(The article on the last page describes what the reserve ratio means)

MONTHLY REVIEW
Of Credit and Business Conditions
In the Second Federal Reserve District

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

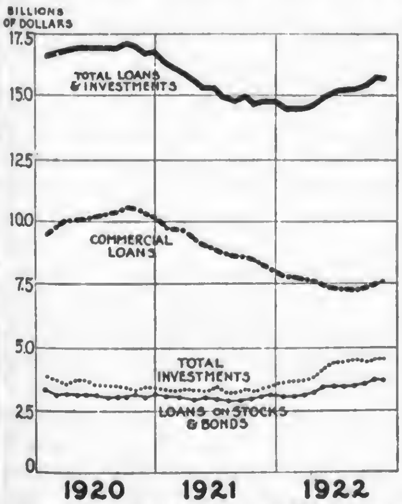
New York, December 1, 1922

Credit Conditions

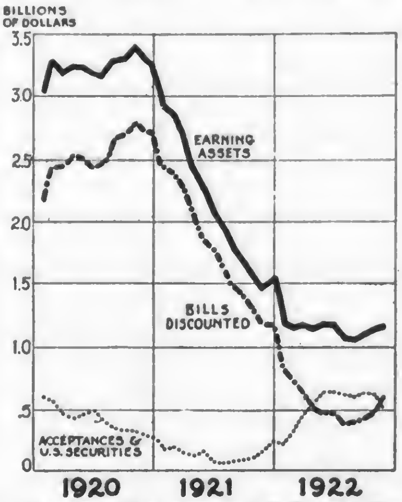
MOVEMENTS during the past month of the various factors reflecting credit conditions were in the same direction as last month but more moderate in character. The volume of credit in use as indicated by the commercial loans of member banks, and by the earning assets of the Reserve Banks, increased at a slower rate than in September and early October. Note circulation of the Reserve Banks fluctuated within narrow limits, and interest rates remained at substantially the level reached about the first of November. This greater stability in the factors reflecting credit conditions does not appear to indicate that any pause has taken place in general business activity. For the past few weeks such figures as are available appear to show a continued gain in industrial output and the distribution of goods.

There has been a considerable increase throughout the country in the volume of production and trade in the past year, but this increase has gone forward with a relatively small demand upon the banks for credit. Since March of this year, when borrowing was at a minimum, the total loans and investments of member banks in principal cities, where the effects of industrial activity would be felt most, have increased $1,250,000,000 or over 8 per cent. But this increase is ascribable not so much to loans for business purposes as to loans on stocks and bonds and to investments made for the purpose of putting surplus funds to work. The amount lent directly for business purposes, as far as it can be segregated in the returns, declined until the end of August. Since that time, however, it has advanced $267,000,000. While the total amount of credit extended by banks, measured by total loans and investments, is indirectly and in the long run available for business use, loans made directly to business represent more closely current needs for credit. The movement of loans of the reporting member banks is illustrated in the diagram below at the left.

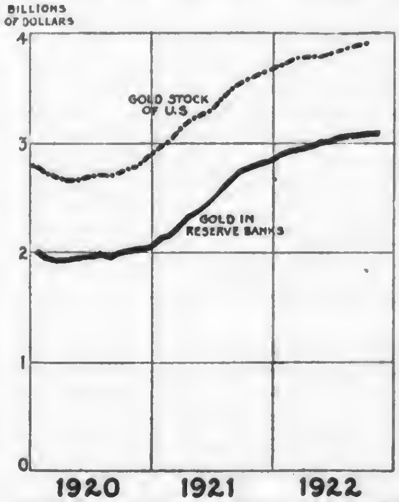
The second diagram on this page shows the extent to which the Federal Reserve Banks have been called upon to advance funds to meet the increased demand for



Loans and Investments of 800 Member Banks in Principal Cities



Loans and Investments—all Federal Reserve Banks



Gold Stocks in the Country and in the Reserve Banks credit. Earning assets, which are the best measure of the total accommodations which the Reserve Banks are extending to business, increased $146,000,000 between August 9 and November 22 of this year. In recent weeks there has been a change in the nature of the loans comprised in the general group of earning assets. Discounts and advances to member banks have increased, while holdings of acceptances and United States securities have diminished.

The reason why increased production and trade, accompanied by higher wages and prices, have not resulted in a corresponding increase in the volume of bank credit issued directly for business purposes, may appear upon observing three factors, which among others are important in the present situation.

The first factor is the heavy receipt of gold into this country. Since the middle of 1921, gold imports have totaled nearly $600,000,000 and since January 1, 1922, nearly $250,000,000. This gold has found its way immediately into the banks and thence into the Reserve Banks. The gold has served to liquidate borrowings by by individuals from their banks and borrowings by banks from the Federal Reserve Banks. Liquidation from this and other sources has up to recently more than offset new borrowing. These receipts of gold have moreover been largely responsible for the power of the banks to extend their investment accounts.

A second factor has been the accumulation by many business concerns during the period of quiet business of a considerable reserve in the form of investments or bank deposits which they could draw upon to finance more active operations, without the necessity for borrowing.

A third and probably more important factor in the very moderate increase in commercial loans may be seen in the fact that business is now being carried forward with a minimum of future commitments. Although there has been some change in the tendency in recent months, both wholesalers and retailers still continue to buy cautiously, and manufacturers hesitate to produce goods without definite orders in sight. Stocks of manufactured goods are in general low.

Exact figures on this aspect of retail trade are reported each month to this bank by 60 department stores in this district. They show that the current ratio of the amount of stock held to the amount of sales is now in the neighborhood of 3½ to 1. The usual ratio is much nearer to 4 to 1: that is, $4 worth of stock on hand to every $1 of monthly sales. There are few definite figures available in other fields which show the exact situation, but general reports indicate that the policy of carrying small amounts of stock on hand, and ordering only for immediate needs continues to prevail in many branches of industry and trade.

Rate of Turnover of Bank Deposits

The rate of turnover of bank deposits in New York City during the month of October showed a marked increase over the figures for September of this year, and October 1921. Reduced to an annual rate, the turnover this October was 86.3, indicating that deposits were being checked out at the rate of 86.3 times a year. The corresponding figure for September this year was 68.6, and for October 1921 was 70.4. In fact, the rate of turnover was more rapid than in any month since December 1919. This high rate of turnover may be accounted for partly by activity in the stock and bond markets, particularly the market for Government bonds including the new issue, and is further in keeping with a heavy volume of sales by department stores, and wholesale dealers, as reported to this bank.

The October figures for other important cities do not show any such large increase, although in Buffalo, Rochester, and Boston, the rate of turnover was higher than a month ago, or a year ago. In general, the increase in business activity during the past year has not been accompanied by marked increases in the rate of turnover of deposits. The figures for October of the past 4 years, and September of 1922 are shown in the following table.

	October				Sept.
	1919	1920	1921	1922	1922
New York City	85.4	77.5	70.4	86.3	68.6
Albany	35.0	32.6	26.0	24.0	21.6
Buffalo	18.4	22.8	19.9	22.6	20.4
Rochester	20.6	21.9	21.8	23.6	21.1
Syracuse	11.5	13.2	9.0	8.8	8.4
Boston	42.9	37.0	32.2	34.6	28.8
Chicago	47.0	50.8	46.6	43.7	41.9
San Francisco	42.8	41.6	42.2	37.4	40.7

Bill Market

Market rates for bankers acceptances were maintained during November at the levels established late in October and the movement of bills increased substantially. During the first half of November the increased demand came principally from out of town, but after the fifteenth a strong city demand developed, especially for bills maturing before the end of the year. At present rates the demand for bills is greater and more broadly distributed than for several months past.

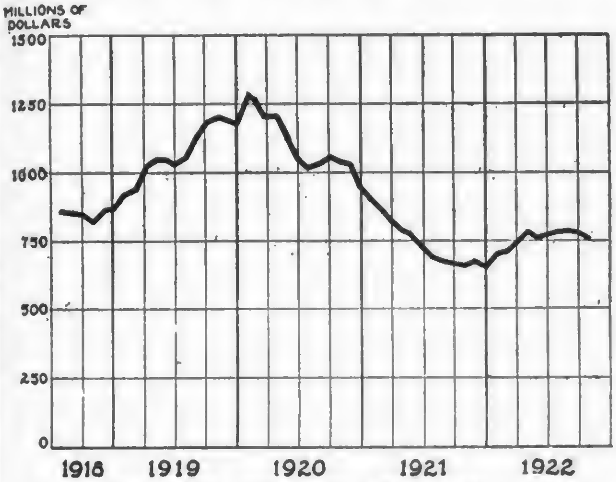
Bills drawn to finance the importation of raw silk, coffee, and sugar, the exportation of cotton and grain, and the domestic movement of cotton were most numerous of new bills entering the market during the month.

Commercial Paper

Prevailing commercial paper rates became definitely established at 4¾ to 5 per cent. early in November, and these rates were maintained throughout the month, notwithstanding easier conditions in some other money markets.

The volume of paper distributed remained rather limited, due both to slow demand and to small supplies of prime paper. New York banks were only occasional buyers, and many dealers reported distribution chiefly in the interior, where the higher rates appeared to increase demand somewhat. Buying was good in St. Louis and through the southwest, but elsewhere was generally quiet. As a rule, light buying by banks seemed to be due less to dissatisfaction with rates than to a demand for funds from their own customers. The small supply of paper in the market was due in considerable measure to the fact that borrowers generally found the cost of securing funds at their own banks lower than the cost of financing through the open market.

Reflecting lessened activity in the market, this bank's compilation of the outstanding paper of 27 dealers showed a further decline at the end of October, as indicated in the accompanying diagram.



Commercial Paper Outstanding—Twenty-seven Dealers

Stock Market Money Rates

Stock market money rates became somewhat firmer early in November, accompanying a loss of funds to the interior, coupled with the usual first-of-the-month financial transactions. Call loan rates twice touched 6 per cent., and an average rate of 5½ per cent. on new loans during the week ended November 10 was the highest for any week this year. About the middle of the month, however, stock market liquidation and heavy transfers of funds to New York eased the market, and call loan rates dropped to 3½ per cent. for the first time in two months. There were later reactions to around 5 per cent.

Time money advanced to 5 per cent. for all maturities early in November, compared with 4¾ to 5 per cent. in October. While offerings became somewhat freer later in the month and demand lessened, rates remained unchanged.

Stock Market

Fresh weakness in the stock market in late October and in November carried price averages below levels reached during the September decline, and to the lowest points since July. The reaction, which spread over a broad range of stocks, was the most extensive since the advance began approximately fifteen months ago. Averages of industrial stocks showed losses of about 7½ points from the maximum level of the rise reached in October. Averages of railroad issues continued a decline which began in the early fall with the publication of earnings statements which were regarded as disappointing.

Total transactions on the Stock Exchange during October were 26,000,000 shares, a larger volume than in recent months, but 4,000,000 less than in April, the most active month of the year. Activity lessened early in November, but increased later in the month accompanying lower prices.

Bond Market

After steadying temporarily late in October and early in November, corporation bond price averages declined one point further to levels about 3½ points below the September high point of the year. Influential factors apparently were firm money conditions, lower prices in the stock market, and a tendency for funds to be transferred from investment in securities to more active business employment. Accompanying easier money market conditions after November 15, there was a pause in the decline and a decrease in the volume of trading.

The accompanying diagram shows the course of high grade bond prices in this country and in Great Britain, and indicates that an interruption of the upward movement has been common to both countries. In both the United States and Great Britain, the advance culminating in September carried prices to the highest levels since the war.

Average Monthly Prices of Liberty and Corporation Bonds at New York and British War Loans at London

Domestic State and municipal issues shared with other domestic bonds in the November reaction. Foreign issues were also lower in sympathy with declines in exchange rates, and about the middle of November French, Belgian, Central European, and many South American issues fell to new low points for the year. Later, however, prices rallied strongly from these levels.

October trading in bonds other than United States Government securities on the Stock Exchange totaled $221,000,000, a smaller volume of transactions than in the most active months of this year when prices were rising, but 79 per cent. larger than transactions in October last year.

United States Government Securities

The October decline in Liberty bonds was halted temporarily at the end of the month, and prices rallied from around 98 to considerably above 99. After the first few days of November, however, prices weakened in sympathy with the general bond list and declined again to approximately the October low points. Paralleling these general movements, the new Treasury 4¼s recovered from below 99 to above par, but closed the third week of November at 99½.

Trading in United States Government issues on the Stock Exchange during October totaled $154,000,000, a higher figure than for previous months, due chiefly to the listing of the new Treasury loan. Activity decreased notably around the middle of November, accompanying easing in money conditions.

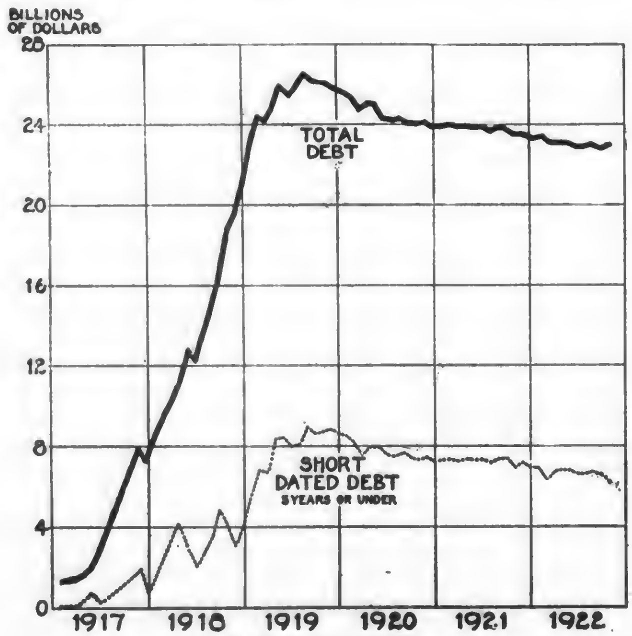
Dealers in Treasury certificates and notes reported a quiet market during the first three weeks of November. Offering rates on the whole showed little fluctuation and were generally about ¼ of one per cent. higher than in the first week of October.

The Government Debt

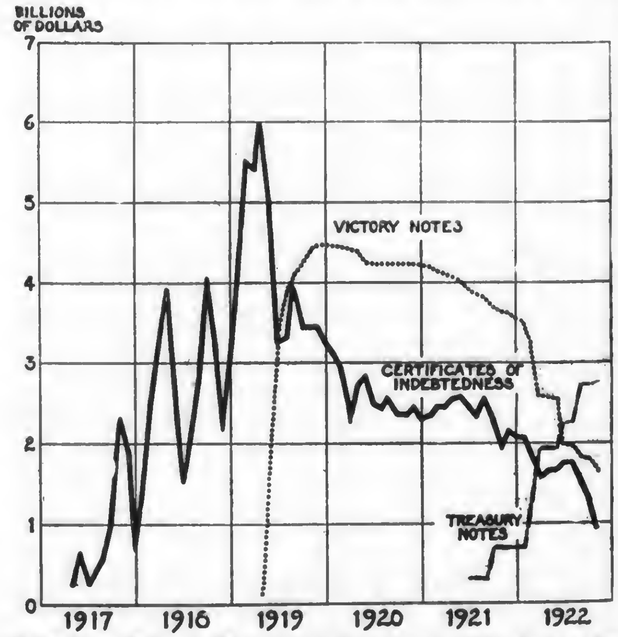
The Treasury statement of the public debt for October 31 shows the changes in the debt resulting from the sale of about $764,000,000 of long term 4¼ per cent. Treasury bonds. The total gross debt shows a temporary increase, but this is largely offset by the increased balance in the general fund, and there was at the same time a decrease in the short dated debt of about $450,000,000.

The diagram on this page at the left shows the growth of the total gross debt, and the debt that matures within 5 years, for the period during and immediately following the war, and indicates a gradual reduction of $3,500,000,000 since the high point on August 31, 1919. The reductions in the short dated debt (maturing within 5 years) have amounted to about $3,100,000,000.

The diagram on the right illustrates the manner in which the early maturing debt has been gradually redistributed into more convenient maturities. During the war it was the policy of the Treasury to refund the floating debt at intervals into long term Liberty bonds, a process which is reflected in the diagram by the changes in the amount of the certificates of indebtedness outstanding. After the Armistice, however, conditions made it desirable that refunding should take the form of relatively short term issues, and $4,500,000,000 of 3¾ per cent. and 4¾ per cent. Victory notes were sold maturing May 20, 1923, but callable in whole or in part on June 15 and December 15, 1922. Gradual retirement through revenue during 1920 and early in 1921 had reduced somewhat the short dated debt, but the Treasury in April 1921 still faced the necessity of meeting, the following two years or thereabouts, maturities mainly of certificates and Victory notes amounting to about $7,500,000,000. The refunding first took the form of short term Treasury notes and six issues amounting in the



The Government Debt



Changes in Type of Short-dated Government Debt Outstanding aggregate to about $2,750,000,000 have been sold. This fall there came an opportunity for long term refunding and the issue of 25-30 year Treasury bonds was successfully sold in October.

Redemption of Victory Notes

Approximately 750 millions of Victory notes have been called for redemption on December 15. The notes which have been called and upon which interest will cease upon that date, bear the distinguishing letters A, B, C, D, E or F, and constitute about half of the entire amount of 4¾ per cent. Victory notes now outstanding. Under the authority of the Secretary of the Treasury, which continues until further notice, the Federal Reserve Banks will receive these notes for immediate payment, if the holder desires. Both redemption and prepayment may be handled either through the banks or directly with a Federal Reserve Bank.

The Secretary of the Treasury has also authorized until further notice the immediate payment, if the holder desires, of Victory notes of the uncalled series. These amount to about $900,000,000 and bear the distinguishing letters G, H, I, J, K or L. All of the uncalled series mature on May 20, 1923.

Redemption of War-Saving Certificates

On November 13, the Treasury announced its plan for redeeming about $625,000,000 of War-Savings certificates of the series of 1918 which fall due January 1, 1923. Beginning November 15, holders were permitted to exchange their war-savings issues through the post office, Federal Reserve Banks, or Treasury Department for new Treasury Savings certificates dated January 1, 1923. Such transactions can also be handled through the banks. Cash redemption of war-savings issues will not be made before January 1, but beginning November 15, holders were invited to forward them in advance for redemption as of January 1.

The new savings certificates will mature January 1, 1928, and yield 4 per cent., compounded semi-annually, if held to maturity. Certificates may be redeemed before maturity at redemption values yielding 3 per cent. simple interest.

New Financing

New financing during November was in smaller volume than in the previous month, and dealers reported that there was no great pressure of business awaiting offering. Dealers estimate that yield rates required on new corporation issues of good grade have recently advanced by over ¼ to nearly ½ of one per cent. Corporation issues during November were generally of small size, and public utility offerings preponderated.

Slower demand was also reported for State and municipal issues, and dealers in some cases found it necessary to raise yield rates on unsold portions of offerings as much as ¼ of one per cent. to effect their distribution. These conditions, coupled with prospective financing voted at the recent elections, tended to make dealers cautious in bidding for new issues and to restrict the volume of offerings.

Final totals of foreign offerings in this market during October reached $68,000,000, the largest amount for any month since June. During the first three weeks of November foreign offerings amounted to $24,000,000, including $18,000,000 Chilean Government 7 per cent. bonds, offered at 96½, which were reported to have had a good distribution.

Foreign Exchange

Exchange rates on France, Belgium, and Italy fell during the past month to the lowest prices for the year but later recovered practically to the levels prevailing in October. Further declines in the exchange value of the mark carried the Berlin rate to near 1/100 of a cent, a depreciation of 75 per cent. from the value of a month before.

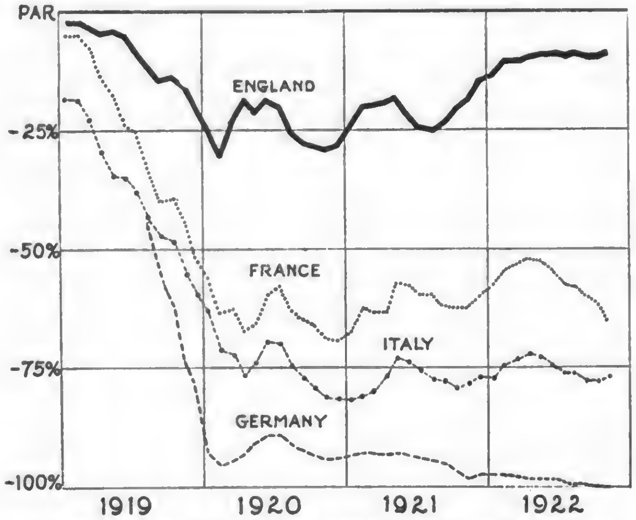
Sterling held steady around $4.46 until the latter part of the month when quotations advanced to $4.52½, which was the high point for the year. Exchange on Norway advanced further, accompanying the transfer to Norway of the proceeds of the Norwegian Government loan placed in the New York market the month previous.

South American rates were somewhat firmer than in the month previous. Exchanges on India and Japan were steady and without important change but rates on Hong Kong and Shanghai declined slightly.

The following table compares changes in the principal rates from a month ago and a year ago.

Country	Nov. 20 Last	Change from Oct. 20	Change from Nov. 19 1921	Per cent. depreciation from par
England	4.4938	+.0300	+.4963	7.7
France	.0744	+.0006	+.0022	61.5
Italy	.0476	+.0056	+.0059	75.3
Germany	.0002	−.0001	−.0036	99.9
Belgium	.0697	+.0014	−.0003	63.9
Holland	.3928	+.0021	+.0411	2.3
Switzerland	.1866	+.0042	−.0004	3.3
Spain	.1529	−.0007	+.0159	20.8
Sweden (Stockholm)	.2674	+.0008	+.0344	0.2
Argentina	.3634	+.0027	+.0370	14.4
Brazil	.1253	+.0146	+.0003	61.4
Japan (Yokohama)	.4844	+.0044	+.0069	2.8
China (Hong Kong)	.5388	−.0175	−.0100	*
China (Shanghai)	.7213	−.0125	−.0625	*
India	.3006	+.0093	+.0312	38.2
Canada	1.0003	−.0011	+.0865	+0.03
Bar Silver in New York	.6450	−.0225	−.0525	......

*Silver exchange basis.



Depreciation of Foreign Exchange Rates from Par Value

Foreign Trade

October exports of merchandise from the United States totaling $372,000,000 were larger than those in any other month since March 1921, and 19 per cent. more than in September. Publication of import figures for October was delayed on account of changes in classifications and rates made necessary by the new tariff law.

The increase in exports may be attributed in large part to higher prices and an increased volume of cotton shipments, which more than doubled the September figure, to 798,664 bales, the largest total for any month since the heavy exports of October last year. Exports of meats and dairy products increased somewhat, but those of grain and grain products declined. Current foreign buying of American wheat was reported to be light.

While reports of exporters recently have seemed to indicate a gradually increasing movement of general merchandise products, sellers of cotton goods found a more restricted demand in November, which is ascribed to high prices. Steel continues in light request, and September figures showed a decline in shipments for the fourth successive month. Imports of iron and steel for September, on the other hand, were the largest in thirty years, and were more than half as large as the export movement in these commodities.

Figures published by a private agency indicated that silk imports during October were larger than in any previous month.

A review of foreign trade changes during the fiscal year ended June 30, 1922, by the Department of Commerce, indicated a fall of 28.6 per cent. in the value of imports and of 42.1 per cent. in the value of exports compared with figures for 1921.

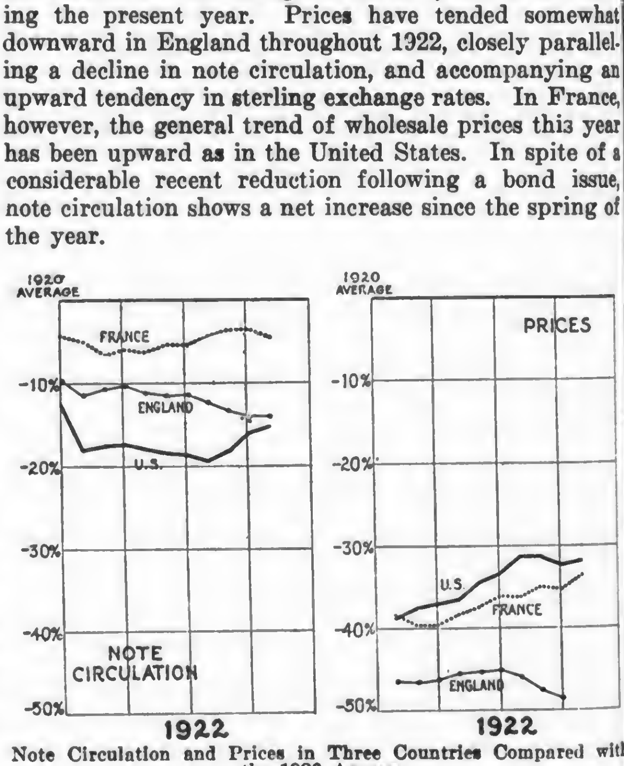
The tendency towards a reduction in the excess balance of exports in the past two years is shown more clearly by the following table from the Department's annual summary.

	Average Monthly Export Balance
Six months July 1 to Dec. 30, 1920	$274,674,811
" Jan. 1 to July 1, 1921	202,333,636
" July 1 to Dec. 30, 1921	126,980,328
" Dec. 30 to July 1, 1922	66,887,576
Three months July 1 to Oct. 1, 1922	51,623,542

World Prices and Note Circulation

World prices showed, in general, an upward tendency in October following declines in the two months preceding. Higher price levels in most European countries reflected rising quotations for the raw materials of manufacture, particularly textiles and metals.

The following diagrams compare wholesale prices in three countries with changes in currency circulation during the present year. Prices have tended somewhat downward in England throughout 1922, closely paralleling a decline in note circulation, and accompanying an upward tendency in sterling exchange rates. In France, however, the general trend of wholesale prices this year has been upward as in the United States. In spite of a considerable recent reduction following a bond issue, note circulation shows a net increase since the spring of the year.



Note Circulation and Prices in Three Countries Compared with the 1920 Average

The level of prices in Germany rose over 114 per cent. during October, accompanying an expansion of circulation by over 35 per cent., and a fall in exchange of more than 60 per cent. Available price indices from different countries are shown in the following table.

(1913 average=100 per cent. unless otherwise noted)

Country	Latest Quotation	Per Cent. Change During		
		Aug.	Sept.	Oct.
United States:				
20 basic commodities[1]	149 (Nov. 25)	− 2.3	+ 3.1	+ 3.2
Dept. of Labor	154 (Oct. av.)	0	− 1.3	+ 0.7
Dun's	151 (Nov. 1)	− 0.6	+ 1.8	+ 3.8
Bradstreet's	145 (Nov. 1)	+ 0.1	+ 3.5	+ 6.8
Great Britain:				
Economist	158 (Nov. 1)	− 3.1	− 1.6	+ 1.7
Statist	150 (Oct. 1)	− 3.3r	− 1.3	
20 basic commodities[1]	141 (Nov. 25)	+ 0.2	− 1.6	+ 2.7
France	337 (Nov. 1)	+ 1.9r	− 0.6	+ 2.4
Italy	601 (Nov. 1)	+ 2.5	+ 1.8	+ 3.3
Japan	190 (Oct. av.)	− 2.9	− 1.2	− 1.2
Canada	162 (Oct. 15)	− 1.1	− 1.0	− 0.3
Australia[2]	158 (Sept. av.)	− 1.3	+ 1.9	
Norway[3]	221 (Nov. 1)	− 2.2	− 0.9	− 1.8
Sweden[4]	155 (Oct. 15)	− 1.2	− 3.1	− 1.9
Denmark[5]	180 (Nov. 1)	− 1.1	− 1.1	+ 2.3
Germany[6]	94,492 (Nov. 1)	+107.5	+52.5	+114.3
Shanghai[7]	106 (Oct. 1)	− 2.0	− 0.1	

[1]Computed by this bank. [2]July 1914=100. [3]Dec. 31, 1913—June 30, 1914=100. [4]July 1, 1913—June 30, 1914=100. [5]July 1912—June 1914=100. [6]July 1914=100. [7]Sept. 1919=100.
r—Revised.

Gold Movement

Preliminary reports for October show gold imports of $20,866,000 and exports of $17,592,000, nearly all of the latter to Canada. This is the largest amount exported in any month since November 1920 and the net excess of imports, $3,274,000, is the smallest since the inflow of gold began in September 1920. The sources of imports are shown in the following table.

(000 omitted)

Country	Aug. 1922	Sept. 1922	Oct. 1922	Total 1922
England	$13,270	$8,442	$9,927	$94,368
Sweden	583	114	296	32,798
Canada	393	232	95	9,041
China and Hong Kong	870	971	596	6,408
France	890	2,070	2,635	19,605
Denmark	1,115	....	....	17,769
Mexico	333	674	326	4,850
Colombia	642	651	581	6,236
All other	996	11,310	6,410	39,300
Total	$19,092	$24,464	$20,866	$230,375

Domestic Wholesale Prices

A continued decline during October in the price of fuel was more than offset in the Department of Labor index of wholesale prices by considerable increases in the farm products, clothing, and miscellaneous groups. There was some increase in all groups with the exception of fuel and lighting, and chemicals and drugs. Increases of 8 or 9 per cent. in the prices of wheat, corn, and cotton were largely responsible for carrying the farm products group upward. The principal increase, reflected in the movement of the miscellaneous group, was a 40 per cent. advance in rubber prices.

The latest values of the groups making up the Department of Labor index together with recent changes are shown in the following table.

Commodity Group	Value of Index Oct. 1922	Per Cent. Change		Per Cent. Incr. from Low	Date of Low
		Aug. to Sept.	Sept. to Oct.		
Farm products	138	+ 1.5	+3.8	21.1	June 1921
Foods	140	0	+1.4	6.9	Jan. 1922
Cloths and clothing	188	+ 1.1	+2.7	9.9	Apr. 1922
Fuel and lighting	226	−10.0	−7.4	24.9	Sept. 1921
Metals	135	+ 6.3	+0.7	23.9	Mar. 1922
Building materials	183	+ 4.7	+1.7	18.1	Mar. 1922
Chemicals and drugs	124	+ 1.6	0	2.5	July 1922
House furn'g goods	176	0	+1.7	1.7	Sept. 1922
Miscellaneous	120	+ 0.9	+3.4	5.3	June 1922
All groups	154	− 1.3	+0.7	11.6	Jan. 1922

This bank's index number for the prices of 20 basic commodities showed an increase of 1 per cent. during the first 3 weeks of November. The rise in prices of wheat and cotton continued until the third week of the month, when some reaction occurred.

Cost of Living

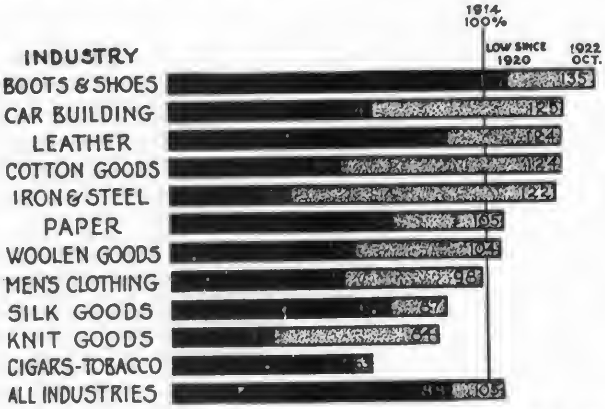
Following some months behind the increase in wholesale prices, the cost of living index number of the National Industrial Conference Board for the United States continued in October the rise begun in September. The October increase was slightly larger, amounting to 1 per cent., and was the largest advance since March of this year. Food prices increased 2.1 per cent., and clothing 1.3 per cent., while other items remained unchanged.

The Department of Labor reported an increase of 3 per cent. in October in the cost of food in New York City. There has been a total advance of 6 per cent. since the low level of March 1922 and the index is now 51 per cent. higher than in 1914.

Employment and Wages

The New York State Department of Labor, in its monthly survey of employment, found an increase of 3 per cent. between September 15 and October 15 in the number of workers employed in the factories of the State. All groups of manufacturing industries added to their working forces with the exception of plants that handle food products, in which a seasonal decline took place, following the close of the canning season.

The following diagram compares the number of workers now employed in each of eleven leading industries in this State with the number employed in July 1914, and at the lowest point since 1920. The increase in the total number of workers since August 1921, when employment was at its lowest point, has been 19 per cent., and the number of workers is now nearly 5 per cent. larger than in June 1914.



Number of Workers Employed in Principal Industries in New York State Compared with the Number in 1914 and at the Low Point since 1920

Employment agencies in this district continue to report a shortage of common labor and of certain types of skilled workers accompanied by increasing wage rates. The shortage has not extended to clerical workers although there have been a number of isolated cases of wage increases among such workers.

Savings Bank Deposits

Deposits of reporting savings banks in New York City declined slightly between October 10 and November 10, following an unusually heavy increase in the month previous. In other cities of the Second Federal Reserve District deposits showed a further increase. In three of the five years during which these figures have been tabulated, deposits of the reporting banks in New York have declined and those in other cities have increased at this time of year.

Production in Basic Industries

October was a month of largely increased production in basic industries, particularly in iron and steel, and other metal industries.

Output of bituminous coal for the month, as reported in the preliminary estimates of the United States Geological Survey, was 45,154,000 tons, an advance of 4,141,000 tons over September figures, and about 75 per cent. of estimated normal production. In the West Virginia, and Kentucky fields, production is still hampered by inadequate transportation facilities. In the middle west, on the other hand, reports of lack of market occur with increasing frequency, due as far as can be ascertained to buyers' dissatisfaction with current asking prices rather than to absence of demand. Production as a whole is in advance of requirements, and stocks in the hands of commercial consumers, as reported to the Federal Fuel Distributor, have increased since the termination of the strike as follows:

September 1	22,000,000 tons	17 days' supply
October 1	28,000,000 tons	22 days' supply
November 1	35,000,000 tons	27 days' supply

Anthracite coal mined during October amounted to 8,530,000 tons, almost twice the September production. Shipments from the mines were about 2,000,000 tons less than the amount produced, and transportation facilities of railroads were taxed to capacity.

Production of pig iron during October totaled 2,638,000 tons, the largest output since December 1920. Daily blast furnace capacity in operation increased from 77,005 tons at the outset of the month to 87,935 at the close. The month has been marked by a downward revision of prices. The market along the seaboard has been affected by importation, inasmuch as 200,000 tons of British and Continental iron have recently been delivered at prices below American quotations.

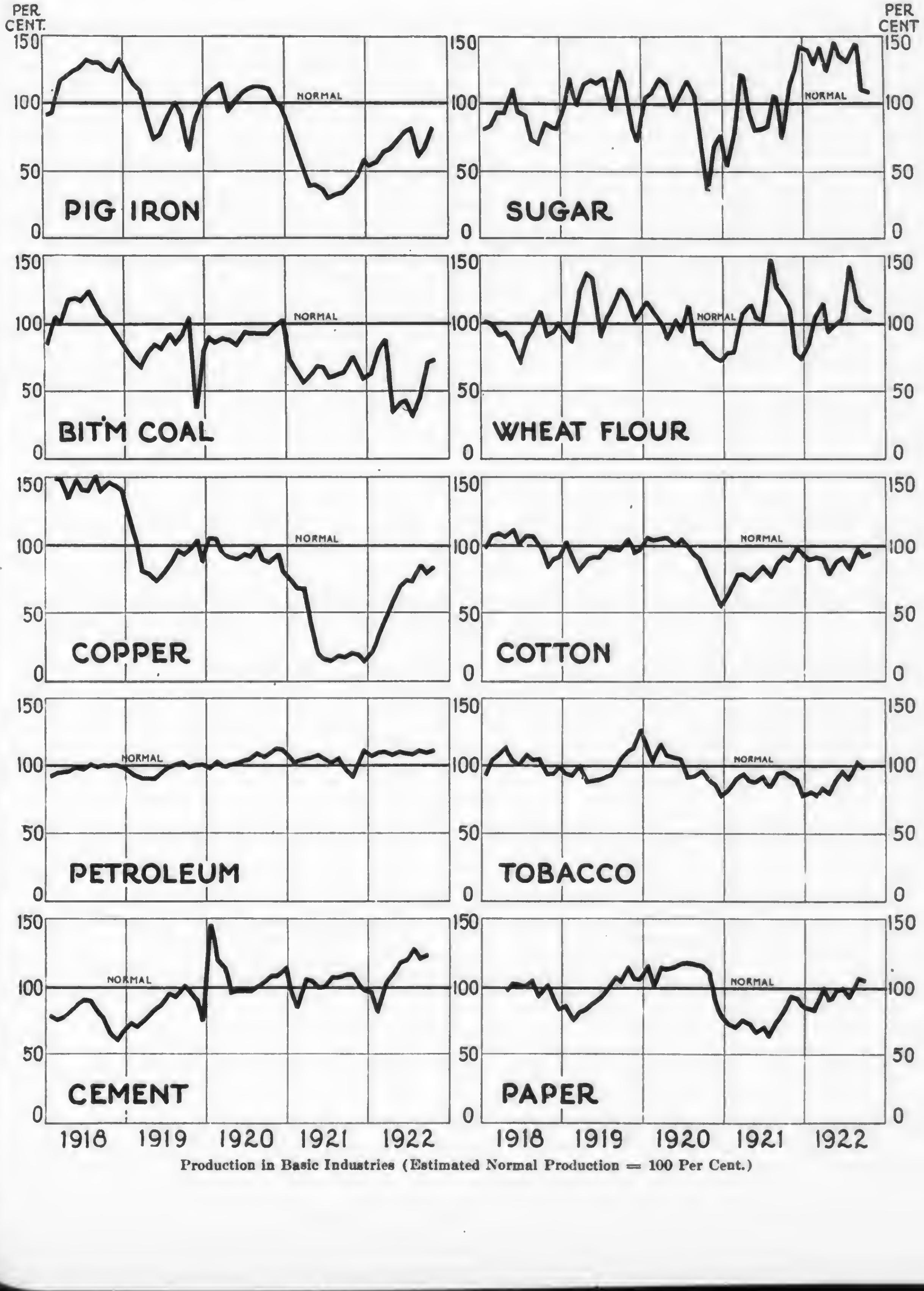
Steel ingot production for October was 3,283,000 tons, as compared with 2,713,000 tons during September, an increase of 21 per cent. Unfilled orders for finished products on the books of the United States Steel Corporation October 31 amounted to 6,902,000 tons, as compared with 6,692,000 tons September 30, an increase of 3 per cent. Freight embargoes contributed to this increase. As in recent months, railway supplies constituted the bulk of new business and demand for general products was less active. Orders for structural material, for example, which in April amounted to 85 per cent. of shop capacity, declined during October to 55 per cent.

The following table shows production for the past six months, expressed as percentages of estimated normal production. In estimating normal, allowance has been made for year to year growth, and seasonal variations.

(Estimated normal production = 100 per cent.)

Commodity	May	June	July	Aug.	Sept.	Oct.
Anthracite coal	.4	1.0	1.4	1.9	61	94*p*
Bituminous coal*r*	41	43	32	46	72	75*p*
Pig iron	73	79	82	61	68	83
Steel ingots	81	82	79	70	74	85
Copper, U. S. mine	70	75	75	86	80*r*	84*p*
Tin deliveries	92	90	75	77	92	103
Zinc*	51	53	60	59	62	75
Crude petroleum	111	110	110	112*r*	111	112*p*
Portland cement	119	120	128	121	123	126
Wheat flour	100	104	142	117	112*r*	109
Meat slaughtered	108	112	99	109	105	103*p*
Sugar meltings U. S. Ports	146	135	131	144	110	108
Cotton consumption	88	92	84	97	92	95
Wood pulp	108	110	105	105	102	.....
Tobacco consumption	91	97	90	103	99	88
Paper (total)	100	109	93	107	105	.....
Gasoline	96	101	109	103	104	.....
Wool consumption*	116*e*	116*e*	103*e*	126*e*	121*e*	131*e*

*Seasonal variation not allowed for. *r*—Revised. *p*—Preliminary. *e*—Estimated.



Production in Basic Industries (Estimated Normal Production = 100 Per Cent.)

Railway Traffic

As a result of the continued heavy movement of coal and of the delayed shipment of grain because of car shortages in the northwest the seasonal decline in car loadings which normally begins early in October did not begin this year until early in November and the decline has been at a slower rate than usual. After the middle of October car loadings were for some weeks even larger than the heavy traffic of 1920.

The freight car shortage increased steadily throughout October, reaching 180,000 cars on October 30, the largest shortage ever reported. This shortage was mainly in the central western and northwestern States. Recent operating statistics indicate higher efficiency in handling cars. The average freight car load was raised from 25 tons in July to over 27 tons in September and the average daily car movement increased from 21 miles in July to over 24 miles in September. Moreover the number of cars needing repair had been reduced by November 1 to the lowest figure since March 1921.

Wholesale Trade

The gain in the volume of wholesale business in this district, which was first noted in August and September, continued during October with increased momentum. The weighted average of wholesale trade, computed by this bank from reports of dealers in ten principal commodities, shows that the dollar value of sales was 13 per cent. above that of October 1921, as compared with a gain of 10 per cent. in September over a year ago. October sales were the largest of any month since the autumn of 1920.

The trend of sales during the past four years is shown in the diagram at the foot of this page. The dollar sales figures have been adjusted, as nearly as it is possible to do so from the available data, to make allowance for normal seasonal changes. The trend of wholesale prices during the same period is also shown, computed from the group price indices of the Department of Labor. The physical volume of sales has been estimated by dividing the dollar sales by the prices prevailing during each month.

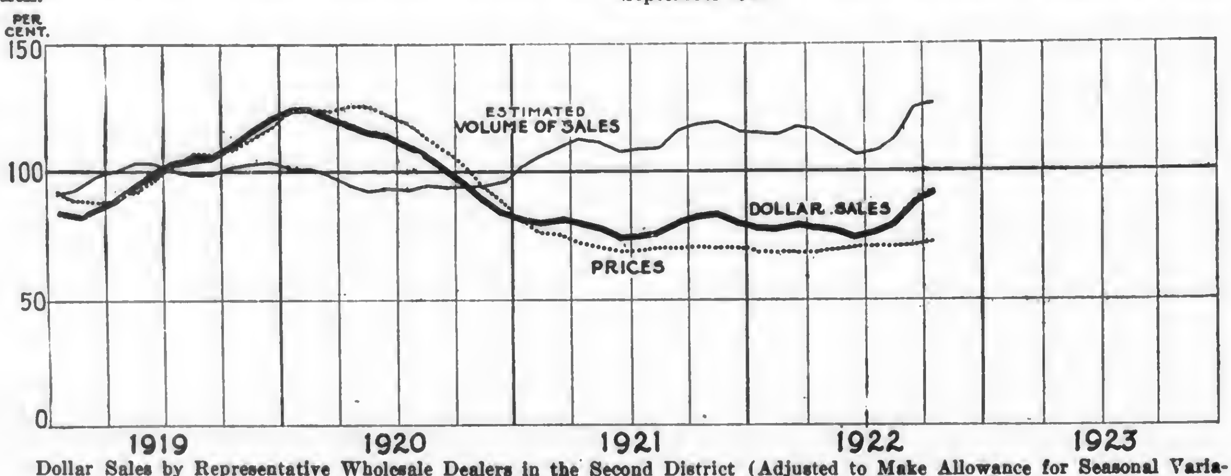
The diagram shows that during 1920, when both dollar sales and prices were highest, the actual amount of merchandise distributed was lowest, reflecting restricted buying by retailers. In 1921 and 1922 as retailers' stocks were reduced, the volume of wholesale transactions began to increase. In the past few months this increase has been quickened, and the amount of merchandise distributed by these dealers during September and October has probably been greater than during any other month for which figures are available.

The diagram also reveals the tendency of merchants during the past two years to buy for immediate needs only. The volume of business has not been distributed during the year as formerly, but has been greatest during the spring and fall months, coinciding with the busy seasons for retail distributors.

Wholesale merchants whose business is nation-wide report that sales to customers in western, middle-western, and southern States have been particularly good, and the increase in sales in those States has been relatively greater than the increase in sales in the north-Atlantic States.

	Total Net Sales (in percentages)				
	Oct. 1919	Oct. 1920	Oct. 1921	Oct. 1922	Sept.* 1922
All Commodities (weighted)	127	107	100	113	110
Machine Tools	554	564	100	342	413
Jewelry	241	186	100	132	123
Stationery	146	173	100	131	98
Diamonds	217	107	100	130	208
Hardware	129	129	100	118	122
Drugs	110	107	100	113	108
Groceries	135	122	100	113	106
Clothing	91	102	100	112	129
(a) Men's	69	90	100	95	134
(b) Women's	149	133	100	158	119
Dry Goods	118	78	100	103	95
Shoes	219	80	100	95	102

*September 1922 figures are expressed in percentages of sales in September 1921.



Dollar Sales by Representative Wholesale Dealers in the Second District (Adjusted to Make Allowance for Seasonal Variations) compared with Price Changes, and the Estimated Physical Volume of Sales

Department Store Business

Sales by department stores in this district were retarded during the early part of October by unseasonably warm weather which delayed the buying of fall and winter wearing apparel. During the latter part of the month sales increased and for the month as a whole showed a gain of 4.5 per cent. over those of October last year. This compares with an increase of 16 per cent. reported for the previous month.

Sales by Buffalo, Rochester and Newark stores were relatively larger than those by New York City merchants, in contrast with the tendency, evident for several months previous, for sales in the Metropolitan area to expand more rapidly than those in other sections of the district.

A tendency to purchase a better quality of merchandise was even more evident in October than in September. There was an increased demand for fine furniture, oriental rugs, pianos and other musical instruments, fine linens and the highest quality of wearing apparel. Evidence of this change in the character of purchases is found in an increase of 8.4 per cent. in the average individual sale from $2.98 in October 1921 to $3.23 this year.

Detailed sales and stock figures are shown in the following table.

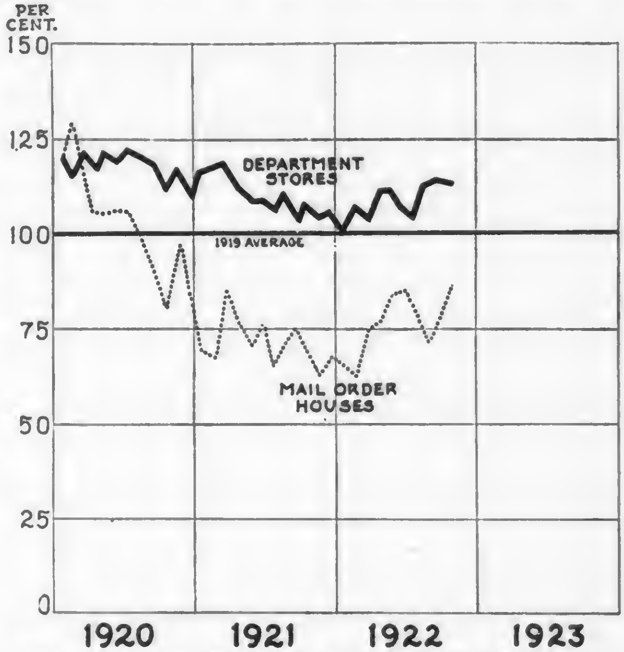
	Total Net Sales (In Percentages)				Stock (Selling Price) (In Percentages)			
	Oct. 1919	Oct. 1920	Oct. 1921	Oct. 1922	Nov. 1, 1919	Nov. 1, 1920	Nov. 1, 1921	Nov. 1, 1922
All Dept. Stores..	94	98	100	104	98	118	100	98
New York.....	97	97	100	104	98	118	100	97
Buffalo...	84	99	100	109	96	115	100	92
Newark.......	91	102	100	110	98	121	100	96
Rochester.....	87	104	100	107	118	136	100	97
Syracuse......	102	107	100	104	126	150	100	98
Bridgeport.....	104	113	100	103	103	118	100	100
Elsewhere in 2d District.....	82	94	100	90	84	102	100	93
Apparel Stores...	88	93	100	106	89	110	100	108
Mail Ord. Houses	178	116	100	124	**	***	***	***

Stocks held by department stores on November 1 were 2 per cent. below those held on the same date last year. This reduction, coupled with the somewhat larger sales, has resulted in a more rapid stock turnover.

Merchants are making plans for an unusually large Christmas business. During the past two weeks they have received large shipments of holiday goods and the sales forces are being increased. Outstanding orders on November 1 amounted to 8.2 per cent. of the total purchases during the previous calendar year as compared with 6.0 per cent. one year ago.

Mail order sales in October were 24 per cent. above those of last October, the largest gain since the autumn of 1920. This increase is a reflection of larger purchasing power in farming districts, where the mail order houses find their chief market.

The following diagram compares the sales by mail order houses with sales by department stores in all sections of the United States, as compiled by the Federal Reserve Board. In each instance allowances have been made for seasonal variations. Throughout the latter part of 1920, during 1921, and thus far in 1922, sales of department stores in the larger cities have been larger in comparison with 1919 average sales than sales by mail order houses, but recent increases in mail order sales have brought the two lines somewhat nearer together.



Sales by Department Stores Throughout the United States Compared with Sales of Principal Mail Order Houses (1919 Average = 100 Per Cent.)

Chain Store Sales

October sales by chain store systems that report to this bank were 8 per cent. larger than those of last October. The chief increase, amounting to 12 per cent., was reported by chain grocery organizations and was due to the opening of about 2,400 new stores during the year; average sales per store were lower.

Sales by chain shoe stores declined 13 per cent. due partly to a decline of 7.2 per cent. in the average price per pair from $3.87 last October to $3.59 this year and partly to a decrease of 5.7 per cent. in the number of pairs sold.

Type of Store	Number of Stores		Total Net Sales (In percentages)				Per cent. change in Sales per Store Oct. 1921 to Oct. 1922
	Oct. 1921	Oct. 1922	Oct. 1919	Oct. 1920	Oct. 1921	Oct. 1922	
Grocery...	6,378	8,765	94	104	100	112	−18.6
Apparel...	370	433	69	100	100	112	− 4.0
Ten Cent..	1,598	1,666	76	92	100	110	+ 5.9
Drug.....	281	280	88	101	100	100	+ 0.5
Cigar	2,248	2,670	80	109	100	92	−22.5
Shoe.....	192	218	95	105	100	87	−23.0
Total...	11,067	14,032	83	100	100	108	−15.1

What the Reserve Ratio Means

EVERY week the Federal Reserve Board announces through the press a statement of condition of all twelve Federal Reserve Banks, showing their principal assets and liabilities, and also showing what is known as the reserve ratio, or reserve percentage. This reserve ratio frequently is singled out for editorial comment, and is often considered an indicator of the state of credit throughout the country. But for its proper interpretation, it is necessary to understand the circumstances which influence it at all times, and to make allowance for such special conditions as may occasionally prevail, for example the recent immense importation of gold.

Function of Bank Reserves

Generally speaking, a reserve is a fund set aside for emergency use. Reserves are maintained by business men as well as by banks. But in the case of banks the law specifies what reserves shall be maintained, for the better protection of their depositors. The amount of reserve required for a bank which is a member of the Federal Reserve system depends on the size of the community in which the bank is located and the nature of its deposits. On the average throughout the country the reserve required for a member bank is about 10 per cent. of the amount of its deposits payable on demand.

In the same way, Reserve Banks must keep in reserve a certain proportion of their funds, and because of the fact that the Reserve Banks carry reserves for other banks, the percentage is much higher—35 per cent. of the amount of their deposits, and 40 per cent. of the amount of their notes; but for purposes of convenience and ease of reference the published reserve percentage is a single figure. This figure is the proportion which the total reserves bear to the amount of both deposits and notes. Thus a 75 per cent. reserve ratio (or percentage) means that the Reserve Banks have reserves in gold or lawful money which amount to three-quarters of the sum of their deposits and notes.

Elements in the Ratio

The reserve ratio of Reserve Banks may therefore be affected by any one of three factors,—a change in the amount of cash reserves, a change in the amount of note issues, or a change in the amount of deposits. Changes in the cash reserves, however, affect the ratio more than do changes in either of the other two items. This may be illustrated best by an example. On November 22, 1922, the cash reserves of the Reserve Banks were $3,219,000,000. Deposits were $1,895,000,000, and notes in circulation $2,299,000,000. The reserve percentage is computed from the fraction

$$\frac{3{,}219{,}000{,}000}{2{,}299{,}000{,}000 \text{ plus } 1{,}895{,}000{,}000} \text{ or } \frac{3{,}219{,}000{,}000}{4{,}194{,}000{,}000},$$

which equals 76.7 per cent. It is clear, arithmetically, that an increase or decrease of $100,000,000 in cash reserves, shown above the line, affects the percentage more than a like change in deposits or notes, shown below the line. This always holds true as long as the reserves are less than deposits plus notes.

Effect of Heavier or Lighter Credit Demands

Under ordinary circumstances of world trade it is probable that the stock of gold in the country would not vary greatly, certainly not to the extent that has occurred in recent years. Ordinarily the principal changes would take place in the figures below the line, namely in the Reserve Bank deposits and note issues. The way in which such changes would come about, and the reserve ratio be thereby affected may be illustrated by the following example. A merchant of Batavia, N. Y., finding his business growing, is in need of additional funds with which to increase his stock of goods. He goes to his bank and obtains a loan, part of which he may wish to receive in the form of a deposit credit against which he may draw checks, and part of which he may wish to receive in currency. If his bank's reserve is high, it may be able to supply him without borrowing.

But if business is exceptionally active the bank itself may have to borrow in order to accommodate the merchant and its other customers. It borrows perhaps $100,000 at the Reserve Bank, receiving in return Federal Reserve notes or a deposit on the books of the Reserve Bank which under the law serves as reserve against the increased deposits of its customers. The Reserve Bank does not pay out or part with any of the cash composing its reserve, but the aggregate of its deposits and notes is increased $100,000 and the reserve ratio is proportionately lowered.

Conversely, when business activity is diminishing, the Batavia merchant and many others like him, are paying off their loans at their banks and at the same time currency is being released from circulation and deposited in the banks. With these receipts the banks in turn reduce their borrowings at the Reserve Banks. The cash composing the reserves of the Reserve Banks is not increased, but their deposits and notes are decreased, and the reserve ratio is proportionately raised.

Thus if conditions were such that the gold reserve remained practically stationary, the reserve percentage would reflect directly the changing needs of business and agriculture. Its lowering would mean a growing volume of commercial activity, accompanied by an increased credit demand upon the banks and a gradual narrowing of the margin of available credit. Its rising, on the other hand, would mean a slackening pace of industry, an easing in the credit demand, and a replenishing of the credit reservoir.

Effect of Gold Imports or Exports

But present conditions are not such that the gold reserve of the Federal Reserve Banks remains stationary. In the past two years it has increased more than a billion dollars, practically all of which represents importations of gold. In the early stages of the gold movement, when the gold found its way into the Reserve Banks it paid debts owing by the member banks; latterly it has permitted the member banks to increase their deposits to the highest point ever reached and at the same time to maintain the reserves that the law requires with very little borrowing from the Reserve Banks.

The combined effect of these huge gold imports, increasing the reserves, and of simultaneous heavy redemptions of Federal Reserve notes, decreasing the liabilities, has been to bring about the present reserve ratio of about 77 per cent., which compares with the ratio of 85 per cent. when America entered the war and the ratio of 42.5 per cent. in the autumn of 1920 when the credit strain was at its peak.

The present high reserve ratio, then, is in large part due to the recent flow of gold to the United States from countries which for the time being are not on the free gold basis which obtained before the war. A return to such a basis, under which gold would flow freely into or out of such countries in settlement of international balances, would, if our balances were adverse, cause a corresponding outflow of our gold. This would decrease our reserve ratio, exactly as recent imports have increased it.