

MONTHLY REVIEW

BUSINESS CONDITIONS IN THE TWELFTH FEDERAL RESERVE DISTRICT

Federal Reserve Bank of San Francisco

December 1, 1940

THE expansion in Twelfth District industrial activity, factory employment and payrolls, construction, and bank credit, evident since the early summer, continued in October and the first half of November. Farm income likewise gained. The behavior of measures of retail trade, however, indicated a somewhat lagging tendency during October in the expansion of consumer buying, particularly of everyday items such as foods, apparel, and the miscellaneous goods carried by department stores.

The rise in industrial operations in the district during October was largely traceable to the continued stimulus of the national defense program and to further gains in private residential construction. With these as the principal factors inducing expansion, gains tended not to be uniform over all industry but to be evident particularly in those industries most directly affected. Additional facilities of aircraft plants have become available recently and all facilities of that industry have been employed more intensively. The pressure to expand output of aircraft has occasioned the "farming out" of the manufacture of parts to plants primarily engaged or previously engaged in the production of other products and has increased the orders for supplies of various kinds placed with local firms. As a result it has been not only at district aircraft factories but at foundries, machine shops, and miscellaneous tool and machine producing plants that activity has expanded considerably in recent months. Despite expanding operations, however, new orders again exceeded deliveries and it is estimated that late in November unfilled orders held by district aircraft plants approximated \$1,360,000,000. From June through October building permits for new plant construction initiated by this industry in the district totalled \$6,800,000 in value, and in November two additional large expansion projects to be built and operated by established private aircraft firms for the Government were approved.

Rapidly expanding Pacific Coast shipbuilding yards were awarded contracts in October and November for construction of additional combat and merchant vessels to cost approximately \$145,000,000. Since June 1, the total of such awards has exceeded \$770,000,000.

Army and Navy commitments for new construction, which had totaled \$70,000,000 from June to September, inclusive, were increased an additional \$42,000,000 in October and at least \$25,000,000 in November. As in other recent months, a number of district concerns received orders from the Army and Navy for a miscellaneous variety of goods. Relative to orders placed for aircraft and for ships and to contracts for construction of buildings and like facilities, however, these orders were small.

New residential building expanded further in October, this bank's seasonally adjusted index advancing 29 points to 94 percent of the 1923-1925 average. This level has

probably not been exceeded since the mid-1920's, although monthly data prior to September 1929 are not available and exact comparisons for that earlier period cannot be made. Part of the gain in October reflected the construction of housing facilities by the Navy in southern California. Even excluding this item, however, as well as a new U.S.H.A. project initiated in Oakland, California, during the month, the index advanced to a new high level for recent years.

Partly reflecting the marked expansion in construction in the Twelfth District and in the country as a whole, the important local lumber industry is currently experiencing the highest sustained level of activity since 1929. Although new lumber orders continued in October and early November to recede from the peak attained last August, they were higher than at any time during the first six months of 1940. Operations in the local steel industry were likewise high in October, output approximating 95 percent of rated capacity, and shipments of steel into the district were materially higher than a year earlier. At district copper mines and smelters, activity was close to record levels for recent years in October. Operations at pulp and paper mills remained at practical capacity. On

Production and Employment—

Index numbers, 1923-1925 average=100	With Seasonal Adjustment			Without Seasonal Adjustment		
	1940 Oct.	1939 Sept.	1939 Oct.	1940 Oct.	1939 Sept.	1939 Oct.
Industrial Production*						
Manufactures (physical volume)						
Lumber	96	96	90	103	109	96
Refined oils	—	—	—	165	167	169
Cement	117	124	107	135	132	124
Wheat flour	122	105	97	145	125	116
Minerals (physical volume)						
Petroleum	—	—	—	93	93	93
Lead (U. S.)†	119	108	111	117	112	109
Silver (U. S.)†	—	109	98	—	107	100
Copper (U. S.)†	140	132	—	145	136	—
Construction (value)						
Residential building permits‡						
Twelfth District	94	65	51	96	72	51
Southern California	98	69	51	103	76	54
Northern California	102	54	46	100	59	45
Oregon	37	58	38	39	69	39
Washington	67	61	56	56	66	47
Intermountain states	107	91	97	108	120	98
Public works contracts	—	—	—	576	204	267
Miscellaneous						
Electric power production	227	233	214	227	244	213
Factory Employment and Payrolls§						
Employment						
Pacific Coast	134	132	114	137	135	120
California	153	147	125	160	154	132
Oregon	107	107	107	112	116	112
Washington	100	103	95	104	108	99
Payrolls						
Pacific Coast	138	136	116	146	140	123
California	162	158	129	170	160	135
Oregon	108	105	105	115	116	112
Washington	104	105	94	111	111	101

*Daily average.

†Prepared by Board of Governors of Federal Reserve System.
(1935-1939 = 100).

‡Includes figures from 197 cities and Los Angeles County, unincorporated.

§Excludes fish, fruit, and vegetable canning.

the other hand, output of miscellaneous consumer goods, including food, clothing, and household furnishings, and activity in the California petroleum industry again showed little net change.

Increased industrial production has been accompanied during recent months by a rise in Pacific Coast factory employment and payrolls. From mid-July to mid-October employment advanced 7 percent and payrolls 10 percent, after allowance for seasonal influences. Over half the increase in employment in the three states was accounted for by the aircraft industry.

Notwithstanding the bulge in prices of farm products and in farm cash income following the outbreak of war in September 1939, cash farm income in this district continued to exceed that of a year earlier in September and October. Cash receipts from marketings, together with Government payments during the first 10 months of 1940 are estimated at approximately \$910,000,000, a gain of 7 percent over receipts of \$851,065,000 during the like period of 1939.

Demand for credit from commercial and industrial firms increased further from mid-October through November. Loans of district city banks to such enterprises and for agricultural purposes in the last half of November averaged \$362,000,000, a figure which compares with \$329,000,000 in the latter half of June and \$322,000,000 in the latter half of November 1939. The increase of recent months is of more than seasonal proportions. In-

vestments of district city banks increased sharply during recent weeks. Holdings of Government securities rose considerably and investments in other securities expanded to levels materially higher than at any time in recent years.

Distribution and Trade—

Index numbers, 1923-1925 average=100	With Seasonal Adjustment— (1940) 1939			Without Seasonal Adjustment— (1940) 1939		
	Oct.	Sept.	Oct.	Oct.	Sept.	Oct.
Retail Trade						
Department store sales (value)*						
Twelfth District	99	100	99	103	103	103
California	97	98	98	98	98	99
Los Angeles	86	89	88	90	91	92
Bay Region	106	104	106	104	102	104
San Francisco	98	96	99	95	96	96
Oakland	127	125	124	129	116	125
Pacific Northwest.....	100	102	99	111	115	110
Portland	97	107	98	104	120	105
Seattle	108	103	101	112	116	105
Spokane	89	87	96	127	100	137
Salt Lake City.....	93	96	95	99	101	102
Department store stocks (value)†.	62	62	63	68	63	69
Furniture store sales (value)*†.	83	83	81	87	88	85
Furniture store stocks (value)†.	74	73	76	76	72	77
Automobile sales (number)*						
Total	—	—	—	141	84	99
Passenger	—	—	—	138	75	96
Commercial	—	—	—	176	170	128
Carloadings (number)*						
Total	90	89	88	106	102	104
Merchandise and misc.....	97	96	97	118	113	118
Other	81	80	77	91	89	86
Intercoastal Traffic (volume)						
Total	66	63	72	73	65	80
Eastbound	54	48	66	61	50	75
Westbound	107	116	91	112	117	94

*Daily average. †At end of month. ‡1929 average = 100.

The Salt Lake City Branch Zone

THE Federal Reserve Bank of San Francisco maintains four branch offices which are located in Los Angeles, California; Portland, Oregon; Salt Lake City, Utah; and Seattle, Washington. A small map of the Twelfth Federal Reserve District showing the location of these branches and the zones they serve, and a larger map of the Salt Lake City Branch Zone appear on the accompanying insert. This zone covers the entire State of Utah, the four eastern counties of Nevada, and all of Idaho except the ten northern counties which make up the "Panhandle" of that State—nearly 190,000 square miles and more than one-fourth of the area of the Twelfth Federal Reserve District. Much of the region is rough, mountainous, and arid. Large sections are but sparsely populated and the total population of 980,093 persons in 1940 tended to be concentrated to a considerable extent in the half dozen or more counties making up the central plateau region of Utah, where the principal mines and the bulk of the irrigated farming acreage of that State are located; in an area which sweeps in a semi-circle across southern Idaho roughly following the course of the Snake River and accounting for much of the irrigated acreage in the State; and in a few localities in White Pine and Clark counties in Nevada.

The Salt Lake City Branch Zone is for the most part a general trading area, with Salt Lake City as the principal distributing center and with Ogden, Utah, and Boise, Idaho, as secondary centers. Its outer fringes extend irregularly beyond the branch zone territory to shade out indistinctly in the adjacent sections of neighboring states to the north, east, and south. Salt Lake City with a

population of 150,019 is strategically located. It is the largest city between Denver and the Pacific Coast. It is served by a network of rail facilities radiating either directly, or through neighboring Ogden, to the north, south, east, and west. It is also the converging point of a number of major highways spreading in all directions, and over which an increasing volume of passenger and freight traffic has been transported in recent years. The city has a large up-to-date airport through which pass the planes of the major transcontinental air lines connecting the East with the larger Pacific Coast cities.

While the Salt Lake City Branch Zone and immediately adjacent sections of neighboring states constitute something of a trading or marketing area, this region is not a self-contained economic unit. Its economic life centers about mining, agriculture, and the related activities of treating ores and processing agricultural products. But the market for the output of the mining industry lies principally outside the Intermountain States of which the Salt Lake City Branch Zone is a part, and although a substantial proportion of the farm output is consumed locally, mainly by consumers whose purchasing power is derived principally from the mineral wealth of the region, a significant portion is marketed in other states. Although the region supports a somewhat diversified industry, including many relatively small firms not immediately concerned with either the treating of ores or the processing of farm products, it depends upon the more industrialized sections of the United States for the bulk of its requirements of manufactured goods. Thus its economic welfare is interwoven with that of the country as a whole, both

because of its reliance upon a wide market for its principal products and because of its dependence upon outside sources for many manufactured products. For the most part this report is concerned with the primary sources of income and does not cover those secondary activities such as banking, construction and retail trade which derive their income mainly from the basic economic activity of the region.

THE MINING INDUSTRY

Much of the area is highly mineralized and mining operations are widely dispersed throughout Utah, southern Idaho, and eastern Nevada. Practically every mineral produced in large volume in the United States, except petroleum and bauxite, is mined in some quantity in the region.

The principal nonferrous metals, copper, lead and zinc, and the precious metals, gold and silver, are the chief mineral products of the Salt Lake City Branch Zone. Several million tons of soft coal are mined annually from the huge known deposits of this fuel in Utah, and a sizeable tonnage of iron ore is mined from the extensive reserves in that State. A variety of other minerals, including the "strategic" metals, manganese, molybdenum, and mercury, are produced in the area, but in relatively small volume.

MINE PRODUCTION OF GOLD—IDAHO, NEVADA, AND UTAH

Five-year averages 1925-1939, and 1939
(in thousands of fine ounces)

	1925-29	1930-34	1935-39	1939
Idaho	18	47	93	114
Nevada	170	133	278	339
Utah	201	158	242	276
Total	389	338	613	729
Percent U. S. Total.....	17	13	13	13
U. S. Total.....	2275	2586	4738	5593

The mines of Idaho, Nevada, and Utah have in recent years accounted for about 31 percent of the copper, 44 percent of the lead, and 17 percent of the zinc produced in the entire United States. They have also produced 13 percent of the gold and 50 percent of all silver mined from domestic properties. While mining operations are conducted over a wide area, the great bulk of the mineral output is produced in a few well defined districts. In Utah, most of the output of the nonferrous and precious metals is mined in a rather restricted area in the north central portion of the State. Roughly speaking, Salt Lake County with its well-known Bingham district is the center of Utah's mining activity. This district is by far the most important mineral producing area in Utah, and in 1939 its mines yielded 80 percent of the total value of the State's mineral output. Other principal mining districts of the State are located in Summit, Wasatch, Utah, Juab, and Tooele counties which surround Salt Lake County to the east, the south, and the west. In the aggregate, this north central region produced approximately 99 percent

of the copper, 97 percent of the lead, 99 percent of the zinc, 91 percent of the gold and 92 percent of the silver mined in the State of Utah in 1935-1939.

In Nevada, the precious metals occur in rather widely dispersed regions, but output of the nonferrous metals is largely concentrated in a few localities in the four eastern counties. Almost the entire copper production in the State is mined in the Robinson district of White Pine County and the Cope district in Elko County. More than half the Nevada output of lead in recent years has been mined in the Pioche district of Lincoln County. In fact, since 1937 when the known ore bodies of a large producer

MINE PRODUCTION OF SILVER—IDAHO, NEVADA, AND UTAH

Five-year averages 1925-1939, and 1939
(in thousands of fine ounces)

	1925-29	1930-34	1935-39	1939
Idaho	8,523	7,548	16,112	17,200
Nevada	5,884	2,458	4,550	4,066
Utah	18,781	8,233	10,471	10,575
Total	33,188	18,239	31,133	31,841
Percent U. S. Total.....	54	58	50	49
U. S. Total.....	61,568	31,403	62,100	65,012

in Nye County (in south central Nevada) were exhausted, approximately 91 percent of the lead output of the State has come from the four eastern counties, of which Lincoln is the most important. Practically the entire output of zinc is mined in the Pioche district. Including Clark County which produces but relatively little mineral wealth, the four eastern counties of Nevada produced 99 percent of the copper, 67 percent of the lead, 89 percent of the zinc, 35 percent of the gold and 39 percent of the silver mined in Nevada in 1935-1939.

Relatively little copper is mined in Idaho, but the State is a large producer of lead, competing with Utah year-after-year for position as the second largest producing state in the country. Idaho is also a large producer of zinc. Most of the lead and zinc produced in that State (93 percent and 86 percent, respectively, in the years 1935-

MINE PRODUCTION OF SELECTED METALS IN THE SALT LAKE CITY BRANCH ZONE

	Production		Percent of U. S. Total	
	Average 1935-1939	1939	1935-1939	1939
Gold (oz.).....	398,086	466,510	8	8
Silver (oz.).....	13,331,432	14,109,330	22	22
Copper (tons).....	194,223	238,237	31	33
Lead (tons).....	82,121	79,034	21	19
Zinc (tons).....	53,400	48,213	10	8

1939) was mined in Shoshone County north of the zone of the Salt Lake City Branch. Most of the silver mined in Idaho, chiefly as a joint product of lead and zinc ores, is also produced in Shoshone County. Nearly all of the remaining lead, zinc, and silver output is from Blaine County in south central Idaho. Gold is produced in almost every county of the State, but the bulk of the output is in Idaho County in the lower "Panhandle" and in

MINE PRODUCTION OF COPPER, LEAD, AND ZINC—IDAHO, NEVADA, AND UTAH

Five-year averages 1925-1939, and 1939
(in thousands of tons)

	Copper				Lead				Zinc			
	1925-29	1930-34	1935-39	1939	1925-29	1930-34	1935-39	1939	1925-29	1930-34	1935-39	1939
Idaho	1	1	2	2	141	91	91	91	29	23	45	47
Nevada	60	28	59	65	10	7	8	4	5	9	12	6
Utah	136	53	135	171	150	74	71	65	45	34	36	33
Total	197	82	196	238	301	172	170	160	79	66	93	86
Percent U. S. Total.....	22	22	31	33	45	47	44	39	11	16	17	15
U. S. Total.....	886	380	623	723	662	363	390	410	725	423	562	576

Boise County in the west central section. Of the principal nonferrous and precious metals produced in Idaho, only gold is mined predominantly in the southern and central part of the State. This region, which lies in the Salt Lake City Branch Zone, produced approximately 11 percent of the copper, 7 percent of the lead, 14 percent of the zinc, 62 percent of the gold and 7 percent of the silver mined in Idaho in 1935-1939.

The only commercial production of coal in the area of the Salt Lake City Branch is in Utah. Bituminous coal is reported to have been discovered in that State as early as 1854 near the town of Wales in Sanpete County. Since well before 1900, however, production has been mainly from the nearby fields in Carbon County. Known coal reserves in the State are tremendous, but they have not been exploited on a large scale because of the absence of large coal consuming areas within economic shipping distances. In the five years 1925-1929, average annual coal production approximated 4,771,800 tons, slightly less than 1 percent of the output in the country as a whole. Output declined to a low for recent years of 2,406,000 tons in 1934, recovered to 3,810,000 tons in 1937, and is estimated at 3,240,000 tons or 0.8 percent of the national bituminous coal output in 1939.

Utah likewise has huge iron ore reserves. Development of these iron resources began in 1923 with the establishment of a blast furnace at Ironton near Provo about 50 miles south of Salt Lake City. Output is almost entirely from properties in Iron County in the southwestern portion of the State and the ore is moved by rail to the Ironton blast furnaces which are fired by coke produced from coal mined in the nearby Carbon County fields. The pig iron output of Utah is a relatively small share of the United States total. Coking operations produce a quantity of gas, ammonium sulphate, and other by-products.

While some manganese has been produced in the area, output has been negligible in recent years and known deposits are not extensive, nor do they carry high-grade ore. The current national defense program has stimulated activity in manganese mining, however, and several low grade ore deposits, previously regarded merely as emergency sources for the Federal Government, have been reopened and are now being operated commercially.

Molybdenum, another minor metal important in the national defense program, is produced on a small scale in Idaho, and also in Utah, where output is a by-product of copper ores from one of the major copper properties in the Bingham district. Over half the United States output of tungsten, which averaged 2,888 tons annually in 1935-1938, was produced in southern Idaho and in Nevada, principally in White Pine County of eastern Nevada. Small quantities of vanadium and mercury are also produced in Nevada and Utah. Salt, a non-metallic mineral, is produced in Utah from the brines of Great Salt Lake, from natural deposits in the Great Salt Lake Desert, and from rock salt mines in Sevier County and elsewhere. The output, which averaged 61,440 short tons annually in 1935-1938, is a comparatively small part of United States production. It is sold for household, dairy and stock, and industrial purposes, almost entirely in local markets.

A considerable proportion of industrial activity and employment in the Intermountain States arises directly from mine operations. In the hub of the mining area of Utah in the north central portion of the State four large

nonferrous metal smelters are operated at Garfield, Midvale, Murray, and Tooele. A fifth large smelter is located at McGill, in White Pine County of eastern Nevada. In addition, numerous ore reduction mills are operated throughout the principal mining sections of Utah, eastern Nevada, and southern and central Idaho. Two of the world's largest copper concentrating plants are located in Utah, one at Magna and one at Arthur. These plants operate exclusively on low-grade ores produced at one of the world's largest open-cut mines near Bingham. The blast furnaces and coking plants of Utah likewise contribute to the industrial activity and employment of the area. As a development arising out of the war, the smelter at Midvale has received several shipments of silver-lead ore from South America since May 1940, the producers of which formerly shipped to Belgium.

Nonferrous ores are not treated beyond the smelting stage in Idaho, Nevada, or Utah. Smelted copper is shipped principally to the Atlantic seaboard, with some moving to Great Falls, Montana, and some to Tacoma, Washington, for refining. Lead is shipped for refining to Selby, California, and to the New York, Omaha, and Chicago areas. Zinc goes mainly to Anaconda and Great Falls, Montana. From these centers, the refined products are distributed throughout the country. Approximately 80 percent of the pig iron produced in Utah is shipped to a steel mill in the San Francisco Bay area. Nearly half the coal mined in Utah is distributed over a wide area in neighboring states, some of it reaching California.

A step further removed, but nevertheless also traceable to mining in the area, is the industrial activity of local consumers of mine products and of the local suppliers of mine equipment and materials. Utah manufacturers build a variety of machinery, equipment, and materials used in mining. Ball mills and different types of loading machines for underground and surface operations made in Utah find a wide market in the United States and are, in fact, shipped to foreign purchasers. Mine cars, castings, and other products are manufactured largely for local demand. From 10 to 20 percent of the pig iron produced in Utah is used by a cast iron pipe plant located near the blast furnaces at Ironton. Cast iron pipe from this plant is marketed throughout the western states.

Although the mineral resources of the Salt Lake City Branch Zone are its most important single source of employment and income, an accurate current gauge of the extent to which the population is dependent upon those resources is difficult. It is certain, however, that the mining industry affects many more people than those direct beneficiaries who are employed in the mines and smelters or who provide goods, services, or capital for the industry. There are in addition, those merchants and their employees, mechanics, members of the professions, railroad and other transportation system employees, farmers, and many others who derive an indirect benefit as a result of providing goods and services to those who are directly interested in the industry. The proportion of the population dependent directly or indirectly upon the mining industry for its livelihood has not been closely estimated. In eastern Nevada, however, this proportion is probably over 75 percent, in Utah it is probably in the vicinity of 50 percent, while in southern and central Idaho it is considerably smaller and is overshadowed by the proportion of the population dependent upon agriculture.

AGRICULTURE

Agriculture shares with mining the position of a major factor in the economic life of the Salt Lake City Branch territory. Vast stretches of desert and mountain ranges are given over to the grazing of sheep and cattle. Large scale dry farming operations, particularly in Idaho where the rolling open terrain is adapted to extensive machine cultivation, are devoted chiefly to wheat raising. Substantial irrigated acreages also lie within Idaho and Utah. According to the 1935 Census of Agriculture, irrigated land from which crops were harvested in 1934, the last year for which Census data are available, amounted to 1,388,200 acres in Idaho and 583,183 acres in Utah. In 1929, there were 2,291,927 acres in Idaho and 917,139 acres in Utah under irrigation and from which crops were harvested. The sharp decline between 1929 and 1934 was due in large part to serious shortages of irrigation water, resulting from a number of droughts, the most severe of which occurred in 1934; but financial difficulties arising from price declines during the depression also played a part. Although no new land has been brought under irrigation in these states during recent years, it is probable that irrigated land acreage from which crops are harvested is now larger than it was in 1934. Most of the irrigation projects in this region are situated along the course of the Snake River in Idaho and in the north central portion of Utah, immediately west of the Wasatch Mountains.

Diversified farming is practiced in the irrigated sections of Idaho and Utah. Both states are important producers of sugar beets, and Idaho is widely known for its large output of high quality potatoes and beans. Nevertheless, the livestock industry in its various branches, and particularly the raising of meat animals, is the main source of farm cash income in the area as a whole. As shown in the table, the large proportion of all farm cash receipts in Nevada and Utah is derived from livestock and livestock products, while in Idaho, crops are a relatively more important factor, although there too they are overshadowed by livestock. Considering that portion of Nevada included in the Salt Lake City Branch Zone (the four eastern counties) livestock and livestock products account for almost the entire farm cash income. More than three-fourths of the farm cash income of Idaho as a whole is produced in that portion of the State which lies within the Salt Lake City Branch Zone. Wheat, oats, barley, dairy products, eggs, and pears are produced in considerable volume in the "Panhandle," but more than half of the State's farm cash income from these products and by far the greater part of its farm cash income from other products is produced in the remainder of the State.

Cash farm receipts from wool and lambs bulk large in the total income from livestock and livestock products. The lamb crop in Idaho, Nevada, and Utah averaged 3,600,000 head in the five years 1935-1939, and it is estimated that the wool clip averaged approximately 43,340,000 pounds during the same period, compared with a United States average of 368,190,000 pounds.

The Rambouillet sheep has been found best adapted to the rigors of climate and terrain on the ranges of Nevada and Utah, where range animals are dependent upon grazing during most of the year and supplemental feed is made available only as it may become necessary during the winter and early spring months. For the most part,

lambs are born in April and marketed four or five months later. Largely because of heavier snowfall, sheep raisers in Idaho conduct a different type of operation and breed a somewhat different variety of sheep. Grazing ranges, mostly in the higher elevations, are used during much of the year, but winter feeding in the valleys is more or less a general practice. In southwestern Idaho in particular the breeding is primarily for weight, and under these conditions wool production is of secondary importance. Lambing takes place principally in February and March, when the lambs are born in sheds, but the season extends into April and May. June and July are the important marketing months.

By far the greater part of the lambs raised in the area are shipped to outside markets. Ordinarily from 35 to 40 percent of the lambs shipped from this region are sent to the Pacific Coast, most of them to Los Angeles, the remainder going to middle western markets, including Denver, Omaha, Kansas City, and Chicago. Practically the entire wool clip is shipped to the Atlantic Seaboard, principally to Boston.

The sheep raising industry generally was hard hit by the depression of the early thirties. At about the same time there were a number of relatively dry years which made it evident that grazing lands in sheepraising areas of the West generally had been overcrowded. In an attempt to protect the grazing lands from overcrowding, Congress passed the Taylor Grazing Act in 1934. As a result of this law, it has become necessary for sheep raisers generally to have a home base as well as range permits in order to make use of public grazing lands, and itinerant grazers have been eliminated. This factor, combined with a somewhat general liquidation due to the depression, brought about a considerable decline in the numbers of sheep on ranges and farms during the decade ended January 1, 1940. Decreases in the three states under discussion were: 15 percent to 1,804,000 head in Idaho, 23

FARM CASH INCOME—IDAHO, NEVADA, AND UTAH

	Average 1937-1939 (in thousands)				Percent- age* Distri- bution
	Idaho	Nevada	Utah	Total	
Corn	\$ 199	\$ 4	\$ 34	\$ 237	—
Wheat	10,867	179	1,962	13,008	9
Other grains	1,155	144	281	1,580	1
Beans	3,702	—	—	3,702	3
Hay	4,329	960	1,586	6,875	5
Potatoes	8,346	157	765	9,268	6
Seed crops	2,324	—	956	3,280	2
Sugar beets	4,570	—	3,330	7,900	5
Other field crops	2,166	152	2,775	5,093	4
Apples	2,127	23	262	2,412	2
Peaches	70	3	239	312	—
Pears	39	2	69	110	—
Grapes	16	4	29	49	—
Strawberries	223	—	239	462	—
Other fruit crops	594	3	390	987	1
Other misc. crops	2,863	209	344	3,416	2
Total farm crops	\$43,590	\$ 1,840	\$13,261	\$ 58,691	40
Cattle and calves	10,217	5,287	6,352	21,856	15
Hogs	5,788	243	1,561	7,592	5
Sheep and lambs	10,239	1,785	5,992	18,016	12
Wool	4,395	1,388	4,608	10,391	7
Chickens	1,000	107	803	1,910	1
Eggs	2,754	418	4,394	7,566	5
Turkeys	458	144	1,588	2,190	1
Dairy products	12,015	1,584	6,142	19,741	13
Other misc. prods.	615	121	621	1,357	1
Total livestock and products	\$47,481	\$11,077	\$32,061	\$ 90,619	60
Farm crops and livestock and products†.	\$91,071	\$12,917	\$45,322	\$149,310	100
Federal payments	\$ 5,154	\$ 183	\$ 1,932	\$ 7,269	

*Percent of total farm cash income.

†Excluding Federal Government payments.

percent to 817,000 head in Nevada, and 13 percent to 2,401,000 head in Utah.

Receipts from cattle and calves and from dairy products likewise bulk large in the total farm cash income of the area. Approximately 1,100,000 beef cattle and calves were on farms in the three states on January 1, 1940, some 480,000 in Idaho, 330,000 in Nevada, and 274,000 in Utah. As in the case of sheep, beef cattle in Idaho are more a product of the farm and less a product of the range than in Nevada and Utah. It is more profitable to market a portion of the crops grown in Idaho "on the hoof," and beef cattle are raised in considerable numbers on farms, principally on feed rather than forage.

Most of the beef raised in the three states is sold in Pacific Coast and mid-western markets, about 80 percent of the export movement going to the Pacific Coast, and 20 percent to the Middle West.

Income from dairy products is also large in Idaho and Utah, where it exceeds income derived from the sale of cattle and calves, but is practically negligible in Nevada. A considerably smaller proportion of this income, however, is derived from sales outside the area than is the case with cattle and calves, and sheep and wool. Much of the cash income from dairy products originates in sales of milk on the local fluid milk markets. Sizeable amounts of the butter and cheese and some of the condensed milk produced in the area are also consumed locally. Idaho butter in particular, however, moves to Pacific Coast markets; much of the condensed milk moves to outside markets, and a quantity of cheese is shipped out. The number of milk cows and heifers on farms on January 1, 1940 was reported as 295,000 in Idaho; 34,000 in Nevada; and 158,000 in Utah.

Hogs add a large sum to the annual cash income of the farm population in Idaho. Eggs are an important item in the farm income of Utah and several hundred carloads leave the State annually, principally for New York City. The raising of turkeys in Utah is also important.

As remarked earlier, crops grown in Nevada and Utah are of relatively minor importance as sources of farm income. Although a substantial quantity of crop output in Idaho is fed to livestock and marketed as livestock products, income from crops looms large in total farm cash receipts of that State. The largest cash income crop is wheat, production of which averaged 24,820,000 bushels yearly in 1935-1939. Approximately two-fifths of Idaho's total wheat crop is grown in the "Panhandle" north of the Salt Lake City Branch territory. Much of the crop grown in that part of Idaho consists of winter wheat, is relatively hard, and moves principally west to Pacific Coast mills and terminals. Of the crop grown south of the "Panhandle," the larger percentage consists of the generally softer types of spring wheat. The use of wheat as livestock feed is more important in southern than in northern Idaho. Nevertheless a surplus is produced, nearly all of which typically moves southwest to California or south to Ogden. Generally speaking, the harder wheat in the form of grain or flour exported from southern Idaho and from Utah is marketed principally in California, while exports of the softer wheats move east, to midwest mills or, as flour, to the southern states.

Of the several crops grown in the area, potatoes are of outstanding importance in Idaho, but relatively unimportant in Utah. Potato production in Idaho averaged 26,450,000 bushels annually in 1935-1939 and the State

is second only to Maine in the volume of carload shipments of potatoes. Of the more than 30,000 cars shipped annually a little over half originates in the upper Snake River Valley from Pocatello north. The main destinations of potato shipments are Kansas City, Chicago, and Los Angeles. From Chicago the cars are diverted to all points east and from Kansas City to all points south. Texas is an important customer and one of the largest consuming states of Idaho white potatoes.

Beans are likewise an important crop in Idaho. In the period 1935-1939 production averaged 1,518,000 bags annually. The principal growing area is in the vicinity of Twin Falls in the south central part of the State. Idaho beans are marketed throughout the country.

Sugar beets are a major crop grown in the irrigated districts of both Idaho and Utah. In the years 1935-1939 an annual average of 3,889,000 bags of refined sugar having a value of about \$18,000,000 has been produced by refineries in the two states from locally grown beets. Improved beet seed varieties and better methods of culture and pest control, together with more favorable national quota restrictions have afforded some stimulus to this industry.

Production of seed is a specialized and important farm occupation in the area, particularly in Idaho. From the standpoint of farm income, the principal production is of clover and alfalfa seed. A variety of other crops including apples in Idaho, and green peas and tomatoes in Utah also make sizeable contributions to farm income and to exports from the area.

The important place of agriculture in the economy of the Salt Lake City Branch Zone has given rise to some manufacturing devoted to the processing of farm crops and livestock products. In 1939, fruits and vegetables were packed in 29 canneries in Utah and two canneries were active in southern Idaho. The Utah pack of all fruits and vegetables averaged approximately 3,470,000 actual cases during 1935-1939. Of this pack, tomatoes and tomato products made up well over a third, while peas also accounted for over a third. Canned fruits are relatively unimportant. There are 14 beet sugar factories operated by five firms in Utah and southern and central Idaho. A number of flour mills and creameries process local farm products. Five milk condenseries, three in Utah and two in southern Idaho, are now operating in the area. There are two manufacturers of woolen blankets in Utah. Both follow the practice of purchasing local wool in the grease and processing it through the various stages to the finished product.

MANUFACTURING AND OTHER ACTIVITIES

While manufacturing activity is by no means negligible, it is one of the less important factors in the economic life of the Salt Lake City Branch Zone. Factory wage-earners in Idaho, Nevada, and Utah numbered 26,903 in 1937 (the latest year for which complete data are available). Of this total, approximately two-thirds were employed in the branch zone area. Although much over half the land area and total population of Idaho is in that portion of the State south of Idaho County and entirely within the Salt Lake City Branch territory, considerably less than half the factory employment is found there. Lumbering, which is of negligible importance in Utah and virtually non-existent in eastern Nevada, is an important industry in Idaho. The Idaho lumber indus-

try, however, is confined almost entirely to the northern part of the State, as is the smelting of lead and zinc. Eastern Nevada accounts for well under half the employment of wage-earners in the State as a whole.

It is unnecessary to elaborate upon the discussion of previous sections of this report with reference to manufacturing activities related directly to mining and agriculture. These lines produce practically all the manufactured goods exported from the Salt Lake City Branch Zone to other parts of the country. The remaining industrial operations are primarily those supplying local requirements of a character necessitating production in the immediate vicinity of the market. These include such lines as bread and other bakery products and printing and publishing. In addition, however, some manufactured products which could be imported are produced in large enough volume to meet a fair proportion of local demand. Of these, perhaps the most outstanding is the production of petroleum products. One large refinery operating on crude oil piped in from Wyoming is located in Salt Lake City, another and smaller refinery is also located in Utah and a third in southern Idaho.

Transportation plays an unusually important part in the economic life of the area, not only by providing an indispensable service, but also by providing a source of income for an appreciable number of wage-earners. The region is crossed by four transcontinental railroad routes and derives income from the maintenance and operation of transportation facilities, both rail and highway, employed in the interstate movement of freight and passenger traffic. There are many highway routes, nearly all of which pass through the Salt Lake City-Ogden center. The rapid development of these highways during recent years has made the entire region much more accessible to tourists and it is estimated that tourist traffic has at least doubled during the past decade.

POPULATION

The more important natural resources of the Salt Lake City Branch Zone and the chief economic activities of the people living in that area have been discussed above. The specific geographic locations in which the people live, the rate of population growth during the past decade and where it has been most marked, and an explanation of some of the more striking population changes in different localities since 1930 are also of interest. As to the specific geographic location of the population, there is, as might be expected, a high degree of correlation between population concentration and the location of natural resources, including irrigated land, and transportation routes. A glance at the accompanying map will confirm this observation.

According to the Bureau of the Census the population of the area covered by this report has grown by 13 percent during the past decade, compared with a growth of 7 percent for the United States. In 1930 the population was 866,800 and in 1940 it is 980,000 persons. An accurate estimate would be difficult on the basis of available information, but it is doubtless safe to assume that very few of these people obtain a living from sources outside this area. It probably would be safe also to assume that a somewhat larger (but still relatively small) number of people living outside the area participate directly to some extent, through partial ownership or other means, in the income from its mines and other economic activities.

Distribution of population by counties and by principal towns and cities in 1930 and 1940 is shown in the table.

Population in each of the four eastern counties of Nevada has increased during the past decade and for the area as a whole the growth has been 29 percent. Increased mining activities principally incident to the increase in the price of gold and to the relatively high price maintained in recent years for newly mined domestic silver have had some bearing on this growth. Over half the total increase in the four counties, however, occurred in Clark County and is traceable to an increase of 60 percent at Las Vegas and to the building of a new city (Boulder City). These developments are attributable directly to the construction of Boulder Dam and to an increase in tourist traffic in the immediate vicinity of that project.

In the section of Idaho south of Idaho County there has been a 19 percent increase in population during the past decade. It is difficult to trace this growth to any particular outstanding development, but more than half of the increase took place in irrigated sections. In recent years larger acreages in irrigated tracts have been planted to sugar beets and other row crops. This development has required the employment of more farm laborers. There is also some evidence that new farm homes have been established by division of the larger holdings of irrigated land. A noticeable increase in population on small tracts adjacent to the larger cities has taken place and those cities themselves have grown. In part, the increase in population in central and southern Idaho over the past decade repre-

POPULATION OF ALL COUNTIES AND CITIES OF OVER 10,000 INHABITANTS IN THE SALT LAKE CITY BRANCH ZONE 1930 AND 1940

	1930	1940	Percent Increase
Branch Zone Total.....	866,803	980,093	13
IDAHO*	325,092	388,032	19
Counties			
Ada	37,925	50,105	32
Bannock	31,266	34,450	10
Bingham	18,561	21,016	13
Bonneville	19,664	25,718	31
Canyon	30,930	40,833	32
Cassia	13,116	14,556	11
Franklin	9,379	10,233	9
Fremont	9,924	10,274	4
Jefferson	9,171	10,657	16
Twin Falls	29,828	36,500	22
Other	115,328	133,690	16
Cities			
Boise—Ada Co.....	21,544	25,987	21
Idaho Falls—Bonneville Co.....	9,429	15,036	60
Nampa—Canyon Co.....	8,206	12,170	48
Pocatello—Bannock Co.....	16,471	17,938	9
Twin Falls—Twin Falls Co.....	8,787	11,965	36
NEVADA†	33,864	43,668	29
Counties			
Clark	8,532	16,347	92
Elko	9,960	10,844	9
Lincoln	3,601	4,136	15
White Pine	11,771	12,341	5
UTAH	507,847	548,393	8
Counties			
Box Elder	17,810	18,816	6
Cache	27,424	29,789	9
Carbon	17,798	18,413	4
Davis	14,021	15,371	10
Salt Lake	194,102	210,707	9
Sanpete	16,022	16,051	0
Sevier	11,199	12,104	8
Utah	49,021	57,437	17
Weber	52,172	56,717	9
Other	108,278	112,988	4
Cities			
Logan—Cache Co.....	9,979	11,875	19
Ogden—Weber Co.....	40,272	43,719	9
Provo—Utah Co.....	14,766	17,956	22
Salt Lake City—Salt Lake Co.....	140,267	150,019	7

*Thirty-four central and southern counties only.

†Four eastern counties only.

sents a natural growth in numbers, i.e., the excess of births over deaths. In addition, migrations have played a part, particularly those from mid-western states. It has been unofficially estimated that in recent years some 8,800 families have moved from the "dust-bowl" area into the Pacific Northwest and that more than half these families have located in Idaho.

With reference to particular cities, the largest increase was in Idaho Falls where a growth of 59.5 percent took place from 1930 to 1940. Idaho Falls is the largest city in the upper Snake River Valley in eastern Idaho and draws trade from a large area, both of irrigated and dry farm lands. Materially improved roads have made it an increasingly important shopping and distributing center.

During the past decade the population of Utah has increased 8 percent, considerably less than the growth in eastern Nevada or in central and southern Idaho. There has been little opportunity for growth in the agricultural population of the State. The farm acreage is limited by the quantity of water available for irrigation purposes and, although the Deer Creek project near Provo will, when completed, increase the water supply available for 45,000 or 50,000 acres of land already under irrigation, no new lands have been brought under irrigation in recent years. The original farms have been split through inheritance and sales to a point where the average acreage per farm family is about as small as efficient operation will permit. While conclusive data are not available, it seems probable that any change in the number employed in mining over the past decade has been in the nature of a small decline. The bulk of metal mining operations in Utah is conducted on a large scale and increased efficiency has characterized mining machinery in recent years. In coal mining, operations have been curtailed as a result of lessened industrial demand, due chiefly to greater efficiency in the use of coal and to the substitution of gas, electricity and fuel oil for coal. Moreover, the market for Utah coal in the Pacific Northwest has been reduced as a result of competition from coal produced in other areas.

The population of Salt Lake City, which exceeds a quarter of the total for the State, grew only 7 percent over the decade, compared with an increase of 8 percent for the State as a whole. The growth in Salt Lake County, however, was 9 percent and reflects the establishment of many homes in suburban sections by persons gainfully employed in Salt Lake City.

In Provo, population increased 21.6 percent. Natural growth as a shopping center, the commencement of construction nearby on the Deer Creek project, and a sharp increase in enrollment at Brigham Young University from 1973 in 1930 to 3502 in 1940, are the main factors in this growth. In Logan, a contributing factor to the growth of 19 percent during the decade has been an increase in enrollment at Utah State Agricultural College from 1714 to 4244, with the attendant expansion in volume of business and employment in the service trades.

THE CURRENT ECONOMIC POSITION

Conditions in those economic pursuits which constitute the primary sources of income determine to a considerable extent the tempo of business activity in any particular area. It therefore follows that the key to the current economic situation in the Salt Lake City Branch Zone is to be found in its metal mining and smelting, and its agriculture and processing of agricultural products.

The principal nonferrous metals are vital armament materials. The tendency for copper production to decline during the first half of 1940 from the sharply higher levels to which it had risen in the final quarter of 1939 in response to the active demand which developed immediately after the outbreak of the European war in September 1939, has been effectively halted in recent months. In fact, expanding consumption under our own national defense program and in response to foreign demand for war materials and supplies, and some anticipation of a still higher rate of consumption, have induced an increase in copper mine and smelter operations in recent months. Present prospects suggest further expansion in the immediate future, and output for the year as a whole will show a marked gain for the branch zone area over production for 1939. The pattern of lead and zinc production has been similar. Output of gold and silver, produced in an appreciable volume in the area as a by-product of nonferrous metals mining, has also increased recently and will show a marked gain for the year as a whole. Prices of copper have advanced since the early summer, refined metal being quoted in November at 12 cents a pound, compared with a low for the year of 10¾ cents in mid-August. Refined lead prices are also up and are currently quoted at 5.65-5.70 cents a pound, compared with 4.75-4.80 cents in mid-August, while zinc is selling at 7.25 cents per pound, compared with 5.50 cents in late January, 1940.

Defense demands for manganese are prompting a revival in the development of known low yield reserves of this strategic metal in Utah. Sharply higher prices for mercury, a vital war material, have stimulated the development of known mercury deposits, which are, however, adapted to small scale operations only.

In agriculture, the increasing demand for wool, stimulated in large part by defense requirements, has been the most outstanding development affecting the Salt Lake City Branch area during recent months. Reflecting this demand, wool prices have moved upward. It is estimated that less than one percent of the total 1940 wool clip in Utah was held by growers on November 1. Growers sold a fair quantity of wool in October at prices of 30 to 32 cents per pound, with the lighter shrinking wools selling at about 35 cents. At shearing time in the spring, prevailing prices were 25 to 28 cents per pound in 1940 and 18 to 20 cents per pound in 1939. Expanding consumer income as a result of the revival in production, employment, and payrolls throughout the country, is prompting a growing consumption of farm products, particularly of livestock products, and prices of these items are generally firm at somewhat higher levels than a year ago.

The Salt Lake City Branch Zone has participated to some extent in the substantial awards of contracts made in recent months under the national defense program. Direct contracts placed for armaments and for materials and supplies to equip and provision the armed services, however, have been negligible. On the other hand, defense construction initiated from June through November inclusive, has amounted to \$7,400,000.

While economic activity in the area has received some direct stimulus from the awards of national defense contracts for construction, the more significant recent development has been the material expansion in demand for a number of the primary products of the region. Expansion in demand for these products is making itself felt in almost all aspects of the economic life of the area.

MONTHLY REVIEW

Supplement

Federal Reserve Bank of San Francisco

December 1, 1940

Summary of National Business Conditions

Prepared by the Board of Governors of the Federal Reserve System

INDUSTRIAL output rose sharply in October and the first half of November and prices of basic commodities advanced further. New orders both for defense purposes and for civilian needs continued in large volume.

PRODUCTION

Volume of industrial production, as measured by the Board's seasonally adjusted index, rose further in October to about 128 percent of the 1935-1939 average as compared with 125 in September and 126 at the peak reached last December.

Increases in output were marked in the automobile and textile industries. In the rayon industry, where production in September had been curtailed by a strike, activity increased considerably, and cotton textile mills were also more active. Mill sales of cotton goods have been large since the middle of August, reflecting increased civilian and military demand, and have been in excess of production during most of this period. At wool textile mills, where activity had risen sharply in September, there was a further increase in October. Backlogs of orders in this industry are now of considerable size owing to a large volume of orders received during the past two months, particularly from the Government. Automobile production rose to about 500,000 cars and trucks, the largest monthly total since the spring of 1937, and retail sales of both new and used automobiles were reported to be large for this time of year.

In the steel and machinery industries activity continued at a high rate in October. In the first half of November steel ingot production advanced slightly further and was at about 96 percent of capacity. This high rate of output is expected to be maintained for some time to come, according to trade reports, as new orders for steel have continued large. Lumber production, which had risen sharply since mid-summer, declined less than seasonally in October. New orders for lumber were somewhat below the high rate of August and September but remained above production, reflecting in part continued Government demands.

Bituminous coal production declined sharply in October but in the first half of November showed some increase. In this industry output had been maintained in large volume during the summer owing in part to considerable stocking of coal in anticipation of higher prices. Anthracite production also declined in the first half of October but rose sharply in the latter part of the month owing in part to seasonal influences. Crude petroleum production, which had been curtailed during most of the summer, increased further in October.

Value of construction contract awards increased in October, following a decline in the previous month, according to figures of the F. W. Dodge Corporation and the Federal Reserve Bank of San Francisco. Changes in the amount of contract awards in recent months have reflected principally fluctuations in contracts for public projects. Awards for private construction have shown about the usual seasonal changes, following a sharp rise in July and August.

DISTRIBUTION

In October department store sales declined considerably from the advanced level of the two preceding months, while sales at variety stores, which also had been large in August and September, increased seasonally. In the early part of November department store sales increased somewhat.

Total loadings of revenue freight in October were maintained at about the level reached in September. Shipments of miscellaneous merchandise increased further, while loadings of coal showed a sharp decrease. In the first week of November freight-car loadings declined by less than the usual seasonal amount.

WHOLESALE COMMODITY PRICES

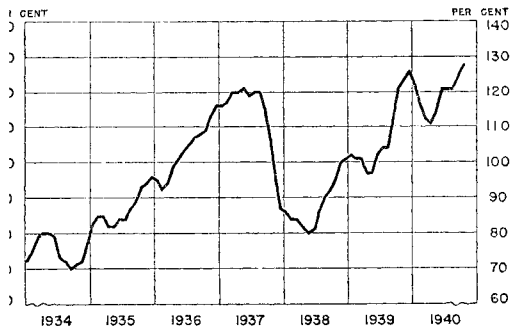
Prices of basic commodities continued to advance from the middle of October to the middle of November, with the chief increases in industrial materials, particularly lead, hides, wool, and textile yarns. The general index of wholesale commodity prices rose further by about 1 percent in this period, reflecting increases in prices of some finished goods as well as of materials.

BANK CREDIT

Total loans and investments at reporting member banks in 101 leading cities have increased substantially since the end of September. Commercial loans showed sizable increases both in New York City and in other leading cities. Following reductions during August and September, holdings of United States Government obligations at these banks also increased. Federal Reserve System holdings of Government obligations were reduced by \$180,000,000 between September 25 and November 13.

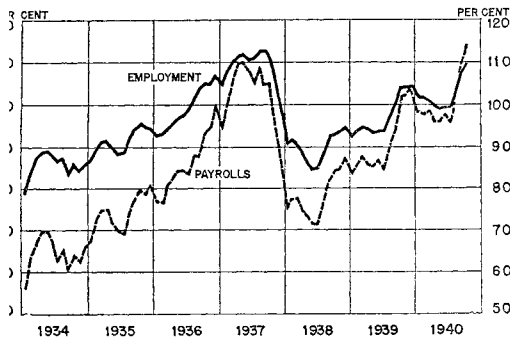
UNITED STATES GOVERNMENT SECURITY PRICES

After rising moderately during the latter part of October prices of United States Government securities advanced sharply in the early part of November. The quotation on the 1960-65 bonds reached a new high level at about 110¼, and the yield on this issue declined to 2.12 percent compared with 2.25 percent in October and 2.26 percent in June 1939 and again in April 1940. The average yield on 3 to 5 year treasury notes declined to less than ¾ of 1 percent.



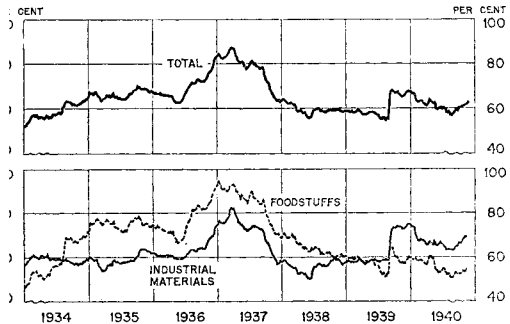
INDUSTRIAL PRODUCTION

Index of physical volume of production, adjusted for seasonal variation, 1935-1939 average=100. By months, January 1934 to October 1940.



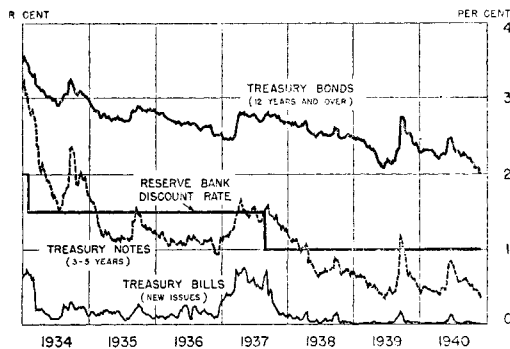
FACTORY EMPLOYMENT AND PAYROLLS

Indexes of number employed and payrolls, without adjustment for seasonal variation, 1923-1925 average=100. By months, January 1934 to October 1940. Indexes compiled by the United States Bureau of Labor Statistics.



WHOLESALE PRICES OF BASIC COMMODITIES

Indexes compiled by the United States Bureau of Labor Statistics, 1926=100. By weeks, 1934 to week ending November 7, 1940.



MONEY RATES IN NEW YORK CITY

For weeks ending January 6, 1934, to November 7, 1940.

FEDERAL RESERVE BANK OF SAN FRANCISCO

