

(The article on the last page describes the mechanism of expansion under the Federal Reserve system.)

MONTHLY REVIEW

Of Credit and Business Conditions

In the Second Federal Reserve District

By the Federal Reserve Agent, Federal Reserve Bank, New York

New York, September 1, 1921

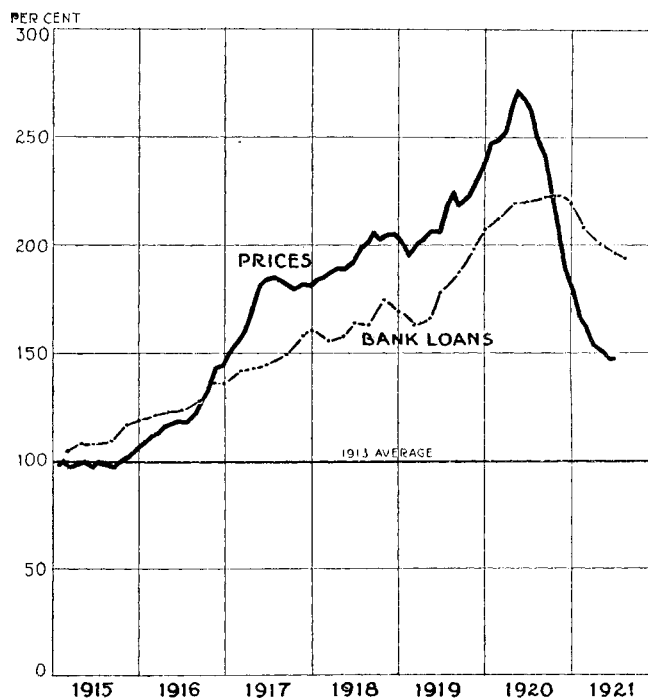
Credit Conditions

THE continuous decline in the general level of wholesale prices which has been reflected in the principal indices of the country month by month since the first half of 1920, was arrested in July. Furthermore, there has been a tendency for the elements composing the indices to seek a common level, a development which has been observed for several months. These two facts taken together may be regarded as pointing to a fairly advanced stage in the process of price readjustment from the high levels of 1920.

The evidence does not indicate, however, complete price stabilization. One of the groups making up the Department of Labor index is almost at the 1913 level, while another is two and one-third times as high as in 1913. The index of the prices of 12 basic commodities maintained by this bank, after remaining practically stationary in July, declined in the first three weeks of August 3 per cent., reaching a point less than 1 per cent. above the 1913 average. This index is made up from the prices of raw commodities which change rapidly from day to day.

The decline in prices remains far in excess of the decline in the volume of credit, as shown in bank loans throughout the country, illustrating the use to which bank credit has been put to conserve the interests of business and agriculture through the period of readjustment. The prices of certain articles, notably in the textile industry, began to decline as early as February and March of 1920, and the general price level as reflected in the Department of Labor index did not begin to fall until three months later. The volume of credit, however, remained high throughout the summer of 1920 and did not reach its maximum the country over until October, some five months later than the general maximum of prices. Up to the present, when the Department of Labor price index is 46 per cent. below maximum and this bank's basic commodity index is 58 per cent. below maximum, the loans of national banks throughout the country are less than 14 per cent. below maximum.

The accompanying diagram compares the rise and fall of prices with the rise and fall of the loans of national banks. The line showing the movement of national bank loans is based upon the reports of the Comptroller of the Currency up to April 28 last, the date of the most recent available report, and afterward upon an estimate drawn from the weekly reports of 812 member banks to the Federal Reserve Board.



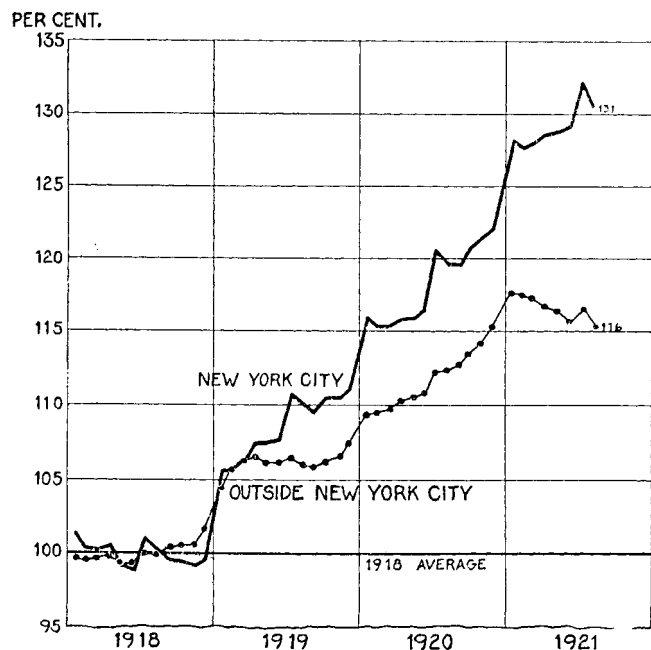
Bank Loans Compared with Wholesale Prices in the United States
(Average Figures for 1913 = 100 per Cent.)

In so far as loans are made against goods, ordinarily in amounts proportionate to their selling value, it might be expected that the aggregate of loans would rise and fall proportionately with the rise and fall of the general price level. But just as prices rose faster and higher than bank loans, so they have fallen faster and farther. The maximum demand for credit was when the fall in

prices was most acute. It was at that time that business men looked to their banks to aid them through the most difficult period of readjustment, and when the banks in turn availed themselves most of the credit making powers of the Reserve system.

In succeeding months the need for credit with which to protect commerce and industry has become less in many directions, and the lower prices of commodities have required less credit to carry new undertakings through the processes of manufacture and sale. But in agriculture, where price declines have been very severe, and where the readjustment is necessarily slower because the farmer's period of turnover is regulated by the seasons and other conditions beyond his control, the demand for credit continues to a considerable degree. In consequence, the demand for loans has decreased most in those Federal Reserve districts which are largely industrial, and the demand for loans remains heaviest in those districts which are largely agricultural. The four Reserve Banks now borrowing from other Reserve Banks are in districts where agriculture predominates.

Taken the country over, however, the loans of the Reserve Banks declined more rapidly in July than in any previous month since the maximum of loans was reached. The total loans of the New York Reserve Bank are now 68 per cent. below their maximum, as against 62 per cent. a month ago; and the total loans of all Reserve Banks are 48 per cent. below maximum, as against 43 per cent. a month ago.



Deposits of 11 Savings Banks in New York City and 10 Savings Banks in the Second District Outside New York City (Average Deposits in 1918 = 100 per Cent.)

Savings Bank Deposits

Deposits reported by 21 large savings banks on August 10 were slightly smaller than on July 10, both in New York City and in this district outside of New York City. August and February figures normally show a decline after the semi-annual crediting of interest, and this normal decline is more marked in New York City than elsewhere in this district. In spite of continued unemployment and a narrow margin of profit in business and industry there are as yet no indications of unusual reduction of savings deposits in New York City, and outside the city the reduction is moderate.

Bill Market

The last week in July dealers' offering rates for prime bankers acceptances declined from $5\frac{1}{8}$ and $5\frac{1}{4}$ to 5 per cent. for all maturities up to three months. The lower rates were due to an increased demand for bills which accompanied a temporarily larger supply of funds at this center and lower call money rates. The low bill rate has been maintained during August in spite of firmer money rates around the middle of the month. Dealers report continued sales to out-of-town banks in fairly large volume and broadly distributed, but New York City demand has been more restricted and purchases have been confined mainly to the shorter maturities, 30 and 60 days.

Bill dealers whose portfolios had increased materially found substantial amounts of time money at their disposal which also conduced to the easier discount rates during the month.

The volume of grain and cotton export bills increased steadily during August and constituted the major portion of new offerings. For several weeks, however, purchases of bills covering the importation of raw sugar and raw silk were fairly heavy. The amount of bills drawn to furnish dollar exchange continued to decline.

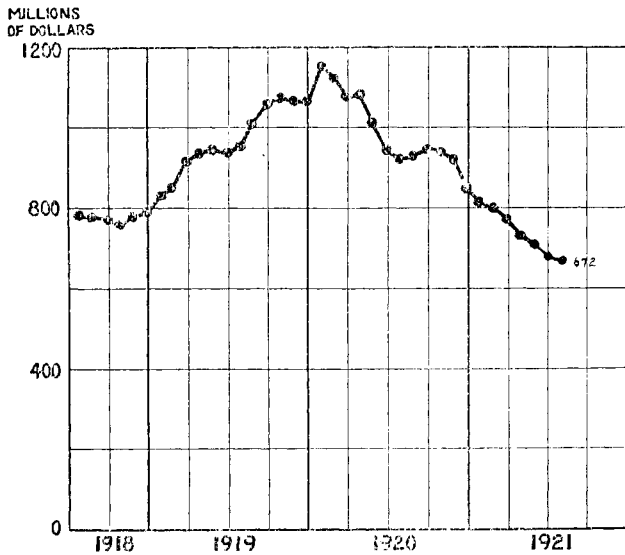
Commercial Paper

The ruling rates for prime commercial paper have remained at 6 to $6\frac{1}{4}$ per cent., the levels which had been reached in the third week of July. Around the first of August, coincident with lower stock market money rates, there was a tendency for the better grades of paper to sell at 6 per cent., and a small amount of unusually prime paper was sold at $5\frac{3}{4}$ per cent. But in the later weeks of August, the market again became firmer, and the larger proportion of sales was at $6\frac{1}{4}$ per cent.

Reports to this bank from dealers indicate that the volume of paper outstanding declined less rapidly in July than in previous months. In August, however, the market became unusually dull. One of the larger downtown banks bought in fair volume for its own account during the period, but the majority of banks in lower New York City were out of the market.

Dealers report that the supply of prime paper continues limited. Paper now in the market is said to be chiefly for reducing bank borrowings and taking care of maturities, and is not, as a rule, indicative of business expansion.

The following diagram brings up to July 31 the record of the amount of commercial paper outstanding as reported to this bank by eleven principal dealers.



Commercial Paper Outstanding—Eleven Dealers

Stock Market Money Rates

Towards the close of July, the rate for call loan renewals declined to $4\frac{1}{2}$ per cent., the lowest renewal rate since the fall of 1919; and the rate for new loans on July 28 fell as low as $3\frac{1}{2}$ per cent. The light demand for money was reflected in an unusually small turnover of funds, and considerable sums remained unlent even at the low rates.

In the first week of August, however, the market became firmer as interior banks withdrew large amounts of funds from New York. Rates rose to 6 per cent. where they remained until after the middle of the month when there was a decline to 5 per cent.

In the time money market, rates declined late in July from 6 per cent. to a range of $5\frac{1}{2}$ to 6 per cent. In August there was a firmer tendency until the third week of the month when money was again in larger supply. The closing range of rates was $5\frac{3}{4}$ to 6 per cent.

Stock Market

The stock market continues dull and inactive. Prices in the last month moved irregularly within a narrow range. Dividend omissions, accompanied by weakness in certain stocks, tended to unsettle somewhat the entire industrial list; so that from this and other causes average prices of industrials gradually declined to nearly the low levels of June. Railroad stocks, on the other hand, reached somewhat higher levels, as a result partly of prospects of larger earnings, and of hopes of Government financial relief to the carriers.

The volume of trading was the smallest this year. July sales totaled only 9,300,000 shares, about half as large as the June total and 25 per cent. less than sales in July last year. Trading during the first three weeks of August was equally dull.

Stock Clearing Operations

In the REVIEW for September, 1920, attention was called to the newly instituted day clearing branch of the Stock Clearing Corporation, through the operation of which settlements between brokers on the New York Stock Exchange are made for balances of cleared securities. Within the past year, the Stock Clearing Corporation has put into effect a system of clearing loans between Stock Exchange members and lending banks and bankers which has tended still further to reduce the volume of bank clearings and bank certifications. Under the plan, loan transactions between lenders and borrowers who are members of the Stock Clearing Corporation are handled through the medium of the Corporation, the latter retaining title to the collaterals during the transfer of the loans.

The plan has been in operation since March 20 of this year. With twenty leading banks and bankers participating, approximately 60 per cent. of all borrowings of clearing members are being cleared by this method. Figures supplied by the Stock Clearing Corporation covering the first ten business days of August are indicative of the reduction in the amount of checks drawn and certifications made that is being effected by the combination of security balance and loan clearing. Whereas the total value of stocks and bonds delivered to clearing members during the period, plus the total of loans paid, reached \$349,000,000, which would fairly represent the certified checks deposited under the former method, the amount of certified checks deposited in payment was only \$138,000,000, a reduction of 61 per cent. The reduction in bank clearances from what would formerly have taken place was 47 per cent.

Bond Market

Bond prices continued to advance during the entire month of July and by the end of the month showed an average gain of 3 points. An important factor in the advance was the easing of money rates. It was also reported that the British government was a considerable buyer of securities here for the purpose of returning securities to British investors who had lent their holdings to the government during the war.

With firmer money conditions in August trading became less active, and prices declined somewhat from the levels they had attained. The reaction, however, was moderate, and appeared to result more from slackened buying interest than from selling pressure. The supply of bonds in dealers' hands is apparently comparatively small, and bids for important amounts tend rather easily to result in price advances.

Foreign government bonds, in common with other bond groups, declined slightly in August, but most of the new issues continued to sell close to or above their original prices. Among the older foreign issues, Japanese bonds continued to show strength, and reached new high prices for the year.

July bond sales on the Stock Exchange, exclusive of United States Government issues, totaled \$105,000,000. This was a slightly larger amount than was sold in June, and 62 per cent. larger than sales in July of last year.

United States Securities

Trading in Government war bonds, which had been heavy during June, declined again in July to approximately the average totals shown in earlier months of the year. Sales on the Stock Exchange were \$138,000,000, which was 21 per cent. less than sales in July last year. Trading continued quiet in August.

Prices of the Liberty 4¼ per cent. issues advanced from half a point to a full point during the latter part of July, and maintained these gains in August, notwithstanding the somewhat reactionary tendency among other bonds. The tax exempt 3½'s were conspicuously strong, advancing nearly 3 points from the recent low of 86.

The Treasury offering of certificates of indebtedness dated August 1, in two series: March 15, 1922, bearing interest at 5¼ per cent., and August 1, 1922, at 5½ per cent., was unusually well received in this district and throughout the country. Total subscriptions were in excess of one billion dollars. Of total allotments of \$376,362,500, allotments to this district amounted to \$146,886,000 or 39 per cent.

Outstanding issues of certificates of indebtedness and notes continue to be offered in the New York market above par. The market remains very active.

The following table indicates the yield on these issues at selling prices on August 19.

Maturity Date	Rate	Yield
September 15, 1921.....	5½	4.00
September 15, 1921.....	6	4.00
October 15, 1921.....	5½	4.18
October 15, 1921.....	5¾	4.12
December 15, 1921.....	6	4.36
February 16, 1922.....	5½	4.95
March 15, 1922.....	5¾	5.00
March 15, 1922.....	5¼	5.00
June 15, 1922.....	5½	5.17
August 1, 1922.....	5½	5.21
June 15, 1924 (3-year notes).....	5¾	5.35

New Financing

New high-grade securities have been in good demand recently, but offerings have been comparatively light. Dealers report that their shelves have been practically cleared of recent issues, and that for the time being at least there appears to be little further financing in prospect. This is said to be due to several causes. A number of foreign governments which have been looking to this market are deterred by high interest rates. Domestic borrowing, both by railroads and industrial companies, is restricted by the reduced volume of business and the policy of limiting expenditures, and by the fact that issues by a number of corporations which are still in need of money would not appeal under present circumstances to the investor who is unusually cautious. Moreover, progress in liquidating inventories has made borrowing unnecessary in the case of many industrial companies. Considerable municipal, county, and state financing is in sight, but even in this group the amount of business in prospect is less than it was earlier in the year.

Terms of issues in July and August showed little change from those of recent months. A good demand for foreign government bonds was shown in the ready sale of \$7,500,000 twenty-five-year 8 per cent. bonds of the Republic of Uruguay to yield 8.20 per cent., a rate not differing much from that of previous foreign issues.

The total of July corporation issues was \$170,500,000, slightly less than the June total, and nearly 30 per cent. less than in July last year.

Gold Movement

July imports of gold totaled \$64,248,000, a sum larger than in either May or June. Exports were \$3,735,000, the largest amount for any month of this year. Of this sum, \$2,643,000 went to Sweden, and the remainder to Mexico, Hong Kong, and Canada.

Below are shown for the first and second quarters and for July the amounts of gold received from various countries as reported by the Federal Reserve Board.

(000 omitted.)

Country	First Quarter	Second Quarter	July	Total Jan. 1- July 31, 1921
England.....	\$51,163	\$51,087	\$21,656	\$123,906
France.....	45,235	28,103	27,974	101,312
Sweden.....	4,679	37,991	42	42,712
Canada.....	20,553	4,535	195	25,283
China and Hong Kong.....	12,508	6,804	1,205	20,517
British India.....	8,081	9,065	2,094	19,240
Netherlands.....	1,557	14,159	1,086	16,802
All Other.....	19,759	30,713	9,996	60,468
Total Imports.....	\$163,535	\$182,457	\$64,248	\$410,240
Total Exports.....	4,471	2,219	3,735	10,425
Net Imports.....	\$159,064	\$180,238	\$60,513	\$399,815

The Treasurer of the United States estimated the stock of gold in the country on August 1 at \$3,289,000,000, as compared with \$2,695,000,000 on August 1, 1920.

The report for the first ten days in August shows further extensive imports amounting to \$33,073,000, of which more than half were from France, and about a quarter from England.

Foreign Exchange

Fluctuations in sterling exchange generally attributed to international operations which were directed largely toward the payment of reparations, continued to disturb the exchange market during the past month. Another factor which was partly responsible for weakness in sterling late in July was the offering of sterling bills against future shipments of grain and cotton. On July 29 sterling reached a low point for the period of \$3.56, but early in August the rate advanced sharply, rising in a day 11 cents to \$3.72. Since that time the rate has fluctuated within rather narrow limits and trading has been dull.

Rates on principal countries of continental Europe outside Germany moved within a narrow range, mainly paralleling sterling. German marks were conspicuously weak after the middle of August and declined to 1.10 cents, within 9 points of the minimum of 1.01 cents reached in February, 1920. Trading in marks was exceptionally active and banking institutions having German connections were reported to be heavy sellers.

For the first time in almost a year rates on both Argentina and Brazil advanced somewhat. Exchanges on both Chile and Peru were also slightly firmer. The price of bar silver fluctuated within a range of 2 cents an ounce during July and August and Far Eastern exchanges remained practically stationary.

The following table shows the closing quotations for principal exchanges on August 20, the change from last month, and the per cent. depreciation from par.

Country	August 20 Last	Change from July 23	Per Cent. Depreciation from Par
England.....	\$3.6600	+ .0825	24.8
France.....	.0775	+ .0002	59.8
Italy.....	.0429	- .0004	77.8
Spain.....	.1290	+ .0015	33.2
Germany.....	.0117	- .0012	95.1
Switzerland.....	.1691	+ .0044	12.4
Sweden (Stockholm).....	.2135	+ .0080	20.3
Holland.....	.3093	- .0039	23.1
Belgium.....	.0760	- .0013	60.6
Argentina.....	.2953	+ .0086	30.4
China (Hong Kong).....	.5038	+ .0025	*
China (Shanghai).....	.6913	+ .0125	*
Japan (Yokohama).....	.4838	+ .0025	2.9
Canada.....	.9000	+ .0112	10.0
Bar Silver in N. Y.....	.6188	+ .0163	....

* Silver Exchange Basis.

Foreign Trade

The latest available foreign trade figures and reports as to current business from export and import houses in New York City present no indication of greater foreign trade activity. The Department of Commerce reports July imports valued at \$179,000,000 and exports at \$322,000,000, the lowest totals reached in the current trade decline. Both figures are about 4 per cent. under the corresponding totals for June.

Shipments of cotton were heavy in July and there has been a considerable movement of wheat to Europe, particularly through Montreal. The only notable demand for manufactured goods has been for textiles of different kinds which have been purchased in some quantity by buyers in the Levant and South America.

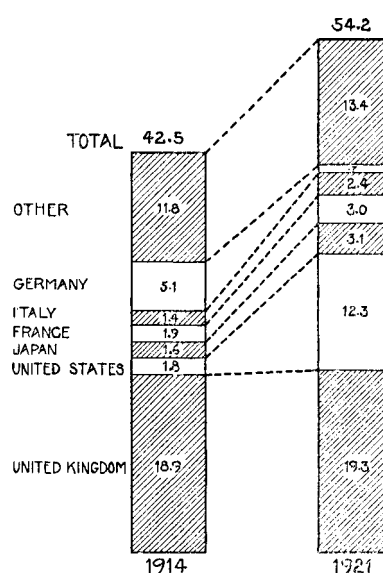
The demand for steel, steel products, machinery, and electrical equipment has been dull except for a few foreign government orders. The export copper market is quiet, and some stocks of tidewater coal are being sold at reductions because of the lack of export demand.

Shippers with connections in Australasia and South Africa report that general merchandise is in slightly

greater demand in those markets, partly because of improvement in their exchange position.

World Seagoing Shipping

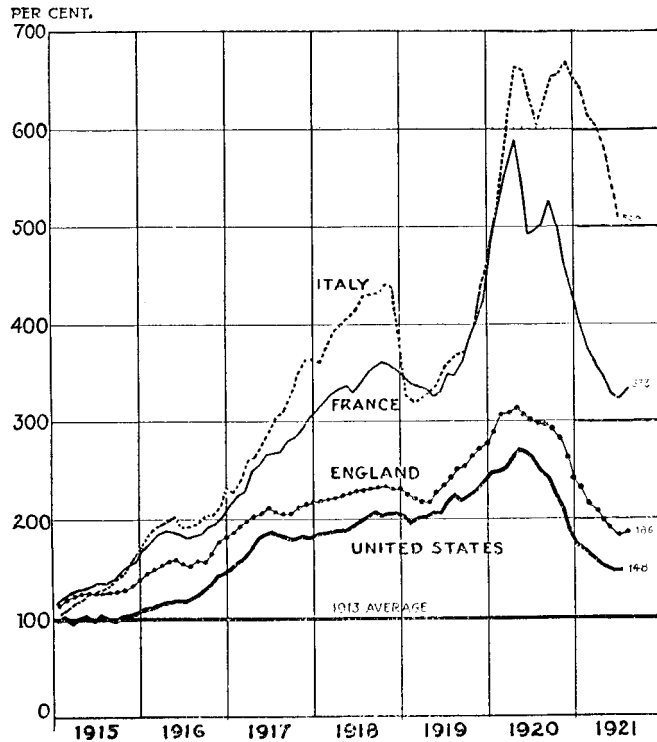
Advance notes on Lloyd's Register of Shipping for 1921-22 give figures for the distribution of world seagoing steel and iron merchant shipping in June, 1921. In the following diagram the tonnage of principal nations in 1914 and 1921 is brought into comparison.



Gross Tonnage of World Seagoing Iron and Steel Ships in 1914 and 1921 (in Millions of Tons)

Tonnage owned by the United States rose from 4.3 per cent. of the total to 22.7 per cent. Germany is the only country represented in the diagram to show a loss. In the case of the United Kingdom new construction and allocations of enemy tonnage have now entirely offset heavy war losses and 1921 figures show a gain of 411,000 tons. The total gain in world tonnage between 1914 and 1921 while large does not indicate a more rapid average rate of increase than before the war. The total amount of tonnage is now about what it would have been if the pre-war rate of increase had been maintained continuously during the war period. The striking change is in the ownership of the tonnage.

A rough comparison between the changes in the amount of shipping and the changes in the movement of cargoes may be made by reference to figures published in the monthly Bulletin of Statistics of the League of Nations for the tonnage of vessels entered and cleared. These figures indicate that in March of this year the total monthly tonnage of vessels entered and cleared at ports of ten principal countries was 19 per cent. less than average monthly figures for 1913. It might be stated roughly that world seagoing shipping is one-fourth larger than before the war but that the movement of cargoes is one-fifth smaller.



Wholesale Commodity Prices in Four Countries (Average Prices in 1913 = 100 per Cent.)

World Commodity Prices

Wholesale price averages for principal countries moved upward or were at a standstill during July. As long

ago as March some slackening in the price decline throughout the world began to be noticeable. In May the general rate of decline was again less rapid and the indices of basic commodities maintained by this bank for the United States and for England showed slight increases as did also the index number for Japanese prices. In June the basic commodity indices turned down once more but the Japanese figure continued slightly upward and Bradstreet's index advanced. It is interesting to note that a year and a half ago the Japanese index and Bradstreet's, which is heavily weighted with textiles, reached their high points and started their decline two to three months before the general price decline became evident throughout the world.

The German price index for August 6, published by the Frankfurter Zeitung, moved sharply upward, reaching once more the peak figure of last May. The change is due almost altogether to an increase in the cost of grains, due to the removal of government restrictions. The change is more nominal than real as actual prices of controlled commodities have commonly been higher than governmentally fixed levels.

The July movement in countries for which indices are available is given in the table on this page and prices for four countries are shown in the accompanying diagram. For the United States the Department of Labor index is used and for England the Statist index.

Indices of Wholesale Prices

Base of 1913 = 100 Unless Otherwise Noted.

Country	Latest Quotation	Per Cent. Change During			Per Cent. Decline from High	Date of High
		May	June	July		
United States:						
12 basic commodities*	101 (Aug. 20)	+2.4	-7.6	-0.3	58	May 17, 1920
Department of Labor	148 (July Av.)	-1.9	-2.0	0.0	46	May, 1920
Dun's	135 (Aug. 1)	-0.4	-3.7	+2.4	38	May 1, 1920
Bradstreet's	120 (Aug. 1)	-1.9	+1.0	+3.0	47	Feb. 1, 1920
Great Britain:						
Economist	178 (Aug. 1)	-0.3	-2.1	-0.2	43	Apr. 1, 1920
Statist	186 (Aug. 1)	-4.5	-3.9	+1.5	41	May 1, 1920
20 basic commodities*	150 (Aug. 20)	-0.9	-1.7	-1.3	57	May 21, 1920
France	332 (Aug. 1)	-5.1	-1.3**	+2.3	43	May 1, 1920
Italy	509 (July 1)	-6.3	-6.9		24	Dec. 1, 1920
Japan	196 (July Av.)	+0.5	+0.6	+2.3	39	March, 1920
Canada	179 (June 15)	-2.5	-1.9		32	May 15, 1920
Sweden†	211 (July 15)	-4.8	0.0	-3.2	43	Dec. 15, 1918
Australia‡	159 (July Av.)	-2.9	-2.4	-1.9	33	August, 1920
Norway	293 (Aug. 1)	+1.0	-0.6	+6.8	32	Oct. 1, 1920
Germany§	1,714 (Aug. 1)	-3.6	+6.6	+15.2	0	Aug. 1, 1921
Denmark||	253 (July 1)	-1.2	-0.4		37	Nov. 1, 1920

*Computed by this bank. †July 1, 1913, to June 30, 1914 = 100. ‡July, 1914 = 100. §Middle of 1914 = 100. ||July, 1912, to June, 1914 = 100. **Revised.

Domestic Prices

The continuous downward movement of all four important price indices which seek to measure the general price level in the United States came to an end in July. The Department of Labor index which includes the largest number of items and is probably most representative of the general level of prices, registered no change for July. Three others, prepared by the Federal Reserve Board, Dun's, and Bradstreet's, show price increases of from 1 to 3 per cent. The Department of Labor and the Federal Reserve Board indices are computed from average prices for July, while Dun's and Bradstreet's are computed from prices on August 1. All of the four indices have registered a continuous price decline for the past fourteen months, with the exception of Bradstreet's which started upward during June.

This leveling out and upward movement of general price averages does not indicate a complete stabilization of prices. This bank's index of twelve basic commodities, which is practically at its 1913 level, moved downward somewhat in July and more markedly in the first three weeks of August. The movement of the prices of different groups of commodities continues to be varied. This is best illustrated by the figures for the groups making up the Department of Labor index which are shown in the following table. Average prices in only two of the groups increased, but those two were important groups, heavily weighted.

Commodity Groups	Maximum Level	July Level	Per Cent. Decline from Maximum	Per Cent. Change from June
Farm Products.....	246	115	53.3	+1.8
Metals.....	195	125	35.9	-5.3
Food, etc.....	287	134	53.3	+1.5
Chemicals, etc.....	222	163	26.6	-1.8
Cloths and Clothing....	356	179	49.7	-0.6
Fuel and Lighting.....	284	184	35.2	-1.6
Building Materials.....	341	200	41.3	-1.0
House Furnishings.....	371	235	36.7	-6.0
Miscellaneous.....	247	149	39.7	-0.7
All Items.....	272	148	45.6	0.0

There is a more marked tendency than in some months past for the prices of different groups to seek a common level. This tendency is especially furthered by the large decline in the prices of house furnishings and the increase in the price of farm products. The cost of building material shows little change. This bank's index of the cost of building, which takes account of both material and wages, declined from 186.6 to 184.0 in July, a fall of 1.4 per cent.

Cost of Living

The index number for the retail price of food in the United States prepared by the United States Department of Labor for July 15 shows an increase of 2.7 per

cent. over the June figure. This is the first increase in food costs since the highest prices were reached last summer and coincides with an increase in wholesale food prices. Investigations by the National Industrial Conference Board indicate that during July the price of clothing and sundries continued to decline, shelter showed a small decline, and fuel and light moved up a little. As a result cost of living figures for August 1 show almost no change from the July 1 figures. The following table is computed from the monthly index of the National Industrial Conference Board.

Items	August 1 Index	Per Cent. Change During July	Per Cent. Decline from High
Food.....	148	+2.7	32.4
Shelter.....	169	-1.2	1.2
Clothing.....	159	-2.5	44.8
Fuel and Light.....	179	+0.6	10.5
Sundries.....	183	-1.1	4.7
All Items.....	162	+0.2	20.8

The latest cost of living figures for Great Britain show an increase of 1 per cent. during June. Retail prices reported for Paris show a decline of 2 per cent. during July.

Production of Basic Commodities

Available figures indicate that production of basic commodities in the United States during July was slightly less than during June. The production of pig iron in tons was the smallest for one month since December, 1903, and in terms of per cent. of normal was the smallest recorded rate of output in the history of the industry. The lowest rate previous to this summer was about 60 per cent. of normal reached in 1908. Steel and zinc production and tin deliveries were also at exceptionally low figures in July. Recent trade reviews report an increase in the production of iron and steel during August. For some months consumption has been in excess of production and stocks of both pig iron and steel are reported to be low.

Aside from the metals the lowest production figure is that for bituminous coal which reflects limited operations in the steel industry and in other manufacturing.

Anthracite coal mined is about on a par with last month and wheat flour milled, cement production, and sugar meltings show an increase. While a slightly decreased rate of operations is reported by the textile industries there continues to be an excellent demand for textiles.

The following table gives the available figures for monthly production this year as percentages of normal production. Allowance has been made for the normal growth in production from year to year and the normal seasonal variation from month to month.

(Normal Production = 100)

	Av. Jan.- March	April	May	June	July
Anthracite coal mined.....	103	102	90	93	94
Bituminous coal mined.....	64	63	69	67	61
Pig iron production.....	58	33	34	31	26
Steel ingot production*.....	58	36	38	31	26
Zinc production.....	52	43	47	50	40
Tin deliveries.....	31	31	24	31	30
Cement production.....	79	88	83	84	89
Cotton consumption.....	62	63	67	71	64
Wool consumption.....	70	98	104	109	102
Sugar meltings.....	85	96	82	81	84
Wheat flour milled.....	89	114	105	103*	148
Meat slaughtered.....	90	100	96	101	88

*Revised

Stocks on Hand

The most notable change shown by indices of stocks of basic commodities in the United States for August 1 is in the visible supply of those crops the harvesting of which has begun. Stocks of barley, oats, rye and wheat all show large increases and stocks of all four grains are far higher than normal. These stocks represent holdings available for commercial use and do not include stocks on farms. The movement of grain to market has been much more rapid this year than usual.

Stocks of sugar are those held by importers and refiners. These are usually largest in midsummer as they are built up by receipts of the new crop. This year importations have been delayed. In the past few weeks considerable buying in Cuba and Porto Rico has been reported.

The stock figures in the following table show actual stocks as percentages of normal stocks, allowances being made for normal changes from year to year and from month to month.

(Normal stocks = 100)

	Av. Jan. 1- Mar. 1	May 1	June 1	July 1	Aug. 1
Barley.....	90	114	151	220	310
Coffee.....	95	114	113	97	...
Corn.....	93	183	224	284	208
Cotton.....	104	125	134	145	157
Oats.....	251	262	324	437	766
Rye.....	143	124	142	99	248
Sugar.....	68	74	76	64	45
Tobacco.....	113	...	...	115	...
Wheat.....	60	30	37	39	145
Zinc.....	263	279	293	315	324
Nitrate (at Chile Ports).....	152	143	131	116	108
Gasoline.....	100	106	119	118	...
Tin (world visible supply).....	116	118	123	131	139
Fuel oil.....	129	149	164	176	...
Portland cement.....	91	101	102	97	97
Petroleum.....	86	97	102	108	113

Employment

During the past month there has been little change in the employment situation in this district. Slightly increased employment in several industries appears to have been offset by a decline in others.

There was increasing idleness in machinery plants and among miscellaneous metal workers, although activity in the iron and steel industry showed some signs of revival during the latter part of August. In the textile industry there was an increase in the number employed in some branches while others showed a small decline. There were minor changes for the better in several automobile plants, in factories that handle food and kindred products and among railway workers, especially in the car repair shops. In the building trades there was no material change. Reduction recently in the number of clerical workers employed has been marked.

In the rural districts there has been a noticeable decline in the demand for farm labor, especially during the early part of August, and in up-State cities employment agencies no longer find it possible to divert surplus labor to agricultural districts.

Employment agencies report that there have been more applications for positions and fewer requests for workers during August than at any time since the recession in business set in. Charitable organizations report an increasing number of applications for assistance as the cumulative effect of continued unemployment.

Wages

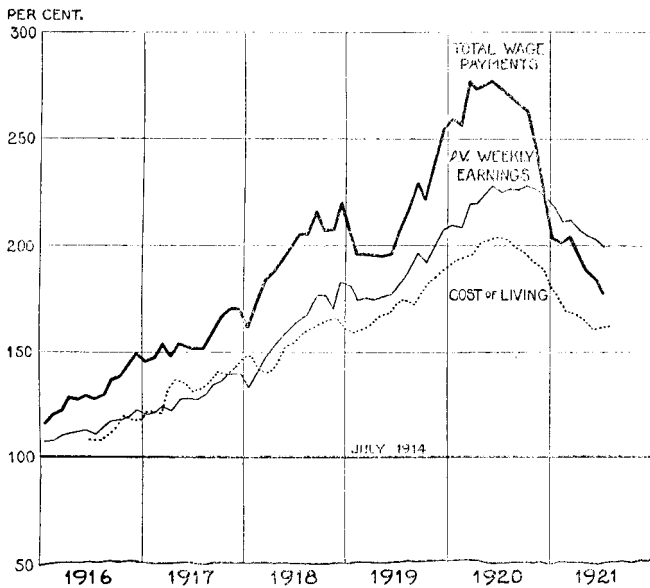
The United States Steel Corporation has announced a third reduction since last spring in the rates of pay of workers. This reduction affects the 125,000 men now on the pay rolls of the corporation and brings the wages of common labor down from 37 cents to 30 cents an hour or \$3.00 for a 10 hour day, the same rate which is in force in most of the independent mills.

The revised rates are 50 per cent. above the pre-war scale of 20 cents an hour and in their relation to pre-war figures correspond closely with the Department of Labor index of wholesale commodity prices which is 48 per cent. above the 1913 average and the index of the cost of living which is 62 per cent. above the 1914 base. In practically no other industry have wages been revised a second and a third time and in practically no other have wages been adjusted so closely to general price levels.

The nearest parallels are found in industries employing unorganized unskilled labor, where the forces of supply and demand operate freely. Last year the building laborer, for example, in New York City received from 75 to 80 cents an hour and worked an 8 hour day. This year by gradual reductions, wages of such laborers have fallen as low as 40 cents an hour, although the recognized schedule calls for 60 cents. The common wage in 1915 was 25 cents. At 40 cents an hour for an 8 hour day the laborer receives \$3.20, almost the same as the steel worker who, however, works a longer day. In 1915 the building laborer at 25 cents an hour received \$2.00 a day, the same as the steel worker. Longer hours in the steel industry were somewhat compensated for by greater regularity of employment.

While wage adjustments have been going forward steadily in this district the reductions do not approach those in the steel industry. Weekly earnings of \$18.00 for common labor in the steel industry may be compared with average weekly earnings of \$25.26 in the factories of New York State during July, a figure which includes wages of women as well as men and in the past has been very close to wages of unskilled labor. The average is still about 100 per cent. above the 1914 level and has declined only about 13 per cent. from the high point reached last October. The decline between June and July was 1.8 per cent. The Department of Labor reports average earnings in July in 13 industries throughout the country to be 5 per cent. lower than the June average and about 61 per cent. above the 1914 level. Wages of a considerable number of steel workers are included in this average.

The following diagram compares the average weekly earnings of workers in New York State factories and the total wages paid by such factories, as reported by the New York State Department of Labor, with the cost of living index of the National Industrial Conference Board. Average weekly earnings reached their highest figure in October, 1920, at a point $2\frac{1}{2}$ times the 1914 level. The maximum was considerably higher than that reached by the cost of living and the decline has been less rapid. The decline in average earnings has been retarded by a tendency on the part of employers to retain the most competent and most highly paid workers. The line showing total wage payments reflects both changes in wage rates and in numbers of persons employed.



Total Wage Payments and Average Weekly Earnings per Worker in New York State Factories, and the Cost of Living in the United States (July, 1914 = 100 per Cent.)

Some explanation of the continued large sales by retail stores is found in the fact that in spite of unemployment total wage payments show a larger margin over the cost of living than in 1914.

Volume of Building

Building construction declined in volume in July after six successive monthly gains. Contract awards in New York and Northern New Jersey as reported by the F. W. Dodge Company were 15 per cent. below the June totals and in the twenty-seven northeastern States were 7 per cent. less than in June. During the first two weeks in August new construction reported in this district showed a slight increase. Residential building continues to constitute a large proportion of the new building awards.

Rents

Office rentals for October 1 occupancy are being made in New York City well below figures quoted for the same space last year. In the mid-city commercial district offices which rented for \$4.50 per square foot last year are quoted at \$2.75 to \$3.25 per square foot. In the down-town financial district smaller reductions have been made. There is a moderate surplus of office space throughout the city resulting in part from new construction, in part from greater economy in the use of space, and in part from the smaller requirements of present business. Rentals of loft buildings are, however, slightly firmer than last year. New construction of this type of building has not as yet overcome the shortage due to an increased demand from the clothing industry in certain sections.

Apartment rentals in the main show little change from last year's rates. For small apartments in remodeled residences and for very large high-priced apartments rentals have been reduced slightly. But for moderate-priced apartments there have been as many upward as downward adjustments, although more apartments are vacant than last year at this time. Increased construction of low-priced apartments in the residential boroughs of New York City has eased the housing situation but has not materially affected rentals.

Wholesale Trade

Sales figures, submitted to this bank by 55 representative wholesale houses, indicate that the present volume of business in most of the lines represented is not far below that of 1920 when the difference in prices is taken into consideration.

The estimated decline in prices and the decline in the dollar value of sales between July, 1920, and July, 1921, together with the per cent. change between June and July, are shown in the following table.

Commodity	Per Cent. Decline in Prices, July, 1920, to July, 1921	Per Cent. Decline in Dollar Value of Sales, July, 1920, to July, 1921	Per Cent. Change in Dollar Value of Sales, June, 1920, to July, 1921
Drugs.....	25	0.2	+ 1.2
Shoes.....	35	15.0	-15.5
Clothing.....	44	35.9	-10.8
Stationery.....	20	40.3	- 4.3
Hardware.....	35	41.6	-13.9
Groceries.....	50	43.4	-11.5
Dry Goods.....	50	49.6	-19.9
Machine Tools.....	35	79.8	-11.0

In only two instances, stationery and machine tools, was the decline in sales since last year appreciably greater than the estimated decline in prices.

With one exception, sales in July were below those of the preceding month, but this decline was largely seasonal as July is normally a month of reduced activity in the wholesale trades. Sales of drugs, in which there is little seasonal tendency, show a slight increase in July.

The accompanying diagram shows the fluctuations in sales by wholesale dealers in groceries, stationery, hard-

ware, and machine tools during 1919, 1920, and thus far in 1921. They represent the dollar value of sales and are expressed in percentages of the average monthly sales for the year 1919. The general trend of the lines follows in the main the course of prices which rose during 1919, reached their high point early in 1920 and declined in the latter part of 1920 and in 1921. The price changes are so great as partly to conceal the seasonal movement.

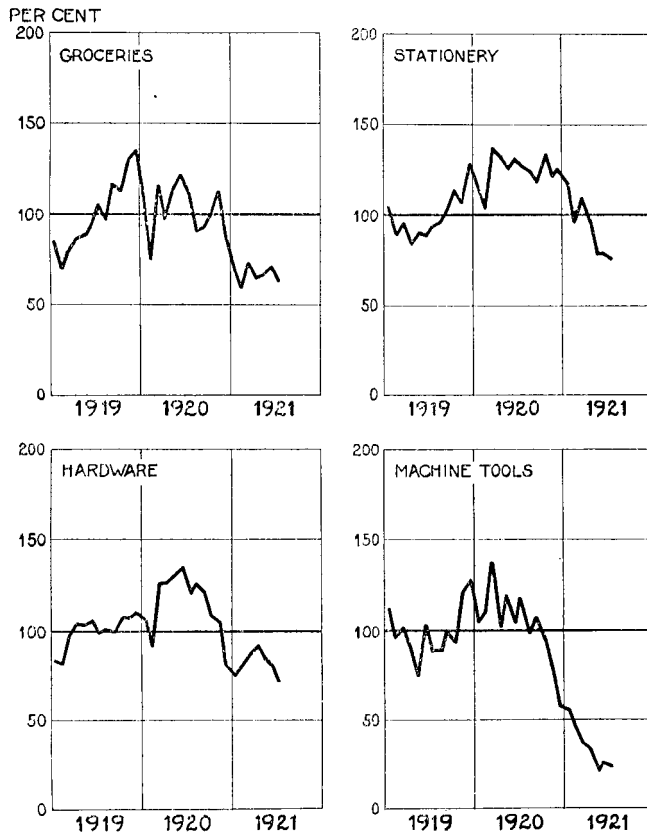
Retail Trade

Total sales in July, as reported to this bank by 41 firms operating 54 representative department stores in this district, were 11.5 per cent. below the sales of July, 1920. When the decline in prices is taken into consideration, it is evident that the amount of merchandise sold continues to be larger than last year. The number of individual transactions in July, 1921, was 11 per cent. larger than in July, 1920. The average amount of individual sales reported by the stores that keep such records, decreased about 18 per cent. from \$2.85 in July, 1920, to \$2.33 in July, 1921.

The volume of department store sales normally reaches its lowest point in midsummer and July sales were about 31 per cent. below those of June. Preliminary reports from merchants indicate that sales during August were also below those of July.

The decrease in the volume of sales has been general throughout all sections of the stores, with the exception of the furniture departments, in which special summer sales have met with a good response.

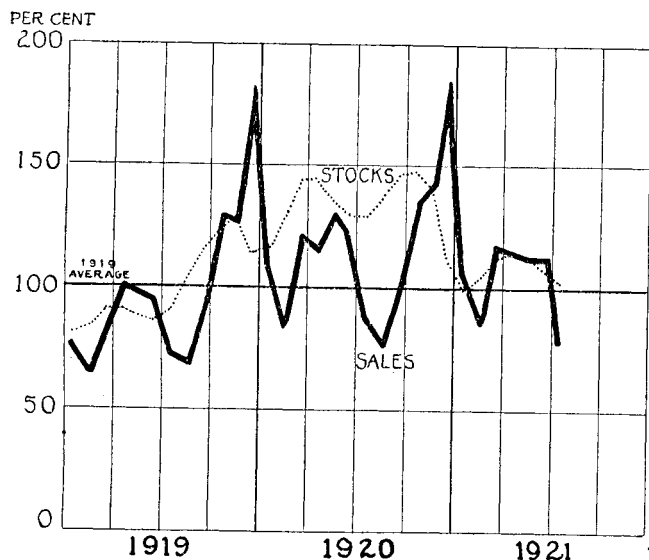
The diagram on page 11 shows the fluctuations in sales and stocks during the years 1919, 1920, and thus far in 1921. The average of monthly sales in 1919 was used as a basis of 100 per cent. in plotting sales figures while the average amount of stocks on hand at the end of each month in 1919 was used as a basis of 100 per cent. in computing the stocks. During the period of very high prices in 1920 the amount of stocks on hand was always relatively higher than the amount of sales. The decline in stocks in the latter part of 1920 was due to falling prices, large December sales, and restricted buying of new goods by the stores. The course followed by the two lines thus far in 1921 is much the same as in 1919.



Monthly Sales of Representative Wholesale Houses in the Second Federal Reserve District (1919 Average = 100 per Cent.)

Business of Department Stores

	New York and Brooklyn	Buffalo	Newark	Rochester	Syracuse	Elsewhere in Second District	Apparel Stores	Entire Second District
Per cent. change in net sales in July, 1921, compared with net sales in July, 1920.....	-12.0	-9.1	-13.8	-6.0	-14.3	-14.9	-4.9	-11.5
Per cent. change in number of transactions in July, 1921, compared with number of transactions in July, 1920.....	+17.2	+9.0	-3.6	....	....	+1.4	+4.7	+10.6
Per cent. change in stocks at close of July, 1921, compared with stocks at close of June, 1921.....	-3.9	-3.1	+4.5	-2.8	-7.6	-6.8	-15.4	-4.2
Per cent. change in stocks at close of July, 1921, compared with stocks at close of July, 1920.....	-20.6	-18.3	-24.6	-30.2	-26.1	-8.3	-22.7	-20.6
Percentage of stocks at close of July, 1921, to net sales during same month.....	443.6	470.9	451.9	433.8	469.4	487.3	243.5	431.6
Percentage of outstanding orders (cost) at close of July, 1921, to total purchases during calendar year 1920.....	6.9	9.2	6.0	7.5	....	8.6	14.4	8.0



Sales and Selling Value of Stocks Each Month of Representative Department Stores in the Second Federal Reserve District (1919 Average = 100 per Cent.)

Business Failures

Commercial failures in the United States in July exceeded those in June by about 9 per cent., a seasonal increase following mid-year statements. Liabilities showed an increase of about 20 per cent. over June figures as the result of a sharp increase in the average liabilities in failures which occurred in the Second Federal Reserve District. Although August failures are normally somewhat less numerous than in July the totals reported for the first three weeks of the month indicated a moderate increase.

The following figures are taken from Dun's reports for this district and for the entire country.

Month	NUMBER OF FAILURES		LIABILITIES	
	Second District	Entire Country	Second District	Entire Country
May.....	222	1356	\$11,172,495	\$57,066,471
June.....	232	1320	4,736,684	34,639,375
July.....	230	1444	18,342,752	42,774,153

Crop Conditions

More abundant rainfall during July improved the condition of most crops in New York State and the probable yield of all crops combined was estimated at 1 per cent. higher on August 1 than on July 1, although still 17 per cent. below the ten-year average yield. In the country as a whole field crops had been so seriously damaged by the high temperatures and drought of the early summer as to be only slightly improved by rainfall in the latter part of July, and consequently crop prospects for the entire United States were 3½ per cent. lower on August 1 than on July 1 and 7 per cent. below the ten-year average. No State east of the Mississippi and only about half of the States west of it are expected to have yields

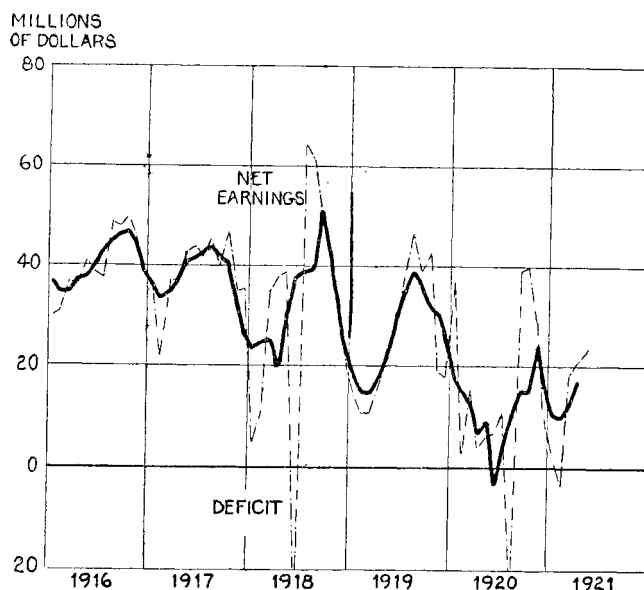
equal to the average of the past ten years. The following table shows for five important field crops the per cent. change shown by the estimated 1921 yield as compared with the actual production in 1920.

Crop	Second District	Entire Country
Corn.....	+ 7	- 6
Wheat.....	- 2	- 4
Oats.....	-28	-25
Hay.....	-23	-10
Cotton.....	....	-37

The condition of most fruit crops improved materially both in this district and in other important fruit areas in July.

Railway Earnings

The following diagram shows the net operating income by months since January, 1916, of fifteen important railroad systems in the United States representing practically 35 per cent. of the total railway mileage of the country. The light line shows the actual figures while the heavy line is a moving average to aid the eye in following the general trend. The figures for 1921 indicate a substantial gain in earnings since February, partly the result of increased economy in operating expenses, partly the result of the slightly heavier traffic in the past four months. Despite the increase in earnings in recent months the figures are still considerably below those for corresponding months in recent years prior to 1920. Reports of July earnings are not yet available. Weekly freight car loadings increased slightly during that month mainly as a result of a heavier movement of grain from the farms, and July operating expenses were probably lower than in previous months as a result of the wage reduction which took effect on July 1.



Net Operating Income of 15 Important Railroads in the United States. Light Line Shows Actual Figures—Heavy Line Is Moving Average Showing General Trend

Mechanism of Expansion Under the Federal Reserve System

UNDER the old National banking system in effect before the Federal Reserve Act, the gold and lawful money which the national banks held as reserves was in the proportion on the average of about \$1 of reserves to \$8 of loans and deposits. This power of expansion was in part the result of the ability of banks in the smaller cities and villages to keep a portion of their reserves with the city banks, where they were used as the basis for further expansion. Country banks were obliged to keep 15 per cent. of their net deposits in reserve, of which three-fifths could be kept on deposit in reserve or central reserve cities. Reserve city banks were required to keep a 25 per cent. reserve, of which half could be on deposit in central reserve cities, and banks in central reserve cities were required to keep a 25 per cent. reserve, all of which was kept in their own vaults. Thus the same dollar of gold or lawful money might be used as reserve in three different banks, permitting an expansion greater than that implied in the average reserve requirements of the several individual banks.

In times of financial ease, when expansion was least needed, there was normally a tendency for this method of depositing and redepositing reserves to be carried to its limit. But as soon as financial stress was foreseen, when expansion was most needed, there was a tendency for the banks to draw their reserves on deposit into their own vaults, thereby reducing the power of expansion inherent in the pyramiding of reserves.

Under the Federal Reserve Act, which became effective on November 16, 1914, and the amendment to it of June 21, 1917, the unsound method of depositing and redepositing reserves in commercial banks came to an end. The entire reserves of all member banks were to be kept at the Federal Reserve Banks. This pooling of reserves at once made for greater safety and permitted somewhat smaller reserve requirements. Required reserves of country banks against net demand deposits were reduced to 7 per cent., of reserve city banks to 10 per cent., and of central reserve city banks to 13 per cent. The uniform reserve requirement on time deposits was reduced to 3 per cent. Whatever cash a member bank might find it necessary to keep in its vault for use as till money, amounting now to about 3 per cent., was not to count as reserve at all. This was a most important change in the law, because it had the effect of transferring to the Reserve Banks, where it might serve when necessary as the basis for credit expansion, practically all of the gold formerly held in the vaults of member banks.

The power of expansion implied in these reserve requirements should be considered in connection with the reserve requirements within the Federal Reserve Banks themselves. A Federal Reserve Bank is required to keep a minimum of 40 per cent. of gold as reserve against Federal Reserve notes, and a minimum of 35 per cent. of gold, or lawful money, against deposits.

Gold, as far as the member banks are concerned, has no power of expansion until it is on deposit with a Federal Reserve Bank. Thus a deposit of \$100,000 of gold in a member bank merely counts as a deposit and is not susceptible of expansion until it is deposited in a Federal Reserve Bank, when, on the average, it will permit an increase of about \$1,150,000 in the loans and deposits of a member bank. The expansion would be very much greater than that, if it were not for the fact that a large part of the deposits created at a Federal Reserve Bank are drawn out again in the form of Federal Reserve notes.

While the statements of individual Federal Reserve Banks show considerable variation, the proportion of Federal Reserve notes outstanding as compared with the deposited reserves of member banks is at present in the ratio of about three to two, which coincides with the average estimated by Professor W. M. Persons of Harvard. On the assumption, then, that \$3 out of every \$5 deposited with the Federal Reserve Bank is withdrawn in notes, \$100,000 of gold deposited in the Federal Reserve Bank would permit an average increase in the loans and deposits of member banks as follows:

For banks in central reserve cities.....	\$1,030,000
For banks in reserve cities.....	1,294,000
For country banks.....	1,786,000

The different degrees of expansion in the three classes of banks are explained in their varying reserve requirements. The following example assumes that a country bank is expanding to the maximum on \$100,000 of gold deposited in a Federal Reserve Bank.

For every \$5 of gold deposited by a member bank with a Federal Reserve Bank, \$3 is likely to be withdrawn in Federal Reserve notes and \$2 is likely to be used as reserve against the deposits of the member bank. The \$3 of gold will act as reserve against Federal Reserve notes amounting to.....	\$ 7.50
(Because its 40 per cent. reserve requirement permits an expansion of 2.5 times)	
The \$2 of gold will act as reserve against the reserve deposits of member banks, amounting to.....	\$5.72
(Because its 35 per cent. reserve requirement permits an expansion of 2.86 times)	
And that \$5.72 will act as reserve against deposits in a country member bank amounting to.....	\$1.80
(Because its 7 per cent. reserve requirement permits an expansion of 14.3 times)	
Making a total of.....	\$89.30
Which multiplied by 20,000 (the number of times \$5 is contained in \$100,000) gives	\$1,786,000

It will be observed that the figures given above do not take into consideration the vault cash which a member bank may find it desirable to keep. Making allowance for that requirement, and averaging all banks in the country, the expansion works out at about 11.5 times.

In order for a member bank to enlarge its reserves at the Reserve Bank, it is not necessary for it to make a deposit of gold or lawful money, because a loan by a Reserve Bank to a member bank adds to the reserves of the latter in exactly the same way as though gold had been imported and deposited by that member bank; and it may use it as reserve against its own deposits or withdraw notes against it in just the same way. The determining factor as to how long such loans may go on is the stock of gold which the Reserve Bank has and which it uses as the basis for its own expansion.

The extent to which the Reserve system's power of expansion is availed of varies, of course, with the credit needs and conditions of the country; growing when demands are great and diminishing when demands subside. Expansion and contraction of reserve credits are therefore the *result* of the increasing or decreasing demands of member banks, rather than a *cause* of the increase or decrease in the amount of loans made by member banks to their customers.