

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, April 1, 1922

Credit Conditions

MARCH 15, the quarterly tax day, was followed by a distinct easing in the money market, which was manifested in lower rates for Stock Exchange call and time money, bankers acceptances and commercial paper. The lower rates were reflected also in higher prices for outstanding issues of Treasury certificates and increased activity in the bond and stock markets.

This easing of money around the tax payment periods has become customary, resulting ordinarily from two principal causes: First, that the banks presenting matured Treasury certificates for redemption on that day receive payment immediately, whereas the checks which taxpayers draw upon them for the payment of income taxes are not collected immediately, but are collected gradually through successive days; and second, that the total amount of certificates redeemed in this district is usually considerably in excess of the taxes paid. Thus the banks temporarily at least have a large amount of surplus money which seeks employment.

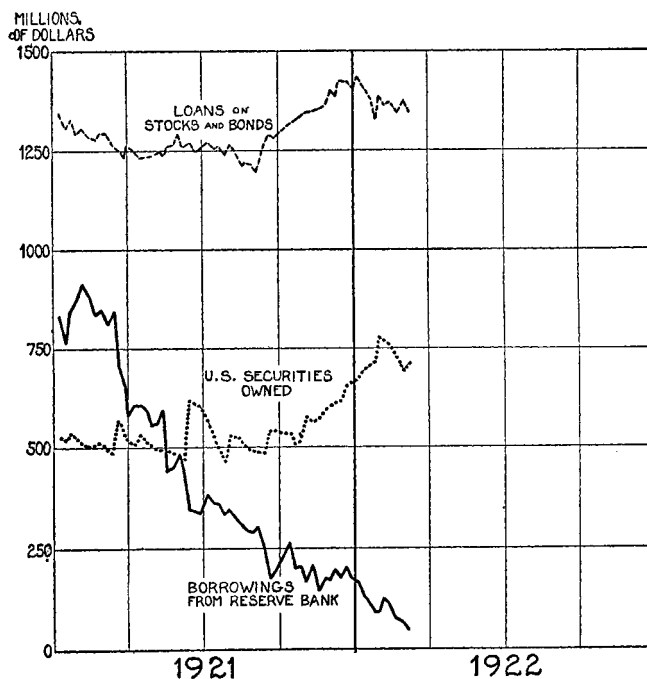
The amount of certificates redeemed on March 15 and preceding days at the New York Reserve Bank was \$277,000,000, financed in part by a loan on that day from the Reserve Bank to the Treasury amounting to \$135,000,000. This loan was reduced day by day as tax checks were collected and as funds were transferred by the Treasury from other districts to New York. The amount of such transfers up to March 22 was \$82,500,000, and the loan to the Treasury was finally extinguished on March 21.

In addition to these ordinary causes, both of a somewhat transient nature, there was a third cause which has been operating with growing effect in recent months, namely the gradual reduction of member bank borrowings at the Federal Reserve Bank. During the period when member banks were borrowing heavily at the Reserve Bank, they applied funds received from the redemption of certificates largely to the reduction of such borrowings, and when tax checks were collected it was usually necessary for the banks to borrow again at the Reserve Bank. But immediately prior to March 15 of this year, the borrowings of New York City member banks at the New York Reserve Bank amounted only to \$11,000,000 as compared with \$918,000,000 at their highest point. Borrowings by other member banks in this district, as well as by banks elsewhere in the country from their respective Reserve Banks, have also been much reduced. In conse-

quence, funds received in payment of certificates, not being required for the reduction of loans at the Reserve Banks, were available in amounts larger than heretofore for employment in other ways.

The progressive reduction of loans at the Federal Reserve Bank and the increase of money in the banks available for employment in the various money markets have been going forward in this district for many months. The result was a reestablishment of competition between lenders of money, and a gradual decline in rates. Furthermore, as the extinguishment of debt at the Reserve Bank proceeded, the influence of the Reserve Bank discount rate diminished, because member banks were able to meet their customers' needs without borrowing, and newly available surplus funds, no longer needed to pay debt at the Reserve Bank, could be used in the money markets at once and in full.

The diagram on this page illustrates the use to which the member banks in New York and the other principal



Borrowings from the Federal Reserve Bank of 108 Reporting Member Banks in the Second District and their Loans on Stocks and Bonds and Holdings of United States Securities

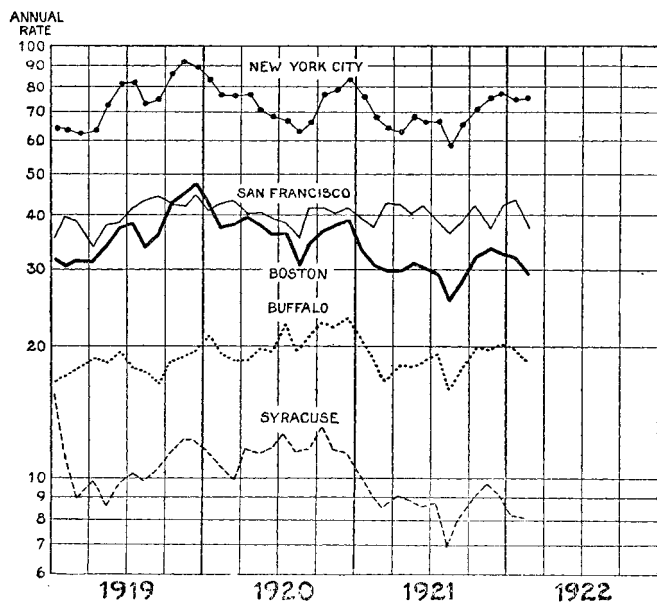
cities of this Federal Reserve district put a considerable part of their funds as they became available. Since January, 1921, their borrowings at the New York Reserve Bank declined about \$850,000,000. During the first half of 1921, when the bulk of that decline took place, the banks as a whole did not make investments other than ordinary loans for the needs of their customers, because they were engaged in retiring their borrowings at the Reserve Bank. But as the banks one by one extinguished those borrowings, they tended to increase considerably their holdings of Government obligations, and to a smaller extent their loans on stocks and bonds. Since July, 1921, their holdings of these two classes of investments and loans increased about \$400,000,000.

Rate of Turnover of Bank Deposits

A measure of business activity is found in the rate of turnover or velocity of bank deposits, that is, the rapidity with which bank deposits are checked out. When business is active the turnover of deposits is rapid, but when there is less activity, deposits tend to remain longer in the banks before they are checked out.

Figures for bank clearings give some measure of this rate of turnover of deposits, but they reflect not only the rate of turnover, but also changes in the amounts of deposits. A study which the Federal Reserve Bank of New York has been carrying forward for three years with the cooperation of the Reserve Banks of Boston, Chicago, and San Francisco now gives us for the first time comparative figures showing by months the rate of turnover of deposits for typical groups of banks in different parts of the country. The figure for any month is the ratio between the checks drawn by individuals and the average amount of demand deposits, against which the checks are drawn.

As shown in the following diagram, the velocity of deposits tended to be most rapid late in 1919 and slowest in the middle of the year 1921, at about the time when



Annual Rate of Turnover of Bank Deposits in Representative Groups of Banks in Different Cities

the operations of the iron and steel industry and a number of other industries were most curtailed. A part of the succeeding increase over the fall and Christmas periods was undoubtedly due to normal seasonal causes, but a part of it appears to reflect more active business. A slight decrease in February as compared with January is normal. The velocity in New York City is more rapid than in any other city for which figures are available, reflecting in part the rapid turnover of funds involved in Stock Exchange operations and in large scale banking transactions. The seasonal movement in New York City is distinctly marked, reaching its highest point in November or December, probably as a result of holiday buying. The seasonal movement in Boston is closely similar to that in New York, but that in San Francisco is quite different. The figures for different cities together with the number of banks for which data were reported are shown in the accompanying table.

The rates of turnover of deposits for these different cities may be compared with the estimates presented by Professor Irving Fisher in his "Purchasing Power of

Year	New York City	Albany	Buffalo	Rochester	Syracuse	Boston	Chicago	San Francisco
	42 Banks	3 Banks	10 Banks	3 Banks	6 Banks	11 Banks	14 Banks	6 Banks
1919								
January	64.7	33.0	16.5	16.7	15.3	31.7	....	35.5
February	63.6	29.1	17.0	17.0	11.4	30.5	....	39.6
March	62.1	27.4	17.8	16.7	9.0	31.4	....	39.0
April	63.7	34.2	18.8	18.4	9.8	31.2	....	34.0
May	72.4	40.6	18.4	17.5	8.6	34.2	....	38.0
June	81.2	49.0	19.4	18.9	9.7	37.3	47.8	38.5
July	81.3	43.1	17.9	18.5	10.2	38.2	50.2	41.9
August	72.6	28.9	17.5	17.7	9.9	33.8	44.3	43.1
September	74.5	30.3	16.5	19.2	10.4	35.4	46.4	44.2
October	85.4	35.0	18.4	20.6	11.5	42.9	47.0	42.8
November	91.3	33.8	19.0	19.6	12.2	45.1	46.5	42.5
December	89.5	39.2	19.7	20.4	12.1	47.6	51.3	44.9
1920								
January	83.1	24.6	21.0	20.0	11.6	42.5	50.0	40.9
February	77.0	28.7	19.4	19.6	10.8	37.4	44.1	42.6
March	76.6	25.7	18.6	19.2	10.0	38.0	45.3	43.1
April	77.3	32.2	18.8	20.9	11.7	39.4	46.3	40.3
May	70.6	34.6	19.9	20.5	11.4	38.0	47.0	40.7
June	68.7	32.9	19.4	20.6	11.7	36.1	49.7	39.4
July	67.1	35.0	22.3	20.4	12.8	36.2	48.2	38.5
August	62.7	32.1	19.9	19.8	11.4	30.8	46.3	35.4
September	66.0	31.8	21.1	21.4	11.6	34.4	51.5	41.6
October	77.5	32.6	22.8	21.9	13.2	37.0	50.8	41.6
November	79.1	31.8	22.2	21.9	11.6	38.0	46.9	40.2
December	83.8	35.9	23.1	22.5	11.5	39.0	49.4	41.8
1921								
January	76.3	26.4	20.9	21.7	10.1	33.5	46.4	39.4
February	68.0	24.8	19.2	20.3	9.2	30.9	42.4	37.7
March	64.1	27.0	16.9	19.3	8.6	30.0	41.3	42.8
April	62.9	27.4	18.2	21.5	9.1	30.0	42.7	42.4
May	68.7	36.8	18.0	19.8	8.9	31.1	43.3	40.2
June	66.2	30.5	18.3	21.4	8.6	30.4	42.0	42.3
July	66.2	28.1	19.2	19.6	8.8	29.3	43.6	38.9
August	58.7	22.5	16.1	18.3	7.0	25.9	41.5	36.7
September	65.7	24.4	17.8	21.4	8.1	28.2	44.1	38.6
October	70.4	26.0	19.9	21.8	9.0	32.2	46.6	42.2
November	75.7	27.7	19.9	22.0	9.8	33.6	47.4	37.4
December	77.1	30.5	20.2	21.8	9.1	32.8	48.4	42.8
1922								
January	74.2	28.5	20.1	21.7	8.3	32.4	47.3	43.9
February	75.2	25.4	18.9	18.9	8.2	29.6	49.7	37.7

Money.”* On the basis of the incomplete data available at that time, Professor Fisher estimated that in 1896 the turnover of deposits subject to check in the United States was at the rate of 36 times a year, and that in 1909 the rate was 54. It appears clear from the accompanying figures that the actual rate of turnover for the United States must be considerably smaller, even at present, than the rate arrived at in Professor Fisher's estimates. Professor Fisher's computations for individual cities, showing a velocity of 30 in Indianapolis and 16 in New Haven, are more nearly in correspondence with this bank's findings.

The figures for velocity have been computed by this bank from the reports for debits to individual accounts and for net demand deposits for individual banks. In order to make these two sets of figures directly comparable it was necessary to subtract withdrawals of Government deposits, and estimates of withdrawals of time deposits from the figures for debits; and it was necessary to subtract net amounts due to banks from net demand deposits. All of these figures were first tabulated upon a weekly basis and were then converted to an annual rate for each month.

Savings Bank Deposits

Thirty representative savings banks in New York, New Jersey, and Connecticut reported practically the same aggregate amount of deposits on March 10 as on February 10. A slight reduction in the deposits of fifteen reporting banks in New York City was offset by an increase in the deposits of reporting banks in other cities of the district.

Bill Market

The release of funds in connection with Government operations on March 15 resulted in a reduction of the offering rates for prime bankers acceptances from 4 per cent. on March 13 to $3\frac{1}{2}$ per cent. on March 20 for both endorsed and unendorsed bills. The $3\frac{1}{2}$ per cent. rate is the lowest quoted in this market since 1917. As a result of recent firmness in the London money market, the rates for bills in the two centers in the latter part of March were approximately the same for the first time in about a year. Since early in 1921 London rates have been substantially under New York rates.

Dealers' sales to banks in the larger centers were unusually heavy and, as few new bills were offered in the market, dealers' portfolios were so reduced that it was frequently impossible to fill orders. Dealers' holdings of bills had not been so small since January, 1921. The rate on call loans on bills as collateral declined during the period to $2\frac{1}{2}$ per cent.

The principal supply of new bills arose from importations of silk, sugar, and coffee, and the export of cotton and grain.

New Acceptance Regulation

On March 29 the Federal Reserve Board announced a modification of its regulation with regard to the rediscount or purchase by Federal Reserve Banks of bankers acceptances drawn to finance export and import transactions. The effect of the modification eliminates certain

* Macmillan Company, New York City, 1911.

requirements respecting such acceptances which it had formerly seemed necessary to include in the regulation in view of the rapid growth of the acceptance business during and after the war owing to the abnormal demand for goods and credits. The Board feels that American banks which have large demands for the extension of acceptance credits in foreign transactions have now had sufficient experience to make detailed regulations no longer necessary. The responsibility is, therefore, placed upon the Federal Reserve Banks to pass upon the eligibility of the import and export acceptances they purchase. It is felt that the greater freedom thus given, subject always to the express and implied limitations of the law, will greatly facilitate the financing of our foreign trade on lines now well established in international banking, and result in much benefit to American commerce and agriculture.

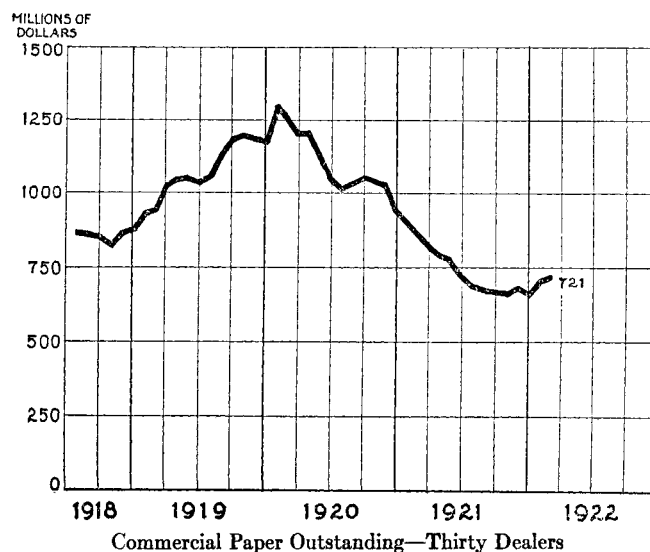
Commercial Paper

Accompanying the reduction in other money rates around the middle of March, the prevailing rate on prime commercial paper dropped $\frac{1}{4}$ of one per cent. to $4\frac{3}{4}$ per cent., the level which prevailed for a time in January. There were some sales of exceptionally choice paper at $4\frac{1}{2}$ per cent.

New York banks which had generally been out of the market since January again bought more freely, and there was some broadening to include new buyers. Though more limited than in normal times, demand here was more active than at any other stage of the current rate decline. Pacific Coast and Middle West demand continued the increase recently noted, and dealers reported active selling through Chicago offices, and a somewhat larger distribution in the Northwest. As a rule, rates throughout the interior were 5 per cent., with occasional sales at $4\frac{3}{4}$ per cent.

Distribution continued to be limited by the small supply of prime paper. The choicer offerings were sold promptly but paper of average quality moved slowly. Even the lower rates established in March failed to stimulate offerings in sufficient volume to satisfy the demand.

The following diagram carries through February our tabulation of monthly reports of outstanding paper from thirty dealers.



Stock Market Money Rates

An easing in money rates which began to be felt somewhat in advance of March 15 became marked after that date and rates for Stock Exchange call loans dropped to $3\frac{1}{2}$ and 3 per cent., and money became available outside the Stock Exchange as low as $2\frac{1}{2}$ per cent. Easier money conditions have become customary at the quarterly tax payment dates, but on March 15 were more marked than previously for the reason that member banks were largely out of debt to the Reserve Bank, and so directed their surplus funds into the various money markets rather than toward the retirement of Reserve Bank loans. Accompanying the collection of tax checks and a movement of funds to the interior, rates rose and on March 22 reached $5\frac{1}{2}$ per cent.

Time money rates declined from a range of $4\frac{3}{4}$ to 5 per cent. to a prevailing range of $4\frac{1}{4}$ to $4\frac{1}{2}$ per cent. A few 30-day loans were made at 4 per cent. and some loans for longer maturities at $4\frac{3}{4}$ per cent. Business became fairly active, both in new loans and in renewal of loans put out around the first of the year. Accompanying the later advance in call money, the time money market also became somewhat firmer.

Stock Market

Further advances in prices of stocks and a marked broadening in trading accompanied easier money conditions during March. The daily average of transactions expanded to the largest since last June, and on March 17 a new high figure was reached for the number of separate issues in which there were transactions. Representative price averages of both industrial and railway stocks showed advances of about 10 and 5 points respectively, compared with first-of-the-year prices, and averages for both groups were close to, or above, previous high levels since 1920.

Despite fewer trading days in February, transactions for the month were about equal to those in January, and were 60 per cent. larger than in February, 1921. Since the first of the year, there have been eight days in which more than a million shares were sold, of which seven occurred late in February or during March.

Bond Market

Strength in foreign government issues was the outstanding feature of the bond market in February and March. This apparently reflected in part the recovery in exchange rates which encouraged investors to avail themselves of the comparatively high yields still prevailing in this group, and was consistent with a tendency noted for some months for funds to flow more rapidly into the higher yielding issues as the yields of seasoned underlying bonds declined. French issues made larger gains than others in the foreign group, and the 8s and $7\frac{1}{2}$ s touched levels $9\frac{1}{4}$ and $10\frac{1}{2}$ points above the January lowest.

Corporation bonds, on the average, rose about a point to levels somewhat higher than any previously reached on the current rise. Since last June, when the upward trend began, prices have advanced about 10 points.

Domestic State and municipal bonds also strengthened somewhat, and prices, as a rule, about recovered the

losses sustained in late January and in February. Considerable progress was made by dealers in distributing unsold portions of offerings in December and January.

During February, transactions in bonds other than United States securities on the New York Stock Exchange amounted to \$200,000,000, a figure somewhat larger than the January total and about equal to the December total, which was the largest monthly total in recent years.

United States Government Securities

As a further step in redistributing the maturities of the short dated debt the Treasury Department offered in March the fourth series of refunding notes, bearing $4\frac{3}{4}$ per cent. interest until March 15, 1926, payment being made only by exchange of Victory $4\frac{3}{4}$ per cent. notes. Exchanges to a total of \$617,767,700 were made. The Treasury extended until April 15 the authority given to the Reserve Banks to purchase direct from holders at par and accrued interest $4\frac{3}{4}$ per cent. Victory notes. There were also retired between February 20 and March 20 \$66,000,000 of Victory $3\frac{3}{4}$ notes.

Accompanying the new offering of four year notes, the Treasury also offered, on the usual cash basis, a new issue of certificates, dated March 15, and running one year at $4\frac{1}{4}$ per cent. Like preceding issues, these were in active demand and total subscriptions were two and a half times the \$266,250,000 allotted, of which \$101,050,000, or 38 per cent., was allotted in this district. By March 23, the price in the open market rose to a level reducing the yield to 3.60 per cent. This increase in price in part reflected the diminished supply of Treasury certificates, caused by the redemption on March 15 of about \$550,000,000.

The effect of Treasury operations during the past year in spreading the maturity of the short dated debt is indicated in the following table which shows the distribution between different types of securities of the short dated debt outstanding at the two periods.

	March 31, 1921	March 20, 1922
Certificates of Indebtedness	\$2,755,000,000	\$1,654,000,000
Treasury Notes	1,921,000,000	1,921,000,000
Victory $3\frac{3}{4}$ Notes	678,000,000	301,000,000
Victory $4\frac{3}{4}$ Notes	3,423,000,000	2,318,000,000
War Savings Certificates	722,000,000	772,000,000
Total	\$7,578,000,000	\$6,966,000,000

Announcement of the exchange of four year notes for Victory $4\frac{3}{4}$ notes caused an advance of about half a point in this issue to a new high record at 100.90. Liberty issues responded to lower money rates by advances of a half to a full point, the majority of the issues reaching new high levels for the current rise. The third $4\frac{1}{4}$ s rose to within less than a point of par.

Trading in Government issues did not parallel the activity shown by other classes of bonds. During February, transactions on the New York Stock Exchange totaled only \$120,000,000, less than transactions in other bonds for the first month since 1917. During March, there was some increase in activity, but daily transactions frequently fell below figures for corporation issues.

New Financing

Offerings of new foreign securities were larger during the past month than in any previous month for more than a year. New foreign bonds issued between February 20 and March 22 payable in dollars aggregated \$143,000,000, and foreign currency issues converted at current rates of exchange amounted to an additional \$32,298,000. These two groups taken together constituted almost one-half of the new securities issued in the period. A noteworthy development was larger offerings of foreign corporation obligations.

Since January 1, new foreign issues placed here have reached a total of \$283,000,000, or about one-half as much as for the entire year 1921. The following table shows the foreign issues, exclusive of Canadian bonds, thus far in 1922, and the yields at offering prices.

JANUARY

- \$40,000,000 Dutch East Indies 6s at 6.45 to 6.75 per cent.
- \$3,500,000 City of Porto Alegre 8s at 8.10 per cent.
- \$25,000,000 Dept. of Seine, France, 7s at 7.95 per cent.
- \$2,500,000 Melbourne (Australia) Electric Supply Co. 7½s at 7.40 per cent.
- \$5,000,000 Republic of Cuba (one year) 6s.

FEBRUARY

- \$758,000 (175,000 sterling) City of Brisbane, Queensland, Australia, 6½s at 6½ per cent.
- \$10,000,000 Queensland 6s at 6¼ per cent.
- \$28,935,000 (75,000,000 guilders) Kingdom of Netherlands 6s at 6.15 per cent.

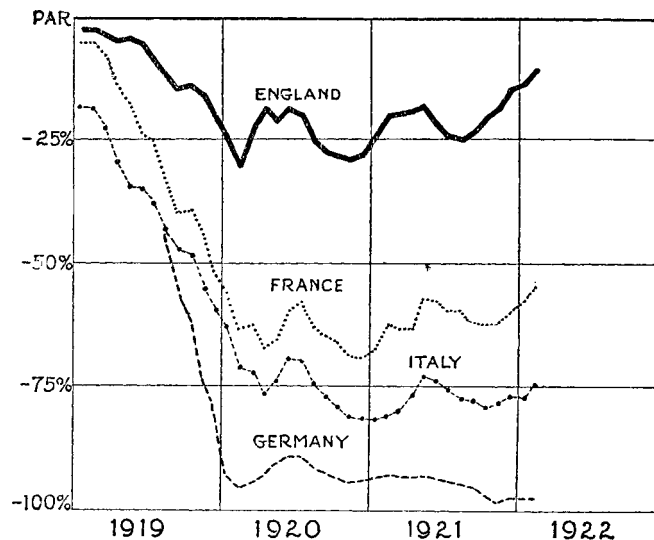
MARCH

- \$4,000,000 City of Sao Paulo, Brazil, 8s at par.
- \$27,000,000 Argentine Govt. 7s at 7¼ per cent.
- \$2,268,000 (25,000,000 francs) Midi R.R. of France 6s at 6.85 per cent.
- \$10,000,000 Framerican Industrial Development Corporation 7½s at 7.60 per cent.
- \$40,000,000 Dutch East Indies 6s at 6.35 to 6.73 per cent.
- \$30,000,000 Paris-Lyons Mediterranean R.R. 6s at 7.35 per cent.
- \$1,095,000 (250,000 sterling) City of Buenos Aires 5s at 6.30-6.85 per cent.
- \$6,000,000 City of Soissons, France, 6s at 7.65 per cent.
- \$5,000,000 Philippine Govt. 5s at 4.78 per cent.

Domestic State and municipal issues increased in late February and in March, and were next in volume to foreign issues. Industrial, railroad and public utility offerings, with a few notable exceptions, were light.

Foreign Exchange

During the first two weeks of March foreign exchange rates reacted somewhat after six months of almost uninterrupted advance, but in the latter part of the month the market strengthened and early losses were largely recovered. On March 23 German marks reached a new low quotation of 29¼ hundredths of a cent. The fall of German exchange to a new low figure accompanied the announcement of the decision of the Reparations Commission to require from Germany this year 720,000,000 gold marks in cash and 1,450,000,000 in goods and services. This requirement compares with a demand last year for cash payments of 2,000,000,000 gold marks and in addition 26 per cent. of the value of German exports for the year. The latest demands were accompanied, however, by provision for financial supervision by the Allied Powers, an increase in German taxation and the restriction of further note issues.



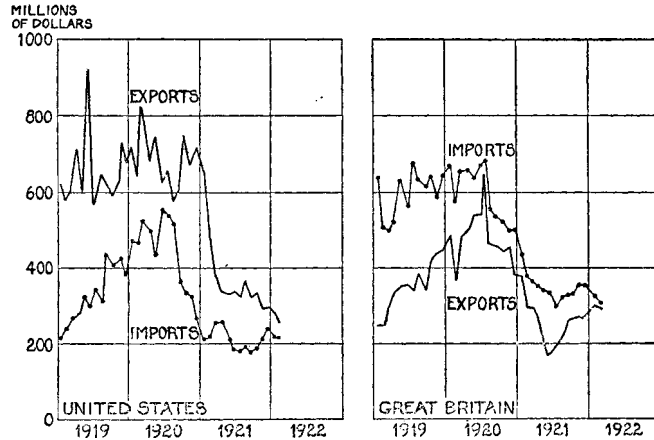
Depreciation of Foreign Exchange Rates from Par Value

The foregoing diagram compares the movement of foreign exchange on four European countries since the restrictions were removed in 1919. In the cases of England and France the marked recovery since the summer of 1921 has accompanied a sharp increase in the domestic purchasing power of the currencies of those countries as indicated by the fall in commodity price indices. The movements for the past two years have also been closely in accordance with seasonal developments in export and import trade. In the spring months there is normally a smaller volume of exports from this country to Europe than in the fall months, and the volume of bills drawn on European countries varies accordingly. Previous to the war this seasonal difference found reflection in fractionally higher quotations for sterling in New York in the spring than in the fall. In the present unstable condition of the exchanges the influence of these seasonal differences in the requirements for funds for financing trade appears to have been magnified.

The following table shows the changes during the month in the principal exchanges.

Country	March 20 1st	Change from February 20	Per Cent. Depreciation from Par
England.....	\$4.3750	-.0175	10.1
France.....	.0897	-.0018	53.5
Italy.....	.0507	+.0004	73.7
Germany.....	.0037	-.0008	98.4
Belgium.....	.0845	-.0024	56.2
Holland.....	.3773	-.0030	6.1
Switzerland.....	.1946	-.0004	+ 0.8
Spain.....	.1545	-.0030	19.9
Sweden (Stockholm).....	.2620	-.0035	2.2
Argentina.....	.3652	0	14.0
Brazil.....	.1353	-.0001	58.3
Japan (Yokohama).....	.4750	+.0012	4.7
China (Hong Kong).....	.5413	+.0025	*
China (Shanghai).....	.7238	+.0050	*
India.....	.2781	-.0032	42.8
Canada.....	.9669	-.0031	3.3
Bar Silver in New York.....	.6475	-.0013	.....

*Silver Exchange Basis.



United States and British Exports and Imports. (Pounds Converted to Dollars at Current Rates of Exchange)

Gold Movement

Gold imports in February amounted to \$28,701,000, about half as large as the monthly average in 1921. Exceptionally large shipments were received from Sweden and Denmark. Exports of gold chiefly to India and Mexico totaled \$1,732,000 during February as compared with \$863,000 during January. Principal sources of the imports are given in the following table.

(000 omitted)

	Monthly Average, 1921	January	February	Total, 1922
England.....	\$16,841	\$10,468	\$8,310	\$18,778
Sweden.....	5,530	4,276	8,821	13,097
Canada.....	3,071	2,381	1,649	4,030
Australia.....	1,168	1,946	730	2,676
France.....	15,891	1,875	1,426	3,301
Denmark.....	453	1,158	5,169	6,327
All Other.....	14,652	4,467	2,596	7,063
Total.....	\$57,606	\$26,571	\$28,701	\$55,272

Foreign Trade

The volume and type of export orders in March indicated a continuation of the gradual broadening in trade noted in recent months. In some lines, the increase in business was marked. Steel demand reached a point where it could be described as active, and, while much of the buying continued to come from Canada and the Far East, orders were more frequent from other markets as well. A noteworthy development in the past few months has been a large increase in exports of textile machinery to Japan. Copper demand became active late in February, and sales through the early half of March were heavier than during the period of active buying last fall.

Demand from South America for cotton goods showed some further strengthening, and there were orders again from the Levant after dulness in that quarter since last summer. Buying of automobiles and accessories has been slowly gaining in volume, particularly since the recovery in exchange rates became marked.

Current wheat demand, on the other hand, has fallen

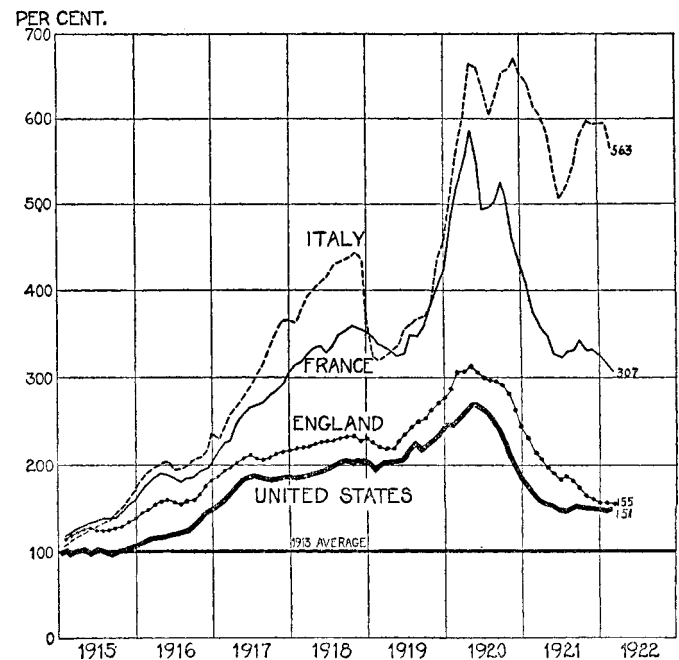
off, following the active buying of a month ago. Foreign orders in this market for cotton were also light, apparently due in part to the fact that markets abroad were being supplied from stocks already shipped there on consignment. Cotton exports during February were 338,440 bales, the lowest since last April and a decrease of 16 per cent. compared with exports in February a year ago.

Due in part to the smaller movement of wheat and cotton, the total value of export shipments in February, according to the Department of Commerce, was \$251,000,000, a decline of \$28,000,000 compared with the January total. Imports in February amounted to \$216,000,000, a figure identical with the January total. Factors in the maintenance of imports were larger arrivals of coffee, sugar, and rubber, figures for the latter two commodities reaching the highest level since the early part of 1920. Silk imports, on the other hand, after a slight decline in January, fell off 50 per cent. in February.

As a result of further decline in the value of exports, in conjunction with a stationary total of imports, the credit balance of the United States in merchandise trade for the month was \$35,000,000, the smallest since September, 1914.

The diagram at the left indicates, both for the United States and Great Britain, the tendency toward a closer adjustment of imports and exports. In the United States, during the past year or more, this has taken the form of a more rapid decline in the value of exports than in imports, while in Great Britain a decline in imports has been accompanied lately by a marked rise in exports. In February, the British import balance was reduced to \$4,000,000, a figure considerably lower than the import balance in normal times. England also has large invisible exports in the form of shipping, financial, and other services.

The figures in the diagram are in gold dollars: pounds have been converted at the current monthly averages for sterling exchange.



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

World Prices

Aside from the United States in which advances in the prices of farm products carried price index numbers higher, the movement of world prices in February was somewhat less definite than in January, but was in the main downward. As shown in the accompanying diagram prices in Italy, France, and England have been working steadily lower for some months, as have also prices in Japan, Sweden and Norway. German prices advanced in February at an accelerated rate. The recent changes from month to month are shown in the following table.

(Base 1913 = 100 unless otherwise noted)

Country	Latest Quotation	Per Cent. Change During		
		Dec.	Jan.	Feb.
United States:				
20 basic commodities*	130 (Mar. 18)	+0.3	- 0.2	+ 1.7§
Dept. of Labor.....	151 (Feb. av.)	0.0	- 0.7	+ 2.0
Dun s.....	140 (Mar. 1)	-0.1	+ 0.4	+ 2.9
Bradstreet's.....	126 (Mar. 1)	+0.6	+ 0.4	+ 1.5
Great Britain:				
Economist.....	158 (Mar. 1)	-2.2	- 1.7	- 0.6
Statist.....	155 (Mar. 1)	-2.3	- 0.8	- 0.2
20 basic commodities*	129 (Mar. 18)	-4.4	- 3.1	+ 0.2
France.....	306 (Mar. 1)	-1.9	- 3.7	- 2.3
Italy.....	562 (Feb. 1)	-0.1	- 5.4	
Japan.....	204 (Feb. av.)	-2.2	- 1.6 _r	- 1.1
Canada.....	169 (Feb. 15)	+1.6	- 1.4	+ 0.8
Sweden†.....	166 (Feb. 15)	-1.1	- 1.2	- 2.4
Australia.....	147 (Feb. av.)	-2.0	- 0.7	0.0
Norway.....	237 (Feb. 1)	-5.3	- 5.4	- 0.9
Germany†.....	4,780 (Mar. 1)	+5.6	+10.0	+23.6
Denmark‡.....	182 (Mar. 1)	-5.3	- 0.6	+ 2.8
Shanghai||.....	112 (Feb. 1)	+1.2	+ 1.8	
Calcutta.....	179 (Mar. 1)	0.0	- 1.1	+ 0.6

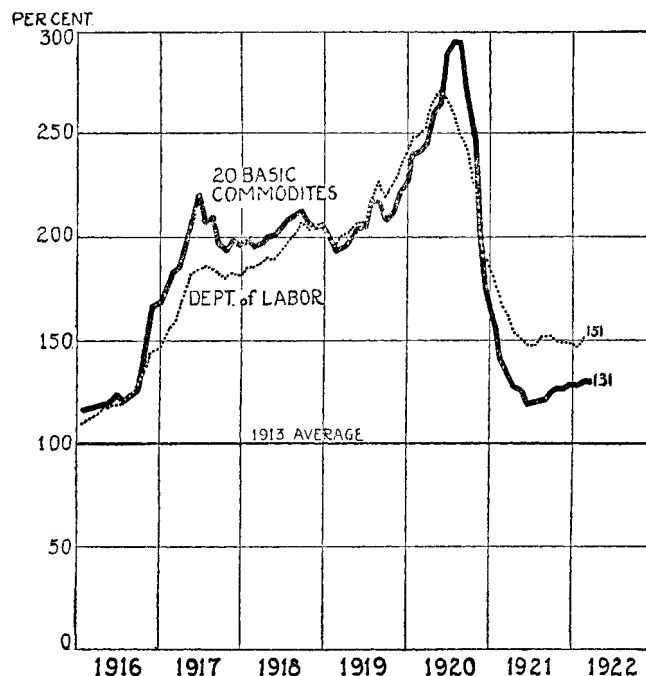
*Computed by this bank. †July 1, 1913-June 30, 1914 = 100. ‡Middle of 1914 = 100. §July, 1912-June, 1914 = 100. ||Average September, 1919 = 100. §Preliminary. _r Revised.

Domestic Commodity Prices

The extent to which the prices of basic commodities declined below the general price level in the summer of 1921 and their subsequent considerable recovery are illustrated in the following diagram. The two lines shown in the diagram represent the Department of Labor index number of wholesale prices computed from the quotations for about 325 articles, both raw and manufactured, and an index of prices for twenty basic commodities prepared by this bank. The index of twenty basic commodities was prepared in order to secure a representative index which could be computed from week to week from readily available quotations. The index is an average of the prices of twenty raw materials at primary markets weighted in accordance with their relative value in trade.*

The Department of Labor index number for February was 2 per cent. higher than the January average, due to advances in the prices of farm products, other foods, and

* The commodities included are: Cement, coal, copper, corn, cotton, hides, hogs, lead, paper, petroleum, pig iron, rubber, silk, steers, sugar, sulphuric acid, Southern yellow pine, tobacco, wheat, wool.



Index of the Prices of 20 Basic Commodities Compared with the Department of Labor Index (325 Commodities)

miscellaneous articles. The detailed movement of the different groups is shown in the following table. In the first three weeks of March this bank's index of twenty commodities declined 2 per cent., reflecting reaction in the prices of farm products from their highest levels in February.

(1913 average = 100)

Commodity Group	Jan., 1922	Feb., 1922	Per Cent. Change
Farm products.....	116	126	+8.6
Food, etc.....	134	138	+3.0
Cloths and clothing.....	183	183	0.0
Fuel and lighting.....	183	183	0.0
Metals.....	117	115	-1.7
Building materials.....	202	202	0.0
Chemicals and drugs.....	159	159	0.0
House furnishings.....	214	213	-0.5
Miscellaneous.....	146	150	+2.7
All Groups.....	148	151	+2.0

Employment

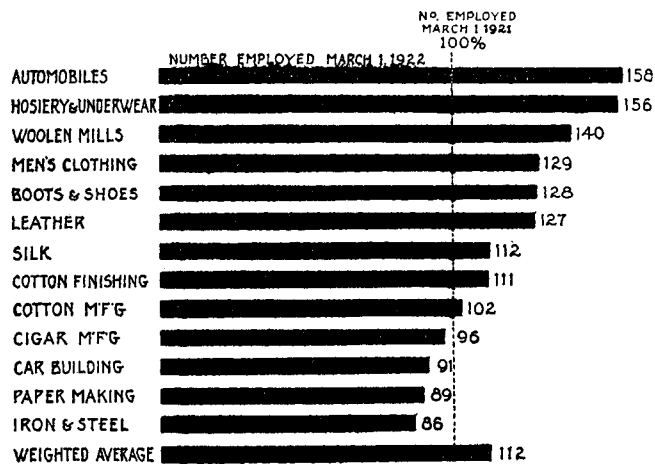
Increases during February in the number of workers in industrial establishments both in New York State and in the country as a whole were reported by the New York State Department of Labor and by the United States Department of Labor.

In New York State an increase of 3 per cent. in the number of factory employees between January 15 and February 15 was the largest monthly gain reported since September. For the United States the Employment Service of the Department of Labor reported increases be-

tween February 1 and March 1 in the number of persons employed by 12 major industries and decreases in the case of only two industries. The textile industry showed the largest decline, which was due mainly to the strike among New England operatives.

Forty-four of sixty-five cities from which reports were received by the Employment Service showed gains in the number employed and twenty-one showed decreases. Of 14 industrial centers situated in the Second Federal Reserve District all but two, Syracuse and Bridgeport, reported gains ranging from 5.8 per cent. in Niagara Falls to .5 per cent. in Jersey City and Rochester. New York City showed an increase of about 2 per cent.

When a comparison is made between the number of persons employed in industry at present and the number employed a year ago the effect of recent increases becomes clear. The following diagram, from figures reported by the United States Bureau of Labor Statistics, compares the number of workers employed by representative establishments in 13 industries in the United States on March 1, 1922, with the number employed by the same concerns on March 1, 1921. Nine of the 13 show increases. A year ago many automobile plants were practically closed down and the textile and leather industries had just begun their recovery. On the other hand, the iron and steel industry, car building and repairing, and paper making had not yet reached their lowest points. These industries are now progressively more active.



Workers Employed in Industrial Establishments in 13 Industries in the United States Compared with the Number Employed a Year Ago

The Merchants Association of New York has issued a statement concerning the number of unemployed in New York City, covering not industrial establishments alone but all fields of commerce and trade. The statement indicates that about 332,000 or 13.1 per cent. of those having gainful occupations were unemployed on March 15, compared with 331,000 in December and 343,000 in October. The loss since December is reported to be due almost wholly to a reduction in employees in retail establishments at the conclusion of holiday trade. The percentage of workers unemployed in various vocations has been estimated as follows:

Vocation	Per Cent. Unemployed
Transportation	20
Manufacturing and mechanical industries	17
Building trades	15
Public service	15
Professional service	12.5
Trade and clerical	10
Domestic and personal service	5

The unemployed in the building trades consist largely of common laborers and helpers and workers whose trades are connected with large unit construction.

Wages

Developments in controversies arising from recent efforts to readjust wages may be summarized as follows:

The strike in New England cotton mills continued through the month as the operatives have refused to accept a proposed 20 per cent. wage reduction and a 54 hour week. Similar wage reductions and changes in hours were made by several woolen mills toward the latter part of the month and the strike has spread to that industry.

Operators and miners in both the anthracite and bituminous fields have reached no agreement on a new wage scale to replace that terminating on March 31 and the United Mine Workers have issued a strike call to go into effect April 1.

In New York City building trades no settlement of a wage scale or regulations governing working conditions for the coming year has yet been reached. The terms of the old agreement which expired on December 31 have been continued temporarily pending a readjustment.

Average earnings in New York factories declined 1.1 per cent. from \$24.43 in January to \$24.17 in February, according to the most recent report by the New York State Department of Labor.

Production in Basic Industries

Index numbers of production computed by this bank for February show increases over the January figures in nine industries and decreases in four. For some months past there have been from month to month nearly as many industries showing declines in production as those showing gains. A continuous tendency toward a larger volume of production is indicated, however, if comparison is made between the February figures and the months of smallest production in the summer of 1921. In practically every industry there has been a considerable increase since that time.

The diagrams on page 9 illustrate the monthly changes in production since 1918 in eight important industries. The curves show the different times at which the period of lowest production was reached in different industries. Production in the textile industries was the first to decline and the first to rise. Production in the iron and steel industries was among the last to decline and the last to rise. The aggregate volume of production was probably smallest in relation to normal during the summer months of 1921.

FEDERAL RESERVE AGENT AT NEW YORK

February figures for the production of both anthracite and bituminous coal show a marked increase over those for January, resulting largely from anticipation of a strike on April 1. The curve of daily output has recently shown a marked similarity to that of late August and September when production was heavy in anticipation of a railroad strike. Production has recently been in excess of consumption and the supply in storage has been materially increased.

Pig iron production during February averaged 58,200 tons per day, as compared with 53,000 tons per day for January. The number of furnaces in operation was increased by twelve. Steel ingot production for February was at the rate of 86,200 tons per day as compared with 75,700 tons per day for the preceding month. Mine production of copper has increased and several of the low cost plants have resumed operations. The apparent decline in tin deliveries is to some extent misleading because of the exclusion from the reports of a cargo received February 27. The inclusion of this shipment would restore the percentage to about the January level.

Flour output rose sharply, the actual output per working day being 42,000 barrels as compared with 38,000 barrels for January. The active foreign and domestic demand for refined sugar served to maintain a high rate of sugar meltings.

The following table shows current monthly production as percentages of estimated normal production. In the calculations of the estimated normal, allowance has been made for both year to year growth and for seasonal variation.

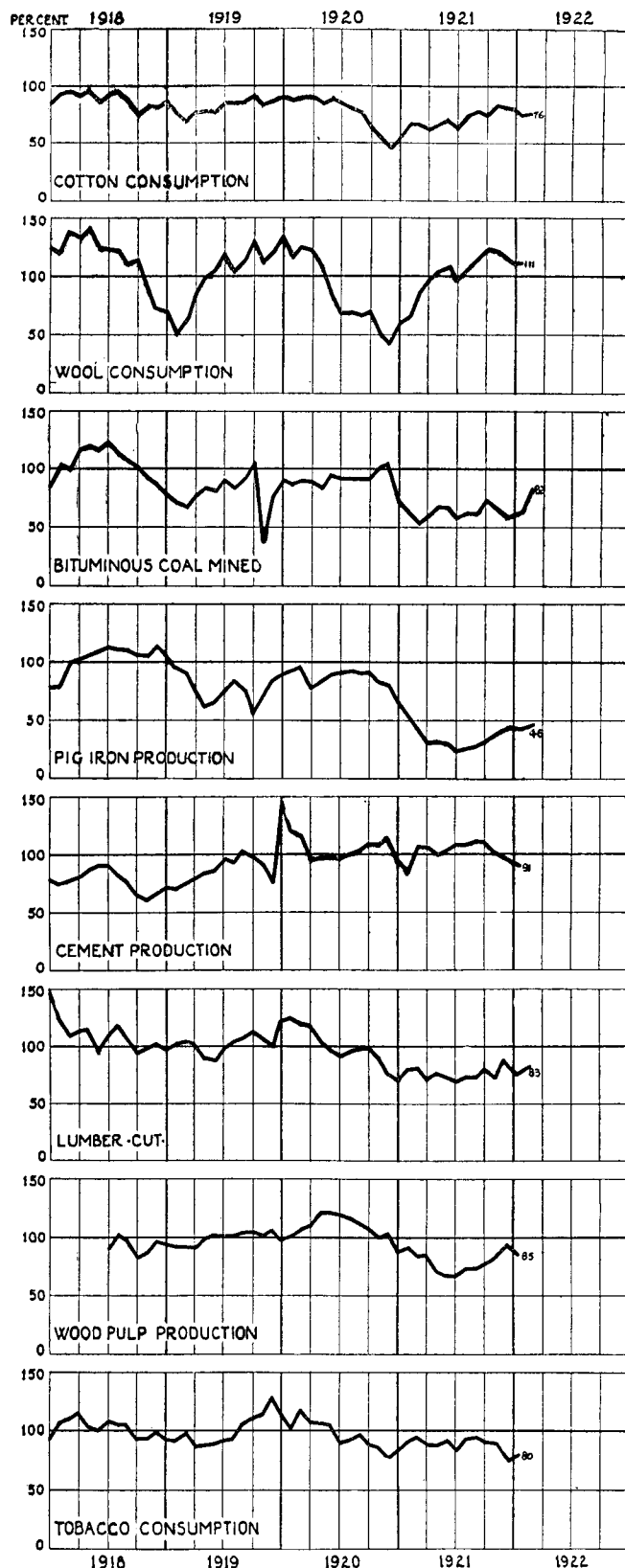
Commodity	1921				1922	
	July to Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Anthracite coal mined*....	87	85	82	74	78	103
Bituminous coal mined*....	62	75	67	59	64	82††
Pig iron production.....	27	33	39	45	44	46
Steel ingot production.....	34	50	53	48	50	57
Copper production (mine) .	17	20	18	15	21	30
Tin deliveries.....	48	44	63	72	80	60
Crude petroleum product'n.	104	94	100	111	106**	97††
Gasoline production.....	84	84	85	88	..	..
Portland cement product'n	109	110	102	98	97**	82
Wheat flour production....	131	111	78	74	85	105
Meat slaughtered.....	101	93	86	59	73	81
Sugar meltings.....	89	114	125	144	140	129
Cotton consumption.....	73	76	85	81	75	76
Wool consumption.....	106	124	121	113	111	..
Lumber production†.....	73	80	73	89	78	83
Wood pulp production....	71	77	83	92	85	..
Combined tobacco, cigar, cigarette consumption...	92	91	90	78	80	..

* 1921 estimates revised.
** Revised.

† 37 per cent. of total cut.
†† Preliminary.

Building

February building contract awards in New York State and Northern New Jersey were about 10 per cent. greater than those of January, and were larger than those of any previous February for which records are available. The



Monthly Production in Basic Industries. (Normal Production = 100 per cent.) Allowance Has Been Made for Seasonal Variations and Year to Year Growth

volume of residential construction alone was nearly twice the total volume of building in February, 1921. For the twenty-seven northeastern States February awards were about 7 per cent. larger than in January and 76 per cent. larger than in February, 1921.

Commodity Stocks on Hand

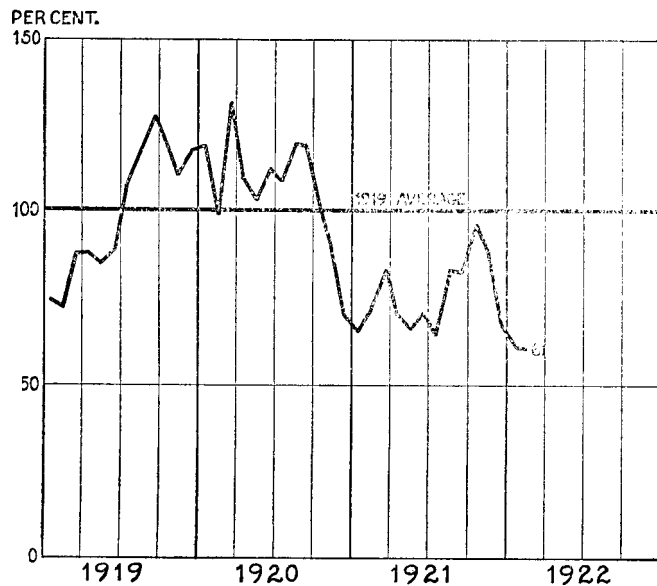
Index figures for stocks of principal commodities show in most cases little change between February 1 and March 1. The most notable change was in stocks of raw sugar which rose to 88 per cent. of normal, as a result of heavy imports.

The following table shows index figures for stocks on hand on the first day of the month expressed as percentage of normal. Allowance has been made for year to year growth and seasonal variations.

(Normal stocks = 100)

	1921			1922		
	Oct. 1	Nov. 1	Dec. 1	Jan. 1	Feb. 1	Mar. 1
	Sugar.....	61	40	51	35	57	88
Coffee.....	72	65	72	90	77	81
Wheat.....	126	109	88	91	83	85
Flour (in chief centers)....	123	131	150	112	98	91
Oats.....	520	461	458	517	506	524
Corn.....	161	371	449	249	195	212
Barley.....	146	96	74	75	85	68
Rye.....	452	402	364	377	424	471
Dairy products and eggs...	102	98	96	71	81	84
Poultry, frozen.....	88	100	119	121	110	103
Meats, cured and frozen...	74	65	59	59	54	56
Cotton.....	140	113	104	96	93	93
Tin (world visible supply)...	137	168	147	165	155	158
Lead, bonded.....	165	193	202	162	...	...
Cement, Portland.....	88	68	109	118	119 ^r	115
Paper pulp.....	107	93	91	97	101	...
Paper.....	129	120	122	124	...	...

^r. Revised.



Weighted Index of Wholesale Trade in the Second District. (Average Sales in 1919 = 100)

Wholesale Trade

This bank's weighted index of wholesale trade shown in the accompanying diagram was slightly lower in February due largely to the fact that merchants delayed many spring purchases from February until March because of the lateness of Easter. Dry goods and clothing sales in February were particularly small. Last year with an early Easter February buying was heavy. The effect of this difference is seen in the fact that February, 1922, sales compare less favorably with those of February, 1921, than did January, 1922, sales with those of January, 1921. The figures are shown in the following table.

Commodity	Monthly Sales				
	Feb., 1919	Feb., 1920	Feb., 1921	Feb., 1922	Jan., 1922*
Drugs.....	112	128	100	121	110
Jewelry.....	183	229	100	97	90
Diamonds.....	367	298	100	96	100
Groceries.....	111	125	100	94	91
Dry goods.....	66	145	100	93	140
Stationery.....	94	109	100	91	75
Shoes.....	125	236	100	80	106
Hardware.....	122	137	100	80	72
Clothing.....	103	135	100	66	77
Machine tools...	216	245	100	34	31
Weighted Av...	102	138	100	86	94

*Expressed as percentages of sales of January, 1921.

Retail Trade

Sales of representative department and apparel stores in this district continue to indicate a more nearly normal volume of transactions than do the indices of production or trade in other fields. The dollar amount of sales by such stores in February was only 4 per cent. less than in February, 1921, and 2 per cent. less than in February, 1920. February sales of sixty-four stores were \$23,650,000 as compared with \$24,726,500 in February, 1921. The comparison with the corresponding month a year ago is more favorable than it was in January when sales were 8 per cent. less than in January, 1921. The number of individual transactions was 6 per cent. larger than in February, 1921, and the average amount of the individual sale was \$2.52 compared with \$2.77 in February, 1921, a decline of 9 per cent., which appears to reflect rather closely the difference in price levels between the two periods.

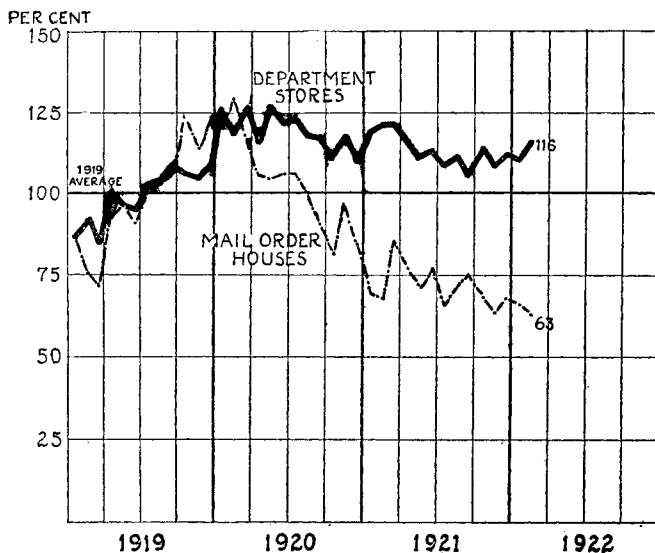
The use of more advertising space and the holding of a larger number of special sales by large stores is to some extent responsible for heavy February sales. New York City newspapers have recently received more advertising material than they had space to publish. Sales of apparel were particularly good and sales of house furnishings were larger than last fall, reflecting the completion of large numbers of new dwellings throughout the district.

Buying of spring goods from wholesalers was somewhat retarded by the lateness of Easter and stocks of goods held were increased during February somewhat less than is normal for that month. The amount of outstanding orders on March 1 was 7 per cent. of the total purchases

during the previous calendar year, about the same percentage as on March 1, 1921. The value of stocks on hand in terms of selling price continued to be slightly larger than the amount on hand a year ago. The detailed figures are shown in the following table.

	Net Sales				Stock on Hand (Selling Price)			
	Feb., 1919	Feb., 1920	Feb., 1921	Feb., 1922	Mar. 1, 1919	Mar. 1, 1920	Mar. 1, 1921	Mar. 1, 1922
All Dept. Stores.	76	98	100	96	79	120	100	102
New York.....	78	102	100	97	80	120	100	102
Buffalo.....	74	88	100	83	79	117	100	94
Newark.....	73	96	100	94	80	132	100	105
Rochester.....	63	86	100	99	68	110	100	78
Syracuse.....	72	98	100	89	83	119	100	88
Bridgeport....	77	100	100	90	78	124	100	107
Elsewhere in 2nd Dist....	79	91	100	102	90	115	100	118
Apparel stores...	76	92	100	98	68	118	100	113
Mail order houses	111	190	100	93	..	...	...	...

Sales of mail order houses doing a nation-wide business failed to reflect any substantial increase in buying on the part of the rural population which such houses serve. For several months sales have been sustained, however, at a substantially even level, about 50 per cent. lower than the point reached by the exceptionally heavy sales of early 1920. The following diagram brings into comparison department store sales in this district and mail order sales throughout the country. The influence of seasonal variations has been eliminated as closely as it is possible to do so from the figures available. No allowance has been made, however, for changes in prices, which have been influential in lowering the dollar volume of sales.



Sales of Representative Department Stores in the Second District and of Three Mail Order Houses Doing a Country Wide Business. Figures Adjusted to Eliminate Seasonal Fluctuations. (Average Sales in 1919 = 100 per cent.)

Chain Store Sales

Sales by chain store systems during February compared more favorably with those of February, 1921, than did sales of either department stores or mail order houses. This difference is due, in some extent, to the increase in the number of stores. The following table gives comparative figures of monthly sales and shows the changes since last year in the number of stores reporting.

Type of Store	Stores Reporting			Monthly Sales			
	Feb., 1921	Feb., 1922	Per Cent. In-crease	Feb., 1919	Feb., 1920	Feb., 1921	Feb., 1922
Grocery.....	5,933	6,652	12.1	79	114	100	113
Ten cent.....	1,598	1,661	4.2	78	89	100	108
Drugs.....	250	254	1.6	82	101	100	104
Cigars.....	2,196	2,230	1.5	66	91	100	94
Dry goods.....	350	358	2.3	50	61	100	92
Total.....	10,327	11,158	8.0	75	98	100	107

When price declines of from 5 to 15 per cent. are considered, it is probable that a larger volume of merchandise is being distributed by all types of chain stores. Several large grocery organizations report that their tonnage figures show increases ranging from 20 to 30 per cent.

Business Failures

The number of business failures during February reported by Dun's was smaller than in January, both for the Second District and for the United States. Liabilities, however, were approximately as large as in January. Normally January and February are months of heavy failures.

The following figures are reported by Dun's.

	Number		Liabilities	
	Second District	Entire Country	Second District	Entire Country
Monthly, 1921, average.....	301	1,638	\$16,000,000	\$52,000,000
January, 1922.....	429	2,723	23,000,000	74,000,000
February, 1922.....	300	2,331	24,000,000	73,000,000

Failures among stock brokerage concerns reported here numbered sixty in the first three months of 1922. Such failures were mainly of firms recently organized, operating on small capital, not members of the New York Stock Exchange, and average assets and liabilities were small. Total assets of these failures were about \$18,000,000 and total liabilities about \$28,000,000.

Security Behind Federal Reserve Notes

PEOPLE here and abroad are thinking about the security behind the paper money which passes from hand to hand in the course of trade, and especially how that security affects the character and usefulness of paper money. The kind of security is most important because if it is unsound, the paper money based upon it is likely to have a diminishing power to buy goods, and if it is available in an amount not readily increased or decreased, the paper money so secured is apt to induce periods of distress such as that of 1907 in this country. Soundness and elasticity are two qualities essential in a nation's currency, especially in a country like this where the demands for currency vary greatly from one season to another and from one year to another.

In this country various proposals have been advanced recently looking to a change in the kind of security behind our paper currency. Some of the proposals appear to have been based on incomplete knowledge of what the security behind our various forms of paper currency already consists of, particularly the security behind Federal Reserve notes. These now form about 50 per cent. of the paper currency in circulation in this country. They are the most important part, because they are the only form of currency we have which increases and decreases automatically in response to the needs of industry, commerce and agriculture.

Prior to the establishment of the Federal Reserve system we had in general use four kinds of paper money, all of which are still issued. First, gold certificates, secured dollar for dollar by gold held in the Treasury of the United States, and susceptible of being increased or decreased only as the volume of gold in the Treasury was increased or decreased. Second, silver certificates, secured dollar for dollar by coined silver, the amount of which is limited by law. Third, legal tender notes, the greenbacks of the Civil War but through successive steps taken by the Treasury for many years, secured by gold to the amount of about 50 per cent. of the total in circulation. The amount of these in circulation also is limited by statute. Fourth, national bank notes, issued by the National banks of the country and secured by United States Government bonds, which bear low rates of interest but carry the privilege to the bank holding them of issuing currency. For purposes of redemption each National bank is obliged to maintain a fund of gold in Washington amounting to 5 per cent. of its notes in circulation.

It will be noted that though these various kinds of paper currency are interchangeable dollar for dollar one with another, the security behind them is in some cases 100 per cent. metallic and in other cases mainly Government obligations; also that the amount of the total circulation was so rigid that it could neither be readily decreased to suit the needs of slack seasons and dull years, nor be readily increased to meet the requirements of busy seasons and periods of emergency.

The Federal Reserve Act in prescribing the security behind Federal Reserve notes introduced a new principle

into our currency system. It specifies a security which is sound and at the same time increases and decreases automatically with the business and agricultural needs of the country. This security may be partly gold and partly borrowers' paper, very shortly to be paid. Such paper gives to Federal Reserve notes their distinctive character, and insures their responsiveness to the needs of the country for currency.

Apart from notes secured by obligations of the Government, which have become widely available on account of the large issues of bonds and notes to finance the war, this paper represents agricultural products or other goods in the process of production or in movement from producer to retailer, in process of export or import, or on the shelves of retailer or wholesaler awaiting sale. The paper must bear the endorsement of a member bank and its maximum maturity is ninety days, except in the case of agricultural paper which may run for six months. In actual practice the maturity is shorter, averaging in recent months about fifteen days. In practice also it has been customary to hold paper of this type in sufficient volume to bring the total amount of the security held against Federal Reserve notes to considerably more than 100 per cent. of their full face value as the law requires.

In recent months the gold holdings of the Federal Reserve Banks have been so largely increased and the amount of notes outstanding so reduced that Federal Reserve notes have come to be secured almost dollar for dollar in gold, but at times of greater credit and currency expansion and in periods of smaller gold holdings, the amounts of commercial paper have been a substantially larger portion of the total security. Thus the *kind* of security behind Federal Reserve notes is elastic.

Commercial, industrial and agricultural paper of this type has exceptional advantages as security for note circulation. In the first place, the currency is placed upon an absolutely safe basis. Back of the paper, a large part of which matures and is paid every day, are immediately salable goods or other assets which may be realized upon rapidly. Moreover, the reserve of gold maintained against Federal Reserve notes, must at all times be equal at least to 40 per cent. of the total amount of notes in circulation.

In the second place, the currency is immediately related and responsive to the needs of business. When business expands and the movement of goods increases, the amount of paper available as collateral security for Federal Reserve notes is increased. The demand on the banks for currency leads to the presentation of this paper at the Federal Reserve Banks and the issue of notes. Similarly, when the volume of business diminishes, currency is returned to the banks in payment of loans and the banks in turn ship currency to the Reserve Banks to liquidate borrowings. Thus the *quantity* of Federal Reserve notes is elastic.

In these ways Federal Reserve notes meet two main conditions of a useful currency, soundness and elasticity; and the elasticity is both in the *kind* of security behind them, and in the *quantity* of notes that may be issued.