

MONTHLY REVIEW

OF

BUSINESS CONDITIONS

ISAAC B. NEWTON, Chairman of the Board and Federal Reserve Agent
Federal Reserve Bank of San Francisco

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TWELFTH FEDERAL RESERVE DISTRICT CONDITIONS

Twelfth District business was slightly less active in January than in December. Industrial operations expanded by about the seasonal amount, but seasonally adjusted indexes of trade declined. Credit extended in the Twelfth District by the Federal Reserve Bank of San Francisco rose to the highest levels in more than ten years. Prices for commodities important in the District declined further during January.

Rain and snowfall continued above normal levels in January. Although the outlook for the growth of most crops is satisfactory, cold weather has slightly impaired the quality of oranges. The condition of livestock is relatively poor, due to the heavy snowfall on many winter ranges and shortages of supplemental feed. The marketing of crops was seasonally smaller in volume than in December.

Production of lumber declined less than seasonally during January and was exceeded considerably by shipments and orders, contributing to further reduction of inventories. Output of crude oil as well as the amount run to refinery stills averaged slightly higher than in December, and gasoline stocks continued to increase. Activity at flour mills remained unchanged, after seasonal adjustment. The value of engineering contracts awarded decreased sharply, and the value of building permits increased less than is usual from December to January. Substantial decreases were recorded in wage and employment schedules.

The January declines in both retail and wholesale trade were greater than usual for that month. Neither freight carloadings nor automobile registrations showed the customary seasonal increases. A non-seasonal rise in westbound traffic through the Panama Canal was more than offset by an extremely low volume of eastbound shipments, principally because of reduced cargoes of lumber and petroleum.

Twelfth District demand for Federal reserve credit expanded more rapidly from January 20 to February 17 than in the preceding four

weeks. The increase was almost entirely in the form of discounts for member banks, which rose sharply to the largest amount since August, 1921. Continued declines in deposits of reporting member banks were the result of further liquidation of loans and payments to other districts for the accounts of individuals as well as non-seasonal increases in currency circulation. Small purchases of locally produced gold by the San Francisco Mint and expenditures of the United States Treasury in excess of collections in the Twelfth District, tended to increase deposits during the month and thus retarded somewhat the rate of deposit decline.

Additional shipments of gold from Japan were received at San Francisco. As is usually the case, however, the funds were transferred to eastern money markets and did not affect the District credit situation. Average money rates have been steady to firm since early January.

Agriculture

Further declines during January in prices of many agricultural products sold in the Twelfth District have continued to influence adversely the economic aspects of the agricultural situation, in contrast with the improved physical conditions resulting from favorable weather during the month. Heavy rains in the lower altitudes and abnormal snowpacks in the mountain watersheds have assured sufficient irrigation water for the 1932 agricultural season. Livestock on snow-covered ranges are in poor condition, and inadequate forage has necessitated the use of large quantities of supplemental feeds, the purchase of which has been an added burden to stockmen in the District. Condition of fall-sown wheat in the Pacific Northwest is reported by trade factors to be satisfactory, snow having amply covered most winter wheat areas thus far during the winter. As in every other month of the current marketing season, the volume of agricultural products marketed during January was smaller than in the corresponding month of the preceding year.

Cold weather in the orange producing sections of California during recent months did not reduce the size of the crop materially, but it did impair the quality of the fruit. At least partly in consequence of the poorer quality of the fruit, orange prices, f.o.b. California, averaged only \$1.63 per box during January as compared with averages of \$2.00 per box in December and \$2.04 per box in January, 1931. Shipments of oranges during January and for the season to January 31 were smaller in volume than during the same periods a year ago.

Prices for butter declined by the usual moderate seasonal amount during January and in early February were about 10 per cent lower than a year ago. Butter production during 1931, as measured by receipts at eight leading District markets, was 6 per cent greater than in 1930. Receipts during January, however, were about the same as in December, 1931, and storage holdings were 1,032,308 pounds less on February 1 than at the beginning of that month in 1931. This decrease in storage holdings, coupled with increased receipts for the year as a whole, indicates that consumption of butter has been greater in the past year than in other recent years, probably because of lower prices. Although receipts and storage holdings of eggs were less in January, 1932, than in January, 1931, egg prices decreased by more than the usual sharp decline at that time of year.

Little aggregate change in the number of livestock on District farms was indicated during 1931 by figures recently released by the United States Department of Agriculture. The number of dairy cattle and swine increased 2 per cent and 25 per cent, respectively, while the numbers of other cattle (chiefly beef) showed no change and sheep declined 3 per cent. The aggregate value of livestock declined 35 per cent during the year as compared with a decline of 24 per cent during 1930.

Agricultural Marketing Activity—

	January		Season to Date	
	1932	1931	1931-1932	1930-1931
Carlot Shipments				
Apples	3,806	4,370	32,865	51,606
Oranges	3,969	4,913	12,840	13,674
Lemons	884	1,065	2,229	2,394
Vegetables (Cal.)	6,407	7,751	21,735	24,444
Eggs (Cal., Ore., Wash.)	323	359	.....	.....
Exports				
Wheat (bu.)	1,528,166	710,734	16,390,100	15,380,767
Barley (bu.)	98,148	557,153	2,819,929	6,170,348
Receipts				
Cattle*	85,600	74,905	.....	.....
Sheep*	287,700	267,276	.....	.....
Hogs*	288,730	239,553	.....	.....
Eggs (cases)† ..	148,231	160,790	.....	.....
Butter (lbs.)† ..	6,409,205	5,211,845	.....	.....
Storage Holdings (end of month)				
Apples (cars— Cal. and Wash.)	13,947	14,508	.....	.....
Wheat (bu.)	2,880,000	6,921,000	.....	.....
Beans (bags)	2,074,353	1,853,009	.....	.....
Butter (lbs.)	873,959	1,906,267	.....	.....
Eggs (cases)	2,132	12,006	.....	.....

*Eight markets. †Three markets.

LIVESTOCK ON FARMS AND RANGES—Twelfth District (In thousands)

January 1	Dairy Cows*	Other Cattle	Sheep	Hogs
1932	1,923	3,686	14,244	1,667
1931	1,892	3,703	14,598	1,334
1930	1,850	3,590	14,109	1,314
1929	1,804	3,609	14,335	1,539
1928	1,753	3,791	13,673	1,677
1927	1,719	3,675	13,217	1,465
1926	1,699	3,847	12,545	1,235

*Cows and heifers one year old or over kept for milk.

Livestock on winter ranges in Nevada, Utah, eastern Oregon and Washington, and parts of California and Idaho are suffering from scant range feed. This shortage, combined with a deficient local supply of hay and the inability of stockmen to finance the purchase of "concentrates," has resulted in a general decline in the condition of livestock and considerable losses in scattered areas. Even in Arizona, where feed conditions have been more satisfactory than in other parts of the District during the past year, livestock suffered from these unfavorable influences during January.

CONDITION OF LIVESTOCK AND RANGES (Per cent of normal)

	Ranges			Cattle			Sheep		
	Feb. 1932	Jan. 1932	Feb. 1931	Feb. 1932	Jan. 1932	Feb. 1931	Feb. 1932	Jan. 1932	Feb. 1931
Arizona	90	94	90	86	90	90	80	87	90
California	72	71	69	75	73	84	78	78	87
Idaho	73	72	93	81	81	95	82	83	95
Nevada	71	73	89	81	82	94	75	82	96
Oregon	77	74	87	80	80	90	80	83	93
Utah	60	67	85	73	76	91	70	72	90
Washington ..	77	79	86	83	83	90	83	84	92

Source: United States Department of Agriculture.

Industry

Approximately the seasonal increase was recorded in Twelfth District industrial activity during January. Output of petroleum changed little and lumber production increased after seasonal adjustment but the value of building permits issued rose somewhat less than is customary. Copper mines in the District apparently reduced operations further during January, in accordance with the curtailment agreement which was scheduled to become effective January 1. Production of flour mills was approximately the same in January as in December.

According to the monthly report of the Department of Industrial Relations in California, the number of workers employed in that state during January, 1932, was 18 per cent smaller than in January, 1931, and 3 per cent smaller than in December, 1931. The largest employment declines over the year period were in the metals, lumber, petroleum, and motion picture industries; while smaller declines were reported for the leather, publishing, paper, textile, and food groups. Average weekly earnings declined 14 per cent as compared with last year and were 3 per cent lower than in the preceding month. Reports from firms in Oregon indicate

similar reductions in employment and payrolls in that state during January. Non-statistical information concerning employment conditions in other states of the District generally gives evidence of continued reductions in the number of workers employed.

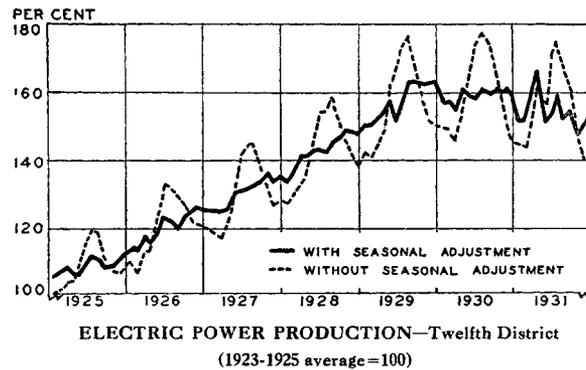
Production of lumber decreased by less than the seasonal amount and this Bank's adjusted index rose moderately. As in other recent months, shipments and orders were larger than production, however, and inventories carried by lumber companies were further reduced. At the end of January both orders and shipments were running about 50 per cent higher than output.

The value of building permits issued in the District during January was a little larger than the amount recorded for each of the two preceding months. As a result of unusually low figures for three consecutive months, this Bank's moving quarterly index of building permits issued in the District declined further in January to 20 per cent of its 1923-1925 average. The value of engineering contracts awarded declined substantially from December to January. Large decreases were recorded in contracts for streets and roads, public buildings, Federal government, and unclassified projects. Partly offsetting these declines was a considerable increase in the volume of awards for commercial and industrial buildings from the record low value of that type of construction in December.

Daily average production of crude oil in California increased slightly during the month. The amount of crude oil run to stills was also larger

than in December and stocks of gasoline increased.

Since the end of 1929 there has been little change in the production of electric energy in the Twelfth District. As shown in the chart below, there had been a rapid expansion in the use of electricity during the several preceding years. An undetermined, though considerable, proportion of the expansion of electric power production during these years may be attributed to the tendency to replace other types of power with electricity. Although the evidence is not conclusive, it appears probable that the increase in the ratio of the production of electric energy to other forms of power has continued during the last two years.



Output of flour mills changed little between December and January. As in the past several months, there was practically no demand for flour from the export market, except for that created by the Farm Board in connection with its sales to China. Domestic demand for flour was of moderate proportions during the month.

Employment—

Industries	California		Oregon	
	No. of Firms	No. of Employees	No. of Firms	No. of Employees
All Industries*	1,192	124,654	127	13,555
		(-18.1)		(-21.4)
Stone, Clay and Glass Products.	61	5,335	2	96
		(-20.1)		(-27.8)
Lumber and Wood Manufactures ..	138	13,176	46	6,440
		(-21.8)		(-28.3)
Textiles	16	1,727	9	1,100
		(-11.1)		(-14.5)
Clothing, Millinery and Laundering.	145	10,005	6‡	280
		(-13.4)		(-23.3)
Food, Beverages, and Tobacco...	287	25,842	36	1,304
		(-8.0)		(-18.0)
Public Utilities ..	36	46,388	..	..
		(-13.8)		..
Other Industries†.	489	62,455	..	..
		(-20.8)		..
Miscellaneous	56	6,114	28	4,335
		(-24.8)		(-11.3)
Wholesale and Retail	150	32,526	..	..
		(-6.1)		..

*Public utilities and wholesale and retail figures not included in this total. †Includes the following industries: metals, machinery and conveyances; leather and rubber goods; oils and paints; printing and paper goods. ‡Laundering only. Figures in parentheses indicate percentage change from January, 1931.

Industry—

Indexes of daily average production, adjusted for seasonal variations
(1923-1925 daily average=100)

	1932		1931	
	Jan.	Dec.	Nov.	Jan.
General:				
Carloadings—Industrial	44	44	48	75
Electric Power Production.....	..	148	146	151
Manufactures:				
Lumber	39	36	34	63
Refined Mineral Oils† .....	..	136	136	133
Flour	111	116	115	105
Slaughter of Livestock .....	..	87	92	70
Cement	37	56	56	75
Wool Consumption† .....	..	113	132	54
Minerals:				
Petroleum (California)†	77	76	76	81
Lead (United States)†	59	64	58	83
Silver (United States)‡	38	48	40	68
Building and Construction§				
Total	40	45	42	57
Value of Building Permits				
Twenty Larger Cities	19	21	24	44
Seventy Smaller Cities	23	26	28	47
Value of Engineering Contracts				
Awarded				
Total	73	76	69	96
Excluding Buildings	120	123	104	117

†Not adjusted for seasonal variations. ‡Prepared by Federal Reserve Board. §Indexes are for three months ending with the month indicated.

Trade

Distribution of commodities according to value figures of retail and wholesale trade, tonnage of intercoastal traffic, automobile registrations, and freight carloadings, was less active in January, 1932, than in either December, or January, 1931.

Sales of department stores were 22 per cent lower during January, 1932, than in January, 1931, and were 3 per cent less than in December, 1931, after allowing for the usual decline from December to January. Reports from stores in Oakland, San Francisco, other central California cities, and Spokane showed the smallest declines over the year period, while reports from Portland and Seattle stores showed the greatest declines. The number of sales transactions, as indicated by reports from 24 department stores, was 10 per cent smaller in January, 1932, than in January, 1931.

RETAIL TRADE—Twelfth District

	1932 compared with 1931*	
	NET SALES January	STOCKS January
Department Stores	-22.4 (67)	-15.1 (49)
Phoenix	-24.2 (3) (..)
Los Angeles	-24.3 (9)	-15.5 (8)
Other Southern California	-25.8 (8)	-10.1 (6)
Oakland	-15.0 (4)	-22.2 (4)
San Francisco	-14.2 (7)	-13.4 (7)
Other Northern California	-19.0 (7)	-11.0 (7)
Portland†	-34.2 (7)	-19.1 (7)
Seattle	-31.2 (5)	-12.1 (5)
Spokane	-19.8 (4)	-15.4 (4)
Salt Lake City	-26.1 (4)	-14.5 (3)
Apparel Stores	-23.6 (27)	-29.2 (16)
Furniture Stores	-26.4 (37)	-11.3 (28)
All Stores	-23.0 (131)	-15.6 (93)

*Percentage change. †Includes five apparel stores which are not included in District department store total. Figures in parentheses indicate number of stores reporting.

January sales of wholesalers were about 27 per cent less than during January, 1931, a larger year-to-year decrease than was evident during any month in 1931.

WHOLESALE TRADE—Twelfth District

Percentage change in value of sales

	Jan., 1932 compared with Dec., 1931		Jan., 1931
	Dec., 1931	Jan., 1931	
Agricultural Implements	8.0	-48.9	
Automobile Supplies	-12.7	-19.0	
Drugs	9.0	-21.1	
Dry Goods	0.0	-34.0	
Electrical Supplies	-40.3	-45.4	
Furniture	-16.2	-35.7	
Groceries	3.3	-20.9	
Hardware	-15.2	-32.8	
Shoes	-12.5	-25.8	
Paper and Stationery	-11.2	-24.1	
All Lines	-10.8	-27.0	

Intercoastal traffic through the Panama Canal declined considerably more than is usual between December and January. Westbound cargo increased, contrary to seasonal tendencies, but this advance was more than offset by a large decline in the more important eastbound shipments. Shipments of lumber amounting to 105,000 tons were but slightly larger than the record low volume in November, 1931, and may be compared with the 1931 monthly average of 153,000 tons. Shipments of petroleum

products aggregated only 90,000 tons during January and were smaller by a good margin than in any other month since such data have been available in recent years. During 1931 there was a steady decline in shipments of petroleum products from California to the Atlantic Coast, chiefly because of the abundant supplies of crude oil obtainable at low prices from mid-continent and foreign fields. Combined intercoastal and foreign shipments of petroleum products are currently accounting for a smaller proportion of California production than formerly.

During December, 1931, imports of commodities into this District, exclusive of silk, increased somewhat, contrary to the usual movement at that season of the year. Imports of silk, however, valued at \$1,653,000 in December, were the smallest on record since 1922. Total exports decreased substantially. The value of all commodities entering into the foreign trade of the Twelfth District was less than half as large in December, 1931, as in December, 1930.

Prices

The downward movement of commodity prices continued unabated during January and the first half of February. Representative weekly indexes, practically all of which were lower than at any time during the period of their compilation, declined about 2 per cent in this six-week period.

Since early December wheat prices, ranging from 53 $\frac{3}{8}$ to 59 $\frac{5}{8}$ cents per bushel (March contract at Chicago), have been more stable than during any period of similar length in two years. The quotation on February 20 was 58 $\frac{3}{8}$ cents per bushel, about 20 cents lower than quota-

Distribution and Trade—

	1932		1931	
	Jan.	Dec.	Nov.	Jan.
Carloadings†				
Total	63	63	64	84
Merchandise and Miscellaneous ...	81	82	81	92
Foreign Trade°				
Total† .....	..	55	58	91
Imports† .....	..	51	53	88
Exports .....	..	57	61	92
Intercoastal Trade°				
Total	60	68	74	86
Westbound	76	81	88	97
Eastbound	55	65	70	82
Retail Trade				
Automobile Sales‡				
Total .....	..	58	40	84
Passenger Cars .....	..	55	36	78
Commercial Vehicles .....	..	96	85	144
Department Store				
Sales‡	88	91	94	108
Stocks§	79	87	88	93
Collections#		Actual Figures		
Regular	43.4	41.8	41.8	44.9
Installment	14.8	13.5	14.4	15.8

*Adjusted for seasonal variations, 1923-1925 average=100. °Indexes are for three months ending with month indicated. †Excluding raw silk. ‡Daily average. §At end of month. #Per cent of collections during month to amount outstanding at first of month.

tions in February, 1931. California barley prices fluctuated only slightly during January and early February and currently are at levels approximately 15 per cent higher than a year ago. Other District grains and field crops such as rice, cotton, hops, and hay, are selling at prices well below those of early 1931. Citrus fruit marketed in January brought lower returns than in either December or January, 1931, while apple prices were equal to or slightly higher than those of a year earlier. Canned and dried fruit prices advanced slightly during January.

Lumber prices receded slightly during January to levels somewhat lower than during last August, the previous low point of recent years. Crude oil prices in California have been unchanged since late in June, 1931. Since the beginning of this year gasoline of lower than standard quality has been introduced at reduced prices in a few Twelfth District markets by some of the larger oil companies.

On February 10 copper prices fell back to the all-time low of 6 cents per pound which was first established last autumn. Few sales were reported at that price. Zinc prices reached an all-time low of 2.80 cents per pound East St. Louis during the week of February 1. There was little change in quotations on lead. Silver prices advanced moderately to 30 $\frac{3}{8}$ cents per ounce on February 15.

Credit Situation

Discounts at the Federal Reserve Bank of San Francisco increased steadily and rapidly during January and the first half of February. On February 17 they were at the highest level since August, 1921. Most of the increased borrowing was by San Francisco banks, although banks in other parts of the District expanded their discounts proportionately. Total deposits of reporting member banks continued to decline during this period. Approximately one-third of the 100 million dollar decline in deposits since the beginning of the year may be accounted for by an equivalent reduction in loans. The remainder of the decline reflects to some extent withdrawals of currency by the public, but more especially net payments of funds to other districts.

As would be expected in view of the developments outlined above, currency in the hands of the public and commercial banks has increased since the beginning of the year, a movement contrary to the seasonal tendency, since a considerable amount of currency (20 to 30 million dollars) is usually returned from circulation to the Reserve Bank during the month following the Christmas shopping period. Little net change in currency circulation in the District was shown during the first half of January,

1932, while an increase of 14 million dollars was recorded during the four weeks ending February 17.

FEDERAL RESERVE BANK OF SAN FRANCISCO (In millions of dollars)

	Condition			
	Feb. 17, 1932	Feb. 10, 1932	Jan. 20, 1932	Feb. 18, 1931
Total Bills and Securities	204	195	177	63
Bills Discounted	135	126	101	17
Bills Bought	19	19	25	6
United States Securities	48	48	48	39
Total Reserves	217	216	218	309
Total Deposits	162	152	147	186
Federal Reserve Note Circulation	246	242	233	167
Ratio Total Reserves to Deposit and Note Liabilities Combined	53.4	54.9	57.4	87.3

A reduction of bankers' as well as customers' deposits has been experienced by San Francisco banks during recent months. Amounts due to other banks by San Francisco banks reached a peak of about 175 million dollars in September and October, 1930. They have decreased steadily since that time, averaging only 83 million dollars in the first half of February, 1932. A similar withdrawal of bankers' deposits from reporting member banks in the entire Twelfth District has proceeded somewhat faster than has the recalling of funds by those banks, with the result that the net amount owed to banks has decreased. Balances held in New York by all Twelfth District member banks have also been reduced, such balances declining from 77 million dollars at the end of 1929 to 47 millions on September 29, 1931, the latest date for which complete information is available.

Not only did country banks reduce outstanding balances in other cities during January and

Bank Debits*—

	January, 1932	January, 1931
Arizona		
Phoenix	\$ 27,297	\$ 36,522
California		
Bakersfield	8,778	14,526
Berkeley	19,474	19,122
Fresno	19,486	26,629
Long Beach	34,577	55,457
Los Angeles	692,777	1,003,465
Oakland	203,346	225,700
Pasadena	29,991	37,310
Sacramento	48,206	51,424
San Bernardino	8,482	10,205
San Diego	45,212	62,831
San Francisco	764,507	1,148,630
San Jose	21,048	30,131
Santa Barbara	12,341	16,204
Stockton	16,110	21,085
Idaho		
Boise	13,017	14,394
Nevada		
Reno	8,212	10,216
Oregon		
Eugene	4,467	6,013
Portland	107,215	143,487
Utah		
Ogden	10,906	15,861
Salt Lake City	60,384	72,245
Washington		
Bellingham	5,111	7,525
Everett	6,864	10,591
Seattle	146,470	211,668
Spokane	32,010	52,287
Tacoma	25,941	37,357
Yakima	8,755	14,675
Total	\$2,380,984	\$3,355,560

*In thousands of dollars.

February, making it necessary for city banks to increase borrowing at the Reserve Bank, but they themselves required additional Reserve Bank funds. The number of borrowing banks

REPORTING MEMBER BANKS—Twelfth District
(In millions of dollars)

	Condition			
	Feb. 17, 1932	Feb. 10, 1932	Jan. 20, 1932	Feb. 18, 1931
Loans and Investments—Total..	1,813	1,812	1,826	1,943
Loans—Total	1,079	1,077	1,098	1,277
On Securities	297	288	299	375
All Other	782	789	799	902
Investments—Total	734	735	728	666
United States Securities	401	400	391	330
Other Securities	333	335	337	336
Reserve with Reserve Bank	89	87	83	107
Net Demand Deposits	597	609	614	738
Time Deposits	880	884	907	1,019
Due from Banks	95	91	107	215
Due to Banks	143	150	160	281
Borrowings at Reserve Bank	115	109	86	11

in this District rose to 224 during January compared with 171 for December and 118 in January, 1931. The December-January increase in the number of banks accommodated was somewhat greater than the seasonal experience of the five preceding years.

SUPPLY OF AND DEMAND FOR BANKING FUNDS
Twelfth District

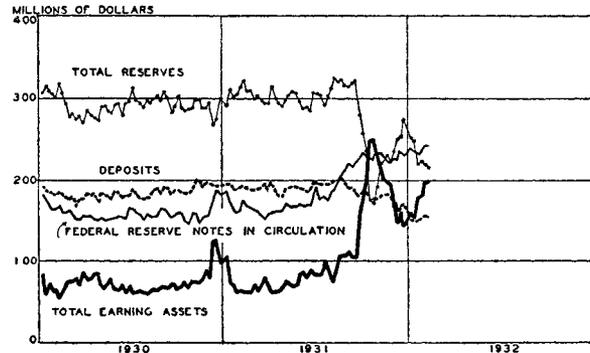
Changes between January 20 and February 17, 1932
(In millions of dollars)

Supply		Demand	
Monetary Gold Stock..	—34.3	Demand for Currency ..	13.9
Reserve Bank Credit...	35.5	Member Bank Reserve	
Discounts	33.7	Deposits	17.4
Acceptances	—1.2	Unexpended Capital,	
Other Credits	3.0	non-member deposits,	
Treasury Operations ..	27.9	etc.	— 2.2
Total	29.1	Total	29.1

Several factors in addition to increased borrowing and liquidation of loans have supplied banks with funds to offset those lost through decreased deposits. The withdrawals themselves liberated reserves that had been carried against those deposits. Expenditures by the Treasury in excess of collections and sales of locally produced gold to the Mint created new deposits offsetting in part the reductions. Another factor moderating somewhat the decrease

in deposits has been the banks' practice of paying dividends in excess of current earnings, thus reducing surplus and other accounts and tending to increase deposits.

Savings deposits in city banks continued to decline during January. During the past year, the greatest declines in savings deposits of reporting banks have been in those areas in which increases in public demand for currency have been most pronounced. Savings deposits in the banks reporting from Los Angeles declined 21 per cent during the twelve months ended January 30, and the largest increase in demand for



PRINCIPAL ITEMS OF CONDITION
Federal Reserve Bank of San Francisco (as of each Wednesday).

currency during the year centered in that city. Declines in savings deposits in other Twelfth District cities during the year amounted to 11 per cent in Seattle; 22 per cent in Portland; 3 per cent in San Francisco; 6 per cent in Spokane, and 8 per cent in Salt Lake City.

The volume of trading upon Pacific Coast stock exchanges was smaller in January than in December. During the first half of February, however, rising security prices on the New York Stock Exchange and action by Congress upon banking and credit bills were accompanied by substantial upturns in both volume and value of sales upon District exchanges.

Revised Indexes of Lumber Production in the Twelfth Federal Reserve District

The production and manufacture of lumber has been one of the most important industries in the Twelfth Federal Reserve District since that area attained an appreciable degree of industrial growth. In fact, available data indicate that the value of lumber produced exceeded the value of the products of any other industry during each year of the current century up to and including 1929, the latest year for which value data satisfactory for comparative purposes are available. In view of the prominent position of lumbering in the economic life of the Twelfth District, this Bank has attempted to secure a comprehensive, reliable measure of

the monthly production of that industry. Efforts in this direction have produced a series of data which may be described as "estimated monthly total lumber output." These figures have been used as a basis for the indexes of Twelfth Federal Reserve District lumber production, presented in this article.

There are three general lumber producing areas in the Twelfth District. The most important of these is the Douglas fir region of western Washington and western Oregon. Second in importance is the pine area, which extends over eastern Washington, northern Idaho, southern and eastern Oregon, and northeastern Califor-

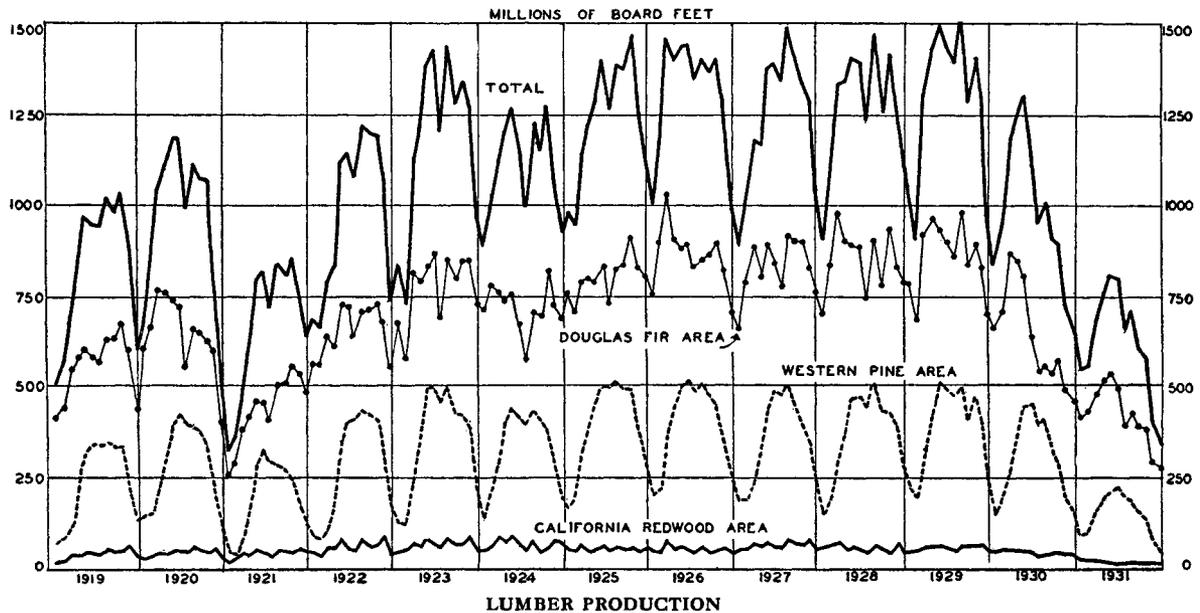
nia. A small amount of pine is also produced in Arizona and Utah. Of considerably less importance than either the fir or pine areas is the redwood region of coastal northern California. In each of these areas, a large proportion of lumber production is reported to associations operating therein; the West Coast Lumbermen's Association in the Douglas fir region; Western Pine Association throughout the pine section; and California Redwood Association in the third region. Statistics prepared by these associations furnish the basis for measuring month-to-month or other short-time fluctuations in lumber output.* Prior to October, 1931, two separate associations covered the area throughout which the Western Pine Association now operates—the California White and Sugar Pine Manufacturers' Association in northeastern California and southern Oregon, and the Western Pine Manufacturers' Association in other sections of the general area described above. As a result of the combination of these two associations last autumn, under the name of the Western Pine Association, it is no longer possible on the basis of published reports to show separate data for the two pine producing regions. The present reports of the new organization are comparable with the combined reports of the two former associations, however, and the Twelfth District totals have not been affected by the consolidation of the two sets of figures.

* The West Coast Lumbermen's Association receives reports from mills in British Columbia as well as from those in Washington and Oregon, and reports of the Western Pine Association include a small volume of lumber cut outside the Twelfth District in Montana. Since the amounts involved are small in relation to Twelfth District lumber production and the seasonal movements are similar to those of District production, no adjustment has been made for them.

The fact that the regions discussed above have been identified with reference to particular types of lumber means only that those species are of chief importance in the areas, not that other species are of little significance. Such woods as cedar, hemlock, spruce, white fir and larch, are produced in sizeable quantities in the Twelfth District. In dealing with the general regions, it should also be realized that the production of any given kind of lumber is not restricted to a single association area. For example, an appreciable amount of Douglas fir is cut in the California redwood region.

The total output of and annual changes in the lumber industry in this District are probably best shown in the tables prepared yearly by the United States Forest Service for the Bureau of the Census. In preparing the revised indexes, therefore, the Bureau of the Census figures were relied upon as measuring yearly changes in lumber output most accurately. The only data on short-term changes in production are the weekly or monthly figures reported by the lumber associations, referred to above, and those figures have therefore furnished the measures of month-to-month changes in lumber production within each calendar year. Since the annual movements in production were to be measured by the Bureau of the Census figures, representing all lumber produced in the District, and since month-to-month changes were shown only by the association reports representing less than 100 per cent of total District lumber cut*, it became desirable to adjust the monthly association figures so that for each

* The percentages varied some from one year to another, but did not change appreciably within any single year.



calendar year they would total to the annual Census figures, preserving, of course, the month-to-month fluctuations as shown by the association data. This procedure was for the purpose of securing a continuous monthly series of data over the entire period covered which would permit direct comparisons of production in any month of any year with production in any month of the same or any other year.

Some difficulty was experienced in making these conversions, since the Bureau of the Census annual figures are not directly comparable with those of the individual associations, principally because the two sets of figures cover different areas, but also because the association reports are less inclusive than are the Census figures. Reports of the Bureau of the Census show the various species of lumber cut by states, while the association figures are for regions which are predominantly forested with certain types of timber, and which do not in any way correspond with state boundaries. In order to obtain the desired continuous series showing total monthly production of lumber in the District, it was necessary first to secure an adequate measure of total annual production in each association area. The method used in preparing these figures was devised by the Federal Reserve Board, which organization computed the annual totals for the years 1919-1928, inclusive. In general, this method involved the use of the Bureau of the Census annual figures, apportioning to each association area the equivalent of each species cut therein annually. The determination of these equivalents was facilitated by the fairly distinct boundaries of the important stands of the several species of timber, which coincide closely with the different association boundaries. These amounts, which have been checked in various ways and are believed to represent quite accurately total annual lumber cut in each association area, are shown in the following table:

LUMBER PRODUCTION—Twelfth District
(Million ft. b. m.)

	Total	California Redwood Area	Western Pine Area†	Douglas Fir Area
1919	9,933	482	2,806	6,645
1920	11,702	558	3,431	7,713
1921	7,989	530	2,260	5,199
1922	11,748	657	3,277	7,814
1923	14,191	705	4,177	9,309
1924	13,270	716	3,929	8,625
1925	14,843	614	4,632	9,597
1926	15,640	595	4,720	10,325
1927	14,803	685	4,207	9,911
1928	15,165	578	4,426	10,161
1929	15,506	580	4,651	10,275
1930	11,769	467	3,637	7,665
1931	7,413	188	2,210	5,015
Total	163,972	7,355	48,363	108,254

† Combined figures of California White and Sugar Pine Manufacturers' Association and Western Pine Manufacturers' Association.

Having obtained annual estimates of total lumber production by association areas, the next step was to prorate those figures on the basis of monthly figures of the associations. (Monthly association data were secured from several sources, all of them having their origin, however, in the weekly or monthly reports of mills to the associations.) This proration resulted in the series designated as "estimated monthly total lumber output," a series which represents satisfactorily both month-to-month and year-to-year changes in lumber production of the District. From the series thus obtained, indexes were constructed for each association area and for the Twelfth District as a whole, both with and without adjustment for seasonal variations.

INDEXES OF LUMBER PRODUCTION—Twelfth District
(1923-1925 average=100)

Without adjustment for seasonal variations													
	'19	'20	'21	'22	'23	'24	'25	'26	'27	'28	'29	'30	'31
Jan.	43	66	27	58	71	75	83	85	75	76	90	72	46
Feb.	47	73	31	57	63	88	81	99	86	91	79	80	47
Mar.	60	88	42	67	95	95	97	124	100	113	111	101	57
Apr.	71	93	50	71	104	102	104	120	99	114	122	107	65
May	81	101	67	94	118	108	110	122	117	120	127	110	68
June	81	101	69	100	121	97	119	123	118	119	123	97	67
July	80	85	62	92	103	85	108	114	110	105	117	82	57
Aug.	86	93	72	104	121	104	118	120	127	124	130	85	60
Sept.	84	91	70	102	109	98	117	117	120	107	110	77	52
Oct.	88	86	72	101	113	108	124	119	114	120	120	76	49
Nov.	74	73	65	91	108	91	107	104	106	108	108	62	34
Dec.	51	46	54	64	83	79	97	85	89	93	85	54	29
Avg.	70	83	57	83	101	94	105	111	105	108	110	84	53

With adjustment for seasonal variations													
	'19	'20	'21	'22	'23	'24	'25	'26	'27	'28	'29	'30	'31
Jan.	57	87	36	78	95	101	111	114	101	103	123	99	64
Feb.	64	98	42	76	82	108	98	119	103	110	95	96	56
Mar.	65	96	45	72	101	98	98	125	100	113	109	99	56
Apr.	72	93	49	70	101	100	99	113	93	106	113	99	59
May	68	86	57	82	104	96	99	110	105	106	112	97	60
June	67	85	58	84	102	84	106	110	106	107	111	87	61
July	74	79	58	86	97	83	105	111	107	102	114	80	56
Aug.	74	79	61	88	104	91	104	105	111	109	113	74	52
Sept.	74	81	63	92	100	91	110	110	114	103	107	76	51
Oct.	78	76	64	91	101	96	111	107	104	110	110	70	45
Nov.	76	75	66	93	110	93	108	105	107	109	109	62	34
Dec.	72	63	71	81	104	98	119	103	108	113	103	65	36

In order to carry the indexes forward currently, it is necessary to depend entirely upon the reports of the lumber associations, checking and, if necessary, revising them when the annual figures of the Bureau of the Census become available, several months after the close of each year to which the figures refer. The monthly figures obtained from association reports are adjusted by appropriate conversion factors to give current estimates of total monthly lumber cut in each association area and in the Twelfth District as a whole. Inasmuch as most mills, or at least most of the larger mills accounting for the bulk of the lumber output, furnish reports regularly, it is believed that the current monthly series closely approximates aggregate production, and that month-to-month changes are accurately measured.

MONTHLY REVIEW

OF

BUSINESS CONDITIONS

ISAAC B. NEWTON, Chairman of the Board and Federal Reserve Agent
Federal Reserve Bank of San Francisco

Supplement

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Vol. XVI No. 2

SUMMARY OF NATIONAL CONDITIONS

Prepared by the Federal Reserve Board

In January production of manufactures increased by about the usual seasonal amount, while output of minerals and value of building contracts awarded continued to decline. Wholesale prices declined further during January and early February, but more recently prices of certain leading commodities showed an advance.

Production and Employment. Volume of industrial production, which includes both manufactures and minerals, increased from December to January by an amount somewhat smaller than is usual at this time of year, and the Board's seasonally adjusted index declined from 71 per cent of the 1923-1925 average to 70 per cent. In the steel industry there was a seasonal increase in activity during January, followed by a slight decline during the first three weeks of February. Production of automobiles, which usually increases considerably at this season, showed little change in January, following an increase in December. Activity at textile mills increased by more than the usual seasonal amount and at shoe factories there was a seasonal increase in production. Output of coal and petroleum was substantially reduced.

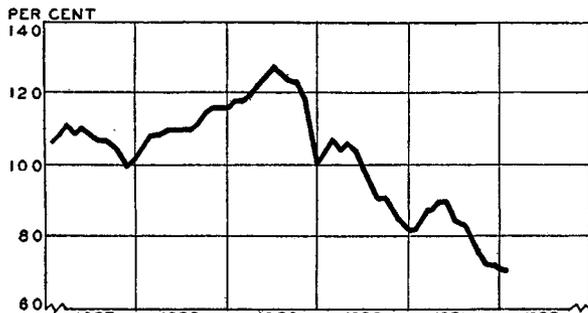
Volume of factory employment declined by more than the usual seasonal amount between the middle of December and the middle of January. Number employed at foundries, carbuilding

shops, clothing factories, and establishments producing building materials declined substantially, while employment in the tobacco industry decreased less than is usual at this season, and employment in the woolen goods industry increased, contrary to seasonal tendency.

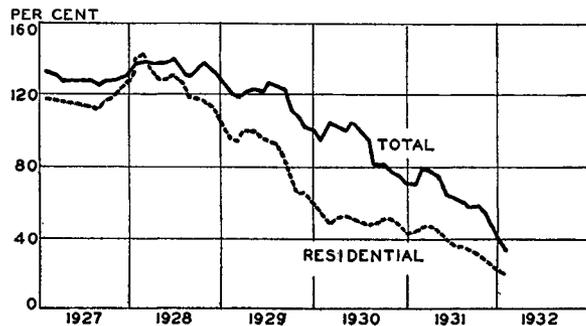
Total value of building contracts awarded in 37 eastern states, as reported by the F. W. Dodge Corporation, declined sharply in January, and for the three months period ending in that month was about one-half of the amount awarded in the corresponding period a year ago. Approximately one-fourth of the decrease was in residential building, and three-fourths in other types of construction.

Distribution. Total freight carloadings decreased in January, contrary to seasonal tendency, reflecting chiefly smaller shipments of merchandise, miscellaneous freight, and coal. Department store sales declined by about the usual seasonal amount.

Wholesale Prices. The general level of wholesale commodity prices, as measured by the index of the Bureau of Labor Statistics, declined 2 per cent further from December to January, although prices of some important commodities, such as wheat, showed little change and the price of cotton advanced. During early February prices of certain leading commodities



INDUSTRIAL PRODUCTION
Index numbers of industrial production adjusted for seasonal variations (1923-1925 average=100).



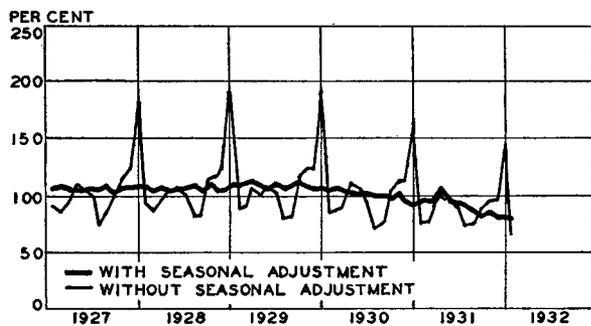
VALUE OF BUILDING CONTRACTS AWARDED
Indexes based on three-month moving averages of F. W. Dodge data for 37 Eastern states, adjusted for seasonal variations. (1923-1925 average=100).

including grains and cotton declined, but later in the month there was some advance in the prices of these commodities.

Bank Credit. Volume of reserve bank credit outstanding declined in January and the first half of February. This decrease has reflected a return flow of currency from circulation, which

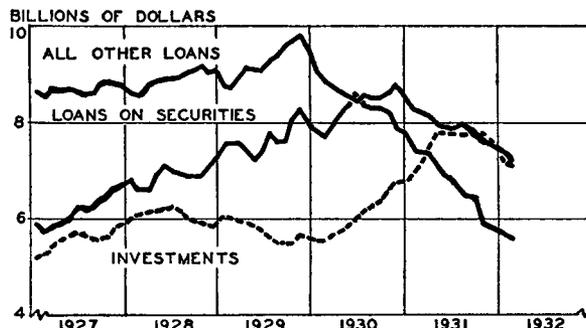
accompanying a decrease in bank failures.

At member banks in leading cities volume of credit continued to decline during January and the first half of February. Between January 13 and February 17 total loans and investments decreased by \$550,000,000 representing declines in loans on securities, in other loans, and in



DEPARTMENT STORE SALES

Indexes of daily average value of sales with adjustment for seasonal variations and without adjustment for seasonal variations.



MEMBER BANK CREDIT

Monthly averages of weekly figures for reporting member banks in leading cities. Latest figures are averages of first three weeks of February.

has been smaller than usual this year, together with a continued reduction in member bank reserve balances, offset in part by a demand for reserve bank credit caused by an outward movement of gold amounting to \$100,000,000 since the turn of the year. A decline in money in circulation after the first few days in February reflected some return of hoarded cur-

investments. Deposits of these banks also declined substantially during this period.

Money rates in the open market showed little change. On February 26 the discount rate of the Federal Reserve Bank of New York was reduced from $3\frac{1}{2}$ to 3 per cent, and buying rates on bankers' acceptances of short maturities were reduced from $2\frac{3}{4}$ to $2\frac{1}{2}$ per cent.