

# CROP and BUSINESS CONDITIONS

NINTH FEDERAL RESERVE DISTRICT

REPORT OF

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TO THE

FEDERAL RESERVE BOARD

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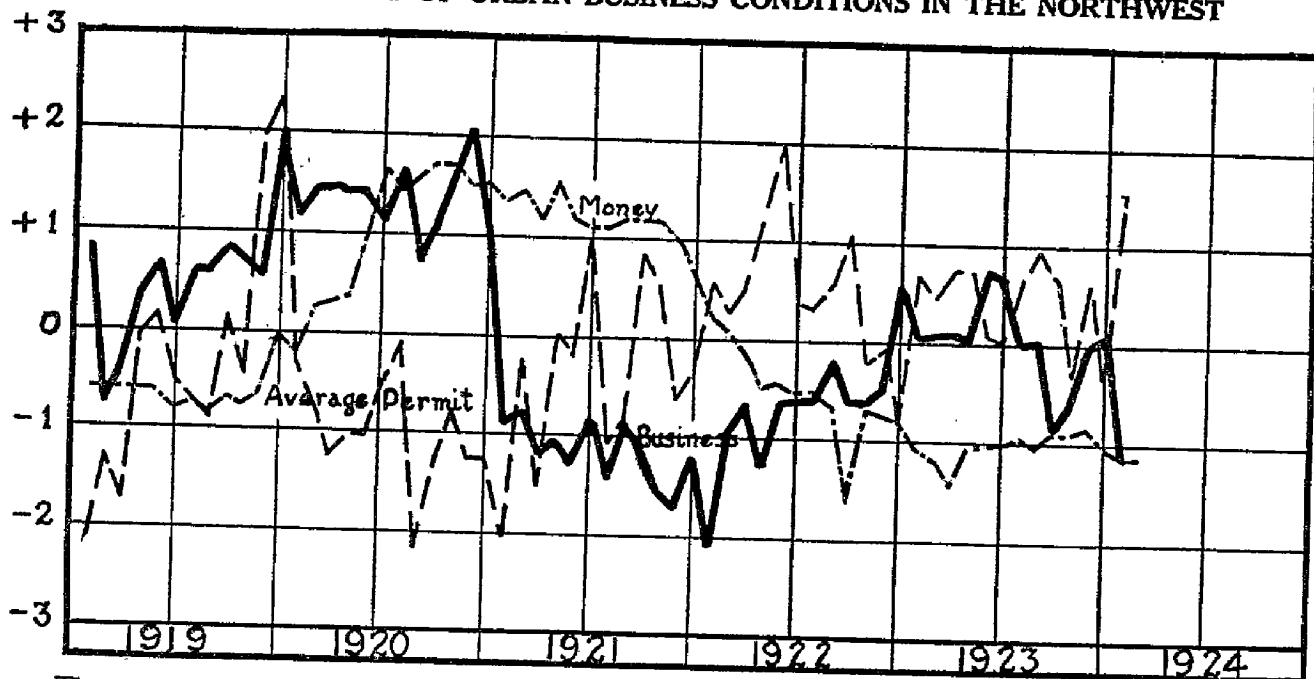
109th Report

MINNEAPOLIS, MINN.

February 28, 1924

**EDITORIAL NOTICE:**—This report is prepared monthly in the office of the Federal Reserve Agent for the purpose of providing the Federal Reserve Board with complete, accurate, and impartial information concerning business conditions in the Northwest. It is also printed for public use and will be mailed free of charge to anyone making request for it.

## GRAPHIC SUMMARY OF URBAN BUSINESS CONDITIONS IN THE NORTHWEST

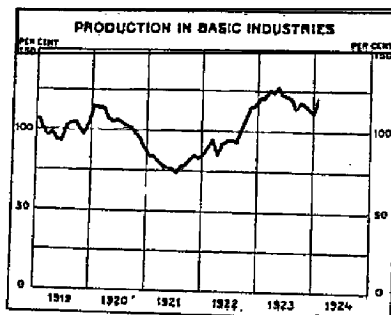


These curves have been constructed from data collected by this office and adjusted to eliminate seasonal influences. Adjustment for secular trends has not been made as the data covers but five years.

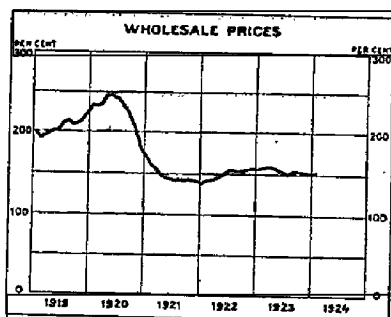
**BUSINESS:** The best single available index of general business is individual debits. These represent the aggregate dollar value of all payments made by bank checks, and therefore reflect both the volume of business and the prevailing prices. Nine representative cities for which we have consecutive figures are combined in this curve.

**MONEY:** The commercial money rates here shown are based on a weighted average of five varieties of paper in Minneapolis. Although national, more largely than local, business conditions determine this rate, it is an important consideration in determining local business policies.

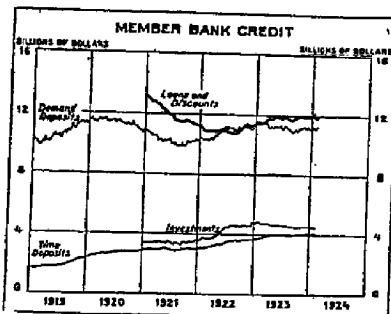
**AVERAGE BUILDING PERMIT:** The number and value of building permits granted are customarily accepted as indicative of prospective business activity. This graph, however, shows the average size of building permits for eighteen selected cities, thereby giving greater weight to the larger projects which are either started or deferred because of business considerations, and which have a determining influence upon the degree of activity in the building trades and in the supply of materials. To a certain extent this curve furnishes an index of business sentiment which is made up very largely of confidence in the stability of prices. The variation of building material prices, as compared with 1913 levels, has been eliminated in constructing this graph.



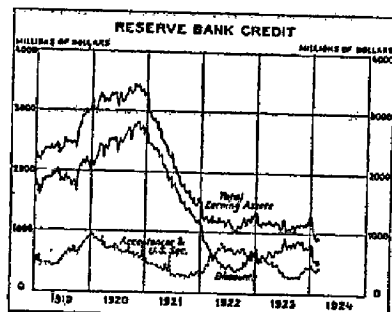
Index of 22 basic commodities corrected for seasonal variation (1919=100). Latest figure—January, 1924.



Index of U. S. Bureau of Labor Statistics. (1913 = 100, base adopted by Bureau.) Latest figure—January, 1924.



Weekly figures for member banks in 101 leading cities. Latest figure, February 18, 1924.



Weekly figures for 12 Federal reserve banks. Latest figure, February 20, 1924.

## Summary of National Business Conditions (Compiled Feb. 25 by Federal Reserve Board)

Production of basic commodities increased sharply in January, the volume of distribution continued larger than a year ago, and the wholesale price level remained unchanged. In February there was an increase in the demand for credit for commercial purposes.

**PRODUCTION:** The Federal Reserve Board's index of production in basic industries increased eight per cent in January and was at approximately the same level as a year ago. This increase followed a downward movement which had been under way since May, 1923. The increases over December, which occurred in most of the industries, were particularly large in the production of steel ingot, lumber, and bituminous coal, and in mill consumption of cotton. A small but general reduction of working forces at industrial establishments resulted in a slight decline in the index of factory employment. The largest decreases occurred at plants manufacturing food products and tobacco. Contract awards for new buildings in January were slightly higher in value than in December and were 26 per cent above a year ago.

**TRADE:** Railroad shipments, particularly of miscellaneous merchandise, increased during January and total car loadings were somewhat above the high level of January, 1923. The index of wholesale trade increased 11 per cent during January and was slightly higher than a year ago. Sales of groceries, meat, and drugs were larger than in January, 1923, while sales of dry goods and shoes were smaller. Retail trade in January showed the usual seasonal decline. Compared with a year ago, department store sales were seven per cent larger and stocks of merchandise at these stores after declining in January, were six per cent above last year's level. Sales of mail order houses in January exceeded those of a year ago by 11 per cent.

**PRICES:** The wholesale price index of the Bureau of Labor Statistics remained unchanged during January and was at a level three per cent lower than a year ago. Prices of fuels and building materials which had been declining since early in 1923 increased in January while prices of farm products, foods, and clothing declined. During the first two weeks of February, prices of hogs, sugar, hides, lumber, and metals advanced while prices of cotton, wheat and silk declined.

**BANK CREDIT:** The volume of borrowing for commercial purposes at member banks in leading cities, after an almost continuous decline for more than three months, increased considerably during the latter part of January and the first two weeks in February. This increase was accompanied by a decline in loans secured by stocks and bonds. Total loans and investments of the reporting banks are now slightly larger than a year ago, commercial loans and loans in stocks and bonds are larger, but investments are smaller. At the Federal Reserve Banks, the total volume of earning assets fluctuated within narrow limits during February. The large return flow of currency and the repayment of discounts, which characterized the early weeks of the year, did not continue after January. Since the first week in February the value of discounts from member banks has been about \$500,000,000 and holdings of securities purchased in the open market about \$400,000,000.

The easier money conditions of January were followed in February by slightly firmer rates on acceptances and on short term government securities. Commercial paper rates in the New York market remained unchanged at  $4\frac{3}{4}$  per cent.

## DISTRICT SUMMARY FOR THE MONTH

Additional evidence comes to hand almost daily that substantial readjustment is now under way in the wheat raising areas of this district. That the prices of agricultural products have practically reached pre-war levels is a generally recognized fact. However, a comparison with the price readjustment which followed the Civil War furnishes a very interesting commentary on the present trend of prices both for agricultural produce and for the things which farmers must purchase. These price changes are bringing about a revolution in the methods and plans of farmers in this section. Figures recently made available show that there has been an increase of more than 12 per cent in milk cows, 38 per cent in swine, and more than 10 per cent in sheep held in this district as compared with three years ago, and this is a much greater increase than has taken place for the United States as a whole. There has also been a reawakening of interest in promoting diversification, crop rotation, better tillage, the study of markets, dairying, and animal breeding. The situation generally has not been so bad throughout this section during the past three years, as to prevent an increased density of automobile ownership as compared with population. However, this increase has not kept pace with other sections of the United States so that the three states in this district which held first, sixth, and eighth position in 1920 dropped back to seventh, sixteenth, and fourteenth places respectively in 1923. These increases in livestock holdings and relatively small increases in automobile holdings indicate very clearly that the great change in prices has begun to force a readjustment in farming methods and farming budgets.

The volume of business in urban centers in this district during January was very unsatisfactory. This may be accounted for partly by the great contrast between the favorable weather conditions in December and the unfavorable weather conditions in January. However, it is significant that the total was 13 per cent below a year ago and lower than any January month in the last five years, except in 1922. And the immediate outlook for urban business activity is not very favorable because prospective building activity, as reflected in permits, is below a year ago both in number and valuation, although the average building permit reached a very high point in January. The fact that money rates are lower than for several months past, after making adjustment for seasonal tendencies, is a possible offsetting factor.

The marketing of agricultural products in January was altogether normal in the case of grains, and terminal stocks of the same did not change materially except for a very large increase in corn and large decreases in wheat and rye as compared with a year ago. There was a record run of hogs reaching nearly one-half million head during the month which was fully one-fourth above a year ago and more than sufficient to offset the marketing of cattle

at less than normal volume. There were increases in the prices of all farm products except butter and eggs. The increase is particularly noteworthy in the case of hogs because of the extraordinary rate of marketing which prevailed during the month. While this heavy marketing movement at improved prices has placed the farmer in control of greater cash funds, it has not had an appreciable influence upon business conditions in the cities.

Banking conditions have reflected the reduced activity in urban business as banks in the larger cities have experienced a reduction in their loans and have, therefore, been able to reduce their borrowings from this Federal Reserve Bank. This liquidation of credits in the cities prevailed both in the month of January and in the first half of February. Inasmuch as some of these released funds have been flowing out to banks located in the rural sections, interest rates have remained practically unchanged during the last thirty days. There was some tendency apparent to convert member bank deposit balances temporarily into vault holdings of Federal Reserve notes.

## TOPICAL REVIEWS

The number of motor vehicles relative to population in the northwestern grain-raising states has not increased as rapidly during the last three years as in the industrial states to the east and in California, Florida and the District of Columbia. The following table, showing a selected list of states, gives their rank in the last four years relative to the other states of the union in number of motor vehicles per thousand population. In the first group are five northwestern states which have failed to show as large increases in motor vehicle registrations as have been shown in other parts of the country. Immediately below is a group of the two most favored states and the District of Columbia, and in the third group are eight other northern states in which the gains in rank have been marked. Of the latter eight states, four are in the north central industrial district, three are on the Atlantic seacoast and one on the Pacific. The majority of the other northern states showed relatively small changes in rank, but there were a few noticeable recessions, especially in Utah and Connecticut. The southern states, with the exception of Arizona, have held the eleven lowest ranks in this compilation for all four years. Arizona declined from the twentieth rank in 1920 to the thirty-first rank in 1923. Alabama held the lowest place in all four years.

### SELECTIONS FROM TABLE SHOWING RANK OF STATES IN NUMBER OF MOTOR VEHICLES PER THOUSAND POPULATION, 1920-1923

(Figures from Annual Reports of National Automobile Chamber of Commerce)

Northwestern States showing relative recessions	Rank 1920	Rank 1921	Rank 1922	Rank 1923
South Dakota .....	1	3	4	7
North Dakota .....	6	8	14	16
Minnesota .....	8	13	9	14
Idaho .....	13	17	17	27
Montana .....	17	20	26	33

States Showing Greatest Gains  
in rank

California .....	5	1	1	1
District of Columbia .....	31	33	20	2
Florida .....	32	25	23	18

Northern States Showing Smaller  
Gains in Rank

Oregon .....	10	7	7	6
Indiana .....	14	12	8	10
Michigan .....	15	14	10	12
Ohio .....	18	16	15	15
Vermont .....	23	21	18	19
Illinois .....	24	23	21	22
Rhode Island .....	27	34	31	21
Maryland .....	35	31	25	28

**Changes in livestock holdings in four entire states of the Ninth Federal Reserve District** during the last three years give further evidence of readjustment in farm operations. The number of milk cows has increased 12.5 per cent, the number of swine has increased 38.7 per cent, and the number of sheep has increased 10.6 per cent. On the other hand, there has been a decline of 4.9 per cent in cattle other than milk cows and a decrease of five per cent in the number of horses on the farms. The number of milk cows, swine and sheep on the farms in these northwestern states has increased more rapidly than the number in the United States as a whole, which is not surprising when it is remembered that dairying and livestock feeding has been an established industry for years in the greater part of the United States, but is still in its infancy in this district and such increases as occur in this territory appear large as percentage figures. The number of cattle other than milk cows held on farms in the United States remained stationary during the last three years, which is in contrast with the decline in number in the Northwest.

Changes vary greatly among the four states. The increase in the number of milk cows, swine and sheep is greater in the western portion of the district than in the eastern portion. Montana also shows an increase in cattle other than milk cows, while the other states show declines. Montana and South Dakota show increases in sheep and Minnesota and North Dakota show declines. All four states show approximately the same decline in the number of horses on the farms. This latter development is one which will bear watching. Undoubtedly horses have been supplanted by automobiles and tractors to some extent and a five per cent decline in the number of horses on the farms is not alarming, but if the movement should continue, with prices of horses so low that the incentive to raise horses would disappear, a serious shortage of horses might develop. In the present scheme of farm operation the horse is still essential.

## LIVESTOCK HOLDINGS, JAN. 1, 1921, to JAN. 1, 1924

(No. of Head, 000's omitted. Figures reported by U. S. Dept. of Agriculture)

Jan. 1	United States	4 States	Minn.	N. Dak.	S. Dak.	Mont.
<b>Milk Cows:</b>						
1921 ...	23,594	2,539	1,532	461	390	156
1922 ...	24,083	2,639	1,578	484	417	160
1923 ...	24,437	2,767	1,641	503	450	173
1924 ...	24,675	2,856	1,674	533	455	194
<b>Other Cattle:</b>						
1921 ...	41,993	5,105	1,429	848	1,748	1,080
1922 ...	41,977	5,052	1,343	848	1,601	1,260
1923 ...	42,803	4,897	1,289	814	1,521	1,273
1924 ...	42,126	4,855	1,276	806	1,551	1,222
<b>Sheep:</b>						
1921 ...	37,452	3,388	468	272	675	1,973
1922 ...	36,327	3,654	445	250	689	2,270
1923 ...	37,223	3,599	400	240	689	2,270
1924 ...	38,361	3,748	428	254	686	2,370
<b>Swine:</b>						
1921 ...	56,097	5,587	3,237*	431	1,759	160
1922 ...	58,127	6,148	3,333	435	2,200	180
1923 ...	68,227	7,561	3,800	566	2,970	225
1924 ...	65,301	7,750	3,800	651	3,029	270
<b>Horses:</b>						
1921 ...	19,208	3,197	914	830	784	669
1922 ...	19,056	3,172	905	813	784	670
1923 ...	18,627	3,087	887	797	760	643
1924 ...	18,263	3,038	869	781	745	643

\*Estimated in this office for comparison with figures for following years which have been revised. Former estimates for 1921, 1922, and 1923 were 2,262, 2,330, and 2,610.

LIVESTOCK HOLDINGS, JAN. 1, 1922, TO JAN. 1, 1924,  
EXPRESSED AS PERCENTAGE OF HOLDINGS  
ON JAN. 1, 1921

Jan. 1	United States	4 States	Minn.	N. Dak.	S. Dak.	Mont.
<b>Milk Cows:</b>						
1922 .....	102.1	103.9	103.0	105.0	106.9	102.6
1923 .....	103.6	109.0	107.1	109.1	115.4	110.9
1924 .....	104.6	112.5	109.3	115.6	116.7	124.4
<b>Other Cattle:</b>						
1922 .....	100.0	99.0	94.0	100.0	91.6	116.7
1923 .....	101.9	95.9	90.2	96.0	87.0	117.9
1924 .....	100.3	95.1	89.3	95.0	88.7	113.0
<b>Sheep:</b>						
1922 .....	97.0	107.9	95.1	91.9	102.1	115.1
1923 .....	99.4	106.2	85.5	88.2	102.1	115.1
1924 .....	102.4	110.6	91.5	93.4	103.1	120.1
<b>Swine:</b>						
1922 .....	103.6	110.0	103.0	100.9	125.1	112.5
1923 .....	121.6	135.3	117.4	131.3	168.8	140.6
1924 .....	116.4	138.7	117.4	151.0	172.2	169.8
<b>Horses:</b>						
1922 .....	99.2	99.2	99.0	98.0	100.0	100.2
1923 .....	97.0	96.6	97.1	96.0	96.9	96.1
1924 .....	95.1	95.0	95.1	94.0	95.0	96.1

**Prices of the chief products of the farm** showed moderate increases between December and January, with the exception of butter and eggs, which showed small seasonal declines. In the livestock group, the median price of hogs increased 25 cents per hundredweight in spite of the record run. Butcher steers and feeder steers were both up 50 cents and the price of butcher cows remained unchanged. Veal calves increased \$1.50 per hundredweight and lambs increased 50 cents. Grain prices for the grades

selected were all higher in January than in December. The median price of oats increased three cents per bushel, to the highest point reached since January, 1921. The price of barley also increased three cents per bushel, and is now as high as it has been since March, 1921. The other increases were, wheat 4c; corn, 6c; rye, 1c; and flax, 3c per bushel. Potatoes in the Minneapolis market increased 25c per hundredweight, and four pound hens increased one cent per pound.

**The volume of business** transacted in northwestern cities during January, as evidenced by individual debits at banks, declined 14 per cent between December and January, which is a much greater decrease than normally occurs, according to the evidence of the last five years. Debits were also 13 per cent lower than in January a year ago, and in fact, were lower than any of the last five January figures, with the exception of 1922.

**Building permits** issued in northwestern cities showed a seasonal decline of about two-thirds between December and January, and both number and valuation of these permits were considerably smaller than a year ago, the greater decline occurring in the number of permits issued. Permits issued in the city of Winona were more than one-fifth of the total valuation of permits issued during the month.

**Retail trade** was abnormally dull during January. Department store sales declined 46% from the December volume as compared with a 40% normal decline, and the sales of lumber retailers were down 15% in contrast with a normal decline of less than 5%. The stocks of merchandise held by department stores were reduced only 3% during January, as compared with a normal decline of nearly 20%. Lumber retailers ordinarily increase their stocks nearly one-fifth during January in preparation for the early spring trade, but this year their stocks increased less than 6%. Sales of department stores and lumber retailers were smaller in January than a year ago. Department store stocks were slightly higher this year than last at the end of January and lumber stocks in retailers' hands were smaller.

**Wholesale trade** in this district showed unseasonably large declines between December and January in all lines, except groceries, where there was an increase which was larger than usually occurs at this time of year. Sales of farm implements were one-third lower in January than in December, shoe sales were down one-fourth, hardware down one-eighth and dry goods down one-twelfth. As compared with last year, January sales of groceries were slightly larger and hardware and dry goods were slightly less. There were pronounced reductions in sales of farm implements and shoes.

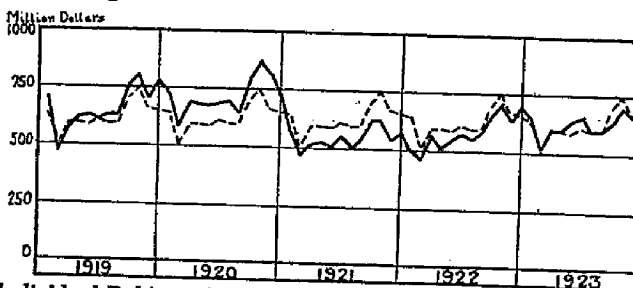
#### SEASONAL MOVEMENTS IN NORTHWESTERN BUSINESS

On the first page of this report are presented three basic curves typifying the course of business in cities in the Ninth Federal Reserve District from January,

1919, to January, 1924. These curves have been adjusted by the elimination of purely seasonal movements, so that the changes in the curves reflect only those variations which are largely due to the business cycle, although undoubtedly influenced to some extent by weather conditions and other transient developments which it is impossible to forecast.

In order that our readers may understand why it is possible for the curves mentioned to decline at times when the actual figures upon which the curves are based show increases, or for these curves to increase when the unadjusted figures show declines, there is given below a description of the seasonal movement of these curves for which allowances have been made.

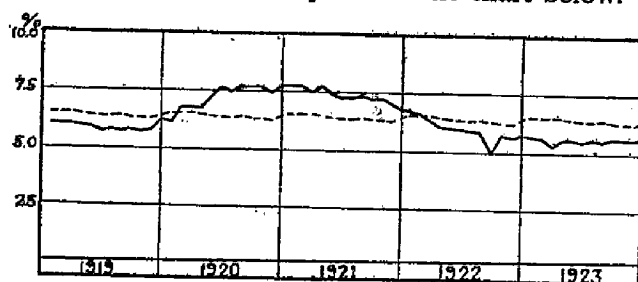
**Business:** The business curve is based on individual debits at all banks in nine of the larger cities. Using a method which was described in our report of March, 1923, and basing our present calculations on the five year period from 1919 to 1923, the seasonal swing has been determined to lie between the low point in February and the high point in October of the normal year. The volume of business increases gradually from February to June, then becomes slightly less in July and August and reaches its peak for the year in October, after which a steady decline follows until February. The unadjusted curve of individual debits and the seasonal curve for the average of these five years are both shown in the following chart.



Individual Debits at Banks in Nine Cities in the Ninth Federal Reserve District. Actual Figures and Normal Seasonal Curve.

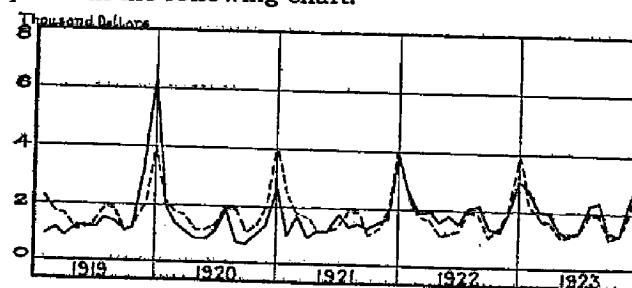
**Money:** This curve shows the course of interest rates at Minneapolis. Instead of the thirteen types of paper which have been used in constructing this curve heretofore, by means of an unweighted average of the various rates, there has been substituted for the whole period a weighted average of the rates on five classes of paper, which constitute approximately 90 per cent of the loans in the larger Minneapolis banks. These rates and their weights are as follows: Rate charged for customers on prime commercial paper such as is now eligible for rediscount under the Federal Reserve Act and running thirty to ninety days—20; same paper running four to six months—20. Rate charged on loans to other banks secured by bills payable—14. Rate on demand loans secured by prime stock exchange or other current collateral—16. Rate on time loans secured by similar collateral—30. The curve of interest rates

is normally lowest in November and highest in January, February and March. This swing of interest rates appears strange to those who are accustomed to thinking of the movement of interest rates as it was before the Federal Reserve Act was passed. The peak of demand for money and also the peak of interest rates in the Northwest formerly coincided in the early fall months and the lowest interest rate occurred in the early spring months when the demand for funds was slack. Probably the change in the seasonal movement of interest rates may be attributed directly to the influence of the Federal Reserve System, which has effected an adequate supply of funds during the heavy borrowing season in the autumn, making it unnecessary to increase interest rates at that time. The higher rates in the winter months are probably due to the desire of banks to furnish a stimulus to their customers to repay their borrowings when the peak of the need for loans is past. The unadjusted movement of interest rates and the seasonal movement for the average rates of these five years are compared in the chart below.



Interest Rates at Minneapolis Banks. Actual Figures and Normal Seasonal Curve.

**Average Building Permit:** This curve is based on the number and valuation of building permits issued in eighteen cities in the Ninth Federal Reserve District and has been approximately corrected to eliminate the effect of price changes by dividing the valuation figures by the monthly indexes of building material prices published by the United States Bureau of Labor Statistics. The seasonal movement of the average building permit has been determined by dividing the number of permits into the valuation of permits for each month in the normal year, as we have computed it, basing our calculations on the last five years. The average building permit is lowest in April, May, and September and highest in December. These seasonal changes in the size of the average permit are due primarily to the presence or absence at different seasons of activity in the building of houses and other small structures. The unadjusted movement of the average permit and the seasonal movement for the five year average are compared in the following chart.



Average Building Permit for Eighteen Cities in the Ninth Federal Reserve District, Corrected for Price Changes. Actual Figures and Normal Seasonal Curve.

## Prices during and after the Civil War and the World War

(Continued from Page Sixteen)

tionships of this later period. To these younger farmers, price relationships appeared as shown in Chart II. It contains the same curves as shown in Chart I except that the average prices during the period from 1871 to 1880 are used as a base in locating the curves. While there were some fluctuations above and below the general price level, farm produce prices are seen to have become stabilized in a new relation with the general price level, somewhat lower than that which existed before the Civil War.

Chart III shows the course of prices during and after the World War, based on the assumption that the year 1913 was a typical pre-war year, so that price relationships of that year might be considered normal. These curves are based on figures with which everyone is familiar who discusses the condition of the farmer at this time. As the chart shows, prices of farm products for the last three years have been much below the general price level, and the farmer has experienced a greatly reduced purchasing power. There is no question as to the severity

of the suffering which has occurred, and in fact, the curves in Chart III do not tell the whole story for during the abnormally prosperous times, from 1913 to 1920, the farmer's standard of living became very much higher. He installed electric lights and a telephone in his house; he installed heating equipment which required coal for fuel instead of wood, which he formerly cut for himself. The number of automobiles owned by farmers increased very greatly, necessitating a much greater cash outlay for gasoline and repairs. (In 1920, South Dakota, Iowa, Nebraska and Kansas outranked all other states in the Union as to density of motor vehicles relative to population; followed closely by North Dakota, and Minnesota, holding respectively sixth and eighth places.) Improved schools were built, and new roads were constructed. Taxes increased tremendously. Much new land was purchased at inflated prices and subject to heavy mortgages. All of these changes necessitated a larger cash income for the farmer on account of his larger cash expense. His problem became more largely one of pecuniary gain and less one of "making a living." Consequently, the

great reduction in the price of farm products, relative to the prices of other commodities, which occurred in 1920 and 1921, made necessary a drastic change in farm values, capitalization, and financial expectations.

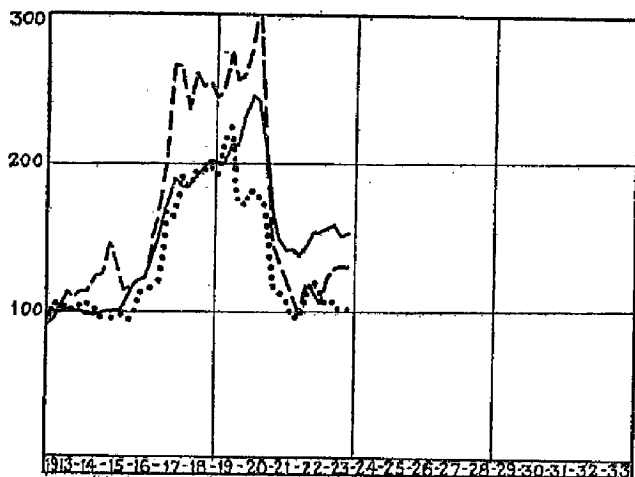


Chart III. Wholesale Prices 1913-1923 (Base, Average Prices in 1913=100)

All Commodities ——— Grains — — — Livestock . . . .

But times are changing, not through any great increase in farm produce prices, nor a decrease in the general price level, but through improved farming methods. There is under way a second agricultural revolution. After the World War, there was no free land for farmers in distress to move to, and in fact, there was a movement away from some of the marginal lands which could only produce crops at a profit during especially favorable years. The movement rather has been for a larger cash return from the farms which are already in operation. Adversity is the mother of invention. The distress among the farmers has created more interest in improved farming methods now than during any previous time during the memory of most living men. Not only the farmers, but bankers, grain merchants, business men in general, newspaper writers and men in public offices have shown the keenest interest in the situation. In the main, the solution which is being followed is for better balanced farm operations, including curtailment of output of unprofitable products, changes in marketing methods, and the increase in dairying and other activities which bring in steady cash receipts throughout the year, and the other forms of diversification. Other movements for better tillage, seed selection and breeding have received an impetus.

These changes are gradual, and the end is not in sight. It is too early to draw a chart for the present time which would be comparable to Chart II, showing the readjustment of prices after the Civil War.

In this readjustment, the banker's position is most important. Farmers hear so much advice that they should not be blamed for giving little heed to most

of it. Advice is conflicting and the farmer is not always in a position to decide which is a nostrum without merit and which is a sound doctrine to follow; but if the prescription comes from his local banker on whom he depends for funds, and with the assurance that the finances for making a start in the right direction will be forthcoming, he will probably follow out the suggestions. The changes cannot be made all in one year, and the responsibility of the local banker is heavy—to know his community and its needs and its limitations.

Chart II furnishes the material for two interesting observations. After the first crash in 1865, there was a gradual decline in general commodity prices for the remainder of the period, but until as late as 1878, prices had not returned to the level of 1860.

There was also apparent a cyclical movement of prices. The general price level had three low points, one in 1865, one in 1871, and one in 1878, or at about a seven year interval. Grain prices were relatively low in 1866, 1870, 1873, 1876 and 1878, or at intervals of about three years. Livestock prices were low in 1867, 1873, and 1878, or at intervals of five or six years. In other words, the cycles of prices of livestock and grains were different from the cycles in the level of general prices and from each other. Periods of over-supply of grains apparently occurred at three year intervals and periods of over-supply of livestock occurred at five to six year intervals.

The price index numbers used in preparing the curves for the period from 1860 to 1880 were taken from "Gold Prices and Wages Under the Greenback Standard" by Wesley C. Mitchell. No alterations were made in his method of weighting the individual prices in the different series. For the period from 1913 to 1923, two sources were used in obtaining price figures. The index number of the United States Bureau of Labor Statistics was used for general wholesale prices, and the United States Department of Agriculture prices were used for agricultural commodities. For meat animals, the weighted average of livestock prices on the farms, including cattle, hogs, sheep, and chickens, was the material used. The composite figures were reduced to index numbers, using the yearly average for 1913 as a base. For grain prices, the United States farm prices of wheat, corn, oats, barley, and rye compiled monthly by the United States Department of Agriculture, were used. These prices were reduced to percentages of their average prices in 1913 and the resulting percentages were weighted from the relative farm value of these crops in the different years as estimated at December 1 prices by the United States Department of Agriculture. Since corn, oats, and barley are largely fed on the farms, they were given weights only one-half as great as the farm value for these grains estimated by the United States Department of Agriculture. For purposes of applying the varying weights, crop years beginning with October 1 were used instead of calendar years.

## Prices during and after the Civil War and the World War

A remarkable similarity is apparent between price trends during and after the Civil War and during and after the recent World War for all commodities combined and also for the prices of agricultural products.

Conditions were much different in the two periods. One war was local in scope, and the other involved practically every important country in the world. In the earlier war the United States could barely supply its own food requirements, and in the other it was one of the most important exporters of food products. In the former period, the transportation system was slow and defective, so that supplies of commodities could not be shifted readily from places where a surplus existed to places where there was a shortage. In the latter period, even very small surpluses could be readily shifted to points of need. The list of dissimilarities could be extended indefinitely, but those stated are sufficient to bear out the statement that the similarity in the movement of prices in the two periods was remarkable. In each case, prices rose rapidly during the war and declined after the war.

A comparison of the price relationships existing between agricultural commodities and the general price level in the United States during the Civil War and afterwards is especially interesting at the present time, since the farmer enjoyed the same increases in prices then as now and suffered the same reverses. Chart I, beginning with the price relationships as they existed during 1860, as a base, shows the course of prices for 21 years, from 1860 to 1880. Such evidence as is available indicates that agricultural and other prices were approximately in a normal relationship in 1860. In the sharp upswing during the next four years, all prices rose, although agricultural prices lagged behind the general price

level, and the price of livestock fell behind the price of grains in the advance. After the war closed, all prices declined, but the price of grains suffered by far the greatest reduction. There was a subsequent rally in both grains and livestock, but during the greater part of the period from 1865 to 1880, agricultural produce prices ranged lower than the general price level.

This chart shows price relationships as they appeared to the farmer who was in business in 1860 and who remembered the differences between the prices at which he sold his commodities and the prices at which he bought at that time. To that generation of farmers, farm produce prices must have appeared abnormally low for a long period of years.

However, price relationships change constantly, due, not only to differences in demand, but also to varying costs of production. After the Civil War, there was a veritable revolution in agriculture brought on by the low prices of farm products. Farmers who could not make a profit on the farms which they were operating before the Civil War, moved westward and settled on free land, thus reducing their land rent. Farming methods were studied and many improvements were effected. This occurred especially in the use of machinery. It was in this period that the reaper was invented. Transportation systems improved. With the coming of the railroads, farmers could move farther from the rivers and this made available large areas of cheaper but fertile land.

Gradually prices became adjusted to the new conditions, and the period from 1871 to 1880 was generally prosperous. A new generation of farmers took possession of the soil, accepting the price rela-

(Continued on Page Fourteen)

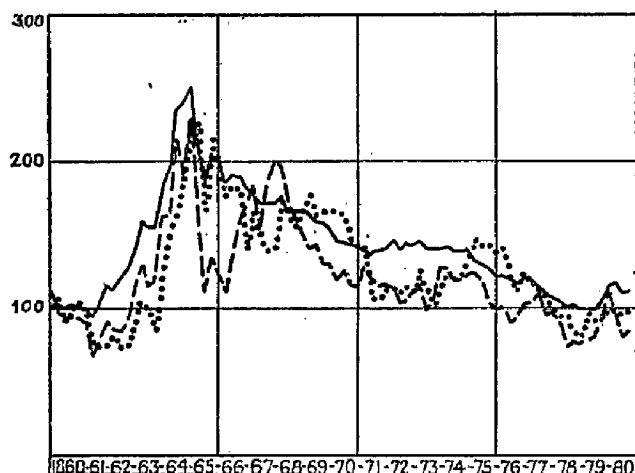


Chart I. Wholesale Prices, 1860-1880 (Base, Average Prices in 1860=100)

All Commodities ——— Grains — — — — Livestock . . . .

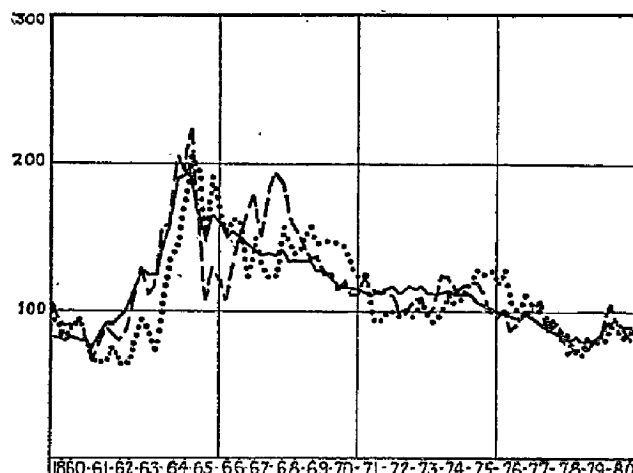


Chart II. Wholesale Prices 1860-1880 (Base, Average Prices 1871 to 1880=100)

All Commodities ——— Grains — — — — Livestock . . . .