....	815	1,028	96.1	102.1	108.4							
Cold-storage holdings at close of month (000 omitted):												
Creamery butter (lbs.).....	96,367	112,039	90,123	88.9	99.1	83.1						
American cheese (lbs.).....	49,455	53,625	44,842	81.9	87.6	74.2						
Eggs (cases).....	7,868	9,608	6,275	128.1	135.5	102.2						
<b>OTHER AGRICULTURAL PRODUCTS.</b>												
Cotton seed (tons):												
Received at mills.....	680,841	90,931	304,298	162.9	159.9	137.5						
Crushed.....	332,281	48,816	145.8	105.0	133.5							
On hand at mills at close of month.....	347,228	55,995	270,169	163.5	90.9	127.2						
Cottonseed oil (lbs., 000 omitted):												
Production.....	98,608	13,354	99,803	130.3	99.3	141.0						
Stocks.....	54,906	10,088	50,576	129.5	81.8	119.3						
Oleomargarine consumption (lbs., 000 omitted)	16,113	11,754	17,723	63.4	46.3	69.8						
Tobacco sales at loose-leaf warehouses (lbs., 000 omitted):												
Bright belt—												
Virginia, dark.....	1,586	1,650	14.8	46.6								
North Carolina.....	45,247	18,160	41,756	84.1	158.1	77.6						
South Carolina.....	2,288	2,340	2,288	28.2								
Burley.....	1,009	1,162	2,340	45.9	66.0	106.6						
Western dark.....	121	178	265	26.4	33.3	57.9						
Sale of revenue stamps for manufacture of tobacco, excluding Porto Rico and Philippine Islands (000 omitted):												
Cigars (large).....	625,772	641,164	614,428	100.5	105.3	98.6						
Cigars (small).....	55,497	60,498	55,800	104.2	115.8	104.8						
Cigarettes (small).....	5,554,301	6,373,890	4,791,398	131.9	151.5	113.8						
Manufactured tobacco (lbs.).....	33,807	38,021	31,489	101.2	112.6	94.3						
Fruit shipments (carloads):												
Grapfruit.....	11	57	46									
Lemons.....	789	833	574									
Oranges.....	1,173	1,561	2,993									
Apples.....	4,312	2,385	3,384									
Apples, cold-storage holdings (bbls., 000 omitted).....	1,397		792									
White potatoes, shipments (carloads).....	23,244	17,399	26,010									
Sugar, 7 ports (long tons):												
Receipts.....	243,571	501,203	240,211									
Meltings.....	312,909	540,024	262,817									
Raw stocks, close of month.....	180,577	262,959	137,390									

<sup>1</sup> Figures for July and August, 1922, and August, 1921.

COMMODITY MOVEMENTS—Continued.

	Sept., 1922.	Aug., 1922.	Sept., 1921.	Per cent of average same month 1919-1921.			Sept., 1922.	Aug., 1922.	Sept., 1921.	Per cent of average same month 1919-1921.					
				Sept., 1922.	Aug., 1922.	Sept., 1921.				Sept., 1922.	Aug., 1922.	Sept., 1921.	Sept., 1922.	Aug., 1922.	Sept., 1921.
<b>FOREST PRODUCTS.</b>															
Lumber:															
Number of mills—															
National Lumber Mfg. Assn.	551	535	454												
Southern pine..	150	153	186												
Western pine...	50	52	53												
Douglas fir.....	116	120	103												
Production (ft., 000,000 omitted):															
National Lumber Mfg. Assn.	1,207	1,327	825	116.3	119.6	79.5									
Southern pine..	368	401	385	93.7	101.3	98.0									
Western pine...	156	169	83	116.4	117.6	62.0									
Douglas fir.....	342	426	232	118.9	119.1	80.4									
Shipments (ft., 000,000 omitted):															
National Lumber Mfg. Assn.	1,067	1,230	823	114.1	118.4	88.6									
Southern pine..	301		434	76.2		109.8									
Western pine...	133	156	90	122.3	131.7	82.1									
Douglas fir.....	298	385	217	124.6	110.9	90.6									
Receipts at Chicago and St. Louis (M ft.).....	548,378	506,116	388,740	137.5	136.9	97.5									
Shipments at Chicago and St. Louis (M ft.).....	332,417	343,651	246,602	130.5	142.6	96.8									
Oak flooring—															
Production.....	23,903	27,669	14,900												
Shipments.....	25,672	24,037	16,837												
Stocks at end of month.....	20,120	21,054	33,415												
Unfilled orders.	35,957	37,173	9,552												
Naval stores at 3 south- eastern ports:															
Spirits of turpen- tine (casks)—															
Receipts.....	29,954	30,000	23,786	108.9	101.7	104.7									
Stocks at close of month.....	28,444	26,041	54,949	67.5	74.0	130.5									
Rosin (bbbs.)—															
Receipts.....	92,487	93,737	83,484	109.8	103.0	99.1									
Stocks at close of month.....	334,785	329,189	322,898	145.4	145.9	140.4									
<b>FUEL AND POWER.</b>															
Coal and coke (short tons, 000 omitted):															
Bituminous coal production (est.)	40,964	22,261	35,105	93.3	52.9	80.0									
Anthracite coal—															
Production.....	4,979	161	7,124	77.6	2.1	111.0									
Coke—															
Beehive pro- duction (est.)	606	539	289	47.8	43.4	22.8									
By-product, production, (est.).....	2,244	1,794	1,423												
Petroleum (crude):															
Production (bbbs., 000 omitted).....	45,246	46,521	36,508	125.6	122.6	101.4									
Stocks at close of month (000 omit- ted).....	273,264	271,901	172,874	189.4	189.4	119.8									
Producing oil wells (number).....	1,572	1,709	788	92.3	93.9	46.3									
Oil refineries: <sup>1</sup>															
Total production (000 omitted)—															
Crude oil run (bbbs.).....	43,817	44,378	36,045	121.5	127.7	99.9									
Gasoline (gals.)	549,958	569,711	431,577	137.2	144.2	107.7									
Kerosene (gals.)	184,383	192,924	143,652	100.2	112.0	78.0									
Gas and fuel (gals.).....	944,289	959,029	784,450	122.9	131.0	102.1									
Lubricating (gals.).....	88,824	91,715	66,473	115.6	122.1	86.5									
<b>FUEL AND POWER—Continued.</b>															
Oil refineries—Contd.															
Stocks at close of month (000 omit- ted)—															
Crude oil (bbbs.)	34,030	35,287	16,374	206.4	205.5	99.3									
Gasoline (gals.)	703,738	772,909	567,646	159.3	143.8	128.5									
Kerosene (gals.)	283,520	324,586	389,893	80.5	88.3	109.9									
Gas and fuel (gals.).....	1,366,612	1,358,870	1,243,446	147.4	148.7	134.1									
Lubricating (gals.).....	220,668	226,691	242,530	121.7	120.5	133.8									
Electric power pro- duced by public uti- lity power plants (000 kw. hours):															
Produced by water power.....		1,524,243	1,101,576		100.0	73.6									
Produced by fuels..		2,538,852	2,273,127		133.4	120.1									
Total.....		4,063,095	3,374,703		118.5	99.6									
<b>METALS.</b>															
Iron and steel (long tons, 000 omitted): <sup>2</sup>															
Pig-iron production	2,628	2,034	1,247	123.6	92.4	58.4									
Steel-ingot produc- tion.....	2,872	2,374	1,617	120.6	106.5	67.9									
Unfilled orders, U. S. Steel Corpora- tion.....	6,902	6,692	4,287	100.5	94.6	62.4									
Fabricated struc- tural steel con- tracted for, ton- nage.....	135,069	141,561	86,000												
Silver production of United States (troy ozs., 000 omitted)....	5,325	5,562	4,212												
Copper produc- tion (lbs., 000 omitted)....	95,665	100,838	20,927	122.4	123.0	26.8									
Zinc (lbs., 000 omitted): <sup>2</sup>															
Production.....	79,880	66,268	29,076												
Stocks at close of month.....	36,086	37,612	141,648												
Tin (lbs., 000 omitted):															
Imports.....	7,379	8,219	5,796	83.1	93.8	65.3									
Deliveries to fac- tories.....	11,312	9,462	5,835	123.3	111.1	63.6									
Stocks at close of month.....	1,236	2,806	1,756												
<b>TEXTILES.</b>															
Cotton (bales, 000 omitted):															
Sight receipts.....	1,389	541	1,145	163.4	129.6	134.7									
Port receipts.....	803	198	668	175.7	73.7	146.1									
Overland move- ment.....	41	39	106	82.1	68.8	213.0									
American spinners' takings.....	367	404	447	109.9	131.2	133.9									
Stocks at ports and interior points.....	1,280	695	2,382	70.0	42.1	130.1									
Stocks at mills.....	1,065	1,025	1,118	103.3	94.1	108.4									
Stocks at ware- houses.....	3,217	1,550	4,313	100.5	64.0	134.7									
Visible supply.....	2,228	1,597	3,944	72.3	51.6	128.0									
Consumption by mills.....	495	527	485	103.6	109.2	101.4									
Spindles active dur- ing month (num- ber, 000 omitted).	33,297	32,499	33,875	97.8	95.9	99.5									
Wool:															
Consumption by mills (lbs., 000 omitted).....	54,771	57,340	49,824												

<sup>1</sup> Figures for August, 1922, July, 1922, August, 1921.

<sup>2</sup> Figures for October, 1922, September, 1922, October, 1921.

COMMODITY MOVEMENTS—Continued.

	Sept., 1922.	Aug., 1922.	Sept., 1921.	Per cent of average same month 1919-1921.			Sept., 1922.	Aug., 1922.	Sept., 1921.	Per cent of average same month 1919-1921.						
				Sept., 1922.	Aug., 1922.	Sept., 1921.				Sept., 1922.	Aug., 1922.	Sept., 1921.				
<b>TEXTILES—Contd.</b>				<b>MISCELLANEOUS MANUFACTURES.</b>												
Wool—Continued.				Wood pulp (short tons):												
Percentage of idle machinery on list of month to total reported— <sup>1</sup>				Production.....												
Looms wider than 50-inch reed space....				27.6	35.3	23.7	93.2	113.1	80.1	272,697	282,570	193,479	108.4	111.2	76.9	
Looms 50-inch reed space or less.....				23.6	32.5	25.8	87.1	113.2	95.2	239,801	258,871	184,609	111.0	116.3	85.5	
Sets of cards....				13.8	15.7	22.3	60.3	66.8	97.4	54,318	52,962	42,459	88.7	86.7	69.3	
Combs.....				21.7	24.0	14.3	140.0	121.2	91.6							
Spinning spindles, woolen....				15.3	17.1	22.4	62.7	68.4	91.4	178,517	209,957	186,454	110.1	111.6	115.0	
Spinning spindles, worsted....				18.6	25.2	8.6	133.8	125.4	61.9							
Percentage of idle house on list of month to total reported—				Paper (short tons):												
Looms wider than 50-inch space....				27.6	36.4	25.8				Newsprint—						
Looms 50-inch reed space or less.....				28.7	41.7	27.5				Production.....	125,402	133,236	98,898	113.5	116.0	89.5
Set of cards....				8.7	11.2	21.0				Shipments.....	126,494	134,490	95,785	113.1	117.7	85.6
Combs.....				6.8	14.5	2.4				Stocks, end of month.....	18,810	19,902	30,241	77.1	77.1	124.0
Spinning spindles, woolen....				11.9	13.8	20.9				Book production....	87,782	87,922	62,416	110.8	111.4	73.8
Spinning spindles, worsted....				16.0	28.6	7.8				Paper board production....	198,248	195,115	160,207	105.5	107.6	85.2
Raw silk:				Wrapping paper production....												
Imports (lbs., 000 omitted).....				3,887	5,547	4,598	87.5	143.4	103.5	70,329	74,315	59,095	109.1	113.6	91.7	
Consumption (bales).....				34,212	34,772	31,229				Fine paper production....	31,576	33,081	20,555	109.3	116.7	71.1
Stocks at close of month (bales)....				36,795	32,515	23,036				Building materials (000 omitted):						
<b>HIDES AND LEATHER.</b>				Clay fire brick—												
Sales of raw hides and skins during month (number, 000 omitted):				Production.....												
Cattle hides.....				1,565	1,211	1,028				48,839	51,828	24,641	103.0	110.7	52.0	
Calfskins.....				1,358	1,144	661				Shipments.....	52,693	49,075	25,931	100.0	104.2	49.2
Kip skins.....				209	215	188				Stocks, close of month.....	156,899	162,876	141,017	116.8	116.7	105.0
Goat and kid.....				1,589	1,114	1,439				New orders.....	59,771	52,300	25,512	129.6	107.4	55.3
Cabretta.....				47	22	42				Unfilled orders....	79,511	74,399	27,033	78.7	69.1	26.7
Sheep and lamb....				3,186	2,546	1,852				Silica brick—						
Stocks of raw hides and skins at close of month (number, 000 omitted):				Production.....												
Cattle hides.....				5,515	5,343	6,086	91.1		100.5	12,861	9,666	4,970				
Calfskins.....				3,674	3,583	3,475	121.5		114.9	Shipments.....	11,332	11,687	4,178			
Kip skins.....				990	949	938	100.0		94.8	Stocks, close of month.....	37,108	35,743	45,436			
Goat and kid.....				8,641	9,197	10,746	62.1		77.3	Face brick—						
Cabretta.....				810	663	791	42.4		41.5	Production.....	51,674	46,849	41,066	98.6	79.5	78.4
Sheep and lamb....				10,475	11,294	12,606	96.7		116.4	Shipments.....	43,621	46,710	34,848			
Production of leather:				Stocks in sheds and kilns....												
Sole leather (sides).....				1,491,498	1,509,364	1,507,185				100,559	91,339	125,850	85.6	69.9	107.1	
Skinners (dozens)....				31,934	30,629	20,685				Unfilled orders, close of month....	80,886	75,825	40,387	89.1	75.1	44.5
Oak and union harness (sides stuffed).....				131,265	130,103	49,507				Cement (bbls., 000 omitted)—						
Production.....										Production.....	11,424	11,664	10,027			
Boots and shoes, output (pairs, 000 omitted):				Shipments.....												
Men's.....				8,514	7,949					12,444	14,361	11,329				
Women's.....				8,741	9,062					Stocks, close of month.....	4,726	5,746	6,953			
Others.....				11,706	11,066					Rubber (lbs., 000 omitted):						
Total.....				28,961	28,077					Imports of crude rubber.....	44,345	54,332	34,546	142.7	167.0	111.2
				Consumption by tire manufacturers.....												
				28,051									33,739	19,476		
				Pneumatic tires (000 omitted):												
				Production.....												
				2,505									2,905	1,929		
				Shipments, domestic.....												
				2,502									3,030	2,047		
				Stocks.....												
				4,612									4,629	3,041		
				Inner tubes:												
				Production.....												
				3,501									3,808	3,275		
				Shipments, domestic.....												
				3,559									4,220	2,646		
				Stocks.....												
				5,165									5,207	3,828		
				Solid tires:												
				Production.....												
				83									84	37		
				Shipments, domestic.....												
				68									69	50		
				Stocks.....												
				200									190	162		
				Automobiles:												
				Production (number)—												
				Passenger cars....												
				186,623									247,316			
				Trucks.....												
				18,358									23,787			
				Shipments—												
				Railroad (carloads).....												
				25,950									32,814	19,002		
				Driveaways (machines)....												
				30,055									36,754	13,840		
				Boat (machines).....												
				8,002									10,096	2,959		

<sup>1</sup> Figures for Oct. 1, 1922, Sept. 1, 1922, Oct. 1, 1921.



**BUILDING STATISTICS.**

**BUILDING PERMITS IN 166 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 (14 cities).	District No. 7 (19 cities).	District No. 8 (14 cities).	District No. 9 (9 cities).	District No. 10 (14 cities).	District No. 11 (9 cities).	District No. 12 (20 cities).	Total (166 cities).
1921, September.....	2,442	7,895	2,900	4,124	3,389	2,847	9,024	2,036	1,975	2,739	2,598	11,174	53,233
1922.													
January.....	878	4,176	1,623	1,724	2,188	2,155	3,498	1,141	523	1,336	1,653	8,298	28,884
February.....	1,024	4,210	2,081	2,619	2,305	2,566	4,815	1,434	517	1,758	2,114	7,600	33,043
March.....	2,367	13,284	3,557	4,986	4,101	3,211	8,806	2,218	1,493	2,711	2,623	11,196	60,453
April.....	3,011	9,056	4,386	6,149	4,397	3,215	11,546	2,650	3,342	3,103	2,586	10,966	64,407
May.....	2,018	10,136	3,991	6,666	5,321	3,443	13,799	2,955	3,391	3,554	2,794	11,266	69,334
June.....	2,945	9,572	3,624	5,839	4,509	3,085	11,898	2,507	2,422	2,888	2,545	10,156	61,990
July.....	2,597	7,761	3,029	4,680	3,756	2,978	10,385	2,291	2,125	2,467	2,238	9,415	53,722
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.....	2,717	8,424	3,680	4,789	3,997	3,114	10,553	2,373	1,923	2,629	2,223	11,291	57,893

**VALUE 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 (14 cities).	District No. 7 (19 cities).
1921, September.....	\$5,799,540	\$47,360,128	\$7,820,694	\$12,730,361	\$9,284,277	\$5,019,328	\$24,937,967
1922.							
January.....	7,380,701	50,145,266	6,878,523	5,713,209	8,352,615	3,734,262	18,905,561
February.....	9,280,827	50,372,553	8,275,338	7,829,585	7,513,542	4,630,052	20,419,417
March.....	10,995,500	119,964,783	14,116,292	13,814,868	11,329,049	6,021,211	33,747,135
April.....	13,812,829	54,704,292	17,020,500	15,693,183	11,971,471	4,951,558	35,089,303
May.....	9,109,108	57,843,585	13,844,813	22,614,084	13,348,592	7,262,167	53,806,499
June.....	10,657,535	73,352,564	13,177,759	22,428,251	15,736,766	6,498,677	49,934,583
July.....	9,174,687	47,144,023	15,898,696	26,558,680	15,514,625	7,516,036	35,151,182
August.....	16,633,819	49,210,637	15,352,655	22,036,882	11,605,153	7,985,212	40,452,972
September.....	8,343,783	56,670,108	15,868,670	25,076,766	12,969,812	6,326,074	31,550,169

	District No. 8 (4 cities).	District No. 9 (9 cities).	District No. 10 (14 cities).	District No. 11 (9 cities).	District No. 12 (20 cities).	Total (166 cities).
1921, September.....	\$5,820,895	\$4,004,238	\$6,286,923	\$3,680,968	\$20,134,993	\$154,880,312
1922.						
January.....	2,579,894	2,110,424	5,023,603	4,960,078	22,872,876	138,631,902
February.....	4,150,487	1,569,774	4,336,011	4,419,789	18,917,868	141,715,243
March.....	5,012,607	4,523,209	7,165,925	5,620,336	27,432,286	259,754,421
April.....	6,076,684	8,196,110	8,384,552	6,228,385	30,135,052	212,323,919
May.....	7,443,855	9,913,853	10,807,084	4,752,642	28,271,238	239,017,520
June.....	5,855,459	6,020,186	8,894,131	5,276,819	29,598,278	252,431,008
July.....	5,698,792	7,663,443	8,040,606	5,861,650	22,391,016	209,613,436
August.....	5,815,805	8,284,659	9,793,352	5,010,204	20,424,332	221,936,682
September.....	5,384,032	4,737,015	8,352,410	4,980,057	23,968,073	204,227,009

**VALUE OF BUILDING CONTRACTS AWARDED, BY FEDERAL RESERVE DISTRICTS.**

[F. W. Dodge Co.]

**VALUE OF CONTRACTS FOR ALL CLASSES OF BUILDINGS.**

	District No. 1.	District No. 2.	District No. 3.	District No. 4.	District No. 5.	District No. 7.	District No. 9 <sup>1</sup>	Total (7 districts).
1921, October.....	\$20,498,363	\$74,429,237	\$18,295,400	\$26,969,803	\$19,463,402	\$36,250,434	\$8,047,792	\$203,951,431
1922.								
January.....	15,302,453	54,962,847	12,128,900	21,066,282	14,002,399	29,182,324	3,613,148	150,258,353
February.....	14,799,476	60,152,424	11,828,700	20,602,823	16,518,079	32,344,424	5,192,824	161,438,750
March.....	26,212,330	90,088,870	25,658,100	29,661,058	24,116,011	58,081,626	11,983,270	264,651,165
April.....	42,196,915	117,814,585	24,795,500	38,089,754	25,618,120	64,236,566	9,878,501	322,630,241
May.....	31,559,733	91,441,141	25,739,294	58,432,714	32,268,767	71,117,055	12,455,410	323,044,164
June.....	36,259,420	81,614,205	26,630,900	30,668,191	46,801,800	77,560,940	12,153,061	311,683,517
July.....	24,910,926	79,819,084	23,768,377	25,362,187	52,224,001	83,159,795	9,304,325	303,548,695
August.....	26,780,103	80,810,922	43,818,911	20,983,619	50,811,596	56,954,434	8,249,905	288,409,490
September.....	29,245,087	64,208,556	24,917,916	22,997,450	34,634,723	62,219,681	5,868,200	244,261,613
October.....	25,305,051	65,060,956	20,439,852	19,684,627	35,164,630	52,048,241	4,523,126	222,226,483

**VALUE OF CONTRACTS FOR RESIDENTIAL BUILDINGS.**

	District No. 1.	District No. 2.	District No. 3.	District No. 4.	District No. 5.	District No. 7.	District No. 9 <sup>1</sup>	Total (7 districts).
1921, October.....	\$8,094,387	\$39,733,113	\$5,440,400	\$8,991,474	\$5,937,599	\$11,660,499	\$2,256,545	\$82,128,017
1922.								
January.....	4,767,597	35,652,203	6,280,200	6,279,459	6,597,861	10,601,761	1,049,594	71,228,675
February.....	4,179,944	38,657,156	5,647,700	5,545,073	7,290,608	9,388,615	962,757	71,680,853
March.....	11,897,086	51,116,514	9,552,600	10,641,177	9,796,405	17,226,204	2,548,511	112,577,397
April.....	13,524,827	53,677,473	10,408,700	16,127,627	10,297,260	17,661,598	4,175,963	128,375,456
May.....	14,018,303	39,943,547	11,168,868	19,121,798	13,009,760	24,574,835	4,240,047	126,077,153
June.....	12,518,840	40,483,063	11,275,517	16,036,790	17,434,095	28,206,838	2,677,184	128,632,327
July.....	12,644,574	33,364,787	7,526,581	8,074,163	15,406,301	20,633,345	2,415,438	100,365,189
August.....	11,945,451	29,091,738	8,828,667	6,320,030	13,409,258	18,835,050	2,535,590	90,963,784
September.....	11,509,627	34,536,710	5,142,867	8,595,717	12,736,605	15,011,664	2,453,723	92,986,413
October.....	13,552,663	33,237,936	10,072,260	7,416,108	13,729,840	20,291,379	2,227,614	100,527,800

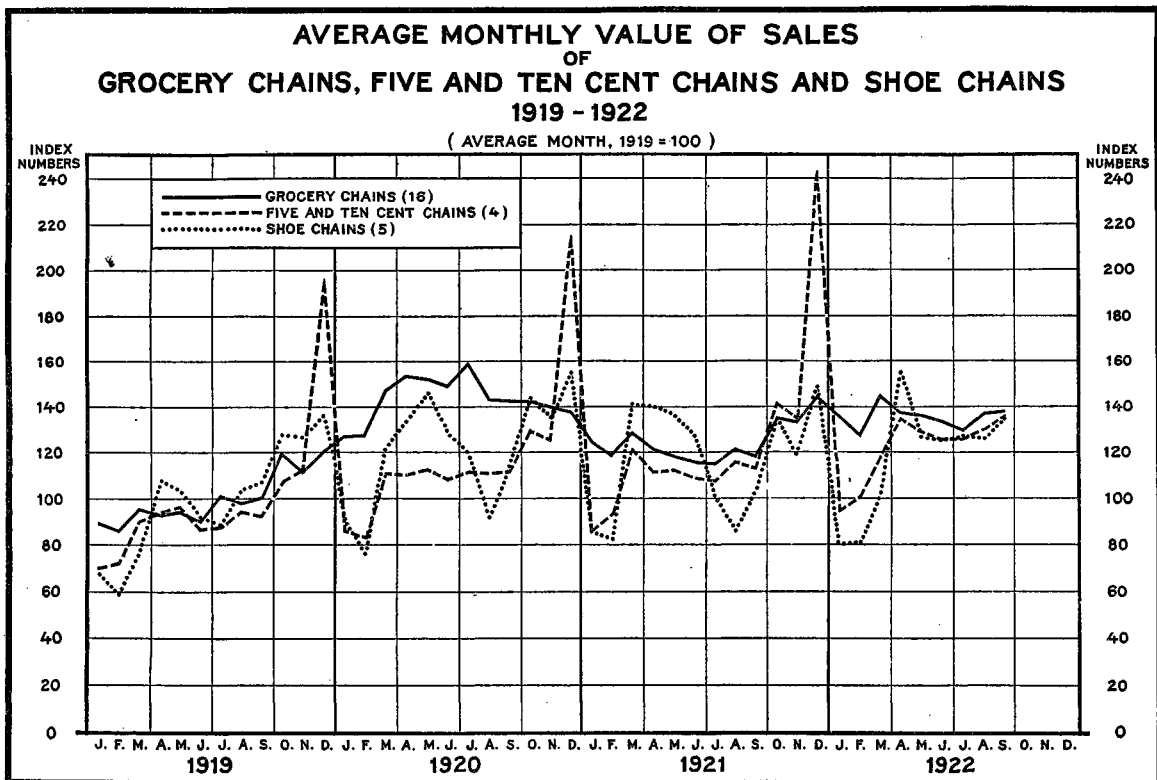
<sup>1</sup> Montana not included.

**RETAIL TRADE.**

The following tables are a summary of the data obtained from 502 representative department stores in the 12 Federal reserve districts. In districts Nos. 1, 2, 3, 5, 6, 7, 9, 11, and 12 the data were received in (and averages computed from) actual dollar amounts. In districts Nos. 4, 8, and 10 most of the material was received in the form of percentages, and the averages for the cities and districts computed from such percentages were weighted according to volume of business done during the calendar year 1921. The tables for the month of August are based on reports from 25 stores in district No. 1 (Boston), 64 stores in district No. 2 (New York), 144 stores in district No. 3 (Philadelphia), 28 stores in district No. 4 (Cleveland), 25 stores in district No. 5 (Richmond), 37 stores in district No. 6 (Atlanta), 58 stores in district No. 7 (Chicago), 21 stores in district No. 8 (St. Louis), 23 stores in district No. 9 (Minneapolis), 16 stores in district No. 10 (Kansas City), 21 stores in district No. 11 (Dallas), and 31 stores in district No. 12 (San Francisco). Figures for Altoona, in district No. 3 (Philadelphia), are shown separately for the first time this month.

A comparison of monthly changes in activity of different types of retail business since January, 1921, is shown in the second of the following tables. The 176 department stores are located in districts Nos. 1, 2, 3, 5, 6, 9, 11, and 12, while the mail-order houses do business in all parts of the United States. The United States index for department stores has been recomputed by weighting the districts according to the buying power, as measured by population and banking resources. Chain-store figures are based upon the total sales of the same reporting chains for each month, but the actual number of stores in these chains varies slightly.

Mail-order business for the month of September shows a great improvement over August and is higher than for any month since last April. Sales of all types of reporting chains have increased during the month and are substantially larger than during September, 1921. The greatest improvement over last year's sales is shown in sales of grocery, five-and-ten, and music chains. Sales of shoe and music chains have registered the greatest increase during the month.





CONDITION OF RETAIL TRADE IN THE FEDERAL RESERVE DISTRICTS.

[Minus sign (-) denotes decrease.]

District and city.	Percentage of increase in net sales as compared with corresponding period previous year.				Percentage of increase in stocks at close of month compared with—				Percentage of average stocks at close of each month to average monthly sales for same period.		Percentage of outstanding orders at close of month to total purchases during previous calendar year.		
	September, 1922.	August, 1922.	July 1, 1922, to close of—		Same month previous year.		Previous month.		July 1, 1922, to close of—		Sept., 1922.	Aug., 1922.	
			Sept., 1922.	Aug., 1922.	Sept., 1922.	Aug., 1922.	Sept., 1922.	Aug., 1922.	Sept., 1922.	Aug., 1922.			
District No. 1:													
Boston.....	17.5	5.9	11.1	6.8	6.7	4.7	13.0	1.7	358.8	332.0	7.4	.....	.....
Outside.....	19.1	4.2	6.8	0.5	-4.4	-0.3	7.2	1.2	433.0	450.0	7.6	.....	.....
District.....	17.9	5.5	10.0	5.1	3.5	3.2	11.4	1.6	376.4	407.0	7.9	.....	.....
District No. 2:													
New York and Brooklyn.....	18.5	7.6	10.1	4.9	-1.1	0.4	10.7	3.6	417.6	453.5	8.1	6.6	.....
Buffalo.....	9.5	2.1	2.9	-0.8	-7.2	-0.8	10.6	0.6	440.8	462.2	9.1	7.5	.....
Newark.....	12.1	-1.3	3.0	-2.8	1.0	-7.0	9.4	0.3	406.6	453.0	6.8	7.3	.....
Rochester.....	11.8	6.9	6.3	3.5	-9.6	-18.0	7.4	-0.8	333.7	386.0	7.8	6.2	.....
Syracuse.....	11.7	-7.5	0.4	-6.0	-0.9	-17.4	9.3	4.8	405.5	438.0	5.0	5.8	.....
Bridgeport.....	15.0	-4.4	5.2	1.3	-0.7	-1.6	11.9	1.8	408.0	380.3	8.2	7.0	.....
Outside.....	6.7	7.6	5.2	4.4	-10.6	-3.6	2.2	8.8	571.0	573.9	8.4	9.3	.....
District.....	16.1	5.3	7.7	2.6	-1.8	-1.4	10.2	4.4	412.5	444.6	7.8	7.3	.....
District No. 3:													
Philadelphia.....	18.5	2.8	6.7	0.4	-4.0	-4.1	12.5	3.2	412.0	402.8	9.3	8.5	.....
Allentown.....	21.3	4.5	7.4	-1.1	-2.6	.....	9.0	.....	644.0	.....	4.2	.....	.....
Altoona.....	8.2	.....	-0.5	.....	-10.7	.....	8.9	.....	514.8	.....	11.5	.....	.....
Harrisburg.....	36.3	6.6	13.8	3.2	9.3	6.1	19.1	10.4	509.0	522.0	.....	7.4	.....
Johnstown.....	0.4	-3.9	-9.4	-14.0	-3.8	-5.1	9.4	6.3	436.8	477.1	.....	.....	.....
Reading.....	18.2	5.6	10.2	5.2	0.8	4.7	10.0	3.1	663.7	651.6	.....	10.6	.....
Scranton.....	-12.5	-12.8	-21.8	-21.8	8.1	15.1	9.0	11.6	519.1	512.0	17.3	33.0	.....
Trenton.....	15.2	7.3	8.2	5.5	-0.9	-0.5	4.6	3.8	489.4	496.1	.....	.....	.....
Wilkes-Barre.....	-3.1	-11.0	-10.3	-14.1	-9.4	-4.2	11.8	6.0	577.1	595.3	.....	.....	.....
Wilmington.....	26.0	5.2	7.0	-1.1	-6.7	-12.6	9.0	2.2	800.7	807.6	8.6	7.3	.....
Outside.....	13.2	1.7	2.5	-2.0	2.1	1.7	12.0	4.4	611.8	609.0	9.0	9.5	.....
District.....	15.3	1.5	4.2	-1.5	-2.6	-1.9	11.9	4.2	482.5	476.2	9.0	9.0	.....
District No. 4:													
Cleveland.....	27.9	16.1	17.9	10.0	-0.04	3.4	9.0	5.7	378.5	382.7	7.6	10.3	.....
Pittsburgh.....	18.0	9.1	8.3	4.8	-9.1	-11.0	8.5	6.3	408.0	415.7	7.4	8.5	.....
Cincinnati.....	3.5	2.8	-1.7	-1.7	-10.9	-14.9	9.4	3.4	571.0	535.0	8.3	10.8	.....
Toledo.....	12.0	5.6	8.9	7.2	-3.6	-2.8	5.4	3.2	388.4	432.1	6.4	6.9	.....
Outside.....	25.0	19.4	17.2	14.6	-0.1	3.2	7.0	7.3	540.7	488.5	10.8	14.2	.....
District.....	18.8	10.8	10.4	6.3	-3.7	-3.7	8.4	5.6	433.5	424.4	7.8	9.4	.....
District No. 5:													
Baltimore.....	10.6	1.1	2.9	-1.8	-6.1	-7.8	15.7	2.5	468.9	493.9	8.4	7.5	.....
Richmond.....	21.6	26.4	16.5	12.2	-7.6	-4.5	11.6	5.2	371.2	449.4	13.4	12.5	.....
Washington.....	7.3	-4.8	-1.4	-3.9	4.9	5.2	12.6	10.1	509.9	500.2	6.5	7.4	.....
Outside.....	8.8	-4.7	-3.3	-9.3	-8.2	-4.3	11.3	1.1	567.6	575.5	7.0	7.0	.....
District.....	10.6	0.8	2.0	-2.8	-3.2	-2.9	13.4	4.9	483.0	508.3	8.0	7.8	.....
District No. 6:													
Atlanta.....	8.9	11.1	3.6	5.5	6.8	10.7	13.9	4.9	591.1	632.4	5.1	9.6	.....
Birmingham.....	21.9	21.3	17.3	14.6	-3.9	0.8	7.0	6.1	470.7	500.9	7.2	7.0	.....
Chatanooga.....	0.5	-15.3	-15.0	-4.9	-17.0	-14.1	3.3	-17.1	295.2	936.0	.....	.....	.....
Nashville.....	11.1	2.1	4.8	0.0	-7.8	-5.8	6.1	5.7	575.1	599.3	6.9	9.0	.....
New Orleans.....	-3.8	-8.2	-5.3	-8.5	-4.0	-0.2	7.2	3.2	565.3	573.3	11.2	11.0	.....
Savannah.....	-9.6	-12.7	-16.8	-20.1	-22.7	-17.3	9.2	2.6	704.4	708.2	6.2	8.7	.....
Outside.....	4.2	-4.0	-2.6	-6.6	-14.4	-17.8	13.4	6.9	634.2	656.6	5.7	9.7	.....
District.....	3.8	-1.6	-1.6	-3.7	-6.3	-3.9	8.6	6.0	530.1	593.4	8.0	9.5	.....
District No. 7:													
Chicago.....	0.6	5.3	6.2	2.2	1.2	-9.5	6.9	4.2	310.9	390.1	5.1	6.7	.....
Detroit.....	28.2	18.1	20.5	15.4	-2.7	1.1	-5.1	13.4	335.3	394.3	11.1	11.1	.....
Milwaukee.....	4.6	.....	-3.0	.....	-3.5	.....	2.5	.....	601.5	.....	6.0	.....	.....
Indianapolis.....	10.6	.....	6.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Des Moines.....	8.6	.....	10.3	.....	3.5	.....	5.7	.....	316.2	.....	6.8	.....	.....
Outside.....	5.2	-3.4	-1.2	-3.5	-5.9	-4.1	8.1	9.2	588.5	575.7	7.1	7.4	.....
District.....	15.2	7.6	9.4	5.7	-2.5	-2.4	2.7	10.6	428.8	473.4	8.5	9.3	.....
District No. 8:													
St. Louis.....	9.9	-0.5	3.0	-1.4	-4.3	-4.4	5.0	10.0	470.3	457.0	9.2	8.6	.....
Louisville.....	-0.6	-5.5	1.4	-0.6	-18.9	-18.9	13.1	14.7	395.1	418.9	6.8	8.5	.....
Memphis.....	19.3	11.8	11.6	6.2	-7.3	-11.9	15.1	1.8	534.4	644.9	11.2	11.1	.....
Little Rock.....	-5.6	-8.2	-16.9	-12.8	2.8	-0.8	16.8	7.7	557.2	770.1	7.0	11.0	.....
Outside.....	4.9	9.0	-5.0	-11.5	-12.6	-2.7	6.6	6.0	552.3	557.2	9.1	11.3	.....
District.....	8.6	0.9	2.3	-0.8	-6.4	-7.0	8.7	8.8	480.8	525.9	9.0	9.0	.....
District No. 9:													
Outside.....	4.1	-0.1	1.7	.....	-3.0	-2.8	4.9	4.8	472.9	486.6	7.7	8.1	.....
District No. 10:													
Kansas City.....	-2.6	-13.4	-7.7	-12.9	-11.9	-6.2	1.9	12.3	530.0	591.8	6.2	7.3	.....
Denver.....	-4.1	-5.7	-1.5	-4.9	0.3	-0.1	6.2	6.2	517.4	599.2	10.7	12.2	.....
Outside.....	5.9	-9.1	0.0	-7.9	-5.2	-3.3	8.2	19.2	578.9	615.9	9.8	10.5	.....
District.....	0.7	-9.5	-3.3	-8.7	-6.6	-3.3	5.5	12.7	542.5	601.8	8.2	9.9	.....
District No. 11:													
Dallas.....	25.5	2.5	9.0	-6.6	-12.0	-10.7	3.7	9.8	471.4	573.4	8.9	14.0	.....
Fort Worth.....	16.4	-5.1	2.8	-7.8	-9.1	-10.4	8.9	10.0	536.1	589.1	7.9	10.8	.....
Houston.....	3.0	0.9	-1.8	-1.2	-10.0	-4.9	4.2	12.5	591.9	638.3	7.7	10.0	.....
Outside.....	-6.1	-13.8	-11.0	-13.9	-14.5	-15.7	8.9	13.9	507.2	547.2	5.2	8.9	.....
District.....	10.4	-4.2	0.0	-8.2	-11.9	-11.0	6.0	11.5	511.3	579.8	7.7	11.9	.....
District No. 12:													
Los Angeles.....	4.3	7.2	6.0	6.7	-13.1	-20.4	4.1	-3.3	411.6	389.6	7.5	8.9	.....
San Francisco.....	3.9	4.3	3.7	3.5	-3.6	-1.2	7.6	5.4	458.1	437.5	8.1	13.3	.....
Oakland.....	3.6	0.4	-0.2	1.4	-4.0	-0.8	5.6	6.6	571.3	577.4	.....	.....	.....
Seattle.....	8.6	13.0	10.5	11.5	-0.1	-0.1	4.0	13.1	388.8	397.8	9.5	10.4	.....
Spokane.....	-6.1	-5.6	-5.6	-5.8	1.6	0.3	4.5	5.3	653.4	601.8	7.4	8.5	.....
Salt Lake City.....	-0.4	0.2	-1.9	2.8	-1.7	-3.4	6.5	6.8	593.7	306.7	4.5	.....	.....
Outside.....	3.7	5.7	4.3	4.8	-5.7	-7.6	5.7	4.1	455.7	454.4	7.9	10.6	.....
District.....	11.9	3.2	5.1	1.1	-3.8	-3.4	8.1	6.5	457.4	486.2	8.2	9.0	.....
United States.....													

VALUE OF RETAIL TRADE.  
[Average monthly value 1919=100.]

	De- part- ment stores (176 stores).	Mail- order houses (4 houses).	Chain stores.					De- part- ment stores (176 stores).	Mail- order houses (4 houses).	Chain stores.			
			Gro- cery (16 chains).	Five and ten (4 chains).	Drug (7 chains).	Cigar (3 chains).				Gro- cery (16 chains).	Five and ten (4 chains).	Drug (7 chains).	Cigar (3 chains).
1919.						1921.							
January	75.7	86.1	89.4	70.2	92.7	74.8	January	101.6	69.1	124.6	86.1	117.3	119.9
February	68.9	73.1	86.0	72.3	83.7	77.0	February	87.3	64.8	118.4	92.9	110.7	116.5
March	85.4	82.6	95.7	90.8	96.6	93.7	March	116.3	95.1	128.7	121.1	123.6	131.8
April	98.3	91.5	92.9	93.9	95.3	91.7	April	111.7	77.5	121.7	111.9	121.8	134.7
May	98.1	81.3	94.3	96.4	94.4	102.1	May	111.3	60.2	118.8	112.2	119.2	129.5
June	93.1	74.5	90.3	86.3	93.1	92.2	June	108.5	62.1	116.0	109.7	120.6	127.8
July	77.2	76.1	101.2	87.9	100.8	98.2	July	79.7	49.3	115.1	108.0	122.1	128.5
August	77.6	82.1	98.6	94.6	101.5	99.9	August	83.2	56.4	121.4	116.0	119.8	127.6
September	96.4	102.1	100.2	92.5	98.5	96.2	September	92.7	72.7	118.3	113.4	119.4	128.0
October	124.6	155.9	119.8	107.9	104.6	110.2	October	127.8	88.6	135.2	141.9	124.2	138.0
November	122.1	148.2	111.5	112.1	103.8	114.9	November	121.3	83.3	133.5	134.1	115.2	124.8
December	182.7	146.4	120.2	195.1	135.0	149.0	December	175.8	80.3	144.5	241.6	146.1	172.7
1920.						1922.							
January	104.9	120.2	127.4	85.6	114.9	106.8	January	87.2	65.3	135.8	94.6	117.0	111.0
February	85.4	122.2	128.1	82.6	107.5	106.1	February	80.0	59.4	127.6	100.8	114.5	109.3
March	120.0	130.7	147.9	111.1	117.2	120.3	March	101.5	83.5	145.4	118.4	123.2	124.3
April	117.5	107.5	153.8	110.6	110.0	123.2	April	111.9	77.1	137.4	134.9	120.3	124.5
May	124.0	90.4	152.4	112.9	115.3	135.6	May	113.9	69.9	136.5	129.6	122.9	128.8
June	118.0	87.3	149.8	108.9	117.0	129.6	June	105.8	68.8	133.2	124.9	123.5	105.8
July	92.2	80.7	159.3	112.0	123.8	137.3	July	78.4	58.4	129.5	126.3	123.7	127.3
August	90.9	80.2	143.3	111.1	119.8	129.2	August	84.8	57.2	137.4	130.4	127.9	126.9
September	106.9	90.5	142.6	111.7	119.4	136.6	September	102.5	76.1	138.3	136.1	123.4	135.4
October	131.9	103.7	142.6	129.9	123.4	151.0							
November	135.9	125.5	140.0	123.7	114.2	133.9							
December	180.7	97.9	137.8	214.6	149.5	180.5							

\* Partly estimated.

CONDITION OF WHOLESALE TRADE.

PERCENTAGE OF INCREASE (OR DECREASE) IN NET SALES IN SEPTEMBER, 1922, AS COMPARED WITH SEPTEMBER, 1921.

District.	Groceries.		Dry goods.		Hardware.		Boots and shoes.		Furniture.		Drugs.		Auto supplies.		Stationery.		Farm implements.		Auto tires.	
	Per cent.	Number of firms.	Per cent.	Number of firms.	Per cent.	Number of firms.	Per cent.	Number of firms.	Per cent.	Number of firms.	Per cent.	Number of firms.	Per cent.	Number of firms.	Per cent.	Number of firms.	Per cent.	Number of firms.	Per cent.	Number of firms.
No. 2	5.9	42	-5.5	8	21.6	11	2.2	10			8.0	6			-2.4	6				
No. 3	-1.5	67	-2	22	16.0	35		12			5.2	16								
No. 4	3.6		-1.1		24.7						-4.8									
No. 5	-2	45	-8.5	15	9.2	19	-8.5	19	45.3	10	3.5	13								
No. 6		37	-22.6	21	9.6	24	12.2	11	25.4	19	19.1	3			34.2	4	7.5	6		
No. 7	4.7	40	2.3	10	18.1	17	-7.7	10			2.8	13	61.8	8						
No. 8	-7.3	16	6.5	5	13.7	3	1.8	6												
No. 9	-1.6	52	-3	6	14.0	13	-4.3	6									44.2	7		
No. 10	-4.7	7	-8.1	5	9.0	12			9	6	-6.5	5								
No. 11	17.4	11	-1.0	11	33.9	12			25.3	2	2.0	8					78.1	5		
No. 12	13.9	31	1.7	15	17.2	22	-1.9	14	.01	15	1.0	9	.4	17	8.1	28	36.9	24	4.1	21

PERCENTAGE OF INCREASE (OR DECREASE) IN NET SALES IN SEPTEMBER, 1922, AS COMPARED WITH THE PRECEDING MONTH (AUGUST, 1922.)

No. 2	7.9	42	0.1	8	7.6	11	17.7	10			6.7	6			-9.6	6				
No. 3	1.4	67	27.4	22	5.3	35	24.1	12			.1	16								
No. 4	4.7		13.9		15.4						-4									
No. 5	2.9	45	2.1	15	9.8	19	13.5	19	11.0	10	8.0	13								
No. 6	-8	37	-2.2	21	5.3	24	-6.2	11	14.8	19	7.0	3			58.4	4	-1.8	6		
No. 7	5.9	40	6.8	10	-5	17	21.3	10			.2	13	-16.3	8						
No. 8	-3.5	16	-2.8	5	3.3	3	-12.0	6												
No. 9	-6.0	52	-19.4	6	-5.3	13	3.9	6									-51.0	7		
No. 10	8.5	7	-5.2	5	3.8	12			10.6	6	3.3	5								
No. 11	22.6	11	-5.2	11	21.4	12			5.9	2	4.3	8					-16.6	5		
No. 12	8.4	31	6.7	15	1.0	22	2.2	14	15.5	15	-4.9	9	-4.9	17	3.6	28	-3.8	24	-7.0	21

**DISCOUNT AND OPEN-MARKET OPERATIONS OF FEDERAL RESERVE BANKS.**

Following is a set of tables showing the volume of bills discounted and of acceptances and Government securities purchased by the Federal reserve banks during September, 1922:

**VOLUME OF OPERATIONS DURING SEPTEMBER, 1922.**

Federal reserve bank.	Bills dis- counted for member banks.	Bills bought in open market.	United States securities purchased.		Municipal warrants purchased.	Total.	
			Bonds and notes.	Certificates of indebtedness.		September, 1922.	September, 1921.
Boston.....	\$154,774,919	\$23,227,615	\$2,060,000	\$22,707,000		\$202,769,534	\$361,689,198
New York.....	391,409,970	109,248,537	90,889,100	252,962,500		844,510,107	1,561,218,110
Philadelphia.....	166,725,590	2,771,960	1,037,350	3,890,000		174,424,900	280,490,156
Cleveland.....	93,866,327	10,892,703	1,036,400	636,500		106,431,930	231,416,308
Richmond.....	75,707,957	708,100				76,416,057	226,412,844
Atlanta.....	35,792,177	6,100,532	386,650	134,000		42,413,359	137,488,607
Chicago.....	109,232,905	24,871,644	16,008,500	31,744,500		181,857,549	333,920,311
St. Louis.....	69,051,278	200,000		821,500		70,072,778	133,337,983
Minneapolis.....	11,689,183		9,147,750	1,848,000		22,684,933	52,664,483
Kansas City.....	19,574,480	277,000	405,500	29,000		20,285,980	72,916,330
Dallas.....	14,549,371	4,117,346		150,000		18,816,717	66,064,545
San Francisco.....	124,983,528	34,637,323		280,000		159,900,851	192,743,987
<b>Total: September, 1922.....</b>	<b>1,267,357,685</b>	<b>217,052,760</b>	<b>120,971,250</b>	<b>315,203,000</b>		<b>1,920,584,695</b>	
<b>September, 1921.....</b>	<b>3,033,108,667</b>	<b>81,882,895</b>	<b>11,303,300</b>	<b>523,968,000</b>			<b>3,650,262,862</b>
<b>9 months ending Sept. 30, 1922.....</b>	<b>13,439,405,613</b>	<b>1,370,127,111</b>	<b>939,843,900</b>	<b>2,255,561,500</b>	<b>\$137,632</b>	<b>18,005,075,756</b>	
<b>9 months ending Sept. 30, 1921.....</b>	<b>46,870,022,069</b>	<b>1,003,219,531</b>	<b>41,269,750</b>	<b>3,101,288,557</b>			<b>51,015,800,507</b>

**VOLUME OF BILLS DISCOUNTED DURING SEPTEMBER, 1922, 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.	Agricul- tural paper.	Live- stock paper.	Bankers' acceptances.		
		Secured by Government obligations.	Other- wise secured.				Foreign.	Domestic.	Dollar exchange.
Boston.....	\$242,775	\$51,240,800		\$102,821,253	\$416,181	\$7,872			
New York.....	1,489,952	294,538,450		94,768,177	420,876	5,855			
Philadelphia.....	121,885	117,097,350		49,289,512	153,767				
Cleveland.....	49,084	70,709,900	\$178,000	21,612,464	141,378	79,608			
Richmond.....	120,037	58,797,545	2,012,000	11,648,473	2,866,668	22,893			
Atlanta.....	102,424	6,591,850	196,800	25,208,816	3,157,852	151,222			
Chicago.....	149,461	61,775,977	131,000	39,350,927	7,720,889				
St. Louis.....	182,716	48,131,230		17,671,969	2,395,548	86,437		\$33,000	
Minneapolis.....	6,785	5,301,270	470,878	3,580,927	1,744,072	563,576			
Kansas City.....	81,340	9,382,080		4,889,248	1,704,164	3,515,906			
Dallas.....	5,614	5,574,336	461,296	4,839,291	1,191,944	2,353,185			
San Francisco.....	87,110	73,080,022	20,907,084	28,815,393	1,245,655	647,431			
<b>Total: September, 1922.....</b>	<b>2,630,183</b>	<b>802,270,810</b>	<b>24,357,058</b>	<b>404,496,350</b>	<b>23,158,994</b>	<b>7,433,985</b>		<b>33,000</b>	
<b>August, 1922.....</b>	<b>1,592,541</b>	<b>727,893,985</b>	<b>26,072,966</b>	<b>303,907,508</b>	<b>25,994,308</b>	<b>6,434,590</b>		<b>7,540</b>	
<b>September, 1921.....</b>	<b>46,059,694</b>	<b>1,564,636,534</b>	<b>34,920,255</b>	<b>1,318,405,581</b>	<b>43,283,772</b>	<b>15,212,842</b>		<b>2,605,480</b>	
<b>August, 1921.....</b>	<b>48,321,668</b>	<b>2,021,810,753</b>	<b>33,017,993</b>	<b>1,344,637,416</b>	<b>41,288,185</b>	<b>13,745,037</b>		<b>1,417,632</b>	

Federal reserve bank.	Trade acceptances.		Total all classes.	Total reduced to a common maturity basis. <sup>1</sup>		Number in district Sept. 30.	Member banks.	
	Foreign.	Domestic.		Amount.	Per cent. of total.		Accommodated.	
							Number.	Per cent.
Boston.....		\$46,038	\$154,774,919	\$76,956,539	6.1	429	160	37.3
New York.....		136,660	391,409,970	188,458,816	14.9	804	264	32.8
Philadelphia.....		63,076	166,725,590	96,624,865	7.6	714	300	42.0
Cleveland.....		1,095,893	93,866,327	77,159,743	6.1	882	278	31.5
Richmond.....		240,341	75,707,957	88,974,527	6.6	629	328	52.1
Atlanta.....		383,213	35,792,177	119,853,498	9.4	540	298	55.2
Chicago.....		104,651	109,232,905	268,046,262	21.2	1,444	715	49.5
St. Louis.....		550,478	69,051,278	102,483,373	8.1	606	271	44.7
Minneapolis.....		21,675	11,689,183	41,787,007	3.3	1,019	288	28.3
Kansas City.....		1,742	19,574,480	59,770,893	4.7	1,151	316	27.5
Dallas.....		123,705	14,549,371	51,305,721	4.0	863	425	49.2
San Francisco.....		200,833	124,983,528	100,936,441	8.0	836	301	36.0
<b>Total: September, 1922.....</b>		<b>2,968,305</b>	<b>1,267,357,685</b>	<b>1,267,357,685</b>	<b>100.0</b>	<b>9,917</b>	<b>3,944</b>	<b>39.8</b>
<b>August, 1922.....</b>		<b>2,402,539</b>	<b>1,094,305,977</b>			<b>9,917</b>	<b>4,042</b>	<b>40.3</b>
<b>September, 1921.....</b>		<b>\$7,984,509</b>	<b>3,033,108,667</b>			<b>9,807</b>	<b>5,427</b>	<b>55.8</b>
<b>August, 1921.....</b>		<b>8,824,506</b>	<b>3,513,063,190</b>			<b>9,802</b>	<b>5,433</b>	<b>55.6</b>

<sup>1</sup> Total discounts multiplied by ratio of average maturity of bills discounted by each bank to average maturity (13.43) for system.

VOLUME OF BILLS DISCOUNTED DURING SEPTEMBER, 1922, 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.....	\$154,774,919		\$154,774,919	4.00	6.68
New York.....	391,409,970		391,409,970	4.00	6.46
Philadelphia.....		\$166,725,590	166,725,590	4.50	7.78
Cleveland.....		93,866,327	93,866,327	4.50	11.04
Richmond.....		75,707,957	75,707,957	4.50	14.89
Atlanta.....		35,792,177	35,792,177	4.50	44.96
Chicago.....		109,232,905	109,232,905	4.50	32.95
St. Louis.....		69,051,278	69,051,278	4.50	19.93
Minneapolis.....		11,689,183	11,689,183	4.50	48.00
Kansas City.....		19,574,480	19,574,480	4.50	41.00
Dallas.....		14,549,371	14,549,371	4.50	47.35
San Francisco.....	124,983,528		124,983,528	4.00	10.84
Total: September, 1922.....	671,168,417	596,189,268	1,267,357,685	4.36	13.43
August, 1922.....	602,016,980	483,415,225	1,084,305,977	4.34	13.48

<sup>1</sup> Includes \$9,873,772 of bills discounted at 5 per cent.

VOLUME OF BANKERS' AND TRADE ACCEPTANCES PURCHASED DURING SEPTEMBER, 1922, BY CLASSES.

Federal reserve bank.	Bankers' acceptances.				Trade acceptances.			Total bills purchased.	Total reduced to a common maturity basis. <sup>1</sup>	
	Foreign.	Domestic.	Dollar exchange.	Total.	Foreign.	Domestic.	Total.		Amount	Per cent of total.
Boston.....	\$15,560,985	\$7,641,630	\$25,000	\$23,227,615				\$23,227,615	\$21,094,747	9.7
New York.....	84,848,511	19,980,355	3,131,000	107,959,866	\$1,139,956	\$148,715	\$1,288,671	109,248,537	99,263,499	45.7
Philadelphia.....	1,872,093	879,867	20,000	2,771,960				2,771,960	3,880,499	1.8
Cleveland.....	7,857,560	2,757,962	201,971	10,817,493		75,210	75,210	10,892,703	14,348,789	6.6
Richmond.....	112,500	595,600		708,100				708,100	825,225	.4
Atlanta.....	4,796,332	1,304,200		6,100,532				6,100,532	6,085,479	2.8
Chicago.....	17,622,633	6,842,261	406,700	24,871,644				24,871,644	33,329,273	15.4
St. Louis.....		200,000		200,000				200,000	251,127	.1
Minneapolis.....		277,000		277,000				277,000	436,842	.2
Kansas City.....	3,686,268	381,078	50,000	4,117,346				4,117,346	3,708,153	1.7
Dallas.....	24,435,720	9,410,421	746,188	34,592,329	44,994		44,994	34,637,323	33,829,127	15.6
San Francisco.....										
Total: Sept., 1922.....	160,792,652	50,270,374	4,580,859	215,643,885	1,184,950	223,925	1,408,875	217,052,760	217,052,760	100.0
Aug., 1922.....	144,236,793	34,287,658	6,303,646	184,828,097	379,034		379,034	185,207,131		
Sept., 1921.....	54,691,113	23,591,388	3,489,516	81,772,017	110,878		110,878	81,882,895		
Aug., 1921.....	79,762,451	21,711,986	5,795,624	107,270,061	32,984		32,984	107,303,045		

<sup>1</sup> Total purchases multiplied by ratio of average maturity of bills purchased by each bank to average maturity (51.24) for system.

VOLUME OF ACCEPTANCES PURCHASED DURING SEPTEMBER, 1922, BY RATES OF DISCOUNT CHARGED; ALSO AVERAGE RATES AND MATURITIES.

Federal reserve bank.	3 per cent.	3½ per cent.	3¾ per cent.	3½ per cent.	3¾ per cent.	3½ per cent.	3¾ per cent.	3½ per cent.	3¾ per cent.	3½ per cent.	4 per cent.	4½ per cent.	Total.	Average rate (365-day basis).	Average maturity.
														<i>Per cent.</i>	<i>Days.</i>
Boston.....	\$13,013,457	\$7,831,028		\$1,319,380	\$965,576	\$63,782	\$25,842	\$3,550					\$23,227,615	3.10	46.54
New York.....	25,874,320	17,814,173	\$746,251	61,703,272	1,390,039	1,571,814	67,353	78,015					109,248,537	3.20	46.56
Philadelphia.....	2,343,513	313,447		40,000	75,000								2,771,960	3.08	71.73
Cleveland.....	5,302,763	2,518,611	168,518	2,756,601		70,000							10,892,703	3.18	67.50
Richmond.....				140,000									708,100	4.31	59.72
Atlanta.....	481,974	2,778,279	210,000	543,578	175,709	600,000							6,100,532	3.57	51.11
Chicago.....	10,779,873	7,389,491	82,371	5,566,909	549,000	524,000							24,871,644	3.17	68.66
St. Louis.....		200,000											200,000	3.17	64.34
Minneapolis.....													277,000	4.56	80.81
Kansas City.....	2,036,513	1,071,873		877,602		31,358		100,000					4,117,346	3.21	46.15
Dallas.....	14,086,216	14,762,410	91,210	4,121,633	570,688	884,325		41,716	\$79,125				34,637,323	3.14	50.04
San Francisco.....															
Total: Sept., 1922.....	73,918,629	54,659,312	1,298,350	77,068,975	3,726,012	3,745,279	93,195	228,281	79,125	79,510	2,156,092		217,052,760	3.19	51.24
Aug., 1922.....	114,057,588	22,327,233		47,244,862	191,002	515,803	5,841			1,500	788,302		185,207,131	3.10	42.18

<sup>1</sup> Includes \$75,000 of acceptances purchased at 5 per cent.

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.**

Following is a set of tables giving a detailed analysis of the different classes of earning assets held by the Federal reserve banks at the end of September, 1922:

**AVERAGE DAILY HOLDINGS OF EACH CLASS OF EARNING ASSETS, EARNINGS THEREON, AND ANNUAL RATES OF EARNINGS DURING SEPTEMBER, 1922.**

Federal reserve bank.	Average daily holdings of—				Earnings on—				Annual rate of earnings on—			
	All classes of earning assets.	Dis-counted bills.	Pur-chased bills.	United States securities.	All classes of earning assets.	Dis-counted bills.	Pur-chased bills.	United States securities.	All classes of earning assets.	Dis-counted bills.	Pur-chased bills.	United States securities.
									Per ct.	Per ct.	Per ct.	Per ct.
Boston.....	\$79,299,983	\$25,384,571	\$12,824,695	\$41,090,717	\$236,847	\$83,596	\$32,325	\$120,926	3.63	4.01	3.07	3.58
New York.....	278,251,537	53,220,397	69,253,357	155,777,783	811,289	175,072	178,151	458,066	3.55	4.00	3.13	3.58
Philadelphia.....	100,601,193	40,138,742	26,851,598	33,610,853	325,335	148,440	67,678	109,217	3.93	4.50	3.06	3.95
Cleveland.....	125,910,842	26,881,865	33,858,504	65,170,473	390,615	99,581	86,379	204,655	3.78	4.50	3.10	3.82
Richmond.....	43,347,322	38,239,222	407,200	4,700,909	150,903	141,513	1,515	7,875	4.24	4.50	4.53	2.04
Atlanta.....	42,418,712	33,490,858	2,656,976	6,270,878	145,303	123,971	7,790	13,542	4.17	4.50	3.57	2.63
Chicago.....	103,747,217	54,077,164	14,188,893	35,481,163	331,596	200,165	35,914	95,517	3.89	4.50	3.08	3.28
St. Louis.....	64,748,348	22,181,556	14,330,825	28,293,967	206,932	82,085	36,268	88,579	3.89	4.50	3.08	3.82
Minneapolis.....	39,433,999	26,362,633	.....	13,053,333	143,191	104,886	.....	38,234	4.42	4.84	.....	3.56
Kansas City.....	64,255,276	19,482,143	76,733	44,746,400	215,671	77,112	375	138,184	4.08	4.83	5.94	3.76
Dallas.....	42,767,245	33,778,011	3,243,734	5,745,500	152,196	131,472	8,218	12,506	4.33	4.74	3.08	2.65
San Francisco.....	128,555,363	43,424,945	62,093,643	53,036,775	402,013	146,196	80,952	174,865	3.81	4.10	3.07	4.01
Total: Sept., 1922.....	1,113,337,037	416,612,107	209,786,158	486,920,433	3,511,891	1,514,089	535,565	1,462,166	3.84	4.42	3.11	3.65
Aug., 1922.....	1,053,098,212	396,243,184	159,020,851	407,824,877	3,445,344	1,502,777	420,119	1,522,410	3.85	4.47	3.11	3.60
Sept., 1921.....	1,740,473,882	1,445,680,968	40,020,253	254,763,661	7,647,567	6,951,881	175,311	520,375	5.35	5.85	5.33	2.49
Aug., 1921.....	1,844,940,407	1,558,012,798	38,157,531	248,770,078	8,492,069	7,826,240	173,556	492,273	5.42	5.91	5.36	2.33

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: Minneapolis, \$18,333,871, and 4.69 per cent.

**HOLDINGS OF DISCOUNTED BILLS, BY CLASSES.**

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

Federal reserve bank.	Total.	Custom-ers' paper secured by Govern-ment obligations.	Member banks' collateral notes.		Commer-cial paper, n. e. s.	Agricul-tural paper	Live-stock paper	Bankers' acceptances.			Trade accept-ances.	
			Secured by Govern-ment obligations.	Other-wise secured.				For-ign.	Domes-tic.	Dollar ex-change.	For-ign.	Domes-tic.
Boston.....	36,443	428	9,440	.....	25,600	862	10	.....	.....	.....	.....	103
New York.....	70,079	486	49,620	.....	19,116	592	.....	.....	.....	.....	.....	265
Philadelphia.....	41,333	219	28,500	.....	12,171	364	.....	.....	.....	.....	.....	79
Cleveland.....	25,173	338	12,626	159	10,129	571	245	.....	.....	.....	.....	1,105
Richmond.....	42,773	300	14,157	1,453	17,728	8,658	59	.....	.....	.....	.....	418
Atlanta.....	37,791	179	1,864	87	23,878	10,408	1,031	.....	.....	.....	.....	344
Chicago.....	60,983	156	16,890	35	21,370	22,139	.....	.....	.....	.....	.....	393
St. Louis.....	28,753	109	8,658	.....	11,812	7,286	358	.....	33	.....	.....	437
Minneapolis.....	25,953	17	2,186	329	3,944	11,812	7,467	.....	.....	.....	.....	198
Kansas City.....	22,996	118	2,685	.....	5,685	4,731	9,775	.....	.....	.....	.....	2
Dallas.....	29,614	23	1,910	292	5,791	10,696	11,339	.....	.....	.....	.....	163
San Francisco.....	41,805	120	11,691	10,144	7,184	9,304	3,173	.....	.....	.....	.....	189
Total: Sept. 30, 1922.....	463,696	2,553	160,227	12,499	164,408	86,823	33,457	.....	33	.....	.....	3,696
Aug. 31, 1922.....	397,448	2,525	123,588	12,374	123,316	97,404	34,903	.....	43	.....	116	3,179
Sept. 30, 1921.....	1,413,013	67,870	428,974	18,048	671,810	152,251	63,749	503	342	.....	91	9,375
Aug. 31, 1921.....	1,491,935	82,053	463,123	16,242	695,691	157,394	65,035	635	1,080	.....	104	10,580

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

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

Federal reserve bank.	All classes.			Bankers' acceptances.				Trade acceptances.		
	Total.	Pur- chased in open market.	Dis- counted. for member banks.	Total.	Foreign.	Domestic.	Dollar exchange.	Total.	Foreign.	Domestic
Boston.....	17,319	17,216	103	17,216	10,508	5,708	1,000	103		103
New York.....	85,436	85,174	265	83,842	64,531	15,624	3,687	1,594	1,180	414
Philadelphia.....	22,267	22,188	79	22,116	17,801	3,985	330	151	72	79
Cleveland.....	39,783	38,678	1,105	38,628	31,491	7,037	100	1,155		1,155
Richmond.....	1,202	784	418	784	113	671		418		418
Atlanta.....	5,301	4,957	344	4,957	4,126	831		344		344
Chicago.....	17,205	16,812	393	16,812	13,111	3,405	296	393		393
St. Louis.....	12,008	11,538	470	11,571	11,038	433	100	437		437
Minneapolis.....	198		198					198		198
Kansas City.....	279	277	2	277		277		2		2
Dallas.....	6,823	6,660	163	6,660	5,281	1,304	75	163		163
San Francisco.....	40,283	40,094	189	40,054	31,688	7,140	1,226	229	40	189
Total: Sept. 30, 1922.....	248,104			242,917	189,688	46,415	6,814	5,187	1,292	3,895
Aug. 31, 1922.....	183,514			179,367	143,963	29,587	5,817	4,147	968	3,179
Sept. 30, 1921.....	55,353			45,761	29,145	15,022	1,594	9,592	217	9,375
Purchased in open market:										
Sept. 30, 1922.....		244,375		242,884	189,688	46,382	6,814	1,491	1,292	199
Aug. 31, 1922.....		180,176		179,324	143,963	29,544	5,817	852	852	
Sept. 30, 1921.....		45,042		44,916	28,642	14,680	1,594	126	126	
Discounted for member banks:										
Sept. 30, 1922.....			3,729	33		33		3,696		3,696
Aug. 31, 1922.....			3,338	43		43		3,295	116	3,179
Sept. 30, 1921.....			10,311	845	503	342		9,466	91	9,375

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

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

Federal reserve bank.	Total.	Member banks.		Nonmember banks and bank- ing cor- porations.	Private banks.	Branches and agencies of foreign banks.
		National.	Non- National.			
Boston.....	17,216	9,492	5,372	2,002	350	
New York.....	83,842	31,142	26,013	9,756	10,600	6,331
Philadelphia.....	22,116	9,314	6,431	2,880	2,415	1,076
Cleveland.....	38,628	16,229	15,647	3,609	1,958	1,185
Richmond.....	784	644			140	
Atlanta.....	4,957	740	2,193	2,024		
Chicago.....	16,812	7,939	7,125	1,604		144
St. Louis.....	11,571	4,872	6,119	547	33	
Minneapolis.....						
Kansas City.....	277	277				
Dallas.....	6,660	3,072	2,486	538	216	343
San Francisco.....	40,054	16,951	11,481	4,940	3,427	3,255
Total: Sept. 30, 1922.....	242,917	100,672	82,867	27,900	19,139	12,339
Aug. 31, 1922.....	179,367	74,182	61,808	23,246	12,482	7,649
Sept. 30, 1921.....	45,761	17,896	16,111	5,245	2,644	3,865
Purchased in open market:						
Sept. 30, 1922.....	242,884	100,639	82,867	27,900	19,139	12,339
Aug. 31, 1922.....	179,324	74,147	61,800	23,246	12,482	7,649
Sept. 30, 1921.....	44,916	17,767	15,839	4,813	2,635	3,842
Discounted for member banks:						
Sept. 30, 1922.....	33	33				
Aug. 31, 1922.....	43	35	8			
Sept. 30, 1921.....	845	129	252	432	9	23

**BANKING CONDITIONS, BY FEDERAL RESERVE DISTRICTS.**

For the four weeks ending October 18, 1922, reporting member banks in all the Federal reserve districts show increases in their loan account, the aggregate increase for all the reserve districts being \$366,000,000, of which \$112,000,000 is reported for New York City and \$65,000,000 for Chicago. Government security holdings also show a total increase of \$69,000,000, all the Federal reserve districts except Atlanta, Minneapolis, and Dallas reporting larger totals than four weeks earlier. Government security holdings declined for the first three weeks of the period, but show an increase for the week ending October 18 as a result of the issue by the Government of the refunding loan on October 15. Holdings of

corporate securities show an increase of \$17,000,000 in New York City, offset by a decrease of \$7,000,000 in the other cities. Demand deposits advanced by \$245,000,000, of which \$127,000,000 is reported for the member banks in New York City. The only district for which demand deposits of reporting member banks do not show an increase is Kansas City, where a nominal decline is shown. Time deposits show a moderate increase in all the districts except Boston and New York. Accommodation at Federal reserve banks increased by \$110,000,000, of which \$49,000,000 was in New York City and \$18,000,000 in Chicago.

**CHANGES IN PRINCIPAL RESOURCES AND LIABILITIES OF REPORTING MEMBER BANKS IN EACH FEDERAL RESERVE DISTRICT BETWEEN SEPTEMBER 20 AND OCTOBER 18, 1922.**

[In millions of dollars.]

Federal reserve district.	Loans and discounts.		United States Government securities.		Other bonds, stocks, and securities.		Demand deposits.		Time deposits.		Accommodation at Federal reserve banks.	
	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.
Boston.....	24		9				31			3		4
New York.....	123		14			13	133			11		56
New York City.....	112		1			17	127			15		49
Philadelphia.....	25		6				10			1		3
Cleveland.....	23		19				1			9		9
Richmond.....	8				1		8			2		5
Atlanta.....	21			1			13					2
Chicago.....	30		6		1		11			17		24
City of Chicago.....	65			4		2	7			12		18
St. Louis.....	22		13		1		8			3		1
Minneapolis.....	5			1			2			2		
Kansas City.....	9		3				1					5
Dallas.....	16			4	1					3		1
San Francisco.....	10		5			2	15			6		
Total.....	366		69		10		245			29		110

A comparison of Federal reserve bank discounts for reporting member banks in leading cities and for nonreporting member banks is presented in the table below:

**FEDERAL RESERVE BANK DISCOUNTS FOR REPORTING AND FOR NONREPORTING MEMBER BANKS IN EACH DISTRICT.**

[Amounts in thousands of dollars.]

Federal Reserve district.	Total discounts for member banks.			Discounts for reporting member banks.			Discounts for nonreporting member banks.			Percentage discounts for reporting member banks are of total discounts.		
	Nov. 5, 1920.	July 26, 1922.	Oct. 18, 1922.	Nov. 5, 1920.	July 26, 1922.	Oct. 18, 1922.	Nov. 5, 1920.	July 26, 1922.	Oct. 18, 1922.	Nov. 5, 1920.	July 26, 1922.	Oct. 18, 1922.
Boston.....	119,330	26,047	30,875	97,907	16,513	21,956	21,423	9,534	8,719	82.0	63.4	71.6
New York.....	988,263	30,610	102,506	950,071	15,469	89,980	38,192	15,141	12,526	96.1	50.5	87.8
Philadelphia.....	148,971	41,278	42,452	115,068	15,737	20,381	35,908	25,541	22,071	77.2	38.1	48.0
Cleveland.....	88,538	24,078	42,384	73,842	7,700	25,945	14,696	17,267	16,439	83.4	30.8	61.2
Richmond.....	125,461	35,809	43,283	76,520	8,064	19,520	48,941	27,745	23,763	61.0	22.5	45.1
Atlanta.....	176,902	29,968	33,734	119,152	4,123	13,325	57,750	25,845	22,409	67.4	13.8	37.3
Chicago.....	482,664	32,246	82,923	377,980	7,196	40,756	104,684	45,050	42,167	78.3	13.8	49.1
St. Louis.....	152,964	16,027	25,673	115,163	2,495	11,192	37,801	13,532	14,481	75.3	15.6	43.6
Minneapolis.....	108,300	25,934	23,275	72,926	2,732	2,997	35,380	23,202	20,278	67.3	10.5	12.9
Kansas City.....	161,072	18,205	24,089	118,502	2,254	10,351	42,570	15,951	13,738	73.6	12.4	43.0
Dallas.....	108,871	33,856	21,525	49,845	3,943	5,636	59,026	29,913	15,889	45.8	11.6	26.2
San Francisco.....	165,489	45,034	36,580	111,465	11,606	11,538	54,024	33,428	25,042	67.4	25.8	31.5
Total.....	2,826,825	379,981	511,099	2,278,435	97,832	273,577	548,390	282,149	237,522	80.6	25.7	53.5

**FEDERAL RESERVE BANK DISCOUNTS FOR REPORTING AND FOR NONREPORTING MEMBER BANKS IN EACH DISTRICT—Continued.**

Federal Reserve district.	Increase (+) or decrease (—) in total discounts.				Increase (+) or decrease (—) for reporting member banks.				Increase (+) or decrease (—) for non-reporting member banks.			
	Nov. 5, 1920, to July 26, 1922.		July 26, 1922, to Oct. 18, 1922.		Nov. 5, 1920, to July 26, 1922.		July 26, 1922, to Oct. 18, 1922.		Nov. 5, 1920, to July 26, 1922.		July 26, 1922, to Oct. 18, 1922.	
	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
Boston.....	-93,283	-78.2	+4,628	+17.8	-81,394	-83.1	+5,443	+33.0	-11,889	-55.5	-815	-8.5
New York.....	-957,653	-96.9	+71,896	+234.9	-934,602	-98.4	+74,511	+481.7	-23,051	-60.4	-2,615	-17.3
Philadelphia.....	-107,093	-72.3	+1,174	+2.8	-90,331	-86.3	+4,644	+29.5	-8,362	-24.7	-3,470	-13.6
Cleveland.....	-63,571	-71.8	+17,417	+69.8	-66,142	-89.6	+18,245	+236.9	+2,571	+17.5	-828	-4.8
Richmond.....	-89,652	-71.5	+7,474	+20.9	-68,456	-89.5	+11,456	+142.1	-21,196	-43.3	-3,982	-14.4
Atlanta.....	-146,934	-83.1	+5,766	+19.2	-115,029	-96.5	+9,202	+223.2	-31,905	-55.2	-3,436	-13.3
Chicago.....	-430,418	-89.2	+30,677	+58.7	-370,784	-98.1	+33,560	+406.4	-39,634	-57.0	-2,863	-6.4
St. Louis.....	-136,937	-89.5	+9,646	+60.2	-112,668	-97.8	+8,697	+348.6	-24,269	-64.2	+949	+7.0
Minneapolis.....	-32,366,	-76.1	-2,659	-10.3	-70,188	-96.3	+265	+9.7	-12,178	-34.4	-2,924	-12.6
Kansas City.....	-142,867	-88.7	+5,884	+32.3	-116,248	-98.1	+8,097	+339.2	-26,619	-62.5	-2,213	-13.9
Dallas.....	-75,015	-68.9	-12,331	-36.4	-45,902	-92.1	+1,693	+42.9	-29,113	-49.3	-14,024	-46.9
San Francisco.....	-120,455	-72.8	-8,454	-18.8	-99,859	-89.6	-68	-6	-20,596	-38.1	-8,366	-25.1
Total.....	-2,446,844	-86.6	+131,118	+34.5	-2,180,603	-95.7	+175,745	+179.6	-266,241	-48.5	-44,627	-15.8

The dates shown in the table are November 5, 1920, when the peak of credit expansion was reached, July 26, 1922, when the discounts for reporting member banks were at their lowest, and October 18, the latest available date. During the period between November 5, 1920, and July 26, 1922, total holdings of paper discounted for member banks declined in all the Federal reserve districts, the largest percentage of decline, 96.9 per cent, being shown for New York and the smallest, 68.9 per cent, for Dallas. During the twelve weeks after July 26, increases in discounts are shown for nine of the Federal reserve districts. Continued liquidation was reported for the Minneapolis, Dallas, and San Francisco banks, the largest proportion of liquidation, amounting to 36 per cent, being shown for Dallas. Of the increases, by far the largest, amounting to \$72,000,000, is shown for the New York reserve bank.

In comparing the changes during the first period for reporting member banks and for nonreporting member banks, it is to be noted that, while drastic reduction of loans is reported by both classes of banks, the reporting member banks in leading cities reduced their borrowings from the reserve banks by about 96 per cent, while the banks outside of these cities show a reduction of only 49 per cent. For the banks in leading cities reductions are shown in all the districts, the percentages of reduction ranging from a minimum of 83 per cent for Boston to over 98 per cent for New York and Chicago. The banks in smaller places also show liquidation for every district but one. In Cleveland, where Federal reserve bank credit was not utilized by member banks in the district to the same extent as in other reserve districts, the borrowings of member banks outside of the large centers show an increase of about 18 per cent between

November 5, 1920, and July 26, 1922. The range of percentages of decline for the other eleven districts is between 24.7 per cent in Philadelphia and 64.2 per cent in St. Louis.

During the most recent 12 weeks, increases in borrowings from Federal reserve banks by reporting member banks are shown for all the districts, except Dallas, San Francisco, and Minneapolis, the decrease in the first named district being substantial—\$12,000,000, or 36 per cent. Increases in the different districts were uneven, ranging from 3 per cent in the Philadelphia district to 235 per cent in the New York district. Of the total increase of \$131,000,000, the New York banks' share is about \$72,000,000. Among the member banks outside of the leading centers continued liquidation is shown for the most recent 12 weeks in all the districts, except St. Louis, where an upward turn is recorded. The decreases are of varying amounts, and in the case of the Dallas district they total as much as \$14,000,000, or 47 per cent. In none of the other districts does the reduction amount to as much as 30 per cent.

The general inference to be drawn from this table is that during the period from November 5, 1920, to July 26, 1922, member banks in leading cities liquidated their indebtedness to the Federal reserve banks much more rapidly and more completely than did member banks outside of the leading cities. The liquidation, though differing somewhat from district to district, amounted to over 80 per cent for the reporting member banks in every district, while for nonreporting member banks one district showed an increase and the liquidation did not exceed 65 per cent in the case of any district. During recent weeks the resumption of borrowings from the reserve banks has been almost entirely by the city banks, the country banks in all the dis-



tricts, except St. Louis, reporting further liquidation.

A statement showing the principal items of the condition of the Federal reserve banks for each week between that ending September 27 and that ending October 25 follows:

[In millions of dollars].

	Cash reserves.	Bills discounted, total.	Government securities.	Total deposits.	Federal reserve notes in actual circulation.	Reserve ratio.
Sept. 27.....	3,203.1	420.2	451.4	1,840.1	2,243.4	78.4
Oct. 4.....	3,213.0	434.2	483.3	1,877.7	2,274.7	77.4
Oct. 11.....	3,210.0	524.8	474.6	1,922.2	2,320.1	75.7
Oct. 18.....	3,214.2	511.1	446.9	1,956.1	2,315.4	75.2
Oct. 25.....	3,211.9	469.4	408.6	1,841.8	2,298.5	77.6

Federal reserve bank loans increased by over \$104,000,000 for the first two weeks of the period, but declined by about \$55,000,000 during the second two weeks, the net result being an increase of \$49,000,000 for the four weeks. Similarly, Federal reserve notes in circulation, which increased by \$77,000,000 during the first two weeks, declined by \$22,000,000 during the second two weeks. A moderate increase in cash reserves, accompanied by a net addition of \$55,000,000 to note circulation, with deposits remaining nearly constant, has resulted in a decline of the reserve ratio from 78.4 to 77.6 per cent.

Changes in the principal resources and liabilities of each Federal reserve bank for the four-week period ending October 25 is shown in the following statement:

**CHANGES IN PRINCIPAL RESOURCES AND LIABILITIES OF EACH FEDERAL RESERVE BANK BETWEEN SEPTEMBER 27 AND OCTOBER 25, 1922.**

[Amounts in millions of dollars.]

Federal reserve bank.	Total reserves.		Discounts.		Government securities.		Total deposits.		Federal reserve notes in circulation.		Reserve percentage.	
	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Sept. 27.	Oct. 25.
Boston.....		10.5	4.5		0.7		5.6		2.1		81.9	76.7
New York.....		11.1	39.3			41.7		0.1		9.3	83.7	83.4
Philadelphia.....	7.1		1.6			7		3.7	11.0		75.2	75.7
Cleveland.....	7.2		4.9			10.7		7.1	6.4		71.9	74.0
Richmond.....	9.1		1.6			.5	3.6		8.9		76.7	76.4
Atlanta.....	3.0			2.2		.4	2.1		5.7		79.9	78.0
Chicago.....		24.7	12.4		12.4			7.6	8.7		87.7	83.7
St. Louis.....	17.0		3.4				3.1		10.6		63.1	68.6
Minneapolis.....	11.5			2.2		7.0		2.1	4.0		65.9	73.0
Kansas City.....	2.7		.8			1.9	.6		3.5		63.8	63.9
Dallas.....		.8		10.6	7.6		5.4		2.1		67.5	61.7
San Francisco.....		1.7		4.3		.6		2.4	1.5		67.4	67.1
Total.....	8.8		49.2			42.8	1.6		55.2		78.4	77.6

**CASH RESERVES, TOTAL DEPOSITS, FEDERAL RESERVE NOTE CIRCULATION, AND RESERVE PERCENTAGES FOR OCTOBER AND SEPTEMBER, 1922.**

[Daily averages. Amounts in thousands of dollars.]

Federal reserve bank.	Total cash reserves.		Total deposits.		Federal reserve notes in circulation.		Reserve percentages.	
	October.	September.	October.	September.	October.	September.	October.	September.
Boston.....	252,518	243,018	127,096	122,968	197,384	188,947	77.8	77.9
New York.....	1,059,214	1,106,352	720,184	722,548	607,779	611,313	79.8	82.9
Philadelphia.....	233,315	217,839	112,084	112,194	195,305	182,496	75.9	73.9
Cleveland.....	273,295	260,858	149,087	149,683	223,160	211,789	73.4	72.2
Richmond.....	115,413	109,932	60,333	59,764	94,053	84,303	74.8	76.3
Atlanta.....	139,103	135,449	51,746	50,327	124,162	116,550	79.1	81.2
Chicago.....	554,264	573,470	266,684	268,616	391,325	383,126	84.2	88.0
St. Louis.....	103,131	85,879	65,850	64,152	85,642	73,809	68.1	62.3
Minneapolis.....	76,343	69,523	47,137	46,516	56,238	51,820	73.8	70.7
Kansas City.....	95,339	92,926	83,306	83,095	66,843	62,649	63.5	63.8
Dallas.....	64,725	55,012	55,238	50,475	43,720	37,816	65.4	62.3
San Francisco.....	244,853	242,162	137,597	135,962	223,402	220,839	67.8	67.9
Total: 1922.....	3,211,513	3,192,420	1,876,362	1,866,300	2,309,013	2,225,457	76.7	78.0
1921.....	2,905,727	2,836,396	1,728,029	1,716,162	2,456,121	2,493,910	69.4	67.4
1920.....	2,162,178	2,139,280	1,867,589	1,912,070	3,336,768	3,275,535	143.1	143.3
1919.....	2,207,386	2,137,932	1,980,676	1,930,969	2,738,394	2,627,295	148.5	150.4

<sup>1</sup> Calculated on basis of net deposits and Federal reserve notes in circulation.



RESOURCES AND LIABILITIES OF EACH FEDERAL RESERVE BANK ON WEDNESDAYS, OCTOBER 4 TO OCTOBER 25, 1922—Continued.

RESOURCES—Continued.

[In thousands of dollars.]

	Total.	Boston.	New York.	Phila- delphia.	Cleve- land.	Rich- mond.	Atlanta.	Chi- cago.	St. Louis.	Minne- apolis.	Kansas City.	Dallas.	San Francisco.
<b>Total earning assets:</b>													
Oct. 4. ....	1,153,010	74,829	301,845	93,154	123,412	48,261	47,555	119,331	63,978	43,556	66,187	40,619	130,253
Oct. 11. ....	1,245,985	86,593	390,257	93,193	132,752	46,783	41,687	127,086	58,767	39,395	63,196	39,106	130,170
Oct. 18. ....	1,214,842	85,612	322,154	101,552	127,629	48,705	48,833	146,991	61,046	36,003	64,503	41,166	130,648
Oct. 25. ....	1,135,753	84,874	263,707	94,891	121,026	47,197	47,229	130,211	64,544	35,915	65,973	48,898	131,288
<b>Bank premises:</b>													
Oct. 4. ....	44,522	5,251	9,646	603	6,431	2,571	1,766	7,703	951	961	5,060	2,093	1,486
Oct. 11. ....	44,605	5,251	9,647	603	6,464	2,571	1,781	7,704	961	961	5,060	2,093	1,518
Oct. 18. ....	45,099	5,251	9,908	603	6,583	2,571	1,831	7,715	952	978	5,096	2,093	1,518
Oct. 25. ....	45,241	5,251	9,938	613	6,590	2,571	1,867	7,715	959	978	5,096	2,093	1,570
<b>5 per cent redemption fund against F. R. bank notes:</b>													
Oct. 4. ....	3,852	422	574	250	239	173	468	665	223	198	400	146	94
Oct. 11. ....	3,764	422	574	250	239	173	468	665	223	110	400	146	94
Oct. 18. ....	3,750	422	499	250	239	148	468	665	223	196	400	146	94
Oct. 25. ....	3,750	422	499	250	239	148	468	665	223	196	400	146	94
<b>Uncollected items:</b>													
Oct. 4. ....	631,701	60,970	145,639	54,086	56,291	53,594	23,632	75,815	38,590	16,390	42,639	26,741	37,344
Oct. 11. ....	649,385	61,471	134,828	50,665	56,113	57,938	26,083	74,555	43,998	18,646	49,523	28,456	47,159
Oct. 18. ....	798,439	72,982	190,195	64,545	70,431	65,683	30,116	93,848	50,752	20,814	48,185	36,983	48,495
Oct. 25. ....	653,483	59,874	143,959	52,677	57,963	57,265	25,852	80,136	39,766	21,085	43,532	28,715	42,639
<b>All other resources:</b>													
Oct. 4. ....	14,604	494	2,148	534	1,178	523	145	466	506	1,316	642	1,908	4,744
Oct. 11. ....	15,114	510	2,388	544	1,226	531	141	649	504	1,267	675	1,905	4,774
Oct. 18. ....	14,787	558	2,123	549	1,060	569	147	626	506	1,262	663	1,912	4,812
Oct. 25. ....	14,940	545	2,028	564	1,082	544	155	622	532	1,390	701	1,924	4,853
<b>Total resources:</b>													
Oct. 4. ....	5,060,694	399,476	1,525,115	381,156	453,107	217,569	211,612	770,419	201,113	133,954	210,400	136,199	420,574
Oct. 11. ....	5,168,870	400,649	1,592,900	382,094	465,444	224,898	213,255	760,767	210,242	132,625	213,714	140,051	432,231
Oct. 18. ....	5,291,114	417,956	1,629,155	395,879	476,988	232,645	218,450	775,911	216,375	132,786	217,390	148,932	428,647
Oct. 25. ....	5,065,095	400,749	1,503,930	377,486	462,879	228,653	212,595	756,692	210,348	136,613	210,657	143,841	420,652

LIABILITIES.

<b>Capital paid in:</b>													
Oct. 4. ....	106,220	8,090	27,805	9,194	11,689	5,623	4,343	14,745	4,787	3,562	4,567	4,199	7,616
Oct. 11. ....	106,271	8,135	27,805	9,194	11,689	5,638	4,343	14,745	4,787	3,562	4,567	4,199	7,607
Oct. 18. ....	106,327	8,135	27,835	9,196	11,689	5,638	4,343	14,733	4,787	3,559	4,585	4,201	7,603
Oct. 25. ....	106,277	8,135	27,770	9,196	11,689	5,638	4,346	14,733	4,787	3,559	4,585	4,209	7,610
<b>Surplus:</b>													
Oct. 4. ....	215,398	16,483	60,197	17,945	22,509	11,030	9,114	29,025	9,388	7,468	9,646	7,394	15,199
Oct. 11. ....	215,398	16,483	60,197	17,945	22,509	11,030	9,114	29,025	9,388	7,468	9,646	7,394	15,199
Oct. 18. ....	215,398	16,483	60,197	17,945	22,509	11,030	9,114	29,025	9,388	7,468	9,646	7,394	15,199
Oct. 25. ....	215,398	16,483	60,197	17,945	22,509	11,030	9,114	29,025	9,388	7,468	9,646	7,394	15,199
<b>Deposits:</b>													
<b>Government—</b>													
Oct. 4. ....	14,901	79	4,944	823	1,889	30	703	1,018	1,174	811	781	1,037	1,612
Oct. 11. ....	12,457	13	60	835	1,991	2,221	1,542	277	1,600	840	967	1,005	1,097
Oct. 18. ....	12,545	901	83	178	1,998	601	1,600	758	1,351	499	1,739	1,336	1,501
Oct. 25. ....	23,659	1,080	8,236	965	1,656	1,360	1,602	1,102	1,541	1,133	1,155	2,026	1,803
<b>Member bank reserve acct<sup>1</sup>—</b>													
Oct. 4. ....	1,842,508	126,842	702,210	115,432	146,180	58,623	52,354	268,632	62,276	47,542	81,314	50,457	130,641
Oct. 11. ....	1,890,841	125,295	769,834	106,347	147,265	59,273	49,384	256,908	65,252	44,821	79,816	51,331	135,335
Oct. 18. ....	1,921,277	130,805	781,805	114,723	151,350	58,882	51,702	257,940	62,716	42,707	80,813	54,365	133,769
Oct. 25. ....	1,799,931	128,545	685,870	105,388	145,434	61,291	49,780	248,240	62,372	47,260	79,454	55,079	131,223
<b>Other deposits—</b>													
Oct. 4. ....	20,288	635	10,223	654	1,190	243	302	1,314	749	290	558	229	3,901
Oct. 11. ....	18,927	132	11,410	613	740	60	105	691	521	176	522	150	3,807
Oct. 18. ....	22,285	601	13,530	479	951	188	269	1,247	661	235	780	181	3,163
Oct. 25. ....	18,150	305	9,869	330	864	135	341	1,120	540	376	669	187	3,444
<b>Total deposits:</b>													
Oct. 4. ....	1,877,697	127,556	717,377	116,909	149,259	58,901	53,359	270,664	64,199	45,643	82,653	51,723	136,154
Oct. 11. ....	1,922,225	125,440	781,313	107,795	149,096	61,554	51,011	257,876	67,373	45,837	81,305	52,456	140,239
Oct. 18. ....	1,956,107	132,307	795,418	115,380	154,299	59,371	53,571	259,945	64,728	43,411	83,332	55,882	138,433
Oct. 25. ....	1,841,770	129,930	703,975	106,678	147,954	62,786	51,723	250,462	64,453	48,769	81,278	57,292	136,470
<b>F. R. notes in actual circulation:</b>													
Oct. 4. ....	2,274,651	196,347	610,763	186,928	215,999	90,506	121,500	385,448	80,272	55,204	65,573	43,092	223,019
Oct. 11. ....	2,320,115	199,382	611,984	198,913	226,320	93,270	123,783	390,979	82,941	56,403	66,528	43,964	225,848
Oct. 18. ....	2,315,437	200,790	605,330	195,080	222,289	95,262	124,637	393,286	86,425	56,911	67,478	44,430	223,519
Oct. 25. ....	2,298,536	195,535	595,140	195,183	225,111	95,433	123,919	391,785	87,541	56,733	67,416	43,369	221,351
<b>F. R. bank notes in circulation—net liability:</b>													
Oct. 4. ....	44,726	2,100	9,647	2,458	2,931	2,733	2,779	6,113	3,431	2,385	6,217	2,387	1,545
Oct. 11. ....	42,715	2,088	9,681	2,508	2,932	2,285	2,843	5,714	3,382	1,806	5,525	2,382	1,569
Oct. 18. ....	40,613	2,139	8,412	2,483	2,939	2,280	2,822	5,455	3,396	1,826	5,431	2,356	1,074
Oct. 25. ....	37,995	1,625	8,311	1,958	2,418	2,362	2,758	4,549	3,424	1,808	5,419	2,306	1,057

RESOURCES AND LIABILITIES OF EACH FEDERAL RESERVE BANK ON WEDNESDAYS, OCTOBER 4 TO OCTOBER 25, 1922—Continued.

LIABILITIES—Continued.

[In thousands of dollars.]

	Total.	Boston.	New York.	Philadelphia.	Cleveland.	Richmond.	Atlanta.	Chicago.	St. Louis.	Minneapolis.	Kansas City.	Dallas.	San Francisco.
<b>Deferred availability items:</b>													
Oct. 4.....	518,334	47,335	94,231	46,060	48,636	47,592	19,301	60,785	38,115	15,267	40,545	25,743	34,724
Oct. 11.....	537,899	47,554	96,588	44,068	49,825	49,943	20,956	59,030	41,423	16,101	44,937	27,936	39,538
Oct. 18.....	632,430	56,458	126,432	53,998	61,075	57,857	22,737	69,987	46,694	18,133	45,676	32,995	40,388
Oct. 25.....	539,773	47,343	103,053	44,677	50,883	50,160	19,468	62,659	39,744	16,786	41,012	27,522	36,466
<b>All other liabilities:</b>													
Oct. 4.....	23,668	1,565	5,095	1,662	2,084	1,184	1,216	3,339	921	1,425	1,199	1,661	2,317
Oct. 11.....	24,247	1,567	5,332	1,671	2,173	1,178	1,205	3,398	948	1,448	1,206	1,690	2,431
Oct. 18.....	24,802	1,644	5,531	1,797	2,188	1,207	1,226	3,460	957	1,448	1,242	1,671	2,431
Oct. 25.....	25,346	1,698	5,484	1,849	2,315	1,244	1,267	3,450	1,011	1,470	1,301	1,749	2,499
<b>Total liabilities:</b>													
Oct. 4.....	5,060,694	399,476	1,525,115	381,156	453,107	217,569	211,612	770,419	201,113	133,954	210,400	136,199	420,574
Oct. 11.....	5,168,870	400,649	1,592,900	382,094	465,444	224,898	213,255	760,767	210,242	132,625	213,714	140,051	432,231
Oct. 18.....	5,291,114	417,956	1,629,155	395,879	476,988	232,645	218,450	775,911	216,375	132,786	217,390	148,932	428,647
Oct. 25.....	5,065,095	400,749	1,503,030	377,486	462,879	228,653	212,595	756,692	210,348	136,613	210,657	143,841	420,652
<b>MEMORANDA.</b>													
<b>Ratio of total reserves to deposit and F. R. note liabilities combined—per cent:</b>													
Oct. 4.....	77.4	79.5	80.2	76.5	72.7	75.3	78.9	86.3	67.1	68.9	64.4	68.2	68.7
Oct. 11.....	75.7	75.9	75.7	77.2	71.4	75.5	81.9	84.8	70.4	73.6	64.2	70.9	67.9
Oct. 18.....	75.2	76.0	78.8	73.6	70.4	74.3	76.9	80.5	68.1	73.8	65.3	66.5	67.1
Oct. 25.....	77.6	76.7	83.4	75.7	74.0	76.4	78.0	83.7	68.6	73.0	63.9	61.7	67.1
<b>Contingent liability on bills purchased for foreign correspondents:</b>													
Oct. 4.....	31,966	1,974	14,850	2,163	2,217	1,325	973	3,218	1,271	730	1,298	703	1,244
Oct. 11.....	31,832	2,347	11,890	2,163	2,637	1,575	1,157	3,826	1,511	868	1,543	836	1,479
Oct. 18.....	35,265	2,347	15,323	2,163	2,637	1,575	1,157	3,826	1,511	868	1,543	836	1,479
Oct. 25.....	33,377	2,108	15,510	1,901	2,367	1,415	1,039	3,436	1,357	779	1,386	751	1,328

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.	Over 90 days.
<b>Bills discounted:</b>						
Oct. 4.....	434,196	243,163	52,473	73,414	47,193	17,953
Oct. 11.....	524,786	339,574	52,240	70,095	45,007	17,870
Oct. 18.....	511,099	317,057	48,671	76,228	49,570	19,573
Oct. 25.....	469,399	288,140	47,353	73,473	39,810	20,623
<b>Bills bought in open market:</b>						
Oct. 4.....	235,458	53,255	47,950	64,058	53,087	17,108
Oct. 11.....	246,620	70,709	43,587	63,963	54,021	14,340
Oct. 18.....	256,815	69,241	39,106	66,345	68,183	13,940
Oct. 25.....	257,691	65,797	35,594	69,753	74,176	12,371
<b>United States certificates of indebtedness:</b>						
Oct. 4.....	230,299	23,550	4,250	1,298	62,045	139,156
Oct. 11.....	238,419	29,620	3,100	15,863	63,035	126,801
Oct. 18.....	220,691	27,161	.....	45,528	15,685	132,317
Oct. 25.....	202,576	5,806	100	42,699	5,220	148,751
<b>Municipal warrants:</b>						
Oct. 4.....	15	.....	3	.....	.....	12
Oct. 11.....	15	.....	3	.....	.....	12
Oct. 18.....	27	3	.....	.....	.....	24
Oct. 25.....	27	3	.....	.....	.....	24

FEDERAL RESERVE NOTES.

FEDERAL RESERVE AGENTS' ACCOUNTS ON WEDNESDAYS, OCTOBER 4 TO OCTOBER 25, 1922.

[In thousands of dollars.]

	Total.	Boston.	New York.	Philadelphia.	Cleveland.	Richmond.	Atlanta.	Chicago.	St. Louis.	Minneapolis.	Kansas City.	Dallas.	San Francisco.
Net amount of F. R. notes received from Comptroller of the Currency:													
Oct. 4.....	3,481,292	290,013	1,192,567	247,001	264,507	124,857	195,028	508,652	125,001	68,302	88,248	61,541	315,575
Oct. 11.....	3,489,306	296,223	1,188,843	242,046	267,811	129,172	197,754	505,037	129,184	68,872	88,984	61,228	314,152
Oct. 18.....	3,516,888	293,917	1,195,785	249,922	271,716	130,472	199,784	508,633	128,871	70,215	89,241	64,791	313,538
Oct. 25.....	3,531,074	299,505	1,195,918	244,984	270,994	133,901	201,046	510,713	133,159	70,769	90,215	64,515	315,325
F. R. notes on hand:													
Oct. 4.....	798,352	79,200	347,410	40,820	32,340	26,650	68,134	82,720	25,360	10,030	13,650	15,128	56,910
Oct. 11.....	781,292	82,200	347,410	24,820	29,440	29,050	68,764	78,240	28,360	9,620	12,770	13,708	56,910
Oct. 18.....	794,442	77,200	354,060	34,820	31,340	27,350	69,564	76,640	25,810	11,120	13,570	16,728	56,210
Oct. 25.....	842,252	82,200	390,770	29,820	31,540	29,090	70,404	83,840	27,970	10,960	12,770	16,678	56,210
F. R. notes outstanding:													
Oct. 4.....	2,682,940	210,813	845,157	206,181	232,167	98,207	126,894	425,932	99,641	58,272	74,598	46,413	258,665
Oct. 11.....	2,708,014	214,023	841,433	217,226	238,371	100,122	128,990	426,797	100,824	59,252	76,214	47,520	257,242
Oct. 18.....	2,722,446	216,717	841,695	215,102	240,376	103,122	130,220	431,993	103,061	59,095	75,671	48,066	257,328
Oct. 25.....	2,688,822	217,305	803,148	215,164	239,454	104,811	130,642	426,873	105,189	59,809	77,445	47,867	259,115
Collateral security for F. R. notes outstanding:													
Gold and gold certificates—													
Oct. 4.....	416,507	5,300	363,184	-----	13,275	-----	2,400	-----	11,610	13,052	-----	7,686	-----
Oct. 11.....	416,509	5,300	363,184	-----	13,275	-----	2,400	-----	11,610	13,053	-----	7,687	-----
Oct. 18.....	416,507	5,300	363,184	-----	13,275	-----	2,400	-----	11,610	13,052	-----	7,686	-----
Oct. 25.....	386,507	5,300	333,184	-----	13,275	-----	2,400	-----	11,610	13,052	-----	7,686	-----
Gold redemption fund—													
Oct. 4.....	125,188	14,226	37,433	9,944	13,215	2,243	4,709	16,152	2,756	3,339	3,452	3,336	14,383
Oct. 11.....	126,843	11,436	37,221	9,990	11,819	4,058	4,934	15,538	3,199	2,549	3,187	3,023	19,889
Oct. 18.....	133,925	19,130	36,989	10,866	12,023	2,898	3,961	16,334	3,887	2,092	4,444	2,669	18,429
Oct. 25.....	127,104	15,718	36,800	10,927	12,502	1,328	3,227	13,814	3,935	1,606	3,818	3,920	17,509
Gold fund—F. R. Board—													
Oct. 4.....	1,653,237	163,000	371,000	118,889	150,000	60,795	86,500	370,645	48,300	20,000	50,360	15,000	168,748
Oct. 11.....	1,649,588	163,000	331,000	156,889	155,000	57,795	95,000	367,645	55,800	27,000	56,360	15,000	169,099
Oct. 18.....	1,613,033	153,000	311,000	153,889	155,000	62,795	95,000	361,644	56,800	27,000	54,360	15,000	167,545
Oct. 25.....	1,610,821	163,000	311,000	152,889	155,000	62,795	95,000	353,645	55,300	27,000	54,360	15,000	165,832
Eligible paper—													
Amount required—													
Oct. 4.....	488,008	28,287	73,540	47,348	55,677	35,169	33,285	39,135	36,975	21,881	20,786	20,391	75,534
Oct. 11.....	515,074	34,287	110,028	50,347	58,277	38,269	26,656	43,614	30,215	16,650	16,667	21,810	68,254
Oct. 18.....	558,981	39,287	130,522	50,347	60,078	37,429	28,856	53,815	30,764	16,951	16,867	22,711	71,354
Oct. 25.....	564,390	33,287	124,164	51,348	58,677	40,688	30,045	57,414	34,344	18,151	19,267	21,261	75,774
Excess amount held—													
Oct. 4.....	166,227	15,794	58,449	6,159	6,648	7,816	8,916	44,629	225	1,703	1,528	11,588	2,742
Oct. 11.....	235,972	20,757	116,710	988	14,270	3,363	9,710	39,958	1,988	6,479	3,120	8,750	9,879
Oct. 18.....	181,946	15,231	47,455	4,671	17,812	5,615	14,670	45,131	3,719	5,300	7,322	7,190	7,830
Oct. 25.....	141,712	22,954	31,335	4,630	10,622	1,607	11,807	27,753	3,586	4,868	4,290	14,206	4,054

CONDITION OF MEMBER BANKS IN LEADING CITIES.

PRINCIPAL RESOURCES AND LIABILITIES OF MEMBER BANKS IN LEADING CITIES ON WEDNESDAYS, FROM SEPTEMBER 27 TO OCTOBER 18, 1922.

ALL REPORTING MEMBER BANKS IN EACH FEDERAL RESERVE DISTRICT.

[In thousands of dollars.]

	Total.	Boston.	New York.	Philadelphia.	Cleveland.	Richmond.	Atlanta.	Chicago.	St. Louis.	Minneapolis.	Kansas City.	Dallas.	San Francisco.
<b>Number of reporting banks:</b>													
Sept. 27.....	790	48	105	56	84	79	40	109	37	33	79	52	68
Oct. 4.....	786	46	105	56	84	79	41	109	37	32	79	52	66
Oct. 11.....	787	47	105	56	84	79	41	109	37	32	79	52	66
Oct. 18.....	787	47	105	56	84	79	41	109	37	32	79	52	66
<b>Loans and discounts, including bills rediscounted with F. R. banks:</b>													
<b>Secured by U. S. Government obligations—</b>													
Sept. 27.....	261,442	13,408	84,551	16,251	29,540	9,632	7,052	46,280	15,227	8,344	10,322	4,273	16,562
Oct. 4.....	284,025	14,756	79,865	16,108	29,507	10,765	7,151	51,118	15,310	8,424	10,113	4,352	16,556
Oct. 11.....	263,333	13,853	84,534	15,673	30,215	10,337	7,044	45,847	15,362	8,429	10,318	4,300	17,421
Oct. 18.....	284,015	15,963	100,650	16,067	30,001	10,886	7,577	45,734	15,293	10,067	10,884	4,288	16,605
<b>Secured by stocks and bonds (other than U. S. Government obligations)</b>													
Sept. 27.....	3,589,810	222,301	1,655,884	246,012	350,462	115,499	58,407	519,930	126,664	39,243	72,126	40,539	142,743
Oct. 4.....	3,618,941	230,516	1,663,896	250,649	351,816	115,702	56,550	527,401	124,174	39,664	72,132	41,048	145,393
Oct. 11.....	3,612,942	229,538	1,623,021	237,268	356,551	118,459	56,527	536,301	127,484	39,598	73,452	43,213	146,465
Oct. 18.....	3,761,800	237,413	1,723,646	232,282	354,895	118,129	58,865	569,855	129,786	40,974	74,833	49,893	151,229
<b>All other—</b>													
Sept. 27.....	7,136,275	574,218	2,224,811	321,668	647,072	306,098	305,947	1,007,772	277,968	196,196	348,762	209,259	717,404
Oct. 4.....	7,168,342	569,321	2,236,926	325,847	648,582	311,552	311,312	1,009,122	285,688	190,508	352,384	210,538	716,562
Oct. 11.....	7,242,171	577,300	2,259,366	335,176	651,438	315,051	318,870	1,018,755	283,986	196,800	351,260	210,485	723,264
Oct. 18.....	7,259,054	579,245	2,263,565	334,920	651,105	312,592	321,935	1,016,678	290,365	195,748	351,565	213,861	725,478
<b>Total loans and discounts, including bills rediscounted with F. R. banks:</b>													
Sept. 27.....	10,987,527	809,927	3,965,246	583,931	1,027,074	431,229	370,506	1,573,982	419,859	243,783	431,210	254,071	876,709
Oct. 4.....	11,051,308	814,593	3,980,687	592,604	1,029,905	438,019	375,013	1,587,841	425,172	238,596	434,629	255,938	878,511
Oct. 11.....	11,118,446	820,751	3,966,921	608,117	1,038,204	443,847	382,441	1,600,963	426,832	244,827	435,030	263,363	887,150
Oct. 18.....	11,304,369	832,621	4,089,861	603,269	1,036,001	441,607	388,377	1,632,264	435,444	246,789	437,282	268,042	893,312
<b>U. S. bonds:</b>													
Sept. 27.....	1,381,003	91,792	563,532	58,730	163,428	59,187	29,027	134,287	37,589	24,606	58,257	34,792	122,776
Oct. 4.....	1,380,542	95,294	561,633	57,264	166,732	61,217	29,263	130,298	38,684	23,576	57,879	34,828	123,874
Oct. 11.....	1,364,192	95,975	554,939	56,215	164,701	60,596	25,346	130,581	36,512	22,865	57,940	34,882	123,640
Oct. 18.....	1,506,289	109,297	616,460	63,707	180,246	63,101	29,418	139,937	47,615	25,705	60,507	35,200	130,096
<b>U. S. Victory notes:</b>													
Sept. 27.....	35,833	1,759	11,039	3,025	1,672	184	628	4,109	4,601	288	1,406	518	6,604
Oct. 4.....	31,341	1,681	11,182	1,025	1,906	112	636	4,685	3,223	345	1,569	527	4,450
Oct. 11.....	40,663	1,727	15,864	1,149	2,273	129	641	5,885	3,252	1,102	1,508	527	6,606
Oct. 18.....	39,605	1,276	14,234	3,318	2,650	268	1,378	4,159	3,243	264	1,589	537	6,689
<b>U. S. Treasury notes:</b>													
Sept. 27.....	617,943	24,045	389,539	26,380	37,512	4,154	3,048	71,461	7,224	9,878	15,254	8,387	21,061
Oct. 4.....	636,037	21,809	406,397	26,707	35,824	3,709	4,562	71,030	10,515	9,877	15,120	8,143	22,344
Oct. 11.....	636,643	22,056	404,111	26,218	36,601	3,839	2,679	70,391	10,872	9,883	15,226	8,081	26,686
Oct. 18.....	651,762	21,637	401,041	27,032	39,440	4,193	2,856	80,518	16,240	9,883	15,740	5,916	27,266
<b>U. S. certificates of indebtedness:</b>													
Sept. 27.....	184,127	6,355	56,808	9,394	7,310	3,975	7,935	35,989	9,315	6,145	10,319	6,788	23,794
Oct. 4.....	166,769	7,563	49,902	6,474	6,582	3,855	5,488	35,127	6,203	5,246	10,685	6,760	22,884
Oct. 11.....	147,682	7,742	40,529	5,794	6,667	3,825	6,743	34,117	6,007	3,863	9,541	6,356	16,498
Oct. 18.....	135,290	6,574	34,560	6,993	5,651	2,914	7,223	31,369	4,419	4,985	9,422	6,390	14,790
<b>Other bonds, stocks, and securities:</b>													
Sept. 27.....	2,247,210	172,788	773,955	184,097	281,294	56,094	33,117	405,146	84,878	26,986	62,140	7,452	159,323
Oct. 4.....	2,244,282	167,964	778,924	182,309	278,305	56,155	33,676	405,655	85,536	27,425	62,221	7,462	158,650
Oct. 11.....	2,255,276	169,148	783,821	180,107	279,639	56,358	33,654	405,322	86,766	27,446	59,614	8,433	164,968
Oct. 18.....	2,247,115	169,340	774,873	182,850	280,357	56,703	34,262	408,239	86,522	27,254	59,744	8,497	158,474
<b>Total loans and discounts and investments, including bills rediscounted with F. R. banks:</b>													
Sept. 27.....	15,453,643	1,109,666	3,760,119	565,557	1,518,290	554,763	444,261	2,224,974	563,466	311,686	578,586	312,008	1,210,267
Oct. 4.....	15,510,279	1,108,904	3,788,725	566,383	1,519,254	563,067	448,638	2,234,436	569,333	305,065	582,103	313,658	1,210,713
Oct. 11.....	15,562,902	1,117,399	3,766,185	577,600	1,528,085	568,594	451,504	2,247,259	570,241	309,986	578,839	321,642	1,225,548
Oct. 18.....	15,884,930	1,140,745	3,931,029	592,169	1,544,345	568,786	463,514	2,296,486	593,483	314,880	584,284	324,882	1,230,627
<b>Reserve with F. R. banks:</b>													
Sept. 27.....	1,358,358	85,219	626,948	69,178	107,610	35,267	29,006	189,656	35,104	21,612	46,683	23,916	88,159
Oct. 4.....	1,396,780	88,691	638,758	74,262	101,135	36,162	33,886	202,699	37,843	23,974	49,874	23,662	85,834
Oct. 11.....	1,440,372	84,926	704,933	66,460	103,173	35,816	30,285	199,238	40,285	20,521	48,270	24,764	91,701
Oct. 18.....	1,465,215	89,140	714,213	72,796	106,978	35,308	32,804	192,021	38,063	18,129	49,387	26,299	90,077
<b>Cash in vault:</b>													
Sept. 27.....	281,349	18,522	88,124	15,267	28,695	13,131	9,424	51,911	7,250	6,052	12,117	10,451	20,405
Oct. 4.....	281,801	18,625	87,188	15,264	29,442	13,527	9,479	52,894	7,396	6,191	11,760	9,993	19,942
Oct. 11.....	300,382	19,997	95,473	18,095	29,970	14,004	10,663	54,263	7,868	6,890	11,949	10,894	20,516
Oct. 18.....	295,809	20,010	88,833	16,925	31,501	14,442	9,754	55,665	10,118	6,404	11,855	10,047	20,255
<b>Net demand deposits:</b>													
Sept. 27.....	11,085,421	808,606	4,847,523	695,195	875,704	326,791	260,425	1,437,964	323,167	198,286	448,209	223,564	639,987
Oct. 4.....	11,168,378	825,048	4,879,679	702,514	878,817	334,222	256,505	1,450,474	327,175	194,760	454,612	222,679	641,893
Oct. 11.....	11,256,711	823,305	4,883,686	711,563	884,899	337,074	263,492	1,475,937	333,058	197,735	452,517	231,084	662,361
Oct. 18.....	11,305,835	834,651	4,975,426	706,817	878,127	332,227	263,955	1,448,031	327,737	196,976	448,543	237,232	656,113

PRINCIPAL RESOURCES AND LIABILITIES OF MEMBER BANKS IN LEADING CITIES ON WEDNESDAYS, FROM SEPTEMBER 27 TO OCTOBER 18, 1922—Continued.

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

[In thousands of dollars.]

	Total.	Boston.	New York.	Phila- delphia.	Clev- land.	Rich- mond.	Atlan- ta.	Chica- go.	St. Louis.	Minne- apolis.	Kansas City.	Dallas.	San Fran- cisco.
<b>Time deposits:</b>													
Sept. 27.....	3,573,401	246,742	779,049	56,194	503,405	145,266	153,920	700,355	172,033	80,803	117,821	65,949	551,864
Oct. 4.....	3,584,586	244,007	783,243	56,400	505,173	145,990	154,928	701,726	172,252	83,312	116,944	66,386	554,216
Oct. 11.....	3,579,652	243,869	770,179	56,447	512,224	145,731	155,206	699,816	173,181	83,241	117,557	66,606	555,595
Oct. 18.....	3,603,873	242,978	771,082	56,131	513,738	146,700	155,103	719,308	174,177	82,483	117,515	67,091	557,567
<b>Government deposits:</b>													
Sept. 27.....	146,493	11,909	51,184	10,203	14,168	4,512	4,621	17,983	6,415	5,251	5,543	3,668	11,028
Oct. 4.....	125,733	10,117	43,739	9,183	12,074	3,858	3,934	15,396	5,538	4,510	4,738	3,138	9,508
Oct. 11.....	100,424	8,148	34,985	7,338	9,631	2,987	3,146	12,265	4,428	3,586	3,793	2,510	7,607
Oct. 18.....	302,561	33,355	124,437	28,686	14,571	11,007	10,438	29,284	22,117	6,831	6,681	3,891	11,263
<b>Bills payable with F. R. banks:</b>													
<b>Secured by U. S. Govern- ment obligations—</b>													
Sept. 27.....	63,741	2,411	15,294	9,405	10,027	5,468	595	8,150	3,738	88	2,130	880	5,555
Oct. 4.....	80,003	3,099	28,954	8,397	3,858	5,850	2,249	15,341	3,684	98	1,210	640	6,623
Oct. 11.....	155,571	5,573	102,352	10,692	10,852	5,998	95	13,574	1,338	123	1,364	725	2,885
Oct. 18.....	119,113	5,210	48,949	9,727	13,247	8,110	1,654	17,810	3,023	473	4,180	1,040	5,690
<b>All other—</b>													
Sept. 27.....	813				145	500							168
Oct. 4.....	997				20	825							152
Oct. 11.....	692				20	525							147
Oct. 18.....	632				20	470							142
<b>Bills rediscounted with F. R. banks:</b>													
<b>Secured by U. S. Govern- ment obligations—</b>													
Sept. 27.....	1,910	54	474	105	81	106	51	77	502	1	48	6	405
Oct. 4.....	620	54		105	72	94	50	77	44		37	6	81
Oct. 11.....	823	182		105	69	89	44	77	89	1	79	6	82
Oct. 18.....	844	59		105	14	85	94	79	266	1	100	6	35
<b>All other—</b>													
Sept. 27.....	92,682	13,062	17,694	6,855	6,684	8,434	7,531	9,216	6,225	3,217	5,418	4,861	3,485
Oct. 4.....	100,186	13,097	17,049	6,923	6,421	10,721	10,269	9,953	7,387	2,016	6,881	4,339	5,110
Oct. 11.....	120,637	18,864	35,789	7,853	8,991	10,602	8,658	9,105	6,736	2,442	4,280	4,010	3,267
Oct. 18.....	152,988	16,687	41,031	10,549	12,664	10,855	11,577	22,807	7,903	2,523	6,071	4,590	5,671

MEMBER BANKS IN FEDERAL RESERVE BANK CITIES.

[In thousands of dollars.]

<b>Number of reporting banks:</b>													
Sept. 27.....	267	25	64	43	8	10	7	50	13	8	16	8	15
Oct. 4.....	265	23	64	43	8	10	7	50	13	8	16	8	15
Oct. 11.....	266	24	64	43	8	10	7	50	13	8	16	8	15
Oct. 18.....	266	24	64	43	8	10	7	50	13	8	16	8	15
<b>Loans and discounts, in- cluding bills rediscounted with F. R. banks:</b>													
<b>Secured by U. S. Govern- ment obligations—</b>													
Sept. 27.....	172,374	10,758	73,826	14,322	6,368	2,088	1,357	37,124	11,412	5,588	2,274	1,317	5,940
Oct. 4.....	173,894	12,140	69,724	14,254	6,329	2,100	1,449	41,898	11,370	5,591	2,315	1,179	5,545
Oct. 11.....	172,753	11,252	74,443	13,898	6,329	2,050	1,447	36,486	12,028	5,590	2,272	1,361	5,597
Oct. 18.....	193,054	13,180	90,545	14,350	6,361	2,036	1,684	36,597	11,672	7,237	2,440	1,411	5,541
<b>Secured by stocks and bonds (other than U. S. Government obli- gations)—</b>													
Sept. 27.....	2,650,764	170,216	1,479,554	224,901	149,031	16,257	10,403	394,786	96,864	18,696	17,989	9,181	62,886
Oct. 4.....	2,683,932	178,674	1,488,195	229,139	150,350	18,127	9,765	402,635	97,179	19,333	18,175	9,170	63,220
Oct. 11.....	2,665,689	178,565	1,449,648	236,164	152,226	18,316	9,446	412,940	96,541	18,901	20,188	9,299	63,455
Oct. 18.....	2,798,745	185,539	1,546,052	231,497	148,410	18,405	10,459	445,421	98,163	20,233	20,842	9,531	64,184
<b>All other—</b>													
Sept. 27.....	4,432,302	434,814	1,942,694	292,924	295,581	65,274	47,784	631,433	165,581	96,740	118,378	53,192	287,907
Oct. 4.....	4,433,441	430,210	1,933,615	296,712	293,499	64,466	49,553	624,121	167,190	94,469	118,489	56,559	287,558
Oct. 11.....	4,486,412	435,536	1,973,706	305,226	293,836	65,830	51,057	631,851	164,572	93,691	116,883	57,155	292,049
Oct. 18.....	4,484,525	437,585	1,976,340	304,654	293,898	64,393	48,492	628,347	167,132	97,281	115,094	59,838	291,471
<b>Total loans and discounts, including bills redis- counted with F. R. banks:</b>													
Sept. 27.....	7,255,440	615,788	3,496,074	532,147	450,930	83,619	59,544	1,063,343	273,857	121,024	138,641	63,090	356,733
Oct. 4.....	7,294,293	621,024	3,511,534	540,105	450,178	84,693	60,768	1,038,654	275,739	119,393	138,979	66,908	356,323
Oct. 11.....	7,324,854	625,373	3,497,797	555,258	452,391	86,195	61,950	1,081,277	273,141	123,182	139,343	67,815	361,101
Oct. 18.....	7,476,324	636,304	3,612,937	550,501	448,678	84,834	60,635	1,110,365	276,937	124,751	138,376	70,780	361,196
<b>U. S. bonds:</b>													
Sept. 27.....	794,963	40,217	491,804	44,498	28,283	4,540	4,862	59,471	21,105	6,494	23,359	9,157	61,164
Oct. 4.....	787,140	39,774	487,519	42,831	28,704	4,553	4,922	56,379	22,105	5,731	23,604	9,292	61,726
Oct. 11.....	775,768	40,635	480,667	41,771	28,876	4,605	4,896	55,624	20,467	4,993	23,535	9,297	60,397
Oct. 18.....	871,566	51,349	532,072	53,521	31,342	5,217	5,390	57,393	29,351	7,211	24,319	10,137	64,261

PRINCIPAL RESOURCES AND LIABILITIES OF MEMBER BANKS IN LEADING CITIES ON WEDNESDAYS, FROM SEPTEMBER 27 TO OCTOBER 18, 1922—Continued.

MEMBER BANKS IN FEDERAL RESERVE BANK CITIES—Continued.

[In thousands of dollars.]

	Total.	Boston.	New York.	Phila- delphia.	Clove- land.	Rich- mond.	Atlan- ta.	Chica- go.	St. Louis.	Minne- apolis.	Kansas City.	Dallas.	San Francisco.
<b>U. S. Victory notes:</b>													
Sept. 27	23,597	1,200	9,908	2,972	161	.....	1	3,616	2,454	29	289	54	2,013
Oct. 4	19,879	1,120	10,041	959	173	.....	1	4,134	906	87	430	54	1,974
Oct. 11	26,142	1,160	13,704	1,127	171	.....	1	5,288	930	844	352	54	2,511
Oct. 18	23,333	214	11,439	3,282	162	.....	737	3,562	879	6	397	65	2,590
<b>U. S. Treasury notes:</b>													
Sept. 27	500,107	19,055	373,259	23,914	6,732	867	964	50,089	5,786	.....	5,745	3,500	10,146
Oct. 4	517,482	17,334	388,316	24,580	6,464	617	964	49,654	9,244	.....	5,774	3,400	11,135
Oct. 11	513,546	17,615	386,132	23,702	6,273	617	964	49,001	9,245	.....	5,879	3,200	10,918
Oct. 18	523,723	17,887	353,148	24,503	7,232	754	1,174	55,378	12,740	.....	5,840	3,005	12,062
<b>U. S. certificates of indebtedness:</b>													
Sept. 27	114,744	5,522	50,540	8,516	3,812	1,599	3,497	19,198	8,314	2,803	3,361	2,908	4,674
Oct. 4	103,335	6,830	44,801	5,499	3,932	1,839	3,224	18,657	5,505	1,904	3,361	3,124	4,659
Oct. 11	92,510	7,009	35,428	5,218	3,827	1,839	3,224	18,188	5,308	1,657	3,326	3,020	4,466
Oct. 18	84,203	5,830	30,330	6,402	3,022	1,588	3,906	16,891	3,581	2,234	3,309	3,104	4,006
<b>Other bonds, stocks, and securities:</b>													
Sept. 27	1,212,588	81,831	581,862	150,590	62,184	6,498	2,888	171,682	53,356	11,602	12,821	966	76,308
Oct. 4	1,208,823	77,775	585,430	147,523	61,483	6,480	2,905	171,222	54,346	11,728	12,646	1,065	76,220
Oct. 11	1,211,104	79,929	585,500	145,238	61,482	6,352	2,912	172,133	55,318	11,790	12,763	1,834	77,853
Oct. 18	1,212,482	78,011	583,577	147,272	63,209	6,469	2,859	173,458	54,534	11,661	13,148	2,039	76,245
<b>Total loans and discounts and investments, including bills rediscounted with F. R. banks:</b>													
Sept. 27	9,901,439	763,613	5,003,447	762,637	552,202	97,132	71,756	1,367,399	364,872	141,952	184,216	80,275	511,938
Oct. 4	9,930,957	763,857	5,027,641	761,497	550,934	98,182	72,784	1,368,700	367,845	138,843	184,794	83,843	512,037
Oct. 11	9,943,924	769,721	4,999,228	772,344	553,020	99,609	73,947	1,381,511	364,409	142,471	185,198	85,220	517,246
Oct. 18	10,191,631	789,595	5,153,503	785,481	553,645	98,862	74,701	1,417,050	378,052	145,863	185,389	89,130	520,360
<b>Reserve with F. R. banks:</b>													
Sept. 27	981,906	68,564	580,573	63,306	34,351	5,432	5,402	133,390	23,323	11,246	15,288	6,745	34,286
Oct. 4	1,014,576	70,616	592,955	68,223	31,352	5,760	6,566	143,724	25,500	13,276	17,658	6,873	32,073
Oct. 11	1,054,841	67,758	655,436	60,943	32,333	5,859	5,540	131,339	27,946	9,062	16,533	6,873	35,219
Oct. 18	1,076,256	71,875	666,748	66,517	33,622	5,454	6,503	134,230	25,063	8,549	15,690	7,492	33,913
<b>Cash in vault:</b>													
Sept. 27	151,266	8,351	74,377	12,567	7,910	982	1,860	29,646	3,450	2,242	2,330	1,504	6,047
Oct. 4	149,261	8,185	73,077	12,512	8,065	963	2,041	29,160	3,381	2,285	2,156	1,468	5,968
Oct. 11	161,454	9,092	81,173	14,899	8,329	967	1,963	28,973	3,656	2,392	2,251	1,718	6,041
Oct. 18	156,084	8,612	74,960	13,828	8,605	1,051	1,869	31,449	3,695	2,072	2,420	1,473	6,050
<b>Net demand deposits:</b>													
Sept. 27	7,704,196	623,545	4,357,471	616,350	238,484	52,874	41,179	990,053	222,103	94,470	156,567	62,451	248,649
Oct. 4	7,761,598	637,496	4,385,710	623,133	236,887	54,532	41,778	998,605	226,079	93,206	157,136	63,295	243,761
Oct. 11	7,802,222	634,198	4,385,232	633,040	236,768	56,064	44,077	1,012,569	230,785	93,828	157,722	66,474	251,445
Oct. 18	7,856,679	645,313	4,473,873	627,343	231,311	53,701	43,652	990,449	228,642	94,726	153,399	69,631	246,739
<b>Time deposits:</b>													
Sept. 27	1,758,340	112,761	551,949	39,943	296,465	24,254	10,518	328,505	99,457	34,413	11,337	9,273	230,465
Oct. 4	1,762,711	108,927	557,061	40,131	297,779	24,230	10,723	328,717	99,812	35,007	11,301	9,397	230,626
Oct. 11	1,750,593	108,944	542,231	40,108	303,610	24,212	10,786	325,383	100,296	34,848	11,324	9,526	230,325
Oct. 18	1,770,827	109,029	542,318	39,959	304,703	24,321	10,822	342,627	100,702	34,743	11,458	9,434	231,711
<b>Government deposits:</b>													
Sept. 27	106,687	10,314	45,606	9,425	6,532	1,504	1,325	11,385	5,150	1,760	3,916	2,336	6,434
Oct. 4	91,484	8,750	39,834	8,478	5,457	1,285	1,125	9,754	4,458	1,499	3,347	1,999	5,498
Oct. 11	73,286	7,032	31,863	6,776	4,484	1,029	900	7,766	3,564	1,195	2,679	1,599	4,399
Oct. 18	228,410	26,624	111,879	26,990	6,279	1,701	2,854	16,364	18,386	3,363	3,877	2,253	7,840
<b>Bills payable with F. R. banks:</b>													
<b>Secured by U. S. Government obligations—</b>													
Sept. 27	28,300	2,111	10,030	8,155	.....	419	.....	2,410	250	38	687	.....	4,200
Oct. 4	46,534	2,374	20,980	7,447	.....	1,022	654	5,396	1,876	98	687	.....	6,000
Oct. 11	116,610	4,548	93,555	9,042	.....	1,396	.....	4,509	250	123	687	.....	2,500
Oct. 18	73,349	4,310	41,630	8,427	.....	2,085	654	9,855	450	123	865	.....	4,950
<b>All other—</b>													
Sept. 27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oct. 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oct. 11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oct. 18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>Bills rediscounted with F. R. banks:</b>													
<b>Secured by U. S. Government obligations—</b>													
Sept. 27	1,023	54	474	105	.....	.....	.....	.....	.....	.....	33	.....	362
Oct. 4	196	54	.....	105	.....	.....	.....	.....	.....	.....	37	.....	.....
Oct. 11	366	182	.....	105	.....	.....	.....	.....	.....	.....	79	.....	.....
Oct. 18	239	59	.....	105	.....	.....	.....	.....	.....	.....	75	.....	.....
<b>All other—</b>													
Sept. 27	49,751	12,937	13,277	6,855	3,421	2,500	465	6,090	1,036	740	840	1,288	302
Oct. 4	52,276	12,882	12,725	6,923	2,461	3,487	801	5,970	962	451	1,278	1,837	3,019
Oct. 11	73,969	18,804	28,667	7,853	4,706	3,062	509	5,515	264	816	1,123	1,080	1,570
Oct. 18	96,717	16,687	33,353	10,549	6,822	3,243	1,050	17,994	66	698	1,057	1,843	3,350



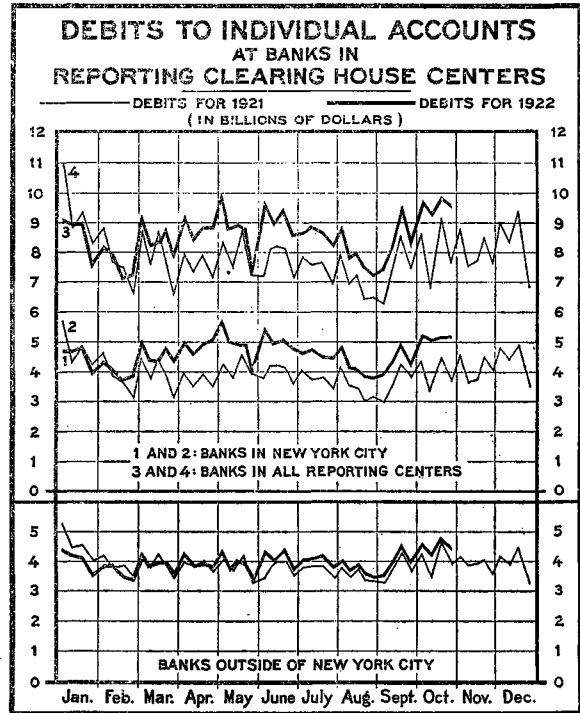
**BANK DEBITS.**

For the four weeks ending October 25 the volume of business, as measured by bank debits, continued the upward course begun during the preceding five weeks. The level of debits for the period was on an average 18.7 per cent higher than for the preceding five weeks. During the week ended October 18 the volume of debits was \$9,868,000,000, the highest record for the year with the single exception of the end-of-quarter week ending April 3.

Compared with the corresponding period in 1921, the debits for the four weeks were on an average level 19.5 per cent higher. This spread between the two years compares with about 13 per cent shown in August and September. The increase in the volume of business for New York City was 21 per cent over the preceding five-week period, while outside of New York City it was 16 per cent. Compared with last year, New York City figures were 28 per cent higher and figures for the centers other than New York were 11 per cent higher. It is to be noted that the volume of debits for the outside centers was higher during the week ending October 18 than for any week in 1922 or in 1921, with the exception of the week ending January 4, at the turn of 1920-21.

The volume of business is measured by debits to individual accounts as reported to the Federal Reserve Board for banks in leading centers. Figures are shown for a total of 250

centers, of which 165 are included in the summary by Federal reserve districts, because for these centers comparable figures for the four weeks and for the corresponding period in 1921 are available.



**DEBITS TO INDIVIDUAL ACCOUNTS BY BANKS IN REPORTING CENTERS.**

**SUMMARY BY FEDERAL RESERVE DISTRICTS.**

[In thousands of dollars.]

Federal reserve district.	Number of centers included.	1922 Week ending—				1921 Week ending—			
		Oct. 4.	Oct. 11.	Oct. 18.	Oct. 25.	Oct. 5.	Oct. 11-12.	Oct. 19.	Oct. 26.
No. 1—Boston.....	14	510, 143	472, 995	542, 023	507, 831	472, 802	375, 399	573, 538	458, 107
No. 2—New York.....	7	5, 303, 375	5, 206, 468	5, 297, 016	5, 304, 373	4, 516, 858	3, 466, 985	4, 608, 077	3, 858, 707
No. 3—Philadelphia.....	13	485, 883	434, 466	484, 583	461, 151	399, 888	313, 750	459, 881	353, 412
No. 4—Cleveland.....	13	509, 699	464, 372	523, 167	493, 239	445, 281	359, 682	489, 464	405, 452
No. 5—Richmond.....	11	232, 652	212, 910	228, 451	216, 290	234, 577	202, 808	255, 381	204, 969
No. 6—Atlanta.....	15	221, 667	198, 613	218, 259	205, 827	211, 798	182, 669	221, 052	188, 161
No. 7—Chicago.....	24	1, 070, 281	978, 629	1, 119, 834	1, 030, 968	985, 093	782, 658	1, 082, 872	941, 567
No. 8—St. Louis.....	8	258, 966	255, 190	284, 511	249, 961	239, 769	219, 774	259, 633	141, 166
No. 9—Minneapolis.....	11	165, 867	154, 853	174, 021	153, 453	160, 002	137, 002	159, 860	209, 884
No. 10—Kansas City.....	16	268, 893	260, 580	279, 442	275, 348	242, 164	227, 948	248, 884	234, 740
No. 11—Dallas.....	13	170, 159	134, 691	185, 104	176, 271	186, 948	136, 186	167, 643	153, 294
No. 12—San Francisco.....	20	522, 707	517, 902	533, 372	511, 648	501, 368	420, 572	592, 848	475, 765
Total.....	165	9, 700, 272	9, 321, 678	9, 867, 783	9, 586, 360	8, 596, 546	6, 825, 433	9, 149, 133	7, 625, 224

DEBITS TO INDIVIDUAL ACCOUNTS BY BANKS IN REPORTING CENTERS—Continued.  
DATA FOR EACH REPORTING CENTER.

[In thousands of dollars.]

	1922 Week ending—				1921 Week ending—			
	Oct. 4.	Oct. 11.	Oct. 18.	Oct. 25.	Oct. 5.	Oct. 11-12.	Oct. 19.	Oct. 26.
<b>District No. 1—Boston:</b>								
Bangor, Me.	4,650	3,774	3,329	3,319	5,139	3,597	4,065	3,844
Boston, Mass.	338,805	318,603	371,286	340,055	318,357	255,555	403,425	318,167
Brockton, Mass.	4,700	4,401	5,612	4,875				
Fall River, Mass.	7,923	6,682	8,496	8,485	7,678	6,261	8,373	7,077
Hartford, Conn.	25,715	22,399	31,160	21,565	26,096	17,485	23,456	16,626
Holyoke, Mass.	4,249	4,024	3,801	4,041	3,115	2,434	3,742	2,757
Lowell, Mass.	5,721	4,772	5,320	5,524	4,592	3,977	6,176	4,570
Lynn, Mass.	5,623	5,360	8,095	6,410				
Manchester, N. H.	4,399	4,521	3,860	4,001	4,876	3,807	5,396	4,106
New Bedford, Mass.	6,120	6,256	8,378	8,335	5,719	5,163	8,370	6,571
New Haven, Conn.	20,417	18,706	19,286	18,148	18,101	13,471	19,728	15,420
Portland, Me.	13,366	8,298	9,631	8,074	9,399	9,457	7,598	6,474
Providence, R. I.	36,239	35,520	37,470	43,329	34,053	26,472	40,438	40,379
Springfield, Mass.	17,879	16,338	16,424	18,042	14,337	11,007	16,856	13,694
Waterbury, Conn.	8,024	7,157	6,904	7,195	6,316	4,712	7,285	4,993
Worcester, Mass.	16,636	15,945	16,678	17,718	15,024	12,001	18,630	13,429
<b>District No. 2—New York:</b>								
Albany, N. Y.	26,375	22,468	19,915	18,029	22,130	15,863	20,196	16,647
Binghamton, N. Y.	4,761	5,031	3,626	4,127	4,098	3,364	4,981	3,597
Buffalo, N. Y.	73,692	64,267	67,274	64,856	64,670	46,049	73,382	53,947
Elmira, N. Y.	3,869	3,891	3,938	3,836				
Jamestown, N. Y.	3,825	3,801	3,989	3,731				
Montclair, N. J.	3,262	2,647	2,755	2,678				
Newark, N. J.	63,468	53,403	58,500	57,221				
New York, N. Y.	5,132,725	5,061,257	5,151,813	5,165,932	4,373,399	3,364,389	4,514,605	3,741,327
No. New Jersey Clearing House Association	44,391	39,640	39,054	36,462				
Passaic, N. J.	6,329	6,403	6,784	6,222	4,839	4,418	5,999	5,005
Rochester, N. Y.	43,031	32,974	33,487	31,278	32,598	23,020	34,212	25,534
Stamford, Conn.	3,508	3,504	2,878	2,579				
Syracuse, N. Y.	16,262	14,068	14,117	13,929	15,124	9,882	14,702	12,650
<b>District No. 3—Philadelphia:</b>								
Allentown, Pa.	8,522	7,456	6,587	6,367				
Altoona, Pa.	4,030	3,230	3,790	3,445	3,164	2,535	3,622	3,107
Camden, N. J.	11,172	9,740	11,472	9,142				
Chester, Pa.	6,115	4,972	7,313	4,452	4,711	3,499	5,744	3,939
Harrisburg, Pa.	9,185	7,235	8,684	7,378	7,963	5,363	7,766	5,812
Hazleton, Pa.	2,827	2,538	2,498	2,303				
Johnstown, Pa.	6,441	5,448	5,412	4,841	5,218	4,005	5,005	4,067
Lancaster, Pa.	6,248	6,203	6,157	5,615	5,534	4,286	6,046	4,479
Lebanon, Pa.	1,446	1,622	1,597	1,302				
Norristown, Pa.	918	1,018	933	804				
Philadelphia, Pa.	368,713	340,708	390,377	371,510	311,743	242,202	366,539	276,758
Reading, Pa.	8,508	8,934	9,169	8,806	7,841	7,750	9,004	6,686
Scranton, Pa.	14,782	21,011	14,304	16,786	15,389	14,555	14,030	16,258
Trenton, N. J.	11,987	11,935	12,694	12,111	10,240	9,192	13,689	10,526
Wilkes-Barre, Pa.	9,427	8,645	9,420	7,909	11,186	7,964	10,130	8,584
Williamsport, Pa.	5,850	4,236	4,683	4,443	4,233	4,151	4,874	3,649
Wilmington, Del.	9,057	7,319	8,167	9,427	8,254	5,475	8,943	5,926
York, Pa.	5,540	4,590	4,413	4,428	4,412	2,773	4,489	3,621
<b>District No. 4—Cleveland:</b>								
Akron, Ohio	14,473	14,225	12,814	14,609	14,302	9,536	13,246	12,665
Butler, Pa.	2,947	3,290	2,431	2,684				
Canton, Ohio	9,325	10,184	9,905	8,324				
Cincinnati, Ohio	71,172	67,167	74,069	67,740	59,842	50,025	78,732	61,091
Cleveland, Ohio	144,947	118,700	164,624	127,614	124,203	84,375	136,417	102,972
Columbus, Ohio	31,490	30,353	34,935	31,194	27,709	23,710	31,465	25,513
Connellsville, Pa.	1,867	1,638	1,518	1,286				
Dayton, Ohio	14,167	11,283	15,632	14,446	12,980	12,812	13,419	12,663
Erie, Pa.	7,201	7,029	7,003	6,549	7,441	5,675	5,868	5,485
Greensburg, Pa.	5,317	4,973	6,030	5,027	4,398	3,882	4,867	4,869
Homestead, Pa.	1,485	873	717	838				
Lexington, Ky.	5,116	3,788	4,555	4,555	3,410	3,054	4,290	3,409
Lima, Ohio	4,040	3,065	3,218	3,040				
Lorain, Ohio	1,508	1,404	1,551	1,277				
New Brighton, Pa.	2,738	2,206	2,284	1,948				
Oil City, Pa.	3,215	4,004	3,446	3,295	2,218	1,500	2,602	2,620
Pittsburgh, Pa.	181,775	179,051	167,787	192,603	165,279	147,134	174,496	153,893
Springfield, Ohio	4,555	4,032	5,764	4,252				
Toledo, Ohio	44,103	47,470	37,700	34,902	3,353	3,190	3,707	3,539
Warren, Ohio	3,037	3,146	3,284	2,234				
Wheeling, W. Va.	10,805	8,721	11,377	9,732	7,656	5,598	9,034	8,286
Youngstown, Ohio	15,466	11,046	15,131	11,593	12,400	9,191	11,321	8,447
Zanesville, Ohio	2,820	2,900	3,146	2,818				
<b>District No. 5—Richmond:</b>								
Asheville, N. C.	4,655	5,049	4,903	4,483				
Baltimore, Md.	93,702	79,174	88,307	81,467	112,468	87,943	131,144	94,655
Charleston, S. C.	5,841	5,010	4,666	4,889	6,186	5,674	5,380	5,709
Charleston, W. Va.	9,190	9,207	9,207	8,894				
Charlotte, N. C.	8,955	8,260	9,114	8,486	6,554	7,101	7,202	5,844
Columbia, S. C.	6,692	6,490	5,387	5,921	6,501	5,389	5,576	5,050
Cumberland, Md.	2,159	1,779	2,140	1,840				
Danville, Va.	2,421	3,024	3,596	3,716				
Durham, N. C.	4,361	4,470	4,948	5,962				
Greensboro, N. C.	4,844	5,017	4,855	4,504				
Greenville, S. C.	4,700	4,800	5,200	3,700	4,582	5,042	3,866	3,648
Hagerstown, Md.	2,985	2,078	2,370	2,183				
Huntington, W. Va.	5,315	5,253	6,249	5,247	4,393	3,772	5,772	4,434
Lynchburg, Va.	5,478	4,540	4,736	4,224				

## DEBITS TO INDIVIDUAL ACCOUNTS BY BANKS IN REPORTING CENTERS—Continued.

## DATA FOR EACH REPORTING CENTER—Continued.

[In thousands of dollars.]

	1922 Week ending—				1921 Week ending—			
	Oct. 4.	Oct. 11.	Oct. 18.	Oct. 25.	Oct. 5.	Oct. 11-12.	Oct. 19.	Oct. 26.
District No. 5—Richmond—Continued.								
Newport News, Va.	1,709	1,487	1,682	1,601				
Norfolk, Va.	16,832	17,978	17,441	18,318	15,044	14,137	15,915	14,017
Raleigh, N. C.	5,900	7,400	4,700	9,400	4,000	4,080	3,140	3,600
Richmond, Va.	31,943	29,022	35,275	32,275	28,974	26,724	28,571	25,620
Roanoke, Va.	5,418	5,388	6,192	5,460				
Spartanburg, S. C.	2,871	2,972	3,320	2,582				
Washington, D. C.	47,149	43,870	44,091	40,834	39,948	37,555	42,799	37,443
Wilmington, N. C.	5,623	5,662	6,021	6,011	5,837	5,391	6,016	4,949
Winston-Salem, N. C.	6,533	7,306	11,994	6,781				
District No. 6—Atlanta:								
Albany, Ga.	1,322	1,180	1,300	1,033				
Atlanta, Ga.	28,723	29,167	30,846	27,311	28,445	26,548	29,541	25,081
Augusta, Ga.	7,881	7,146	8,342	7,568	8,997	7,706	6,768	6,793
Birmingham, Ala.	24,530	23,443	24,579	18,896	15,529	7,146	14,632	13,318
Brunswick, Ga.	660	778	622	677				
Chattanooga, Tenn.	8,437	7,632	8,624	7,258	7,910	8,077	9,000	6,797
Columbus, Ga.	3,245	3,835	3,502	3,646				
Cordele, Ga.	674	610	600	492				
Dothan, Ala.	1,034	800	900	1,023				
Elberton, Ga.	310	259	246	244				
Jackson, Miss.	2,559	2,851	3,034	2,557				
Jacksonville, Fla.	10,360	9,908	10,537	11,231	9,000	8,445	10,371	8,711
Knoxville, Tenn.	6,930	5,871	7,605	5,813	8,485	6,518	8,007	5,676
Nacoochee, Ga.	5,385	4,917	5,293	4,830	4,773	4,432	4,811	4,228
Meridian, Miss.	2,183	2,450	2,730	2,397				
Mobile, Ala.	7,141	5,792	7,788	7,526	8,431	5,380	6,188	6,355
Montgomery, Ala.	5,182	5,170	5,539	5,330	4,978	4,361	4,618	3,819
Nashville, Tenn.	17,154	16,740	17,237	17,146	28,478	29,323	29,840	28,185
Newman, Ga.	585	422	394	462				
New Orleans, La.	79,788	63,911	72,862	72,957	62,877	52,722	74,333	61,049
Pensacola, Fla.	1,550	1,287	1,351	1,411	1,500	1,317	1,443	1,092
Savannah, Ga.	11,086	10,430	9,980	10,931	14,800	13,860	14,100	10,800
Tampa, Fla.	5,701	5,380	5,549	5,357	5,724	4,956	5,129	4,408
Valdosta, Ga.	1,090	1,211	1,087	1,013				
Vicksburg, Miss.	1,819	1,819	2,107	2,267	1,869	1,878	2,271	1,849
District No. 7—Chicago:								
Adrian, Mich.	782	742	775	659				
Aurora, Ill.	3,159	2,637	3,681	2,959				
Bay City, Mich.	3,020	2,403	2,462	2,440	3,050	2,238	2,509	2,362
Bloomington, Ill.	2,560	1,859	2,495	2,233	2,486	1,914	2,469	1,911
Cedar Rapids, Iowa	5,996	5,816	5,450	4,922	10,595	10,409	10,461	9,044
Chicago, Ill.	689,607	648,408	752,272	654,477	655,888	491,607	717,306	620,854
Danville, Ill.	2,400	2,500	2,600	2,300				
Davenport, Iowa	9,811	8,900	8,023	7,609	7,275	7,285	6,927	7,219
Decatur, Ill.	3,331	3,189	3,475	3,556	3,038	2,388	3,551	2,794
Des Moines, Iowa	16,613	13,665	17,137	19,363	16,487	16,754	16,346	15,868
Detroit, Mich.	136,394	114,724	122,664	143,468	109,700	91,761	135,918	114,577
Dubuque, Iowa	3,081	3,095	2,892	3,304	3,043	2,717	3,205	2,633
Flint, Mich.	5,728	5,959	5,279	7,421	5,946	4,596	5,770	5,327
Fort Wayne, Ind.	9,029	7,387	7,518	6,971	5,576	5,829	7,554	6,317
Gary, Ind.	3,037	2,620	3,185	2,563				
Grand Rapids, Mich.	15,075	14,179	16,136	14,920	21,401	19,712	21,151	20,462
Hammond, Ind.	3,290	2,770	3,400	3,570				
Indianapolis, Ind.	34,759	28,445	41,903	32,194	30,001	24,657	38,227	31,351
Jackson, Miss.	4,275	3,878	4,325	4,234	3,757	3,254	3,651	3,950
Kalamazoo, Mich.	4,822	4,480	4,884	4,350	4,059	3,793	3,979	4,124
Lansing, Mich.	6,100	6,100	6,400	6,533	5,155	4,229	5,100	5,397
Mason City, Iowa	2,504	2,053	2,076	2,519				
Milwaukee, Wis.	69,493	57,065	63,850	63,828	58,542	54,670	60,114	53,674
Moline, Ill.	1,496	1,542	1,886	1,920	1,767	1,566	2,144	1,522
Muscatine, Iowa	1,536	1,762	1,516	1,467				
Oshkosh, Wis.	2,200	2,400	2,400	2,300				
Peoria, Ill.	9,163	7,088	10,528	9,160	8,397	6,204	9,203	7,223
Rockford, Ill.	4,972	6,013	5,181	4,550	4,501	4,496	4,089	4,088
Saginaw, Mich.	4,375	4,878	5,046	4,785				
Sioux City, Iowa	17,137	17,259	17,205	16,105	9,062	8,190	8,384	7,191
South Bend, Ind.	8,042	8,959	7,979	8,080	6,446	5,504	6,899	5,847
Springfield, Ill.	5,906	5,242	5,849	5,161	5,522	5,543	4,792	5,006
Waterloo, Iowa	3,831	3,638	4,081	4,169	3,399	3,352	3,123	2,826
District No. 8—St. Louis:								
East St. Louis and National Stock Yards, Ill.	10,643	10,255	10,136	10,280	8,002	8,232	8,539	8,259
Evansville, Ind.	7,512	6,650	6,949	7,349	4,942	4,776	6,090	4,918
Fort Smith, Ark.	3,420	3,410	3,677	3,551				
Greenville, Miss.	754	968	1,013	933				
Helena, Ark.	1,346	2,230	2,240	2,106				
Little Rock, Ark.	13,800	15,432	15,166	15,491	14,382	10,454	13,896	10,740
Louisville, Ky.	31,807	32,531	35,416	33,635	28,158	24,456	34,612	28,892
Memphis, Tenn.	35,200	34,078	39,333	38,068	34,502	32,428	34,768	29,135
Owensboro, Ky.	937	1,187	1,212	1,025				
Quincy, Ill.	2,332	2,543	2,663	2,377	2,294	1,745	2,575	2,000
St. Louis, Mo.	154,749	150,925	171,528	139,896	144,516	134,832	156,314	123,341
Springfield, Mo.	2,923	2,776	3,318	2,865	2,973	2,851	2,839	2,539
District No. 9—Minneapolis:								
Aberdeen, S. Dak.	1,524	1,374	1,429	1,217	1,588	1,566	1,498	1,304
Billings, Mont.	1,819	1,700	2,100	1,975	2,120	1,673	2,171	1,798
Dickinson, N. Dak.	328	309	416	393				
Duluth, Minn.	26,545	24,241	25,037	20,467	22,249	19,266	20,578	18,882

DEBITS TO INDIVIDUAL ACCOUNTS BY BANKS IN REPORTING CENTERS—Continued.  
DATA FOR EACH REPORTING CENTER—Continued.

[In thousands of dollars.]

	1922 Week ending—				1921 Week ending—			
	Oct. 4.	Oct. 11.	Oct. 18.	Oct. 25.	Oct. 5.	Oct. 11-12.	Oct. 19.	Oct. 26.
District No. 9—Minneapolis—Continued.								
Fargo, N. Dak.	3,484	3,469	3,272	3,250	2,985	2,735	3,550	2,722
Grand Forks, N. Dak.	2,095	2,572	2,738	2,328	1,793	1,739	2,448	1,970
Great Falls, Mont.	2,352				2,132	1,627	2,238	1,831
Helena, Mont.	2,085	2,640	2,763	2,398	3,244	2,715	3,132	2,918
Jamestown, N. Dak.	539	612	580	484				
Lewistown, Mont.	1,496	1,520	1,567	1,438				
Minneapolis, Minn.	82,856	80,066	89,252	80,558	86,838	69,855	84,288	75,338
Minot, N. Dak.	1,295	1,235	1,784	1,543				
Red Wing, Minn.	638	517	500	479				
St. Paul, Minn.	138,946	131,846	140,529	135,230	32,089	30,243	35,002	29,622
Do.	44,518	36,201	46,925	40,962				
Sioux Falls, S. Dak.	3,580	3,700	3,616	3,302	4,113	4,033	4,179	3,579
Superior, Wis.	1,869	2,009	2,181	1,792	1,836	1,947	1,857	2,106
Winona, Minn.	1,114	1,236	1,104	936	1,147	1,230	1,157	927
District No. 10—Kansas City:								
Atchison, Kans.	1,320	1,552	1,504	1,285	1,329	1,289	1,317	1,232
Bartlesville, Okla.	2,711	2,155	2,275	1,992	1,808	1,541	2,121	1,469
Casper, Wyo.	3,305	3,845	3,821	3,962				
Cheyenne, Wyo.	2,394	3,119	2,839	6,388	2,922	2,220	1,658	1,342
Colorado Springs, Colo.	2,708	2,965	2,899	2,774	2,716	2,486	2,549	2,346
Denver, Colo.	38,262	39,116	42,639	49,910	34,651	30,168	32,414	34,002
Enid, Okla.	2,939	2,874	2,874	2,598				
Fremont, Nebr.	772	741	724	802				
Grand Island, Nebr.	1,434	1,527	1,469	1,492				
Grand Junction, Colo.	574	748	690	755				
Guthrie, Okla.	768	813	922	999				
Hutchinson, Kans.	3,086	3,130	2,988	2,908				
Independence, Kans.	2,224	1,830	2,914	1,923				
Joplin, Mo.	2,587	2,583	3,001	2,473	2,539	2,242	2,346	1,072
Kansas City, Kans.	4,301	3,900	3,536	3,357	3,477	3,062	3,295	3,202
Kansas City, Mo.	83,297	75,704	82,726	85,163	77,073	75,106	80,568	71,824
Lawrence, Kans.	1,142	1,098	1,040	776				
McAlester, Okla.	1,311	1,116	1,499	1,162				
Muskogee, Okla.	7,662	7,571	8,103	8,111	3,926	3,982	3,750	3,934
Oklahoma City, Okla.	22,388	18,394	18,939	17,082	21,130	22,271	21,335	21,429
Okmulgee, Okla.	2,132	1,880	1,868	1,690				
Omaha, Nebr.	49,440	48,856	54,072	47,724	41,803	34,840	48,117	41,982
Parsons, Kans.	976	965	918	1,020				
Pittsburg, Kans.	1,171	1,123	1,325	1,252				
Pueblo, Colo.	3,003	3,670	3,288	3,858	3,931	4,008	4,141	5,488
St. Joseph, Mo.	15,089	14,232	16,201	13,931	16,866	15,299	17,219	17,549
Topeka, Kans.	3,220	3,808	3,850	3,225	4,217	3,425	4,751	3,613
Tulsa, Okla.	19,813	21,292	22,513	18,973	13,082	15,489	13,101	14,949
Wichita, Kans.	10,698	11,634	11,057	9,102	10,694	10,525	10,202	9,307
District No. 11—Dallas:								
Albuquerque, N. Mex.	2,063	2,468	2,429	2,142	1,947	1,725	1,687	1,771
Austin, Tex.	4,780	4,642	5,165	4,031	3,735	3,349	3,653	2,757
Beaumont, Tex.	3,092	3,900	3,802	3,776	3,054	2,665	3,643	3,111
Corsicana, Tex.	1,252	1,430	1,599	1,201				
Dallas, Tex.	45,408	41,037	52,673	47,611	42,669	33,827	44,689	39,202
El Paso, Tex.	6,508	6,761	6,903	7,175	6,997	6,758	8,207	7,044
Fort Worth, Tex.	21,966	22,846	23,460	23,875	27,430	27,312	28,412	28,842
Galveston, Tex.	30,739	29,048	29,128	29,852	27,853	18,753	19,068	21,360
Houston, Tex.	31,302	29,824	35,533	33,312	50,394	23,025	32,915	28,550
Roswell, N. Mex.	702	852	670	732				
San Antonio, Tex.	6,992	7,622	7,655	6,935	6,805	4,872	7,767	6,123
Shreveport, La.	7,663	7,828	8,608	8,088	7,596	5,985	5,155	7,103
Texarkana, Tex.	1,646	1,502	1,798	1,550	1,647	1,440	1,800	1,473
Tucson, Ariz.	1,578	1,670	1,627	2,022	1,681	1,555	1,700	1,696
Waco, Tex.	6,422	5,543	6,320	5,902	5,140	4,920	5,947	4,262
District No. 12—San Francisco:								
Bakersfield, Calif.	2,523	2,123	1,956	1,733				
Bellingham, Wash.	1,726	1,825	1,943	1,689				
Berkeley, Calif.	3,901	5,035	3,942	3,634	3,674	2,839	4,672	2,856
Boise, Idaho.	2,993	3,034	3,018	2,957	3,151	2,916	2,705	3,015
Eugene, Oreg.	1,815	2,700	2,220	2,600				
Fresno, Calif.	14,533	15,511	18,747	17,022	13,532	19,521	16,818	15,189
Long Beach, Calif.	9,206	7,920	11,009	9,569	5,555	4,721	6,683	5,407
Los Angeles, Calif.	126,900	117,872	132,573	123,543	109,743	90,312	123,073	103,040
Oakland, Calif.	22,742	29,947	26,294	22,363	17,895	19,512	18,512	16,904
Ogden, Utah.	4,966	5,037	5,473	4,886	3,754	4,092	3,131	3,656
Fasadena, Calif.	5,713	5,775	6,020	6,331	5,340	4,877	6,066	4,966
Phoenix, Ariz.	4,140	4,337	4,065	4,432				
Portland, Oreg.	41,045	38,579	38,999	36,412	35,709	31,647	40,668	40,717
Reno, Nev.	2,831	2,678	2,769	2,684	2,468	2,231	2,951	2,471
Ritzville, Wash.	197	202	142	142				
Sacramento, Calif.	17,537	16,328	18,505	13,263	17,523	14,998	19,151	15,978
Salt Lake City, Utah.	14,718	14,569	14,921	14,419	16,600	11,232	16,222	13,084
San Bernardino, Calif.	1,466	1,596	1,468	1,351				
San Diego, Calif.	8,531	8,584	9,404	8,864	7,354	6,133	8,337	7,177
San Francisco, Calif.	175,358	173,162	166,277	172,901	182,453	149,785	207,314	179,526
San Jose, Calif.	5,978	6,277	5,258	6,815	5,534	4,774	6,488	5,507
Seattle, Wash.	37,017	35,798	39,000	37,461	37,573	29,718	38,180	30,126
Spokane, Wash.	12,549	12,130	13,417	11,599	13,347	9,342	13,988	9,581
Stockton, Calif.	5,521	5,631	4,808	5,803	6,486	4,321	6,016	5,056
Tacoma, Wash.	8,656	10,903	10,077	8,364	8,737	6,880	11,750	8,029
Yakima, Wash.	2,612	2,632	2,761	2,758	3,292	2,838	4,123	3,480

<sup>1</sup> Debits of banks which submitted reports in 1921.

# FEDERAL RESERVE CLEARING SYSTEM.

OPERATIONS DURING SEPTEMBER, 1922.

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

NOVEMBER, 1922.

FEDERAL RESERVE BULLETIN.

1379

Federal reserve bank or branch.	Items drawn on banks located in own district.				Items drawn on Treasurer of United States.		Total items handled, exclusive of duplications.		Items forwarded to other Federal reserve banks and their branches.		Items forwarded to parent bank or to branch in same district.		Total items handled, including duplications.				Number of member banks.		Number of nonmember banks.				
	In Federal reserve bank or branch city.		Outside Federal reserve bank or branch city.										On par list.		Not on par list. <sup>1</sup>								
	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	1922.	1921 <sup>2</sup> .	1922.	1921 <sup>2</sup> .	Sept. 30, 1922.	Sept. 15, 1921.	Sept. 30, 1922.	Sept. 15, 1921.	Sept. 30, 1922.	Sept. 15, 1921.	
Boston.....	567	540,064	3,535	396,798	189	16,573	4,291	953,435	203	47,348			4,494	4,055	1,000,783	893,254	429	437	260	255			
New York.....	2,216	4,496,240	4,925	661,662	1,074	93,494	8,215	5,251,396	1,061	131,467	23	4,933	9,209	7,942	5,387,796	2,673,421	720	710	261	251			
Buffalo.....	195	86,321	447	55,234	16	1,988	658	143,543	130	24,720	35	17,403	823	756	185,666	168,591	84	85	78	77			
Philadelphia.....	1,797	794,465	2,225	281,794	173	25,431	4,195	1,101,690	408	92,331			4,603	4,300	1,194,021	1,040,045	714	700	479	464			
Cleveland.....	704	257,043	1,334	160,576	93	6,822	2,181	424,441	42	6,415	27	6,774	2,250	1,668	437,630	339,325	314	317	514	521			
Cincinnati.....	202	124,697	831	77,270	78	9,124	1,122	212,744	13	5,153	15	4,011	1,150	1,019	221,908	193,660	224	221	314	321	1		
Pittsburgh.....	484	244,461	879	103,037	54	5,256	1,417	352,754	77	38,936	28	8,466	1,522	1,234	400,156	326,286	344	342	252	237			
Richmond.....	117	124,499	1,926	276,274	54	5,159	2,097	405,932	149	63,426	36	9,323	2,282	2,054	478,681	411,014	468	462	705	742	571	566	
Baltimore.....	258	144,661	729	75,370	56	6,043	1,643	226,074	103	38,102	81	8,099	1,227	1,028	272,275	243,084	161	158	263	271			
Atlanta.....	623	171,661	383	46,643	40	4,307	1,046	222,611	23	8,920	22	3,674	1,091	492	235,205	107,073	239	221	90	110	481	519	
Birmingham.....	200	40,965	178	14,284	13	1,289	391	56,538	18	14,424	32	30,193	441	486	101,155	63,903	83	75	32	31	119	121	
Jacksonville.....	64	17,884	146	14,216	10	1,010	220	33,110	26	3,988	7	1,086	253	190	38,184	35,275	76	68	60	63	145	148	
Nashville.....	57	29,576	212	20,048	26	1,303	295	51,427	18	2,563	8	1,238	321	267	55,228	49,208	86	85	148	145	160	160	
New Orleans.....	69	39,983	112	14,381	39	7,239	220	61,603	38	11,367	5	641	263	240	73,611	74,145	56	54	51	50	223	229	
Chicago.....	1,054	636,157	3,920	334,073	433	47,380	5,407	1,017,610	295	34,127	10	2,526	5,715	4,879	1,054,263	914,323	1,318	1,318	3,984	4,002			
Detroit.....	287	189,060	569	51,582	38	4,504	894	245,146	17	4,742	8	2,011	919	731	251,899	193,261	126	121	257	258			
St. Louis.....	309	233,218	1,424	85,164	168	9,712	1,901	328,094	38	4,340	12	1,232	1,431	1,703	333,666	283,265	383	365	1,704	1,748			
Little Rock.....	84	25,401	309	19,213	9	798	402	45,412	5	839	25	2,477	932	325	48,728	37,806	70	69	229	228			
Louisville.....	106	60,458	436	24,102	40	4,281	582	88,841	11	1,150	2	85	595	495	90,076	76,208	95	95	342	339			
Memphis.....	74	32,334	194	12,445	12	1,483	280	46,262	2	271	2	397	284	218	46,930	31,190	58	55	138	184	156	167	
Minneapolis.....	257	126,283	1,499	84,215	42	5,881	1,801	218,425	76	16,930	5	300	1,882	1,756	235,655	215,735	825	817	2,420	2,521	174	98	
Helena.....	27	9,773	212	14,300	9	1,432	248	25,505	6	3,338	1	1,163	255	213	30,006	25,484	194	203	208	218	5	1	
Kansas City.....	348	222,649	1,376	94,238	103	10,907	1,827	327,794	222	33,697	62	11,781	2,111	2,255	373,272	446,638	329	331	1,429	1,458		1	
Denver.....	136	46,538	368	22,826	31	6,098	535	75,462	81	15,199	50	10,928	666	626	101,589	99,475	161	161	265	282			
Oklahoma City.....	72	51,512	957	69,422	11	1,338	1,040	122,272	45	7,291	16	6,586	1,101	1,026	136,149	137,442	411	335	427	548	7		
Omaha.....	99	54,498	565	36,799	42	2,720	707	94,420	40	5,134	18	4,681	755	705	104,235	94,888	250	260	912	994	158	111	
Dallas.....	150	92,190	1,377	223,993	33	4,348	1,560	320,531	72	8,466	41	6,066	1,673	1,804	335,063	236,466	659	659	741	856	51		
El Paso.....	42	8,389	123	8,393	17	1,512	182	18,294	12	1,577	6	1,101	200	182	20,972	20,245	66	71	59	73			
Houston.....	80	49,626	370	38,805	33	1,498	483	89,929	13	2,201	6	1,392	502	411	93,522	73,137	138	133	255	270			
San Francisco.....	266	142,852	564	43,157	71	69,748	901	255,757	29	3,770	32	3,925	962	798	203,452	234,290	198	211	274	280			
Los Angeles.....	479	143,322	1,350	97,495	52	14,678	1,881	255,495	108	17,874	69	9,073	2,058	1,353	282,442	200,783	164	176	178	160			
Portland.....	58	36,686	223	13,584	22	6,961	303	57,231	5	1,669	37	4,278	345	320	63,178	54,348	134	132	139	169	24		
Salt Lake City.....	56	25,455	390	25,275	18	3,724	464	54,454	15	2,908	9	1,980	488	449	59,342	71,284	166	184	103	111			
Seattle.....	121	37,592	229	6,883	28	9,123	378	53,598	21	5,719	43	4,842	442	383	64,159	67,458	65	62	92	100			
Spokane.....	38	19,209	193	11,447	13	1,373	244	32,029	12	2,185	16	3,473	272	256	37,637	41,581	109	102	150	166	1		
<b>Total:</b>																							
September.....	11,696	9,355,722	34,560	3,514,998	3,140	395,037	349,411	13,269,859	3,437	662,537	789	176,138	53,637	46,679	14,108,584	10,175,591	9,917	9,795	17,863	18,503	2,276	2,121	
August.....	11,582	8,805,142	34,209	3,268,680	2,475	405,488	48,280	12,482,226	3,430	625,249	787	164,101	52,497	45,936	13,271,576	10,136,135	9,919	9,792	17,865	18,550	2,281	2,078	

<sup>1</sup> Incorporated banks other than mutual savings banks.

<sup>2</sup> Aug. 16 to Sept. 15.

<sup>3</sup> Includes items drawn on banks in other Federal reserve districts forwarded direct to drawee banks follows: Cincinnati, 11,000 items, \$1,653,000; Minneapolis, 3,000 items, \$2,046,000; Omaha, 1,000 items, \$403,000. Total, 15,000 items, \$4,102,000.

NOTE.—Number of business days in period for Baltimore, Detroit, San Francisco, and Los Angeles was 24, and for other Federal reserve bank and branch cities, 25 days.

**GOLD AND SILVER IMPORTS AND EXPORTS.**

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

Countries.	Gold.				Silver.			
	September.		Nine months ending September.		September.		Nine months ending September.	
	1921	1922	1921	1922	1921	1922	1921	1922
<b>IMPORTS.</b>								
Denmark.....		\$469	\$3,236,497	\$17,769,576		\$219	\$370	\$987
France.....	\$17,690,866	2,070,389	153,310,244	16,970,838	\$53,278	8,870	152,668	202,505
Germany.....	13,519,579	2,766	16,348,745	13,642	843,241	16,445	5,036,023	698,034
Netherlands.....	820,277	4,842,500	18,501,045	4,958,516	1,669		2,474	
Norway.....		542,120	1,534,985	8,422,696		1,700	4,111	4,644
Spain.....			3,243,238	34,943		307	16,328	71,819
Sweden.....	605,036	113,608	54,872,011	32,501,205		366	5,280	1,790
United Kingdom:								
England.....	16,955,333	8,442,467	160,063,787	84,441,232	41,730	42,688	1,184,966	191,898
Scotland.....				151,320				
Canada.....	3,082,467	231,941	31,019,001	8,945,454	196,738	727,316	2,976,667	4,411,914
Central America.....	481,782	250,522	4,773,043	3,454,696	56,784	90,977	1,510,443	1,082,148
Mexico.....	437,103	674,190	4,044,241	4,524,172	2,696,850	4,155,275	26,643,560	36,862,589
West Indies.....	605,602	120,402	6,163,479	1,606,331	47,968	32,624	292,071	493,681
Argentina.....	9,797	9,946	928,020	20,983	3,113	312	18,592	6,149
Chile.....	163,535	17,377	283,772	354,425	114,021	75,318	1,331,466	1,505,840
Colombia.....	589,094	651,371	8,805,761	5,655,558	14,230	50,313	130,805	217,532
Peru.....	158,552	191,181	1,022,978	1,151,560	373,759	890,898	3,886,546	5,849,068
Uruguay.....	406,255		5,277,339	273,689			3,077	2,167
Venezuela.....	90,320	53,741	1,042,350	705,812	30	19	2,586	2,262
China.....	836,482	970,556	17,379,222	5,796,986	334	4,940	7,775	6,684
British India.....	3,392,564		27,195,724		302		11,155	
Dutch East Indies.....	106,828	227,447	782,485	1,171,999	7,698	74,797	383,019	470,808
Hongkong.....			5,580,825	14,730			396	75
Philippine Islands.....	122,861	143,377	958,575	499,766	3,095	1,675	16,670	7,656
British Oceania.....	85,388	79,571	13,954,772	3,800,785	77	221	4,310	1,154
Egypt.....	1,736,439		2,242,729	335,173				58
All other.....	4,189,153	9,680,000	18,612,137	10,831,484	33,218	194,999	683,492	1,071,867
<b>Total.....</b>	<b>66,085,253</b>	<b>29,315,941</b>	<b>561,177,005</b>	<b>214,407,571</b>	<b>4,488,359</b>	<b>6,370,279</b>	<b>44,304,850</b>	<b>53,163,329</b>
<b>EXPORTS.</b>								
Spain.....	200		200	707,000				
Sweden.....			2,643,013	78,000		600		600
United Kingdom—England.....		3,264		3,264	2,073,618	175,407	9,619,802	7,211,099
Canada.....	277,897	686,026	1,805,345	1,549,596	266,983	301,764	1,896,600	1,767,049
Central America.....				12,127	1,043		281,343	6,850
Mexico.....	140,999	372,025	5,304,749	3,344,794	235,987	109,753	1,789,674	1,744,182
West Indies.....		449	250,844	5,749	10,000	1,646	419,437	26,805
Colombia.....						10,000	239,500	805,703
China.....		100,000		100,000	1,052,461	763,590	6,952,768	15,232,731
British India.....	55,000	30,000	55,000	4,395,339	1,025,464	651,923	2,872,057	7,204,863
Dutch East Indies.....			60,000	435,010				
French East Indies.....							528,000	1,320,000
Hongkong.....	1,974,645	190,990	3,402,135	2,282,570	64,025	1,719,775	7,588,604	10,291,079
Japan.....					217,170		2,655,636	47,237
All other.....		15,853	24,600	229,194		720	900	367,986
<b>Total.....</b>	<b>2,448,741</b>	<b>1,398,607</b>	<b>13,545,886</b>	<b>13,142,643</b>	<b>4,946,751</b>	<b>3,735,178</b>	<b>34,844,321</b>	<b>46,026,184</b>

**DISCOUNT RATES OF FEDERAL RESERVE BANKS IN EFFECT NOVEMBER 1, 1922.**

Federal reserve bank.	Paper maturing within 90 days.				Bankers' acceptances maturing within 3 months.	Agricultural and live-stock paper maturing after 90 days, but within 6 months.
	Secured by—		Trade acceptances.	Commercial, agricultural, and live-stock paper, n. e. s.		
	Treasury notes and certificates of indebtedness.	Liberty bonds and Victory notes.				
Boston.....	4	4	4	4		4
New York.....	4	4	4	4	4	4
Philadelphia.....	4½	4½	4½	4½	4½	4½
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.....	4	4	4	4	4	4

## GOLD SETTLEMENT FUND.

INTERBANK TRANSACTIONS FROM SEPTEMBER 22, 1922, TO OCTOBER 26, 1922 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.....	30,500	6,000	698,341	708,353	14,488		31,513
New York.....	27,500	122,500	2,596,471	2,484,953	16,518		183,111
Philadelphia.....	17,000	6,500	789,746	809,908		9,662	42,849
Cleveland.....	26,500	1,500	623,862	669,602		20,740	72,203
Richmond.....	20,000	1,500	533,036	560,704		9,168	34,729
Atlanta.....	12,000	5,000	275,469	286,969		4,500	23,109
Chicago.....	20,500	15,000	1,269,731	1,233,409	41,822		100,824
St. Louis.....	7,000	13,000	594,302	612,713		24,411	24,420
Minneapolis.....	10,000	7,500	167,232	184,513		14,781	28,725
Kansas City.....	5,500	6,500	430,236	423,794	5,442		22,996
Dallas.....	8,000	500	305,007	313,543		1,036	17,981
San Francisco.....	12,500	11,500	310,797	305,769	6,028		32,452
Total 5 weeks ending—							
Oct. 26, 1922.....	197,000	197,000	8,594,230	8,594,230	84,298	84,298	614,912
Sept. 21, 1922.....	118,500	118,500	7,126,677	7,126,677			528,538
Oct. 27, 1921.....	429,552	429,552	6,497,759	6,497,759			497,573
Sept. 22, 1921.....	549,586	549,586	5,841,285	5,841,285			415,517

## MONEY IN CIRCULATION OCTOBER 1, 1922.

[Source: United States Treasury Department circulation statement.]

Kind of money.	Stock of money in the United States.	Money held by the U. S. Treasury and the F. R. System.	Money in circulation.	
			Amount.	Per capita.
Gold coin and bullion.....	<sup>1</sup> \$3,874,178,711	\$3,461,284,263	\$412,894,448	\$3.75
Gold certificates.....	<sup>2</sup> (686,114,659)	471,157,930	214,956,729	1.95
Standard silver dollars.....	402,754,404	342,172,915	60,581,489	.55
Silver certificates.....	<sup>3</sup> (321,903,265)	44,125,527	277,777,738	2.52
Treasury notes of 1890.....	<sup>2</sup> (1,501,823)	1,000	1,500,823	.01
Subsidiary silver.....	270,772,004	34,414,974	236,357,030	2.15
United States notes.....	346,681,016	65,187,741	281,493,275	2.56
Federal reserve notes.....	2,668,880,610	419,024,673	2,249,855,937	20.42
Federal reserve bank notes.....	61,219,400	8,692,911	55,526,489	.50
National bank notes.....	760,751,197	30,799,862	729,951,335	6.63
Total.....	8,388,237,342	<sup>3</sup> 4,876,861,796	4,520,895,293	41.04
Comparative totals:				
Sept. 1, 1922.....	8,303,540,241	<sup>3</sup> 4,918,691,521	4,393,506,927	39.93
Oct. 1, 1921.....	8,150,752,689	<sup>3</sup> 4,601,232,481	4,664,697,904	42.99
Apr. 1, 1917.....	5,312,100,272	<sup>3</sup> 3,896,318,653	4,100,590,704	39.54
July 1, 1914.....	3,738,288,871	<sup>3</sup> 1,843,452,323	3,402,015,427	34.35
Jan. 1, 1879.....	1,007,084,483	212,420,402	816,266,721	16.92

<sup>1</sup> Does not include gold bullion or foreign coin outside of vaults of the Treasury, Federal reserve banks, and Federal reserve agents.<sup>2</sup> 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 the gold coin and bullion and standard silver dollars, respectively.<sup>3</sup> 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.

## DISCOUNT AND INTEREST RATES.

In the following table are presented actual discount and interest rates prevailing during the 30-day period ending October 15, 1922, in the various cities in which the several 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 BULLETIN.

Comparison of discount and interest rates prevailing in various centers during the 30-day period ending September 15 and the 30-day period ending October 15 shows a slight upward tendency. The increase is most marked in rates for prime commercial paper in the open market and for bankers' acceptances. Compared with last year all rates are lower.

DISCOUNT AND INTEREST RATES PREVAILING IN VARIOUS CENTERS DURING 30-DAY PERIOD ENDING OCTOBER 15, 1922.

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 60 days.	4 to 6 months.	30 to 60 days.	4 to 6 months.									
No. 1	Boston	H. L. C. 5 1/2	H. L. C. 4 1/2	H. L. C. 4 1/2	H. L. C. 4 1/2	H. L. C. 5 1/2	H. L. C. 3 1/2	H. L. C. 3 1/2	H. L. C. 5 1/2	H. L. C. 5 1/2	H. L. C. 5 1/2	H. L. C. 5 1/2	H. L. C. 5 1/2	H. L. C. 4 1/2
No. 2	New York	4 1/2-5	4 1/2-5 1/2	4 1/2-5 1/2	4 1/2-5 1/2	4 1/2-5 1/2	3 1/2-4	3 1/2-4	4 1/2-5	4 1/2-5	4 1/2-5	4 1/2-5	4 1/2-5	4 1/2-5
No. 3	Buffalo	7 5/8	6 5/8	6 4/8	6 4/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8
No. 4	Philadelphia	6 4 1/2	6 4 1/2	6 4 1/2	6 4 1/2	6 4 1/2	6 4 1/2	6 4 1/2	6 4 1/2	6 4 1/2	6 4 1/2	6 4 1/2	6 4 1/2	6 4 1/2
No. 5	Cleveland	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8
No. 6	Pittsburgh	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8
No. 7	Cincinnati	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8
No. 8	Richmond	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8
No. 9	Baltimore	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8
No. 10	Atlanta	7 4/8	7 4/8	7 4/8	7 4/8	7 4/8	7 4/8	7 4/8	7 4/8	7 4/8	7 4/8	7 4/8	7 4/8	7 4/8
No. 11	Birmingham	8 4 1/2-6-7	8 4 1/2-6-7	8 4 1/2-6-7	8 4 1/2-6-7	8 5/8	8 5/8	7 7/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8
No. 12	Jacksonville	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8
No. 13	New Orleans	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8
No. 14	Nashville	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8
No. 15	Chicago	6 4 1/2-5	5 1/2-5 1/2	4 1/2-5 1/2	4 1/2-5 1/2	6 4 1/2-5	3 1/2-4	3 1/2-4	6 4 1/2-5	6 4 1/2-5	6 4 1/2-5	6 4 1/2-5	6 4 1/2-5	6 4 1/2-5
No. 16	Detroit	6 5 1/2	6 5 1/2	6 5 1/2	6 5 1/2	6 5 1/2	6 5 1/2	6 5 1/2	6 5 1/2	6 5 1/2	6 5 1/2	6 5 1/2	6 5 1/2	6 5 1/2
No. 17	St. Louis	6 4 5/8	6 4 5/8	6 4 5/8	6 4 5/8	6 4 5/8	6 4 5/8	6 4 5/8	6 4 5/8	6 4 5/8	6 4 5/8	6 4 5/8	6 4 5/8	6 4 5/8
No. 18	Louisville	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8
No. 19	Memphis	6 6/8	6 6/8	6 6/8	6 6/8	6 6/8	6 6/8	6 6/8	6 6/8	6 6/8	6 6/8	6 6/8	6 6/8	6 6/8
No. 20	Little Rock	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8
No. 21	Minneapolis	5 1/2-5 1/2	6 5 1/2-5 1/2	4 1/2-5 1/2	5 1/2-5 1/2	6 5 1/2-5 1/2	4 1/2-5 1/2	5 1/2-5 1/2	6 5 1/2-5 1/2	6 5 1/2-5 1/2	6 5 1/2-5 1/2	6 5 1/2-5 1/2	6 5 1/2-5 1/2	6 5 1/2-5 1/2
No. 22	Helena	8 7/8	8 7/8	8 7/8	8 7/8	8 7/8	8 7/8	8 7/8	8 7/8	8 7/8	8 7/8	8 7/8	8 7/8	8 7/8
No. 23	Kansas City	7 4 1/2	7 5/8	5 4 1/2-4 1/2	5 4 1/2-4 1/2	7 4 1/2	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8
No. 24	Omaha	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8	7 5/8
No. 25	Denver	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8
No. 26	Oklahoma City	8 4 1/2	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8
No. 27	Dallas	6 4 1/2-5 1/2	6 4 1/2-5 1/2	6 4 1/2-5 1/2	6 4 1/2-5 1/2	6 4 1/2-5 1/2	6 4 1/2-5 1/2	6 4 1/2-5 1/2	6 4 1/2-5 1/2	6 4 1/2-5 1/2	6 4 1/2-5 1/2	6 4 1/2-5 1/2	6 4 1/2-5 1/2	6 4 1/2-5 1/2
No. 28	El Paso	10 6/8	10 8/8	10 8/8	10 8/8	10 8/8	10 8/8	10 8/8	10 8/8	10 8/8	10 8/8	10 8/8	10 8/8	10 8/8
No. 29	Houston	7 6/8	7 6/8	7 6/8	7 6/8	7 6/8	7 6/8	7 6/8	7 6/8	7 6/8	7 6/8	7 6/8	7 6/8	7 6/8
No. 30	San Francisco	6 5/8	6 5 1/2-5 1/2	4 1/2-4 1/2	4 1/2-4 1/2	6 5/8	4 3/4-3 3/4	3 1/2-3 1/2	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8
No. 31	Portland	8 5/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8
No. 32	Seattle	8 5/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8
No. 33	Spokane	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8	8 5/8
No. 34	Salt Lake City	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8	8 6/8
No. 35	Los Angeles	8 4 1/2	8 4 1/2	8 4 1/2	8 4 1/2	8 4 1/2	8 4 1/2	8 4 1/2	8 4 1/2	8 4 1/2	8 4 1/2	8 4 1/2	8 4 1/2	8 4 1/2

<sup>1</sup> Rates for demand paper secured by prime bankers' acceptances, high 5, low 3 1/2, customary 4-5.



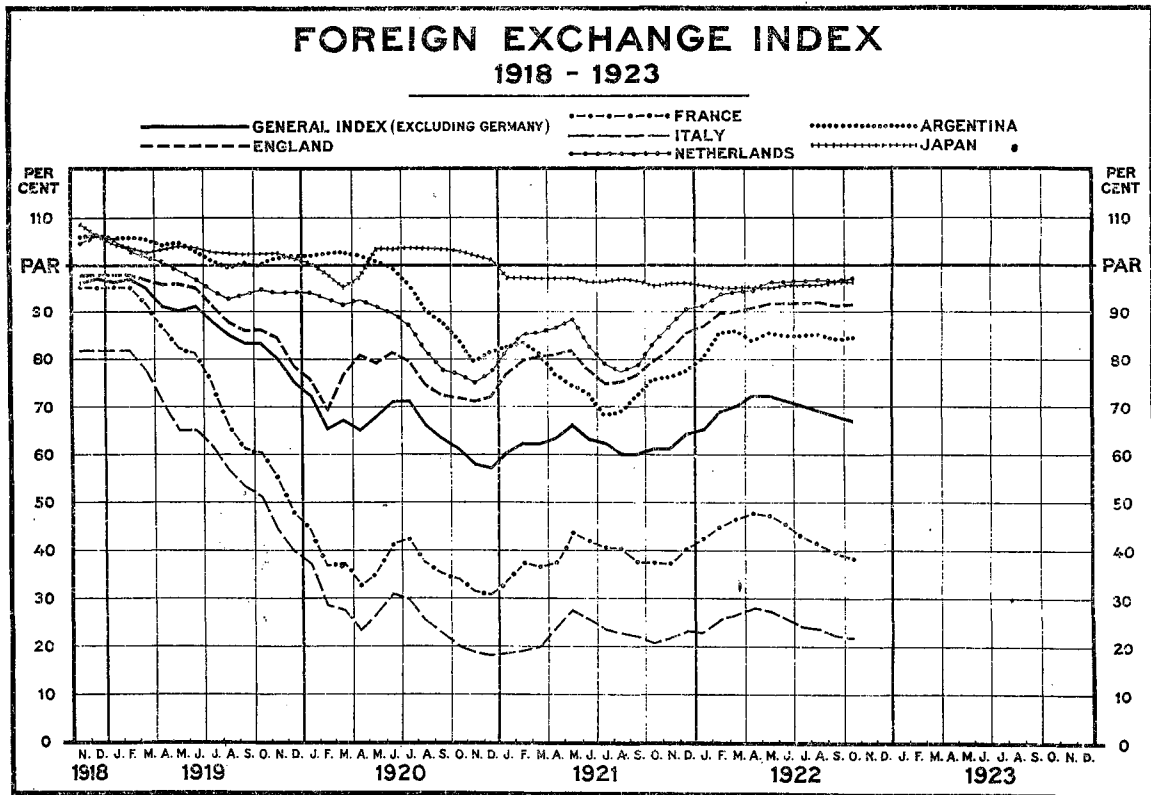
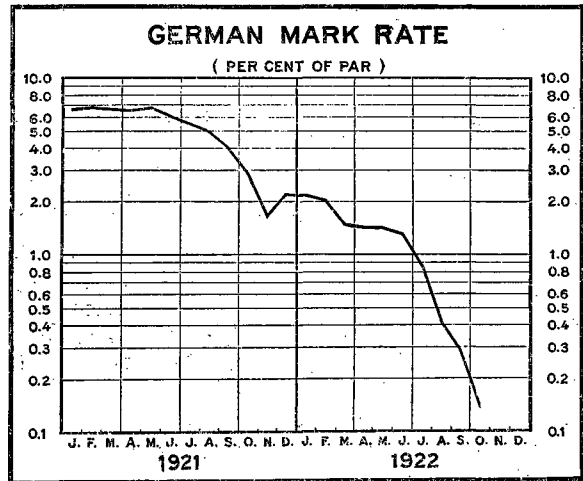
**FOREIGN EXCHANGE.**

Sterling exchange advanced from \$4.3869 on October 2 to \$4.4748 on October 18. This advance was due in part to the improvement in the Near Eastern situation, and also to shipments of gold to the United States in connection with interest payments on the British war debt. By October 31, however, sterling had receded to \$4.4536. Improvement for the month is noted also in Dutch, Norwegian, Spanish, and Swedish exchanges. These advances are in sympathy with the rise in sterling, but probably reflect also a heavy demand for foreign currencies by holders of German marks. The flotation in the New York market of a loan of \$18,000,000 by Norway was also a factor in the situation.

The French and Belgian francs and the Italian lira, on the other hand, show decided declines, the rate of 6.89 cents on the French franc reported on October 26 being the lowest since January, 1921. These declines are ascribed to the continued difficulties in arriving at a solution of the reparations questions and to heavy buying of foreign currencies to pay for food and raw materials purchased in the United States and South America. Canadian exchange was consistently above par throughout the month and has resulted in gold shipments to Canada from the United States for the first time since the armistice. Argentine exchange shows some improvement, while Brazilian and Chilean exchanges show slight declines. Of the

rates on countries in the Far East the rate on China was lower at the end of the month than at the beginning, while the rates on India and Japan advanced. As a consequence of these movements of individual rates the general foreign exchange index for October was 67, compared with 68 a month ago, and 61 in October, 1921.

The German mark has continued its downward course almost uninterruptedly since the beginning of September. At the end of October the mark rate was 2.17 cents per 100 marks, or about 0.14 per cent of its par value.



## FOREIGN EXCHANGE RATES.

[General index for October, 1922, 67; for September, 1922, 68; for October, 1921, 61. Rates 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). <sup>1</sup>		Weight. <sup>2</sup>	
			October.	September.	October.	September.	October.	September.	October.	September.	October.	September.
			Belgium.....	Franc.....	19.30	6.3900	7.1000	7.1500	7.4400	6.8580	7.2332	35.53
Denmark.....	Krone.....	26.80	19.9200	20.2700	20.5900	21.4700	20.1908	21.0552	75.34	78.56	12	12
France.....	Franc.....	19.30	6.8900	7.5400	7.6100	7.8700	7.3704	7.6592	38.19	39.68	95	100
Great Britain.....	Pound.....	486.65	438.6900	436.6000	447.4800	447.3400	443.8484	443.0696	91.20	91.04	261	263
Italy.....	Lira.....	19.30	3.8900	4.1700	4.3000	4.4100	4.1720	4.2676	21.62	22.11	42	42
Netherlands.....	Florin.....	40.20	38.7000	38.6300	39.2000	39.0100	38.9624	38.7932	96.92	96.50	37	38
Norway.....	Krone.....	26.80	17.1600	16.6100	18.2600	17.1300	17.8600	16.8272	66.64	62.79	9	9
Spain.....	Peseta.....	19.30	15.1300	15.1000	15.3900	15.5200	15.2496	15.2992	79.01	79.27	20	20
Sweden.....	Krona.....	26.80	26.3900	26.2400	26.7700	26.5800	26.6488	26.4568	99.44	98.72	23	23
Switzerland.....	Franc.....	19.30	18.0300	18.6000	18.7300	19.0200	18.4208	18.7908	95.44	97.36	9	10
Canada.....	Dollar.....	100.00	100.0122	99.8184	100.1399	100.0069	100.0807	99.9332	100.08	99.93	187	184
Argentina.....	Peso (gold).....	96.48	80.3200	79.6800	82.2500	82.7000	81.4140	81.0832	84.38	84.04	31	30
Brazil.....	Milreis.....	32.44	11.0200	11.4500	11.5700	13.6400	11.3476	12.5392	34.98	38.65	31	30
Chile.....	Peso (paper).....	<sup>3</sup> 19.53	13.2500	13.3800	13.8000	14.0400	13.6068	13.7276	69.67	70.29	13	13
China.....	Shanghai tael.....	<sup>3</sup> 66.85	73.0700	76.4800	76.7400	77.7700	74.8500	77.0140	111.97	115.20	52	51
India.....	Rupee.....	48.66	28.4200	28.3200	29.1000	29.0300	28.8424	28.7412	59.27	59.07	29	29
Japan.....	Yen.....	49.85	47.9300	47.7300	48.2100	48.4800	48.0732	48.0996	96.44	96.49	117	115

## OTHER COUNTRIES.

	Monetary unit.	Par of exchange.	Low.		High.		Average.		Index (per cent of par). <sup>1</sup>	
			October.	September.	October.	September.	October.	September.	October.	September.
			Austria.....	Krone.....	20.26	0.0014	0.0013	0.0014	0.0015	0.0014
Bulgaria.....	Lev.....	19.30	.6314	.6133	.7000	.6558	.6481	.6380	3.36	3.31
Czechoslovakia.....	Krone.....		3.0997	3.0019	3.5922	3.5078	3.2845	3.2306		
Finland.....	Markka.....	19.30	2.2119	2.1488	2.4886	2.2063	2.3239	2.1741	12.04	11.26
Germany.....	Reichsmark.....	23.82	.0216	.0594	.0551	.0801	.0332	.0684	.14	.29
Greece.....	Drachma.....	19.30	2.0100	2.0400	2.8800	2.8900	2.3896	2.4724	12.38	12.81
Hungary.....	Krone.....	20.26	.0390	.0390	.0411	.0515	.0402	.0423	.20	.21
Poland.....	Polish mark.....		.0071	.0112	.0118	.0146	.0095	.0127		
Portugal.....	Escudo.....	108.05	3.7200	3.7700	6.7000	5.4300	4.8760	4.8256	4.51	4.59
Rumania.....	Leu.....	19.30	.6106	.6009	.6531	.7350	.6261	.6559	3.24	3.40
Yugoslavia.....	(Krone.....		.3400	.2628	.4706	.3728	.4040	.3211		
	Dinar.....	19.30	1.3642	1.0586	1.8850	1.4757	1.6222	1.2926	8.41	6.70
Cuba.....	Peso.....	100.00	99.8125	99.8188	99.9125	99.9375	99.8826	99.8700	99.88	99.87
Mexico.....	do.....	49.85	48.1719	48.2125	48.4125	48.3875	48.2917	48.3006	96.87	96.89
Uruguay..... <sup>5</sup>	do.....	103.42	76.1400	76.6200	77.7600	79.5300	77.0756	78.0132	74.53	75.43
China.....	Mexican dollar.....	<sup>3</sup> 48.11	53.4000	55.6000	55.6900	57.2100	54.5508	56.1500	113.39	116.71
Hongkong.....	Dollar.....	<sup>3</sup> 47.77	54.0000	56.9200	57.1800	57.9200	55.9552	57.3080	117.13	119.97
Straits Settlements.....	Singapore dollar.....	56.78	51.0800	51.2500	52.0400	52.0000	51.7840	51.6440	91.20	90.95

Average price of silver per fine ounce, in London (converted at average rate of exchange), \$0.68956; in New York, \$0.68405.

<sup>1</sup> Based on average.<sup>2</sup> The weights used in calculating the general index for October are based on trade figures for the 12 months ended Aug. 31. The use of trade figures for a period ending 2 months, instead of 1 month, prior to the index month as before will enable the Federal Reserve Board to issue the index on the first or second day of each month without impairing the comparability of the figures.<sup>3</sup> 1913 average.

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.]

Year and month.	Deposit and note accounts, Bank of England and Treasury.				Government floating debt.			Nine London clearing banks. <sup>2</sup>			London bankers' clearing house return—total clearings.	Capital issues of United Kingdom. <sup>4</sup>	Discount rates.			Statist index number of foreign exchange value of £. <sup>5</sup>	Net profits industrial companies. <sup>6</sup>
	Rank notes. <sup>1</sup>	Currency notes and certificates outstanding.	Deposits, public and other.	Coin and bullion. <sup>1</sup>	Treasury bills.	Temporary advances.	Total floating debt.	Money at call and short notice.	Discounts and advances.	Investments.			Deposits.	Three months' Treasury bills.	Three months' bank bills.		
Average of end of month figures:												Per cent.	Per cent.	Per cent.		Per cent.	
1913.....	29		57	38	15		1,297				1,370	32	4½	4½	99.59	11.7	
1920.....	103	348	147	146	1,078	219	1,297				3,252	32	6½	6½	110.07	15.2	
1921.....	108	327	136	157	1,139	182	1,322	97	1,176	309	1,768	18	5½	5½		10.3	
1921, end of—																	
September.....	106	314	118	157	1,159	161	1,321	99	1,186	302	1,771	10	4½	5½	106.4		
October.....	104	312	175	157	1,124	214	1,338	102	1,196	306	1,802	33	3½	5½	108.4	6.5	
November.....	106	313	144	157	1,108	193	1,300	96	1,205	311	1,793	19	3½	5½	112.4		
December.....	107	326	123	157	1,060	200	1,260	106	1,191	315	1,818	19	3½	5½	112.1		
1922, end of—																	
January.....	103	305	135	157	1,039	116	1,154	114	1,192	333	1,826	42	3½	5½	118.2	6.1	
February.....	102	298	138	157	957	112	1,069	111	1,152	357	1,802	26	2½	4½	118.0		
March.....	103	300	151	157	882	147	1,030	103	1,097	369	1,747	25	2½	4½	118.3		
April.....	102	303	134	157	759	193	951	107	1,065	378	1,737	17	2½	4½	118.0	7.2	
May.....	103	298	130	157	771	172	943	109	1,061	392	1,745	36	2½	4½	118.2		
June.....	103	295	131	157	761	205	965	113	1,070	388	1,755	22	1½	3½	118.2		
July.....	104	296	122	154	755	159	914	110	1,056	386	1,730	19	1½	3½	120.3	5.9	
August.....	103	293	124	154	715	153	868	105	1,020	390	1,688	1	2½	3½	121.3		
September.....	101	289	121	154	724	148	872	104	1,007	381	1,660	5	2½	3½	122.7		
October.....	101	287	125	154	740	179	919	105	1,033	370	1,686	25	2	3½			

<sup>1</sup> Less notes in currency notes account.

<sup>2</sup> Held by the Bank of England and by the Treasury as note reserve.

<sup>3</sup> Average weekly figures.

<sup>4</sup> Compilation of London Joint City and Midland Bank, British Government loans for national purposes excluded.

<sup>5</sup> Statist figure revised to exclude Germany.

<sup>6</sup> Compilation of London Economist. Ratio of net profits to ordinary and preferred capital of industrial companies, exclusive of railways, mines, insurance companies, and banks. Applies to earnings disclosed during the quarter and has therefore a probable lag of six months.

FRANCE.

[Amounts in millions of francs.]

Year and month.	Bank of France.					Government finances.				Value of new stock and bond issues placed upon the French market.	Savings banks, excess of deposits(+) or withdrawals(-).	Average daily clearings of the Paris banks.
	Gold reserves. <sup>1</sup>	Silver reserves.	Deposits. <sup>2</sup>	Circulation.	Advances to the Government for purposes of the war.	Government revenue. <sup>2</sup>	Internal debt.	External debt. <sup>3</sup>	Price of 3 per cent perpetual rents. <sup>4</sup>			
1913, average.....	3,343	629	830	5,565		320	35,000		86.77		- 65	59
1920, average.....	3,586	253	3,527	38,066	26,000	1,005			57.34	4,654	+ 48	554
1921, average.....	3,568	274	2,927	37,404	25,300	1,103			56.56	1,100	+ 67	550
1921.												
September.....	3,575	277	2,509	37,129	24,900	1,011			56.20	234	+ 68	553
October.....	3,575	278	2,563	37,154	25,100	1,305		35,286	54.30	3,355	+ 33	463
November.....	3,576	279	2,563	36,336	24,500	1,051			54.90	434	- 0.5	505
December.....	3,576	280	2,743	36,487	24,600	1,228	242,758	34,779	54.75	853	+ 38	527
1922.												
January.....	3,576	280	2,392	36,433	23,000	1,323			56.55	759	+ 41	489
February.....	3,577	281	2,429	36,161	22,500	1,014			59.55	5,062	+100	489
March.....	3,578	282	2,236	35,528	21,500	1,154	243,857	35,716	56.70	377	+ 49	455
April.....	3,579	283	2,412	35,787	22,100	1,381			57.60	459	+ 58	411
May.....	3,579	284	2,303	35,982	23,100	1,176			57.70	644	+ 55	454
June.....	3,580	285	2,448	36,039	23,300	1,225			57.95	947	+ 53	474
July.....	3,582	285	2,432	36,050	23,000	1,472	248,283	35,685	58.25	485	+ 62	562
August.....	3,583	286	2,170	36,385	23,900	1,168			60.10	151	+ 66	512
September.....	3,584	287	2,199	36,603	21,000	1,154			61.10		+ 58	
October.....	3,635	288	2,170	36,694	23,600				58.25			

<sup>1</sup> Not including gold reserve held abroad.

<sup>2</sup> From indirect taxation and Government monopolies.

<sup>3</sup> Foreign debt converted to francs at par.

<sup>4</sup> Figure for the last Wednesday in the month.

<sup>5</sup> Average for 11 months.

<sup>6</sup> Estimate in the French Senate.

## ITALY.

[Amounts in millions of lire.]

Year and month.	Leading private banks. <sup>1</sup>			Banks of issue.					Government finances.					Index numbers of securities prices. <sup>4</sup>	
	Cash.	Loans, discounts, and due from correspondents.	Deposits and due to correspondents.	Loans and discounts.	Gold reserve.	Total reserve.	Deposits and demand liabilities.	Commercial circulation.	Circulation for account of the state.	State currency notes.	Treasury metallic reserve.	Short-term treasury bills.	Total public debt. <sup>2</sup>		Principal revenues during month. <sup>3</sup>
1913, end of Dec.	129	2,007	1,674	857	1,375	1,661	318	2,284	10,743	499	117	13,200			
1920, end of Dec.	1,308	16,539	15,810	7,074	1,058	2,077	2,563	8,988	9,064	2,268	161				
1921, average.	1,200	16,242	16,001	7,509	1,074	2,020	2,352	9,304		2,267	170			1,019	87.12
1921, end of—															
September	1,052	17,223	16,825	7,327	1,073	1,966	2,124	9,785		2,267	159	21,612		564	87.04
October	1,364	17,185	17,022	7,816	1,086	1,990	2,243	9,746		2,267	159	22,997	110,754	1,404	91.07
November	1,174	12,844	12,778	7,810	1,089	1,948	2,151	9,435		2,267	159			648	83.99
December	1,997	11,797	12,502	10,020	1,092	1,999	2,913	10,304		2,267	170	24,600	111,900	1,458	80.13
1922, end of—															
January	1,426	11,334	11,616	10,156	1,109	1,996	2,848	10,183		2,267	170			909	96.61
February	1,081	11,446	11,482	10,029	1,100	1,971	2,582	9,631		2,267	170			1,366	94.10
March	965	11,407	11,403	9,833	1,118	1,956	2,087	9,589		2,267	170			759	88.82
April	908	11,752	11,708	10,113	1,122	1,964	2,473	9,360		2,267	170			1,337	88.43
May	841	11,732	11,698	9,323	1,104	1,963	2,572	9,259		2,267	169			667	93.13
June	845	11,980	11,863	9,505	1,106	1,976	2,740	9,615		2,267	170	23,862	113,204	1,454	94.83
July	861	12,118	11,896	9,051	1,125	1,991	2,524	9,947		2,267	170			783	95.19
August	763	12,161	11,883	9,088	1,125	2,024	2,605	9,605						1,306	103.01
September				8,804	1,125	2,024	2,499	9,924	8,066					682	105.68

<sup>1</sup> Banca Commerciale Italiana, Banca Italiana di Sconto, Credito Italiano, Banco di Roma.<sup>2</sup> Includes paper circulation of the State and of banks on account of the State.<sup>3</sup> Revenues from state railways; from post, telegraph, and telephones; from state domain; from import duties on grain; and from Government sales of sugar are not included.<sup>4</sup> Figures for 1921 are based on quotations of Dec. 31, 1920=100. Those for 1922 are based on quotations of Dec., 1921=100.<sup>5</sup> Revised.<sup>6</sup> Excluding Banca Italiana di Sconto.

## GERMANY.

[Amounts in millions of marks.]

Year and month.	Reichsbank statistics.						Darlehens-kassenscheine in circulation. <sup>1</sup>	Government finances.				Value of new stock and bond issues on German market.		Index of securities prices. <sup>2</sup>	
	Gold reserve. <sup>1</sup>	Discounted treasury bills.	Commercial paper discounted.	Note circulation. <sup>1</sup>	Deposits. <sup>1</sup>	Clearings.		Receipts from taxes.	Revenue of state railways.	Treasury bills outstanding. <sup>1</sup>	placed on market.	25 stocks.	15 bonds.		
1913, average.	1,068			1,958	668	6,136			207	13	220				
1920, average.	1,092	47,980		53,964	17,702	57,898	13,145								
1921, average.	1,056	83,133		80,952	20,213	89,297	8,861	6,285	2,358	192,832	2,655				
1921, end of—															
September	1,024	98,422	1,142	86,384	19,980	98,004	7,610	4,908	2,599	210,504	1,534				
October	994	98,705	881	91,528	18,303	119,496	7,316	6,185	2,825	218,000	2,889				
November	994	114,023	1,446	100,944	25,313	140,493	7,330	7,044	3,307	226,876	7,135	4,269	4,181		
December	995	132,331	1,062	113,639	32,906	120,835	8,325	8,016	4,329	246,921	5,965	5,206	5,147		
1922, end of—															
January	996	126,160	1,592	115,376	23,412	116,680	8,046	8,802	4,415	255,678	4,831	223	152		
February	986	134,252	1,857	120,026	26,526	109,816	7,977	9,614	4,659	262,817	2,101	222	154		
March	997	146,531	2,152	130,671	33,358	170,357	8,701	14,065	7,096	271,935	6,416	274	160		
April	1,001	155,618	2,403	140,420	31,616	175,977	9,183	13,193	8,907	280,935	3,992	265	268		
May	1,003	167,794	3,877	151,949	33,128	179,370	9,440	17,619	10,984	289,246	4,152	242	267		
June	1,004	186,126	4,752	169,212	37,174	191,414	10,374	17,776	12,781	311,600	2,762	224	298		
July	1,005	207,858	8,122	189,795	39,970	219,493	12,234	21,547	15,396	307,810	2,330	282	430		
August	1,005	249,766	21,704	238,147	56,124	374,856	13,883	31,466	18,053	331,000	2,468	299	602		
September	1,005	348,770	50,234	316,870	110,012	473,715	13,995	31,692	25,332	451,000	7,937	445	1,933		
October	1,005	477,201	101,155	459,457	104,779		14,009			604,000		653	2,662		

<sup>1</sup> End of month.<sup>2</sup> Calculated by the Frankfurter Zeitung with prices of 25 stocks, 10 domestic and 5 foreign bonds (prices as of Jan. 1, 1921=100). These figures, recently revised, now include subscription privileges which were heretofore omitted. Figures are as of beginning of month.<sup>3</sup> End of March, 1913.<sup>4</sup> As of Nov. 10, 1921.<sup>5</sup> As of Dec. 30, 1921.

NORWAY.

[Amounts in millions of kroner.]

Year and month.	Norges Bank.					Private commercial banks (103).			Bankruptcies.
	Gold holdings.	Note circulation.	Deposits.	Loans and discounts.	Clearings at Christiania.	Loans and discounts.	Deposits.	Total aggregate resources.	
1914, end of July.....	184	123	14	88					Number.
1920, average.....	147	451	102	419	552	3,921	3,382		
1921, average.....	147	417	111	443	537	3,840	3,333	5,164	86
1921, end of—									
September.....	147	416	85	426	637	3,844	3,319	5,224	100
October.....	147	411	113	453	589	3,742	3,275	5,196	79
November.....	147	395	121	439	538	3,677	3,231	5,113	88
December.....	147	410	141	476	551	3,508	3,305	4,944	84
1922, end of—									
January.....	147	378	131	433	524	3,413	3,202	4,805	89
February.....	147	376	141	428	494	3,346	3,172	4,755	78
March.....	147	385	151	449	628	3,280	3,124	4,690	107
April.....	147	386	143	447	516	3,302	3,118	4,755	78
May.....	147	375	152	446	525	3,317	3,086	4,783	129
June.....	147	385	133	441	532	3,354	3,080	4,804	94
July.....	147	382	137	445	466	3,364	3,083	4,810	68
August.....	147	385	133	445	468	3,295	3,036	4,781	79
September.....	147	384	135	444	447	3,260	3,004	4,737	59

<sup>1</sup> Includes balances abroad.

SWEDEN.

[Amounts in millions of kroner.]

Year and month.	Riksbank.				Government finances.		Joint-stock banks.		Protested bills during month. <sup>1</sup>		Business failures during month. <sup>1</sup>	Foreign exchange index, value of krona abroad (foreign currencies = 100). <sup>1</sup>	Index number of stock prices—A list. <sup>1</sup>	Value of stock issues registered during the month.
	Gold coin and bullion.	Note circulation.	Deposits.	Clearings.	Funded State debt.	Floating State debt.	Bills discounted with Riksbank.	Loans and discounts.	Number.	Value.				
1913, end of December..	102	235	108	585	628	20	139	2,287	4,314	2	300	.....	258	24
1920, average.....	269	733	226	3,596	1,281	248	476	6,008	3,586	6	196	112.9	176	61
1921, average.....	280	661	193	2,715			389	5,948	6,907	15	432	121.8	121	31
1921, end of—														
September.....	276	672	113	2,609	1,368	60	330	5,901	5,786	10	493	121.4	114	13
October.....	276	650	126	2,310	1,393	63	341	5,837	6,440	13	505	124.9	107	17
November.....	275	628	188	2,364	1,409	77	354	5,735	6,089	13	491	124.0	104	19
December.....	275	628	331	3,305	1,433	78	464	5,656	6,298	10	528	126.3	107	21
1922, end of—														
January.....	275	563	337	2,332	1,434	84	421	5,654	6,345	9	509	126.6	109	18
February.....	274	579	346	2,122	1,435	87	429	5,572	6,272	10	368	126.2	94	18
March.....	274	626	312	2,354	1,435	90	447	5,474	7,559	13	513	128.3	89	22
April.....	274	582	301	1,936	1,434	92	404	5,430	6,965	12	400	126.6	100	15
May.....	274	587	293				389	5,378	7,581	10	430	124.8	115	50
June.....	274	585	247				320	5,388	6,590	10	362	125.6	113	63
July.....	274	551	243				307	5,268	6,417	12	374	127.0	113	35
August.....	274	559	213				293	5,221	5,461	6	300	128.8	110	22
September.....	274	605					288	5,181			371	130.5	103	.....

<sup>1</sup>Source: Kommerciella Meddelanden.

JAPAN.<sup>1</sup>

[Amounts in millions of yen.]

Year and month.	Bank of Japan.						Tokyo banks.				Government finances.		Capital projected	Index of securities prices. <sup>3</sup>	
	Note circulation.	Specie reserve for notes. <sup>2</sup>	Loans and dis-counts.	Ad-vances on foreign bills.	Gov-ernment deposits in Japan.	Private de-posits in Japan.	Cash on hand.	Total loans.	Total depos-its.	Total clear-ings.	Average dis-count rate.	Internal loans.			External loans.
1913, average.....	363	216	47	33	(4)	7		333		364	8.38	1,075	1,484	32	
1921, average.....	1,226	1,200	107	39	297	50		1,932		2,572	9.00	1,956	1,044	186	194
1921.															
End of—															
September.....	1,232	1,232	101	32	293	30		1,955		2,627	8.28	2,026	1,362	191	202
October.....	1,255	1,255	157	30	309	34		1,993		2,679	8.50	2,088	1,362	198	198
November.....	1,283	1,264	197	30	325	37		1,989		2,783	8.79	2,118	1,362	146	190
December.....	1,246	1,246	298	26	203	35		2,000		3,340	9.20	2,149	1,362	222	191
1922.															
End of—															
January.....	1,377	1,241	224	56	277	35	110	1,984	1,743	2,246	9.02			83	196
February.....	1,246	1,223	172	26	328	27	113	1,950	1,751	2,438	9.02	2,162	1,362	200	188
March.....	1,289	1,289	248	58	422	29	141	1,963	1,749	3,099	9.09	2,185	1,359	163	182
April.....	1,226	1,263	267	61	520	30	130	1,980	1,761	2,809	9.34	2,235	1,359	217	160
May.....	1,203	1,203	178	50	469	33	120	1,973	1,748	3,143	9.42	2,264	1,359	110	168
June.....	1,344	1,223	179	98	377	43	122	1,998	1,798	3,178	9.45	2,241	1,359	121	170
July.....	1,224	1,220	133	82	427	35	127	1,970	1,802	2,766	9.38			101	165
August.....	1,280	1,132	241	90	488	30	115	1,925	1,783	2,582	9.42				
September.....	1,237	1,069	134	115	382	29	145	1,921	1,822	2,750	9.38				
October.....	1,236	1,068	160	142	437	33	126	1,926	1,812	2,697					

<sup>1</sup> Figures apply to last day of month in case of Bank of Japan to last Saturday of the month for other items.<sup>2</sup> This includes the specie segregated against notes only. It includes gold credits abroad as well as bullion and coin at home.<sup>3</sup> Tokyo market.<sup>4</sup> During January, February, April, October, November, and December, 1913, Government deposits averaged 4,198,000 yen. During the rest of the year there was an average monthly overdraft of 8,942,000 yen.

## ARGENTINA.

[Amounts in millions of pesos.]

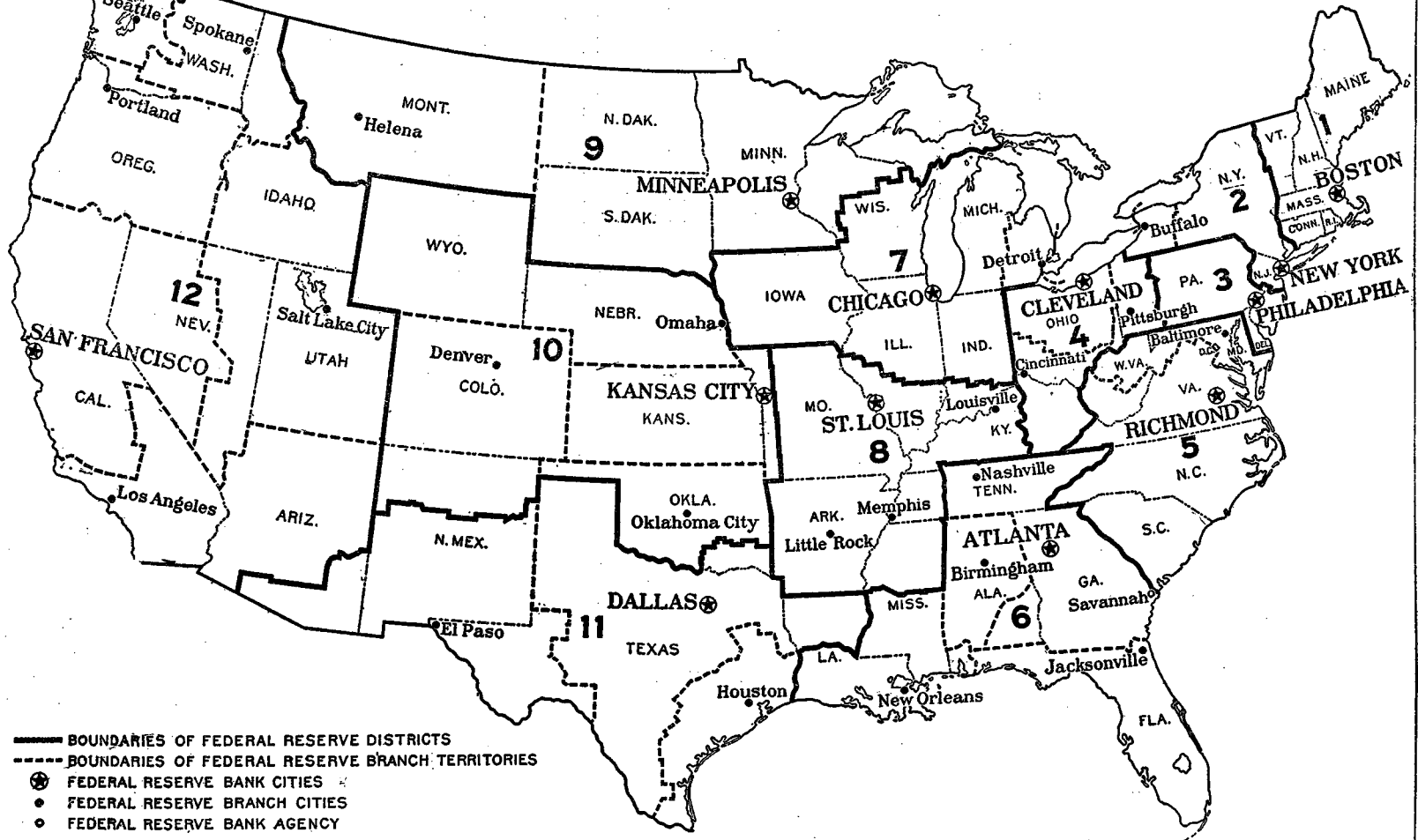
Year and month.	Banks. <sup>1</sup>				Banco de la Nación.				Caja de Conversión.			Liabilities of bank-rupt-cies during month (paper).
	De-posits (paper).	Dis-counts and ad-vances (paper).	Cash.		De-posits (paper).	Dis-counts and ad-vances (paper).	Cash.		Clear-ings in Buenos Aires (paper).	Note circulation (paper).	Gold re-serve.	
			Gold.	Paper.			Gold.	Paper.				
End of—												
1913.....	1,464	1,541	62	435	511	478	32	180	1,471	823	263	14
1919.....	3,010	2,113	66	771	1,250	676	39	268	2,805	1,177	320	3
1920.....	3,530	2,505	46	1,081	1,412	804	25	406	3,612	1,363	476	5
1921.....	3,375	2,543	36	1,087	1,310	866	23	410	3,045	1,363	476	12
1921.												
End of—												
August.....	3,444	2,519	38	1,093	1,349	828	24	403	3,093	1,363	466	12
September.....	3,447	2,492	36	1,152	1,350	816	23	431	3,076	1,363	466	8
October.....	3,391	2,467	36	1,172	1,311	803	23	448	2,909	1,363	466	16
November.....	3,359	2,501	36	1,150	1,293	840	23	463	2,133	1,363	466	13
December.....	3,375	2,543	36	1,087	1,310	866	23	410	3,432	1,363	466	13
1922.												
End of—												
January.....	3,362	2,529	36	1,064	1,310	887	23	419	3,014	1,363	466	10
February.....	3,362	2,565	36	994	1,310	913	23	383	2,593	1,363	466	8
March.....	3,313	2,512	36	981	1,272	884	23	383	3,298	1,363	466	16
April.....	3,304	2,489	36	999	1,283	887	23	393		1,363	466	17
May.....	3,278	2,461	35	1,016	1,294	906	23	386	3,016	1,363	466	13
June.....	3,326	2,461	35	1,060	1,329	933	23	395	2,716	1,363	466	8
July.....	3,308	2,473	35	1,013	1,322	920	23	399		1,363	466	7
August.....	3,356	2,491	35	1,041	1,353	946	23	407		1,363	466	7
September.....	3,379	2,514	35	1,048	1,346	950	23	402		1,363	466	10

<sup>1</sup> Including figures of Banco de la Nación.

# INDEX.

	Page.		Page.
Acceptances:		Germany:	
Held by Federal reserve banks.....	1364	Coal situation.....	1308
Purchased by Federal reserve banks.....	1362	Cost of living.....	1342
Argentina:		Foreign trade.....	1346
Business and financial conditions.....	1314, 1388	Index of industrial activity.....	1344
Foreign trade.....	1314	Reparations, review of, during past three years.....	1288
Live-stock industry.....	1314	Wholesale prices.....	1338, 1340
Government finances.....	1315	Gold imports and exports.....	1284, 1380
Australia, wholesale prices in.....	1338	Gold settlement fund transactions.....	1381
Belgium:		Governors of Federal reserve banks, conference of.....	1272
Cost of living.....	1342	Index numbers:	
Wholesale prices.....	1338	Foreign exchange.....	1383
Bills of exchange drawn against actually existing values within the meaning of section 13 of the Federal reserve act, rulings on.....	1286	Foreign trade.....	1348
Bond issue, Treasury.....	1272, 1296	Industrial activity—England, France, Germany, Japan, and Sweden.....	1343
Branches, foreign, of American banking institutions.....	1298	Ocean freight rates.....	1348
Brazil:		Physical volume of trade.....	1351
Business and financial conditions.....	1316	Retail prices in principal countries.....	1342
Foreign trade.....	1316, 1347	Wholesale prices abroad.....	1334, 1336, 1338
Government finances.....	1317	Wholesale prices in the United States.....	1336, 1338, 1340
Building statistics.....	1282, 1357	India:	
Business and financial conditions:		Cost of living.....	1342
Abroad.....	1300-1334, 1385-1388	Foreign trade.....	1347
In the United States.....	1267, 1274	Wholesale prices.....	1338
Canada:		Italy:	
Wholesale prices.....	1337, 1338, 1341	Financial conditions.....	1386
Foreign trade.....	1347	Foreign trade.....	1347
Charters issued to national banks.....	1285	Retail prices.....	1342
Check clearing and collection:		Wholesale prices.....	1338, 1341
Gold settlement fund transactions.....	1381	Japan:	
Number of banks on par list.....	1379	Financial statistics.....	1388
Operations of system during October.....	1379	Foreign trade.....	1347
China, wholesale prices in.....	1338	Index of industrial activity.....	1345
Coal situation in Germany.....	1308	Wholesale prices.....	1337, 1338
Condition statements:		Knit goods production.....	1349
Federal reserve banks.....	1365, 1368	Member banks:	
Member banks in leading cities.....	1365, 1372	Condition of.....	1365, 1372
Corn crop estimate.....	1349	Foreign branches of.....	1298
Cost of living:		Mexico:	
Austria.....	1342	Monetary conditions.....	1318
Belgium.....	1342	Railroads.....	1320
England.....	1342	Money in circulation.....	1381
India.....	1342	Netherlands:	
Germany.....	1342	Foreign trade.....	1347
Poland.....	1342	Wholesale prices.....	1338
South Africa.....	1342	Newsome, W. B., appointed Federal reserve agent at Dallas.....	1272
Switzerland.....	1342	New Zealand, wholesale prices in.....	1338
Switzerland.....	1342	Norway:	
Switzerland.....	1342	Financial conditions.....	1387
Cotton fabrics, production and shipments.....	1350	Wholesale prices.....	1338
Currency and banking conditions:		Ocean freight rates.....	1348
Mexico.....	1318	Peru, wholesale prices in.....	1338
South Africa.....	1324	Physical volume of trade.....	1351
Debits to individual account.....	1270, 1375	Poland:	
Denmark, wholesale prices in.....	1338	Wholesale prices.....	1338
Deposits, savings, of commercial banks.....	1349	Cost of living.....	1342
Discount and open-market operations of Federal reserve banks.....	1361	Price readjustment, discussion of.....	1267
Discount rates:		Prices:	
Federal reserve banks.....	1380	Retail, in principal countries.....	1342
Prevailing in various centers.....	1382	Wholesale, abroad.....	1336, 1338, 1340
Dutch East Indies, wholesale prices in.....	1338	Wholesale, in the United States.....	1283, 1336, 1338, 1340
Edge Act corporation organized.....	1287	Railway situation:	
Egypt, wholesale prices in.....	1338	England.....	1300
England:		France.....	1303
Cost of living.....	1342	Mexico.....	1320
Financial statistics.....	1385	Ramsey, William F., Federal reserve agent at Dallas, death of.....	1272
Foreign trade.....	1345	Reparations, German, review of, during past three years.....	1288
Index of industrial activity.....	1343	Retail prices in principal countries.....	1342
Railway situation.....	1340	Retail trade, condition of.....	1283, 1358
Wholesale prices.....	1336, 1338, 1341	Rulings of the Federal Reserve Board:	
Failures, commercial.....	1285	Bills of exchange drawn in good faith against actually existing values within the meaning of section 13 of the Federal reserve act.....	1286
Federal Pacific Banking Corporation, organization of, under Edge Act.....	1287	Savings deposits of commercial banks.....	1349
Federal reserve agents, conference of.....	1272	Silver imports and exports.....	1284, 1380
Federal reserve note account.....	1371	South Africa:	
Fiduciary powers granted to national banks.....	1285	Central reserve bank.....	1329
Foreign branches of American banking institutions.....	1298	Cost of living.....	1342
Foreign exchange index.....	1383	Currency and banking conditions.....	1324
Foreign trade:		Foreign trade.....	1324
Argentina.....	1314	Gold production.....	1328
Brazil.....	1316, 1347	Wholesale prices.....	1338
Canada.....	1347	Spain, wholesale prices in.....	1338
England.....	1345	State banks admitted to the system.....	1285
France.....	1346	Sweden:	
Germany.....	1346	Financial conditions.....	1387
India.....	1347	Foreign trade.....	1347
Italy.....	1347	Index of industrial activity.....	1344
Japan.....	1347	Retail prices.....	1342
Netherlands.....	1347	Wholesale prices.....	1338, 1341
South Africa.....	1324	Switzerland:	
Sweden.....	1347	Cost of living.....	1342
United States.....	1284, 1347	Wholesale prices.....	1338
Index of.....	1348	Treasury bond issue.....	1272, 1296
France:		Uruguay, prices in.....	1333
Financial conditions.....	1385	Wholesale prices:	
Foreign trade.....	1346	Abroad.....	1336, 1338, 1340
Index of industrial activity.....	1343	In the United States.....	1283, 1336, 1338, 1340
Railway situation.....	1303	Wholesale trade.....	1283, 1360
Retail prices in Paris.....	1342		
Wholesale prices.....	1337, 1338, 1340		
Freight rates, ocean.....	1348		

# FEDERAL RESERVE DISTRICTS



- BOUNDARIES OF FEDERAL RESERVE DISTRICTS
- - - BOUNDARIES OF FEDERAL RESERVE BRANCH TERRITORIES
- ⊙ FEDERAL RESERVE BANK CITIES
- FEDERAL RESERVE BRANCH CITIES
- FEDERAL RESERVE BANK AGENCY