MONTHLY BUSINESS REVIEW

of the FEDERAL RESERVE BANK of Dallas

Volume 33 | Dallas, Texas, October 1, 1948 | Number 10

THE CONSTRUCTION SITUATION— ITS IMPLICATIONS TO THE SOUTHWEST

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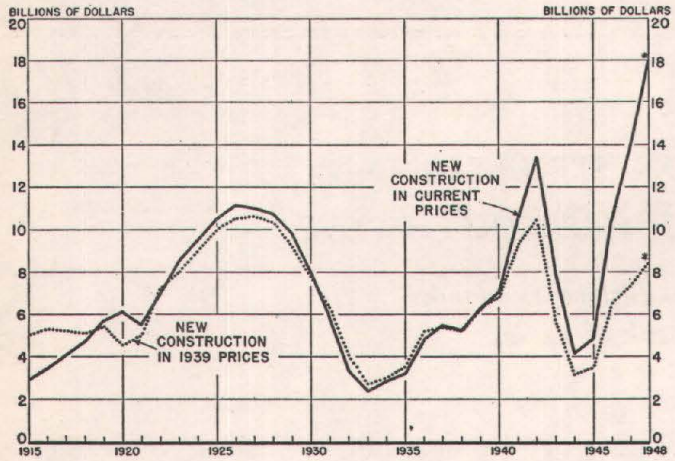
Over a period of years, building and construction activity has accounted for about 10 percent of the total production of goods and services in the United States. In this respect, construction ranks next to agriculture and ahead of all other individual industries. Construction contractors employed 2,250,000 people in August 1948, and about that many more were employed in the production of construction materials and equipment. The significance of construction to the economy is increased by its cyclical tendencies, involving boom and depression periods of from 7 to 11 years each in a cycle from 15 to 21 years in duration and averaging about 18 years, although construction booms and depressions are dependent in large part on demand and the general business situation. The peaks in past cycles have been from two to four times as high as the low points, thus contributing to wide fluctuations in employment and economic activity generally. Moreover, fluctuations in construction activity have been associated with similar fluctuations in the extension of mortgage credit, so that the construction cycle tends to contribute to a credit cycle which accentuates both booms and depressions.

As a result of these factors, the economy has tended to experience 7- to 11-year periods of stimulation from construction booms, followed by similar periods during which such stimulation is lacking. For example, during the construction boom of the 1920's, general business activity was stimulated by construction expenditures during the recessions of 1924 and 1927 and the more numerous prosperity years of that decade. The construction boom was among the several reasons for the generally high level of business activity and the mildness of the recessions characteristic of the middle 1920's. On the other hand, during the 1930's, when construction expenditures were subnormal, the stimulus to the rest of the economy was weak, contributing to the depth and duration of the depression and retarding the attainment of full recovery during such upswings in business activity as that which culminated in 1937. Of course, the 18-year construction cycle does not obliterate the ordinary 3- to 4-year and 7- to 10-year business cycles but, rather, tends to cause the highs and the lows of business cycles to occur at somewhat higher levels during construction booms and at somewhat lower levels during lean periods in construction.

The long construction cycle is at least partly the result of the durability of the buildings, highways, bridges, and other products of the industry. Such durable structures are not replaced very often, with the result that the construction volume of a single year usually amounts to only 2 to 7 percent of the total existing stocks of buildings and other such structures and averages about 5 percent of such stocks. A construction industry geared to produce at such levels cannot quickly produce enough to overcome an appreciable shortage which may have developed. Thus, for example, the postwar shortage of housing, commercial buildings, schools, and other such structures is not proving easy to

overcome, since the accumulated deficits in production carried over from the depression years of the 1930's and the period of wartime restrictions cannot be made up in less than several years of construction boom. On the other hand, when a surplus of such structures exists, as during the 1930's, the durability of those structures prevents the surplus from being reduced appreciably except over an extended period of time. Chiefly for this reason, depressed conditions in the construction industry tend to persist for quite a number of years.

NEW CONSTRUCTION ACTIVITY IN THE UNITED STATES
CURRENT AND 1939 PRICES



* ESTIMATED

SOURCES: DEPARTMENT OF COMMERCE
DEPARTMENT OF LABOR

Another factor accounting for the extremes of the construction cycle is the stimulative and even inflationary effect of construction booms upon the whole economy. The prosperity thus induced further increases the demand for construction products beyond normal replacement needs and beyond the ability of the industry to supply in the short-term period. The expansion of real-estate credit during such booms also adds to the effective demand for construction activity. The opposite effect is found when, with a decline in construction activity, the whole economy tends to become depressed, thereby lessening the demand for the products of construction, with the result that an existing surplus of construction products is augmented and a longer period of time elapses before a revival of construction activity takes place.

In appraising the present and prospective position of the construction industry, it is significant that during the construction cycle of 1918-33 the average construction expenditures were about $7,500,000,000 per year in terms of 1939 prices, which is equivalent to about $16,000,000,000 per year at 1948 prices. During the decade of the 1930's, new construction activity fell short of this average rate by about $5,500,000,000 per year at 1948 prices, piling up an apparent deficit of about $55,000,000,000 during the decade. Despite the increase in construction during 1940-42, the apparent accumulated deficit rose to over $65,000,000,000 between 1940 and 1946. These figures are, of course, somewhat conjectural, since the normal rate of construction activity now may be considerably higher or lower than in 1918-33 and much of the construction foregone in the past may be forever lost. However, the $65,000,000,000 figure does give an idea of the magnitude of the construction task which was before us as the postwar construction boom got under way. This large deficit figure tends to be confirmed by a compilation of the estimated backlog of proposed heavy engineering-type construction scheduled or planned but not yet completed. The estimated backlog of this heavy construction, which usually accounts for less than half of all new construction, was $42,100,000,000 at mid-1948. Regardless of the precise size of the total construction backlog, it should keep the industry busy for several years, since a large part of our present $18,000,000,000 a year construction capacity at current prices would be utilized in meeting the new requirements originating each year.

TABLE I

BACKLOG OF PROPOSED ENGINEERING CONSTRUCTION IN THE UNITED STATES AT SELECTED DATES, 1943-48

(Amounts in millions of dollars)

Class of Work	Dec. 31, 1943	Dec. 31, 1944	Dec. 31, 1945	Dec. 31, 1946	Dec. 31, 1947	June 30, 1948	Percentage distribution: Dec. 31, 1945	Percentage distribution: June 30, 1948
Water works	n. a.	n. a.	$ 874	$ 1,131	$ 1,155	$ 1,170	3.1	2.8
Sewage	n. a.	n. a.	1,549	1,996	2,186	2,159	5.5	5.1
Bridges	n. a.	n. a.	1,144	1,264	1,385	1,396	4.1	3.3
Earthwork and drainage	n. a.	n. a.	6,892	7,543	7,598	7,499	24.6	17.8
Street and road	n. a.	n. a.	3,728	4,153	4,235	4,268	13.3	10.1
Public building	n. a.	n. a.	5,806	7,480	8,424	9,093	20.7	21.6
Industrial building	n. a.	n. a.	1,331	2,402	3,544	3,815	4.8	9.0
Commercial building	n. a.	n. a.	1,901	3,545	4,645	4,865	6.8	11.5
Unclassified	n. a.	n. a.	4,777	6,043	7,807	7,926	17.1	18.8
Total	$ 5,101	$16,615	$28,002	$35,557	$40,979	$42,191	100.0	100.0

n. a.–Not available.

SOURCE: *Engineering News Record.*

Just prior to World War II the actual and potential demands for construction were great enough to stimulate an increase in construction activity, but the boom that had been predicted for the early 1940's was largely delayed by the war, which stimulated war construction but retarded most residential, commercial, and other less essential types of construction activity. During World War II, military and naval facilities and war plants were built very rapidly as the result of military necessity, government aids, and the availability of labor and materials early in the period. The peak was reached in 1942, after which construction volume declined while the economy turned more largely to war production within the plants constructed in 1941-42. During the period of wartime restrictions, construction activity fell to less than one-third of the 1942 level. After the relaxation of these restrictions about V-E Day and their complete cancellation in the following November, construction volume increased rapidly, surpassing in 1947 the 1942 peak in dollar volume although not in physical volume.

As a result of the all-time high in demand, the postwar construction industry has been faced with a market capable of absorbing far more than could be produced within a few years. To the extent that the demand for one type of construction has been more nearly satisfied, the demand for other types has tended to remain more nearly unsatisfied. In fact, until 1948, there appears to have been no major type of construction in which production was at levels high enough to approach the requirements of our economy. The veterans housing program, while increasing the proportion of national construction capacity directed toward housing, has not achieved anywhere near the full solution of the housing problem. Industrial construction seems to have fared somewhat better than other types in this respect, since the large number of war plants built in 1941-43 were to some extent adaptable to peacetime industrial uses. Furthermore, a large volume of liquid assets was available for immediate postwar investment in new industrial plants. Such plants were completed in large numbers in 1946-47 and have contributed to increased postwar productive capacity. The volume of industrial construction in 1948 to date suggests the possibility that the peak has been passed in this type of construction so that some of this construction capacity now may be switched to other types of building and construction.

While construction activity has increased for nearly four years, with a new peak in prospect in 1948, there are, nevertheless, limits to the capacity of the construction industry. First, the skilled labor supply required by the industry cannot be increased quickly. The periods of apprenticeship for carpenters, bricklayers, painters, roofers, and other such skilled workers are typically from three to five years, and apprentice training programs have been handicapped by the many alternative opportunities available to young workers. The number of construction workers has increased in recent years, but it is still below requirements needed by the industry to satisfy current demand. With virtually full employment in the industry, construction craftsmen have enjoyed a sellers' market for their services, a condition which has not been stimulative to greater productivity.

TABLE II

PRODUCTION OF SELECTED CONSTRUCTION MATERIALS IN THE UNITED STATES AND TEXAS, 1939-48

Year	Lumber (million bd. ft.)		Portland cement (thousand barrels)		Unglazed brick (millions)	Fabricated structural steel (thousand tons)
	United States	Texas	United States	Texas	United States	United States
1939	24,975	1,137	122,259	6,541	4,726	1,440
1940	28,934	1,271	130,217	7,375	4,079	1,516
1941	33,476	1,329	164,031	8,598	4,938	2,251
1942	36,332	1,384	182,781	11,401	3,388	2,040
1943	34,289	1,129	133,424	7,264	1,918	832
1944	32,938	1,090	90,906	6,136	1,878	598
1945	28,122	933	102,805	8,037	2,289	797
1946	34,936	1,343	164,064	10,713	4,869	1,552
1947	36,635	1,450e	186,533	12,461	5,028	1,915
1948						
January	2,719	n. a.	14,541	935	369	146
February	2,480	n. a.	13,347	1,088	318	142
March	3,022	n. a.	14,502	1,044	392	167
April	3,035	n. a.	16,041	1,181	445	165
May	3,089	n. a.	17,740	1,095	498	180
June	3,269	n. a.	17,757	1,142	541	148
Jan.-June	17,614	n. a.	93,928	6,485	2,563	948

e–Estimated. n. a.–Not available.

SOURCES: American Institute of Steel Construction.
American Iron and Steel Institute.
Bureau of Mines.
Bureau of the Census.
National Lumber Manufacturers Association.
The Texas Almanac 1947-1948.

Building and construction materials shortages also have limited the expansion of construction. The low level of construction activity during the decade before World War II did not encourage expansion of productive capacity in the building materials field; moreover, such expansion was hindered during the war except where it contributed to the war effort. The postwar expansion of the production of such materials has been limited by the fact that the construction materials industries have had to compete with other industries for labor, plant facilities, and materials during a period of full employment of men and resources.

From 1939 to 1948, new construction activity in terms of physical volume increased by about 33 percent. The increase in the production of 20 selected construction materials was about 42 percent, which, even allowing for the need for inventory accumulation, might have been sufficient if a better distribution by kinds of materials could have been obtained. Lumber production is 36 percent above the 1939 level; brick, 37 percent; warm air furnaces, 64 percent; cement, 75 percent; asphalt prepared roofing, 84 percent; and gypsum board, 586 percent. On the other hand, increases are smaller than the increase in physical volume of construction in the cases of wire nails, 31 percent; clay tile, 27 percent; fabricated structural steel, 23 percent; concrete reinforcing bars, 20 percent; and cast iron radiators, 4 percent. The supply of construction labor has been adequate to permit contract construction employment during the first half of 1948 to average 68 percent above the 1939 level, but the increase in employment is due less to recruiting new craftsmen and more to reduction of unemployment existing in the earlier year. Now that the production of construction materials is at about full capacity and the slack in construction employment has virtually vanished, any further expansion of the physical volume of construction must proceed slowly.

TABLE III

INDEXES OF CONSTRUCTION COSTS, 1915-48

(1939=100)

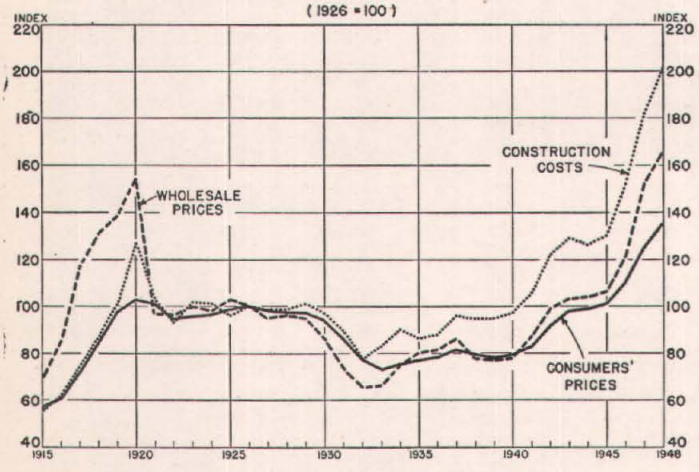
Year	Total construction cost	All construction materials	Brick and tile	Cement	Lumber	Paint and paint materials	Wage scales in building trades: All trades	Wage scales in building trades: Journeymen	Wage scales in building trades: Helpers and laborer
1915	58.8	59.1	42.8	55.9	52.3	66.2	37.2	38.0	32.4
1920	133.9	165.9	129.5	128.4	177.3	178.9	70.0	70.1	71.5
1921	108.9	107.6	115.6	121.4	95.4	101.3	71.3	71.4	72.2
1929	106.7	105.4	103.2	97.5	100.6	114.6	93.1	93.6	88.8
1932	81.1	78.9	84.6	81.4	62.8	85.9	83.1	83.6	79.2
1939	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1940	102.7	104.8	99.0	99.5	110.4	103.5	101.6	101.4	102.0
1941	112.3	114.0	102.5	100.8	131.4	110.4	105.3	105.0	106.8
1942	129.1	121.8	107.2	103.0	142.7	121.1	111.9	110.9	117.5
1943	135.7	123.1	108.4	102.7	151.7	123.6	112.7	111.5	118.9
1944	133.3	127.6	111.3	104.5	164.5	127.1	113.6	112.4	120.3
1945	137.4	130.2	123.0	108.9	166.4	129.1	116.0	114.4	125.9
1946	159.6	146.1	133.8	114.0	191.1	142.8	129.3	126.8	146.3
1947	190.3	198.3	153.2	126.7	297.4	196.4	147.9	144.6	171.1
1948 June	212.0	217.5	167.7	141.1	336.1	191.7	n. a.	n. a.	n. a

n. a.–Not available.

SOURCES: United States Department of Commerce; United States Department of Labor.

The apparent hesitancy to expand both the construction labor force and the capacity to produce construction materials has also been a factor in the slow technical progress of the construction industry. The light construction industry has changed less and has experienced the least mechanization of any of our major industries. New techniques have contributed comparatively little to the lowering of construction costs. Prefabrication offered some promise of a possible technological revolution in construction but to date has not accomplished as much as had been anticipated. Antiquated building codes, opposition by skilled construction workers, and hesitancy to cooperate on the part of construction materials producers have been among the obstacles to the progress of prefabrication. Partly as a result of such slowness to progress, construction costs have increased relative to the general price level over the last several decades. As long as the demand for construction remains in excess of the capacity of the industry, prices of buildings and other construction products will remain high and there will be less incentive to attempt to cut costs by the use of new techniques. Later, when there is no longer a strong sellers' market, there may be more economic incentive to technical progress in this industry.

INDEXES OF CONSTRUCTION COSTS, WHOLESALE PRICES, AND CONSUMERS' PRICES



SOURCES: DEPARTMENT OF COMMERCE
DEPARTMENT OF LABOR

The total dollar value of all new construction in the United States reached an all-time high of nearly $14,000,000,000 in 1947 and is expected to rise to $18,000,000,000 for 1948. Even after allowing for a rise of about 12 percent in construction costs since 1947, as measured by the Department of Commerce composite index, the increase in physical volume of construction is expected to be about 14 percent.

During periods of peacetime prosperity, private construction normally accounts for 75 to 80 percent of all new construction, with public construction accounting for the remainder. During the depression years of the 1930's, private construction declined and in 1933 was only 43 percent of the total. Wartime restrictions in 1942 held private construction down to 22 percent of total construction, but the relationship has now moved back to the 75 to 80 percent range, with the 1948 proportion being estimated at 77 percent.

TABLE IV

CONSTRUCTION ACTIVITY IN THE UNITED STATES, BY TYPES OF CONSTRUCTION, 1947-48

(In millions of dollars)

Type of construction	1947	Jan.-Aug. 1948	Total 1948 (estimated)
Total new construction	$13,977	$11,224	$18,000
Total private	$10,893	$ 8,779	$13,850
Residential (excl. farm)	5,260	4,485	7,100
Nonresidential building	3,131	2,319	3,750
Industrial	1,702	943	1,425
Warehouses, office and loft buildings	216	209	375
Stores, restaurants, and garages	619	604	1,000
Other nonresidential building	594	563	950
Farm construction	450	363	500
Public utility	2,052	1,612	2,500
Railroad	318	218	350
Telephone and telegraph	510	445	625
Other public utility	1,224	949	1,525
Total public	$ 3,084	$ 2,445	$ 4,150
Residential	182	46	75
Nonresidential building	505	572	1,000
Industrial	25	13	25
Educational	275	316	525
Hospital and institutional	81	104	225
Other nonresidential building	124	139	225
Military and naval	204	104	200
Highway	1,233	914	1,600
Sewer and water	331	284	450
Misc. public service enterprises	117	72	125
Conservation and development	396	364	550
All other public	116	89	150
Maintenance and repairs	$ 7,104	n. a.	$ 8,000
Total construction	$21,081	n. a.	$26,000

n. a.–Not available.

SOURCES: United States Department of Commerce.
United States Department of Labor.

During the depression decade of the 1930's, an average of 273,000 new nonfarm dwelling units per year were built, or about 60 percent as many as were required to keep pace with the increase in the number of nonfarm families. Toward the end of that decade, residential building increased and by 1940 603,000 dwelling units were constructed, with the total rising in 1941 to 715,000 units. That beginning of a housing boom, however, was cut short by wartime restrictions without attaining a level of output per year equal to any of the boom years between 1922 and 1928. As a result of the very low levels of residential building in 1943-45, the average number of new dwelling units built in the period 1940-45 was 430,000 per year, or about two-thirds as many as were required to keep pace with the increase in families. Thus, in fifteen years, 5,315,000 new dwelling units were built, while the number of families increased at least 8,000,000. Assuming that the boom of the 1920's had resulted in a surplus of about a million housing units, there would still have been a deficit at the end of 1945 of about 1,700,000 units. About 662,000 dwelling units, including 438,000 permanent units, were built in 1946 and 832,000 permanent units were completed in 1947; inasmuch as the increase in the number of families was somewhat less than these figures, by the end of 1947 the housing deficit had been reduced to about 1,500,000. By producing 950,000 units in 1948, the deficit may be reduced by perhaps another 200,000.

In appraising the current output of housing it is notable that in 1925, for a population of about 116,000,000, approximately 937,000 new dwelling units were built. For 22 years thereafter that building record was not equaled. By 1948, the population had gradually grown to about 145,000,000, or 25 percent greater than in 1925, yet the prospective building of 950,000 dwelling units in 1948 only exceeds fractionally the 1925 record in dwelling units built.

In the housing market, the limited output is, in effect, rationed out on the basis of purchasing power, the purchasing power being chiefly in the form of mortgage money and wartime and postwar savings. The person who can raise or borrow the most money can outbid others, but, in the process, housing prices and costs soar. These higher prices probably account for but little of the sharp increase in production, since a much smaller price increase would have been practically as effective as a stimulus to full capacity construction and would have been much less inflationary. Mortgage debt outstanding on one- to four-family houses increased from $19,991,000,000 at the end of 1945 to about $32,800,000,000 at the middle of 1948, an increase of 64 percent. This increase is approximately proportional to the increase in the total market value of such houses but is nine times as great as the 7 percent increase in the existing number of dwelling units during the same period. There is much evidence that easy mortgage credit has done less to produce more houses than it has to produce more expensive houses. A slowly declining price level followed by a period of price stability in resi-

dential construction could signal a healthier housing market which would support a large volume of residential building for quite a few years.

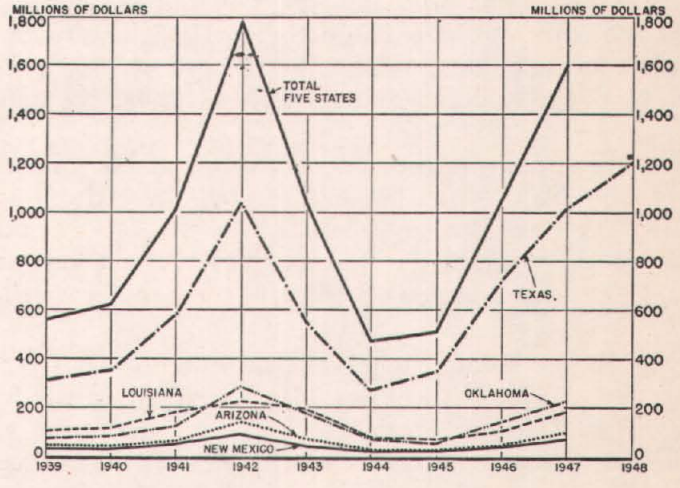
Nonresidential building includes a considerable variety of structures, of which industrial buildings have usually accounted for a significant construction volume. As was the case after World War I, industrial construction appears to have passed its post-World War II peak sooner than most other types of construction, as the estimated volume of industrial construction in 1948 is expected to drop 16 percent below the 1947 peak of $1,702,000,000. On the other hand, the building of stores, restaurants, and garages is increasing and is expected to reach a new peak of $1,000,000,000 in 1948 and to hold up relatively well for some time; the same trend may characterize construction of warehouses, office and loft buildings, churches, and hotels.

Railroads, local transit lines, and telegraph companies may increase their construction expenditures somewhat, but their lack of growth trend probably should prevent their equaling records of earlier booms except possibly on an inflated dollar basis. Gas and electric utilities, telephone companies, and pipe lines, which exhibit indications of a long-time growth trend, probably will establish new construction volume records in 1948. In many communities the shortage of utility facilities has been almost as serious as the shortage of houses, and the backlog of utility construction may require several years to overcome. In this connection, it may be noted that during the boom of the 1920's, public utility construction reached its peak relatively late, in 1929.

Highway and street construction, which is normally the largest single type of public construction, amounted to 40 percent of all public construction in 1947 and is expected to represent about the same proportion in 1948. Such construction has generally amounted to about a tenth of all new construction, both public and private. It is estimated that federal, state, county, and municipal governments will spend about $1,600,000,000 on such construction in 1948. Despite these large expenditures, a substantial backlog of highway and street construction will remain. Other important types of public construction are schools, hospitals and other institutional buildings, other public buildings, and sewer and water facilities. The need for these types of construction is closely related to the need for housing, since the great increase in urban and metropolitan populations has created demands for shelter, education, health protection, and other public services associated with the postwar American standard of living. New all-time highs, in dollar volume at least, for most of these types of construction are expected in 1948.

The maintenance and repair of existing buildings and structures also employ a large volume of construction labor and materials and, to some extent, add to the usable stock of buildings and structures. It is estimated that expenditures for such purposes may reach a new high level of $8,000,000,000 for 1948; this figure, largely because of inflated prices, surpasses the annual figures for total construction in the depression period 1932-35. Wartime scarcity of labor and materials created some backlog in maintenance and repair work, but perhaps the most important explanation of the recent volume of expenditures is the high level of income and savings. Other contributing factors have been the high costs and limited capacity of the new construction industry. Often it has been cheaper, quicker, and more satisfactory to repair and maintain existing structures than to buy or build new ones.

NEW CONSTRUCTION IN THE SOUTHWESTERN STATES



SOURCES: DEPARTMENT OF COMMERCE
DEPARTMENT OF LABOR
* ESTIMATED

With generally full employment, record peacetime production, and nearly universal backlogs of construction demand, most parts of the country have enjoyed a large volume of postwar construction activity. Nevertheless, such activity has varied from region to region, with some areas experiencing more of the boom than others. Some of the reasons for these geographical differences are found

in population trends, migration within and between regions and particularly to rapidly growing cities, geographical shifts of industry, and regional variations in income. The Pacific Coast States and the Southwest have enjoyed greater than average increases in population and income and have been particularly attractive as centers of industrial expansion. Thus, Texas, with 4.9 percent of the United States population in 1947, had 6.7 percent of the Nation's construction activity during the period 1939-47 and 7.3 percent during 1947, ranking second only to California in the latter year. In proportion to its population, Texas obtained 43.5 percent more than its share of the Nation's construction activity in 1939-47 and 47.2 percent more in 1947. Arizona had 56.7 percent more than her

TABLE V

NEW CONSTRUCTION BY TYPES IN TEXAS, 1939-48

(In millions of dollars)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	Jan.-June 1948
Total new construction	$317.3	$357.9	$586.0	$1,042.9	$549.7	$274.1	$352.8	$728.3	$1,019.5	$573.2
Private, total	$199.4	$215.3	$281.1	$187.7	$119.5	$164.6	$224.8	$595.2	$845.0	$464.6
Residential building	96.2	95.8	124.9	69.9	28.5	42.5	50.4	258.0	428.7	277.1
Nonresidential building	41.3	59.1	73.9	25.0	4.8	24.5	91.5	209.1	232.2	93.4
Public utility	48.3	46.3	63.8	75.6	68.5	84.5	71.3	108.8	161.7	84.3
Farm	13.6	14.1	18.5	17.2	17.7	13.1	11.6	19.3	22.4	9.8
Public, total	$117.9	$142.6	$304.9	$855.2	$430.2	$109.5	$128.0	$133.1	$174.5	$108.6
Residential building	2.0	11.0	23.4	11.2	40.9	12.0	1.6	17.7	5.3	n. a.
Nonresidential building	38.4	21.4	55.7	249.8	129.7	41.5	42.4	21.1	31.3	27.9
Military and naval	8.5	42.8	157.3	518.0	179.4	13.5	38.2	12.9	9.2	n. a.
Highway and street	49.3	40.2	39.3	36.4	19.3	13.5	23.2	46.0	88.3	n. a.
Conservation and development	9.3	12.2	12.6	16.2	29.0	14.2	6.2	7.6	13.7	n. a.
Other public	10.4	15.0	16.6	23.6	31.9	14.8	16.4	27.8	26.7	n. a.

n. a.–Not available.

SOURCES: United States Department of Commerce; United States Department of Labor.

share in 1939-47 and 60.8 percent more in 1947. The five States comprising the Eleventh Federal Reserve District reported 22.2 percent more than their share of construction activity in 1939-47 and 25.4 percent more than their share in 1947.

TABLE VI

VALUE OF CONSTRUCTION CONTRACTS AWARDED IN THE UNITED STATES, ELEVENTH FEDERAL RESERVE DISTRICT, TEXAS, AND SELECTED CITIES, 1939-48

(In thousands of dollars)

	Dallas	Fort Worth	Houston	San Antonio	Texas	Eleventh District	United States
1939	$ 21,623	$ 8,383	$ 33,992	$14,784	$179,337	$199,110	$3,550,543
1940	28,740	7,338	37,489	18,021	253,852	273,692	4,003,957
1941	30,815	25,497	51,502	27,416	397,738	453,843	6,007,474
1942	19,750	35,362	81,524	84,264	838,233	914,205	8,255,061
1943	21,238	8,545	22,595	11,584	319,272	356,925	3,273,990
1944	10,242	12,851	30,304	10,221	159,856	178,224	1,994,016
1945	25,873	16,996	80,081	28,889	264,604	278,944	3,299,303
1946	91,514	36,021	140,387	40,821	533,509	564,394	7,489,722
1947	109,168	49,416	114,017	50,408	624,155	681,131	7,759,868
1948							
January	12,823	2,713	9,683	3,599	51,776	55,691	615,206
February	10,223	1,754	19,137	5,931	72,345	80,765	681,967
March	11,495	4,749	6,524	4,005	44,856	56,601	689,763
April	7,818	3,570	15,152	2,889	50,043	54,764	873,882
May	14,396	3,764	31,184	3,806	85,753	90,666	970,789
June	9,254	2,380	17,038	3,532	56,485	60,588	935,198
July	10,503	2,724	16,875	3,494	68,098	75,970	962,685
Jan.-July	76,512	21,654	115,593	27,256	429,356	475,045	5,729,490

SOURCE: F. W. Dodge Corporation.

A partial explanation of this disproportionately large volume of construction in the Southwest lies in the wartime construction of military establishments and ordnance works and the large wartime and postwar expansion of facilities in the iron, steel, machinery, nonferrous metal, oil refining, aircraft, shipyard, chemical, and rubber industries. The tendency toward industrial decentralization has particularly favored the Southwest, while the expansion of petroleum production has also been an important contributing factor. The industrial expansion of this area not only has required a tremendous increase in facilities but also has attracted many new workers to the cities in the area. As a result the demand for housing, stores, office buildings, public utility facilities, schools, and other types of construction required to serve the added population has increased greatly.

In 1947, the volume of new construction in the five States included in the Eleventh Federal Reserve District amounted to $1,603,700,000 or more than 14 percent of the national total, as com-

pared with 9 percent in 1939. Texas raised its share from 5.0 percent to 7.3 percent of the national total during the period, as construction in 1947 rose to $1,019,500,000; in 1948, the Texas total may reach $1,200,000,000. An unusually high proportion of Texas construction has been in the private category—83 percent in 1947 and 81 percent in the first half of 1948.

The forces supporting a housing boom have been operating somewhat more strongly in Texas than in most other parts of the United States. While the statistical picture is less complete for individual states than for the whole country, the figures indicate that Texas has ranked second only to California in postwar residential building, and it is probable that nearly 10 percent of the estimated 950,000 new dwelling units to be built in the United States in 1948 may be in Texas. Residential building in Texas in 1947 in terms of dollar volume was 4.5 times as great as in 1939 and 15 times as great as in the war year 1943. Furthermore, in the first six months of 1948, residential building in the State was 76 percent above that for the same period of 1947 and reached a record high of $154,400,000 during the second quarter of 1948. Most of the residential building in Texas has taken the form of single family houses, although in the large cities apartment projects rival the single family houses. Contract award data for the first seven months of 1948 indicated that apartments, hotels, and dormitories valued at $27,386,000 were to be built in Texas, with two apartment projects in the Dallas area and three in the Houston area valued at more than $1,000,000 each.

TABLE VII

LARGE CONSTRUCTION CONTRACTS AWARDED IN TEXAS
JANUARY-JULY 1948

County (and chief cities)	Type of project	Date of contract award	Size (Dollars)
Brazos (Bryan)	Office building	February	$1,000,000
Coke (Bronte, Robert Lee)	Manufacturing plant	July	2,000,000
Dallas (Dallas, Garland, Grand Prairie)	Apartment	January	4,233,000
	Office building	February	1,000,000
	Science building	March	1,690,000
	Freight station	March	1,117,000
	Apartment	April	1,000,000
	Manufacturing plant	April	1,000,000
	Office building	May	3,000,000
	Manufacturing plant	May	2,000,000
	Office building	June	2,500,000
El Paso (El Paso)	Grade crossing	May	1,365,000
Falls (Marlin)	Hospital	June	4,730,000
Galveston (Galveston, Texas City)	Street	June	1,000,000
Harris (Houston, Baytown)	Tunnel	February	6,500,000
	Apartment	February	2,125,000
	School	February	2,000,000
	Apartment	February	1,291,000
	Office building	February	1,000,000
	Apartment	March	1,500,000
	Department store	April	2,000,000
	Manufacturing plant	April	1,000,000
	Store	April	1,000,000
	Two-family houses	May	7,300,000
	Department store	May	6,000,000
	Tunnel	May	4,000,000
	Department store	May	2,000,000
	School	May	2,000,000
	Manufacturing plant	June	6,000,000
	School	July	1,637,000
Hill (Hillsboro)	Dam and reservoir	February	15,995,000
Howard (Big Spring)	Hospital	January	5,713,000
Jasper (Jasper) and Tyler (Woodville)	Spillway	July	2,821,000
Nueces (Corpus Christi)	School	January	3,263,000
	Manufacturing plant	May	2,000,000
Smith (Tyler)	Dam	June	1,196,000
Tarrant (Fort Worth)	Office building	January	1,000,000
	Grading	March	2,402,000
	Religious building	April	1,500,000
	Manufacturing plant	May	1,500,000
Tom Green (San Angelo)	Dam and reservoir	March	1,584,000

SOURCE: F. W. Dodge Corporation.

Nonresidential building in Texas since 1939 has reflected, first, the building of war plants and, later, the postwar industrial and commercial expansion of the region. The industrial facilities for military production built in the Eleventh Federal Reserve District in 1940-44 were valued at $1,471,094,000, of which 77 percent were publicly financed. Texas received $1,371,379,000 of such construction, including facilities for many types of industry. Although it has not been practical to use all of these facilities since the end of the war, those that have been used have contributed to the permanent industrial development of the area.[1]

Postwar industrial construction in Texas has included a great variety of projects, such as oil refineries, natural gas cycling plants, and a host of manufacturing plants which are contributing to

[1]For a discussion of the "Disposal and Utilization of War Manufacturing Facilities in the Southwest," see the *Monthly Business Review*, March 1, 1948.

the diversification of economic activity in the State and region. New refineries scheduled for completion in 1948 or 1949 are under construction at Port Arthur, Brownsville, Baytown, Beaumont, Houston, Corpus Christi, and Winnsboro. Other refinery projects are being planned or considered at Big Spring and Sunray, while expansion of present facilities is under way or planned in numerous locations throughout the State.

Natural gas processing plants are more frequently located near the source of their chief raw material than is the case with petroleum refineries. Hence, the Southwest has a larger proportion of the Nation's natural gas plants than of its petroleum refineries. Natural gas processing plants scheduled for completion in Texas in 1948 and 1949 include the largest construction project of this type in the United States—the 220,000,000 cubic feet daily capacity cycling plant under way in the Seeligson field—and a large cycling plant of 166,000,000 cubic feet capacity in Bee County. Large gasoline plants include one of 130,000,000 cubic feet capacity at Kermit, one of 120,000,000 cubic feet authorized at Alvin, and one of 100,000,000 cubic feet under way at Carthage. A 100,000,000 cubic feet absorption plant is under way at Winnie, while many other smaller projects are under construction or planned in various parts of the State.

Construction contract award data indicate that the total volume of industrial building may have passed its postwar peak in Texas as well as in the Nation. However, two contracts of at least $1,000,000 each were awarded during the first seven months of 1948 for manufacturing plants in the Dallas area, two in the Houston area, one in the Corpus Christi area, one in the Fort Worth area, and one in the Bronte area. August awards add to this list an oil company shop building at Houston and a tin processing plant at Texas City.

Commercial buildings have been particularly numerous among the building projects of over $1,000,000 valuation for which contracts have been awarded in 1948 to date. During the first seven months of the year, these contracts included three office buildings in Dallas and one each in Houston, Fort Worth, and Bryan. There have been four department store and other large store contracts in Houston. In August a large shopping center in Dallas was added to the list. Largely because of the importance of pipe-line and gas utility construction, Texas has ranked first among the states in total public utility construction every year from 1942 to 1947. In Texas, even more than in most other states, there has been a shortage of utility facilities, with the result that the backlog of such construction is large.

Numerous pipe lines are under construction or planned in the Southwest. From west Texas fields northeastward, the 516-mile crude oil line from Jal, New Mexico, to Cushing, Oklahoma, has been built as far as Wichita Falls, using 20- and 22-inch pipe. Plans for the Slaughter, Texas-Drumright, Oklahoma, 16-inch line have been revised to include 190 miles of pipe. The larger gas reserves now estimated for west Texas have stimulated consideration of a 20- to 24-inch 1,000-mile pipe line to the Los Angeles area. A 440-mile products pipe line will link Houston to Chicago via older lines. Natural gas lines from the Southwest to the industrial Northeast will include a 992-mile 30-inch line, while construction is in progress on a 1,584-mile 18-, 22-, and 24-inch line from the Texas Panhandle. Plans are being made for numerous other large interstate and intrastate pipe lines.

In the extensive areas of the Southwest, highways are particularly important and street and road expenditures are following the national trend. In the five States included in the Eleventh Federal Reserve District highway and street construction totaled $151,300,000 in 1947, while in Texas such construction amounted to $88,300,000, placing the State third in the Nation. At midsummer this year, outstanding contracts in the State were over $100,000,000. The budget of the Texas Highway Department for the fiscal year 1948-49 (September-August) is $55,000,000, of which about $24,000,000 will be spent for primary roads. Farm to market roads will account for $16,500,000 in 1948-49, with $20,000,000 in prospect for 1949-50. About 4,300 miles of farm to market roads have been completed or placed under contract in Texas since V-J Day. This has involved about 800 projects located in practically every county of the State. The importance of such farm to market roads is indicated by the fact that in the United States 65 percent of all livestock goes to market by truck, as does 93 percent of live poultry, 42 percent of vegetables, 66 percent of milk, and 52 percent of eggs. Major cities in Texas may spend as much as $40,000,000 on streets and roads in 1949, while expenditures for the State may reach $100,000,000.

The highway budget of Arizona for the fiscal year 1948 is about $23,000,000, or more than twice the amount of highway expenditures in the State in 1947. In New Mexico the budget is likewise considerably above the 1947 level. In these States and throughout the entire Southwest, even more highway construction would be undertaken if sufficient men, materials, and finances were available.

Military and naval construction was unimportant in Texas prior to World War II, but during the peak of war construction in 1942 Texas had over 10 percent of the national total and such construction amounted to practically half of all construction in the State in that year. Texas ranked first in this type of construction in 1942 but was second to California for the war period as a whole. Military and naval construction in Texas since September 1939 has totaled over $1,000,000,000, or slightly more than all that has ever been spent on Texas highways. If war housing, war plants, and all other construction necessitated by war were added to this total, expenditures in Texas for 1940-45 would amount to about $2,400,000,000. The effects of such construction activity and expenditures are far-reaching and lasting, even though such construction activity has practically ceased. By 1947, military and naval construction in the State had dropped to a peacetime normal of under 1 percent of all new construction, and the $14,500,000 of Army and Navy construction planned for Texas in 1949 is less than 3 percent of the wartime peak.

Such public construction as schools, hospitals, other public buildings, and sewer and water works is especially important in Texas for much the same reasons that residential building is important to the State. Texas is overcoming her backlog of such construction as rapidly as the tight building situation and State and local government budgets permit. During the first eight months of 1948, contracts were awarded for $56,000,000 of educational buildings, $19,000,000 of hospital and institutional buildings, and $21,000,000 of sewer and water construction. Estimates for 1949 are $36,000,000 or more for educational buildings, $25,000,000 for hospitals, and $33,000,000 for water and sewer construction.

While conservation and development projects have represented only from 1 to 5 percent of all Texas construction during the last nine years, such projects have considerable value from the long-run viewpoint. Contracts for irrigation and drainage projects, channels, canals, and dams totaled $25,671,000 for the first eight months of 1948, with the estimate for 1949 being $34,900,000. Much of this type of construction can be deferred until needed to maintain construction employment.

Although crude petroleum and natural gas drilling are not usually classified as construction, they involve similar methods to those used in tunneling and pile driving. In 1947, the cost of drilling, plus the cost of casing but excluding the cost of production equipment, amounted in dollar volume to 24 percent of the value of all new construction activity in the five States of the Eleventh District. This percentage was 23 in Texas, 28 in Oklahoma, 30 in New Mexico, and 37 in Louisiana. The corresponding figure for the United States was only 5.5 percent. Consequently, if oil and gas drilling were considered as construction, the relatively high rate of construction in the Southwest would be even higher.

TABLE VIII

CONSTRUCTION EXPENDITURES FOR CRUDE PETROLEUM AND NATURAL GAS WELL DRILLING, FOR THE UNITED STATES AND SELECTED STATES, 1939-47

(In thousands of dollars)

Year	Arizona	Louisiana	New Mexico	Oklahoma	Texas	Total 5 States	Other states	Total United States
1939	$ 17	$43,699	$12,802	$20,948	$140,284	$217,750	$148,398	$366,148
1940	..	55,355	12,114	18,227	148,856	234,552	166,239	400,791
1941	..	50,214	7,757	21,330	166,314	245,615	177,091	422,706
1942	128	34,646	8,205	16,465	100,554	159,998	143,672	303,670
1943	228	29,453	6,749	20,022	82,476	138,928	206,214	345,142
1944	268	40,650	11,456	30,971	159,029	242,374	281,790	524,164
1945	120	55,123	12,078	40,209	188,092	295,622	302,535	598,157
1946	108	61,799	13,776	46,476	207,532	329,691	320,331	650,022
1947	..	70,507	20,276	62,290	238,074	391,147	377,653	768,800

SOURCE: United States Department of Commerce.

The oil and gas industry, of course, also contributes to construction activity of the usual type. Thus, pipe lines, refineries, and other construction related to the movement, processing, and utilization of oil and gas add to

the volume of construction. In addition, housing, commercial building, and other construction are required and paid for largely because of the presence of the oil and gas industry. Since the industry is expanding and has favorable prospects in the visible future, it should continue to make an important contribution directly and indirectly to construction volume in the Southwest.

The future prospects of the construction industry in the Southwest depend largely on the same demand and supply factors which affect the construction outlook for the United States, although regional differences suggest a somewhat more favorable construction outlook for the Southwest than for some other areas of the country.

Nationally, the existence of a very strong construction demand is indicated by such factors as the huge backlogs in heavy engineering-type projects, housing, and public utility and other construction. It may be noted that this huge backlog of unsatisfied demand should be expected at the present stage of the cycle, especially since the wartime restrictions delayed the construction boom predicted for the early 1940's. Moreover, the backlog of need is supported by a large accumulation of wartime savings, and the tendency to spend these savings on housing and industrial and business construction has been increased by the high and rising postwar national income. Additional factors increasing the strength of demand are the depreciation and obsolescence of existing houses and structures, most of which were constructed in the 1920's or earlier; an increase of nearly 20 percent in population and an even larger increase in the number of families since the end of the last real construction boom; and the wartime and postwar migration from farm to city, from east to west, and from north to south. The surplus of houses in areas which have lost population does not relieve the situation in the shortage areas. In addition to these material and social factors, the easy availability of mortgage credit has made the existing demand more effective. Mortgage credit cannot be regarded merely as a passive factor, for it has increased much faster than the physical quantity of all mortgageable real estate. Thus, the demand today, as at the end of the war, is at a record level, while the construction industry has only recently reached the point at which it can appreciably reduce the backlog.

The supply side of the construction picture is far less impressive. The Nation's fully employed construction capacity can increase only gradually from now on, with future new output records likely to be more striking in terms of inflated dollars than in terms of physical volume. There is, however, a very serious danger in the inadequacy of construction output as compared to demand. The limited capacity of the industry when faced with a tremendous demand has contributed to rising prices for real estate and rising costs of construction. This high level of construction costs is, in turn, the greatest single factor of weakness in the present construction situation. The prices of new houses in the United States rose about 20 percent from mid-1947 to mid-1948, while incomes increased only 8 percent, with the result that some residential as well as industrial and public construction was priced out of the market. The existing backlog of demand and purchasing power obviously cannot buy as many houses and other construction products at high prices as at low prices. A decline in construction costs and prices would allow existing purchasing power to be spread over a larger number of houses, buildings, and other structures, with the result that the construction industry would be kept at full production and less subject to fluctuation for a longer period. A recession of the prewar type might effect such a reduction in costs, or, during the next year or so, defense expenditures, financial aid to other countries, and other factors might maintain general business activity at close to current levels, with the consequence that high costs might induce a more gradual falling off of demand in the construction market, resulting in some corrective reduction in construction costs.

In view of the behavior of construction costs in the presence of excessive demand, it is difficult to classify as preponderantly favorable or unfavorable the recent easing of credit terms to home buyers. Amendments to the National Housing Act and the Servicemen's Readjustment Act now encourage loans to individual owners up to 90 percent of appraised values under $7,000 and up to 80 percent for values up to $11,000. Rental housing projects also receive more liberal credit treatment. There are doubts whether such easing of credit can add to a construction output which is already at capacity levels.

With the basic strength of the national construction picture, the prospects for the Southwest are also favorable; in fact, it appears that construction prospects in the Southwest are further improved by a number of special factors. Many manufacturers want to place at least part of their productive capacity in or near the southwestern market, particularly since the population and income of the region are increasing faster than for the Nation as a whole. The rise in freight rates also has somewhat increased the advantages of producing in or near the southwestern market in the case of industries using raw materials obtainable in the region or shipped in at relatively low rates and in the case of industries whose finished products are shipped at high rates to markets in the Southwest. The Supreme Court decision outlawing the basing point system may result in giving southwestern producers a somewhat larger proportion of the southwestern market for cement, steel, and perhaps other products, thereby, potentially at least, inducing additional industrial expansion. National defense considerations also favor industrialization of the Southwest, and it is expected that the $6,000,000,000 in defense contracts to be placed in 1949 will be widely distributed geographically. Further incentives to national industrial decentralization and to the resulting greater industrialization of the Southwest lie in the improved human relations and worker morale in less congested areas, the public relations value of being a local employer in important local market areas, and access to the new reservoirs of labor available in less industrialized areas. All of these factors are made more effective by the large wartime and postwar accumulations of capital, which permit investments in new locations.

Additional factors particularly attracting industry to the Southwest include the large supply of cheap natural gas for fuel and raw materials, the large supplies of petroleum, sulphur, and agricultural products requiring processing or suitable for industrial raw materials, the continued improvement of the great ports of the Southwest, and the accumulation within the Southwest itself of capital for industrial investment as the result of high incomes from agriculture, petroleum, and other industries. Industrialization is itself the cause of further industrialization, with each new plant tending to attract others to serve it or to buy from it. Thus, industrial construction in the Southwest would seem to have a generally bright future despite the recent falling off of such construction from postwar peak levels. Associated with such expansion of industrial facilities is the construction of many houses and apartments and various commercial, utility, public, and other types of buildings required in a more industrialized economy.

For these reasons, construction may be expected to continue to account for a larger proportion of all productive activity in the Southwest than in the United States as a whole. Furthermore, the construction boom in the Southwest may last somewhat longer than in the more industrialized parts of the country. With the present backlog of construction demand, the national total of construction activity should be maintained at comparatively high levels until at least the early 1950's, with, of course, the possibility of some temporary recessions due to construction cost and price readjustments or to economic adjustments in other sectors of the economy. Since the construction industry in the Southwest may be expected to surpass the national average, the economy of the Southwest should enjoy a sizable economic stimulus from construction activity for an extended period of time.

Review of Business, Industrial, Agricultural, and Financial Conditions

DISTRICT SUMMARY

Reflecting the effects of the intense heat and dry weather, the September 1 forecast of the Department of Agriculture revised downward the prospective production of principal crops in the Eleventh District. It is now evident that production of many crops in this District will fall short of last year's harvest, a condition in contrast with the situation in the United States. This fact will tend to intensify the effect of declines in the prices of agricultural products upon the income of many of the District's farmers. Unfavorable weather also caused a marked deterioration in livestock ranges in many parts of the District and contributed to an increase in livestock marketings.

Daily average production of crude petroleum increased slightly in August but was below the all-time peak reached in June. Refinery operations declined during August but were about 13 percent higher than a year ago. Oil well completions increased to exceed those of August last year by a substantial margin.

The value of construction activity in the District in August increased 4 percent above the July level and was 11 percent above the August 1947 figure. Awards for residential building increased 28 percent from July to August and were 24 percent above the level of the comparable month last year.

Department store sales increased by a smaller amount than is usual in August, and the year-to-year increase was narrowed to 12 percent from 15 percent in July. Furniture store sales increased 15 percent in August as compared with July and were 23 percent larger than in August last year. The accelerated buying at furniture stores probably reflected to some degree efforts to acquire merchandise before the re-establishment of consumer installment credit control which became effective September 20.

Commercial, industrial, and agricultural loans, real-estate loans, and "all other" loans, including those of a consumer type, showed increases during the five-week period ended September 15 at selected member banks in leading cities of the District. Likewise, deposits of individuals, partnerships, and corporations showed an increase of more than $76,000,000 during the period, while holdings of investments reflected a moderate decline. Bank debits were slightly lower than during July, but considerably above the level of August 1947.

BUSINESS

The 10 percent increase in the dollar volume of sales at reporting department stores in this District in August as compared with July was less than the usual seasonal amount, indicating that back-to-school and other fall buying may have been slower than usual for this period. The August volume was 12 percent above the level of the corresponding month of 1947, and cumulative sales for the eight months were maintained at 12 percent above those of last year. Preliminary reports from department stores for the first two weeks of September indicate that District sales are running 20 percent ahead of the comparable 1947 period.

The seasonally adjusted monthly sales index, reflecting a smaller than usual increase in August, declined to 419 percent of the 1935-39 average from the 436 percent of the previous month, but continued substantially above the 376 percent of August 1947.

Reflecting increased deliveries of fall merchandise during August, inventories at reporting department stores showed a gain over the preceding month for the first time since April and were 6 percent larger than in July. The substantial increase of 30 percent in stocks from August 1947, the largest year-to-year gain for any month in 1948, may reflect in part prompt merchandise deliveries and sales smaller than had been anticipated. With orders for fall merchandise virtually completed and deliveries being effected promptly, outstanding orders at the close of August were 11 percent smaller than a month earlier and 17 percent below those in August 1947. Reflecting the marked improvement in deliveries of merchandise and the caution expressed toward placing orders too far in advance, orders outstanding during the spring and early summer this year were only slightly larger than in the corresponding months of 1947 and during more recent months have shown a decline from the comparable 1947 periods.

WHOLESALE AND RETAIL TRADE STATISTICS

		Percentage change in				
	Number	Net sales			Stocks ‡	
Retail trade:	of reporting firms	August 1948 from August 1947	July 1948	8 mo. 1948 comp. with 8 mo. 1947	August 1948 from August 1947	July 1948
Department stores:						
Total 11th Dist.	48	12	10	12	30	6
Corpus Christi	4	— †	1	1	4	4
Dallas	7	8	16	6	21	7
Fort Worth	4	7	6	10	32	†
Houston	7	29	5	27	53	8
San Antonio	5	6	18	10	19	6
Shreveport, La.	3	17	— 1	21	..	..
Other cities	18	5	7	7	35	7
Furniture stores:						
Total 11th Dist.	43	23	14	..	6	2
Dallas	4	64	37	..	3	— 1
Houston	5	29	13	..	..	..
Port Arthur	3	39	13	..	..	..
San Antonio	4	18	7	..	..	..
Wholesale trade:*						
Drugs	6	18	14	6	9	5
Dry goods	4	11	24	..	27	— 7
Groceries	33	5	3	7	12	5
Hardware	7	8	18	5	10	— 1
Tobacco & products	10	— 2	— 3	— †	9	— 3

*Compiled by United States Bureau of Census. (Wholesale trade figures preliminary.)
‡Stocks at end of month. †Indicates change less than one-half of one percent.

INDEXES OF DEPARTMENT STORE SALES AND STOCKS

Daily average sales—(1935-39=100)

	Unadjusted*			Adjusted			
	August 1948	July 1948	June 1948	August 1947	August 1948	July 1948	June 1948	August 1947
11th District	365	331	345	327	419	436	406	376
Dallas	333	287	293	308	391	399	358	362
Houston	426	407	420	330r	484	503	483	375r

Stocks—(1935-39=100)

	Unadjusted*			Adjusted			
	August 1948	July 1948	June 1948	August 1947	August 1948	July 1948	June 1948	August 1947
11th District	410	387r	384	318	363	358	396	282

*Unadjusted for seasonal variation. r–Revised.

The rates of collections on both open accounts and installment accounts in August were again at the lowest levels previously recorded during the postwar period. The ratio of collections during August to regular accounts outstanding at the beginning of the month fell to the previous 1948 low of 51 percent reached in February and compares with the July level of 53 percent and a 1947 low of 52 percent reported in August of that year. The ratio of collections to installment accounts was sustained at 18 percent, the postwar low at which it had been maintained dur-

ing the previous two months, and compares with a ratio of 29 percent in August 1947. At the same time, the ratio of cash sales to total sales continued to decline and in August was 34 percent, compared with 36 percent in July and 39 percent in the previous August.

The dollar volume of August sales of reporting furniture stores in the District increased 14 percent from the July level and was 23 percent larger than during the previous August. The increase in August sales over July was the second largest month-to-month increase this year, and the increase from August of last year was the largest year-to-year gain in volume of sales for any month this year. The dollar volume of cash sales was 2 percent above the July level but 14 percent below that of August 1947. Credit sales, however, after having fallen 11 percent in July as compared with June, rose 16 percent above the July level in August and were 31 percent higher than in August 1947. As a result of the increase in credit sales and stability in cash sales, the ratio of credit sales to total sales in August rose to 88 percent from 86 percent in the previous month and compares with 82 percent in August of last year. While credit sales increased during August, collections remained at the level of the previous month but were 16 percent greater than in August 1947. Since credit sales increased during August and collections did not, accounts receivable outstanding at the end of the month were 5 percent larger than at the end of July. Total credit sales this year have shown increases over the corresponding 1947 period each month except February, the largest increase being in August. Accompanying the gain in credit sales has been a marked rise in accounts receivable, the amount in August being 58 percent larger than a year ago. The acceleration in credit buying at furniture stores during August probably resulted from the desire to complete arrangements for lower down payments and longer contract maturities before the new credit regulations became effective under Regulation W on September 20.

Dollar volume of inventories in August was reported by District furniture stores to be 2 percent above the level of the previous month, after having declined for three consecutive months, and was 6 percent above that of August 1947. This would seem to indicate that furniture store executives are seeking to reach and maintain a level at which stocks are in line with sales.

Population Changes in the Southwest

A comparison of changes in civilian population between 1940 and 1947 in the five States lying wholly or partly in the Eleventh Federal Reserve District reveals divergent trends.

In 1940 and in 1947, the five-state area, comprising Arizona, Louisiana, New Mexico, Oklahoma, and Texas, accounted for approximately 9.2 percent of the Nation's population, according to recent estimates of the United States Bureau of the Census; however, significant shifts in population occurred during that period within the five-state area. Between 1940 and 1947, the population of Arizona increased 28 percent, a rate more than three times greater than the 8.6 percent increase for the Nation. Texas, with a population increase of 10 percent, also exceeded the average rate of growth for the United States; Louisiana and New Mexico experienced population increases, but the percentage gains were smaller than the average for the country, and in the case of New Mexico, the percentage gain was substantially less than that of the five-state area. On the other hand, Oklahoma experienced a decline of 2.5 percent in its civilian population. While each of the five States had an increase of births over deaths, Arizona was the only State of the group to realize a net in-migration during the period. The net out-migration from Oklahoma was so large that it exceeded the net natural increase in population and was the chief factor causing a loss of 58,000 in total civilian population in that State between 1940 and 1947.

It is interesting to note some of the changes in per capita income in relation to population changes in the various States in this region between 1940 and 1947. Arizona, with the largest percentage increase in population during the period, had the smallest percentage increase in per capita income, 137 percent, according to recent reports by the United States Department of Commerce. Conversely, New Mexico, with the smallest percentage increase in population (exclusive of the actual decline in Oklahoma), realized the largest percentage increase in per capita income, 196 percent. In 1940 and again in 1947, the per capita incomes of Arizona and Texas led the group, although their positions were reversed. The 1940 per capita income in Arizona was almost 15 percent larger than in Texas, but by 1947 the per capita income in Texas was 1 percent above that in Arizona, as Texas showed an increase of 173 percent during that period.

CHANGES IN CIVILIAN POPULATION BY STATES FROM 1940 TO 1947*
(Thousands of persons)

	Civilian population April 1, 1940	Net natural increase	Net migration	Net loss to armed forces	Net change in civilian population	Civilian population July 1, 1947	Percentage change from April 1, 1940 to July 1, 1947
Arizona	497,864	71,000	76,000	8,000	139,000	637,000	28.0
Louisiana	2,359,349	318,000	—119,000	23,000	176,000	2,535,000	7.5
New Mexico	531,785	90,000	— 76,000	7,000	6,000	538,000	1.2
Oklahoma	2,332,800	243,000	—280,000	22,000	— 58,000	2,275,000	—2.5
Texas	6,389,349	844,000	—140,000	63,000	641,000	7,030,000	10.0
Total five-state area	12,111,147	1,566,000	539,000	123,000	904,000	13,015,000	7.5
Total United States	131,401,985	11,738,000	1,016,000	1,496,000	11,258,000	142,660,000	8.6

*Estimates are rounded to the nearest thousand without being adjusted to group totals, which are independently rounded. Derived figures are based on the unrounded absolute numbers.
SOURCE: United States Bureau of the Census.

AGRICULTURE

The hot, dry weather during August was responsible for declines in the indicated production of cotton, sorghum grain, rice, hay, sweet potatoes, and peanuts in Texas; moreover, prospective per acre yields of most crops are lower than in 1947. Moderate to substantial production declines are forecast for all important crops except rye, flaxseed, and sorghum grain. The decline in over-all agricultural production in Texas is in striking contrast to the record physical volume of crop production expected for the United States. The Nation's production of feed grains is expected to exceed previous records by a substantial margin, the production of food grains is the second largest on record, and oil seed production may reach a new high, along with large production of fruits and vegetables. Record production is in prospect for corn, soybeans, rice, peanuts, and pecans, while near-record production is indicated for wheat, oats, sorghum grain, flaxseed, and dry beans.

Although the unfavorable weather conditions during August caused crop losses, some of the late crops were benefited by rains in September. Harvesting operations were well advanced at mid-month, despite occasional interruption by showers. Planting of winter commercial vegetables was delayed by the August heat and drought, but September rains have been beneficial to farm operations and growing crops. Range and pasture feed have been

deficient in most areas of the Eleventh District during the summer, except in certain northern Panhandle counties of Texas. Livestock are in fair to poor flesh generally, despite supplemental feeding in some areas, and marketing of livestock during August was relatively heavy because of range feed shortages.

A United States cotton crop of 15,219,000 bales forecast on September 1 represents an increase of 50,000 bales over the forecast made a month earlier and is more than one-fourth above the 1947 crop and the 10-year (1937-46) average. The Texas crop, estimated at 3,300,000 bales, is 200,000 bales below the August 1 estimate and slightly below the 1947 crop but is 14 percent above average. It is estimated that 2.2 percent of the Texas cotton acreage in cultivation on July 1 has been abandoned, leaving 8,998,000 acres for harvest. The better-than-average yield of 176 pounds of lint per acre forecast for the

TEXAS COTTON PRODUCTION BY CROP REPORTING DISTRICTS

(In thousands of bales—500 lb. gross wt.)

Crop reporting districts	1945	1946	1947	1948 indicated September 1	1948 as percent of 1947
1-N	15	35	105	160	152
1-S	105	198	946	800	85
2	380	270	494	500	101
3	17	14	15	17	113
4	587	482	810	710	88
5	119	96	185	185	100
6	80	99	113	145	128
7	27	15	32	28	88
8	227	185	315	270	86
9	106	46	129	155	120
10	131	229	293	330	113
State	1,794	1,669	3,437	3,300	96

State compares with an estimated yield of 313 pounds for the Nation. Cotton harvesting was virtually completed in southern and southcentral counties of Texas about mid-September, and many farmers were destroying stalks for insect control. Harvesting was progressing rapidly in other parts of the State, despite occasional interruption by showers. The September 1 forecast of a 725,000 bale crop in Louisiana is 25,000 bales larger than the August 1 estimate and 44 percent above last year's crop. A production of 350,000 bales was forecast for Oklahoma, compared with a crop of 330,000 bales in 1947. A record crop of 245,000 bales is forecast for New Mexico, and near-record production of 300,000 bales is in prospect for Arizona.

CROP PRODUCTION—(In thousands of bushels)

	Texas			States in Eleventh District*		
	Average 1937-46	1947	Estimated Sept. 1, 1948	Average 1937-46	1947	Estimated Sept. 1, 1948
Winter wheat	45,686	124,270	54,169	113,001◉	238,712◉	159,602◉
Corn	70,422	48,592	47,566	123,899	87,664	101,746
Oats	34,370	31,248	14,734	65,166	69,006	40,068
Barley	4,049	2,520	2,370	12,120◉	9,230◉	11,213◉
Cotton†	2,894	3,437	3,300	4,348	4,685	4,920
All hay‡	1,383	1,436	1,319	4,271	4,744	4,743
Potatoes, Irish	4,311	4,536	4,400	9,978	9,260	8,760
Potatoes, sweet	5,121	4,675	3,995	14,366△	12,565△	11,683△
Rice	15,588	23,700	23,092	36,991□	45,155□	44,967□

*Figures are combined totals for five States lying wholly or partly in the Eleventh Federal Reserve District: Texas, Arizona, Louisiana, New Mexico, and Oklahoma. †In thousands of bales. ‡In thousands of tons. ◉Arizona, New Mexico, Oklahoma, and Texas. △Louisiana, Oklahoma, and Texas. □Louisiana and Texas.

SOURCE: United States Department of Agriculture.

Although the September 1 estimate of Texas corn yield per acre is slightly above last year's yield and one bushel above average, the 47,566,000 bushel crop in prospect is slightly below the 1947 crop and about one-third below average because of the greatly reduced acreage. Production of sorghum grain in the State, which was forecast at 82,478,000 bushels, is much below the August 1 forecast but compares favorably with the crop harvested last year and the 10-year average. The estimated yield of 17.5 bushels compares with 18 bushels produced last year and an average of 16.6 bushels.

CASH FARM INCOME BY MAJOR INCOME GROUPS FOR THE STATES OF THE ELEVENTH FEDERAL RESERVE DISTRICT, 1947 COMPARED WITH 1946

(In thousands of dollars)

		Crops	Livestock and livestock products	Government payments	Total farm income
Arizona	1947	$ 119,974	$ 71,868	$ 2,165	$ 194,007
	1946	102,955	58,796	3,153	164,904
Louisiana	1947	222,289	107,434	9,079	338,802
	1946	172,732	82,725	11,795	267,252
New Mexico	1947	74,664	102,262	3,689	180,615
	1946	50,103	93,041	3,913	147,057
Oklahoma	1947	314,205	335,290	8,467	657,962
	1946	233,260	277,498	16,873	527,631
Texas	1947	1,140,993	801,549	23,914	1,966,456
	1946	706,218	675,689	38,502	1,420,409
Five States	1947	$1,872,125	$1,418,403	$47,314	$3,337,842
	1946	$1,265,268	$1,187,749	$74,236	$2,527,253

SOURCE: United States Department of Agriculture, Bureau of Agricultural Economics.

The Texas rice production forecast on September 1 was 23,092,000 bushels, compared with the record crop of 23,700,000 bushels harvested last year. The 502,000 acre crop this year is 6 percent above the acreage harvested last year, while the prospective yield is estimated at 46 bushels per acre, down four bushels from last year and slightly below the 10-year average.

The production of sweet potatoes in Texas was forecast on September 1 at 3,995,000 bushels, which is slightly lower than the previous estimate and considerably below the 10-year average of 5,121,000 bushels. Peanut production, placed at 334,050,000 pounds, falls short of last year's crop of 351,120,000 pounds. A near-record production of 44,250,000 pounds of pecans is more than double last year's crop and 65 percent above average. Production forecasts for Irish potatoes and broomcorn were unchanged from a month earlier.

Rains received in the Lower Rio Grande Valley during the first half of September greatly benefited growing tomatoes and peppers, and all planting and transplanting operations were expedited by the improved moisture conditions. At mid-month, early planted tomatoes in the Lower Valley counties were blooming, while the crop in the Eagle Pass district was irregular but showing improvement. Conditions were favorable for tomatoes and peppers in the Winter Garden area, and planting of vegetables in the Corpus Christi area was awaiting the drying of fields. Harvesting operations at mid-September were limited principally to cantaloupes in the Trans-Pecos area, watermelons from the Gray County area in the northern Panhandle, and potatoes in the Hereford-Plainview area, all of which were nearing completion.

CASH RECEIPTS FROM FARM MARKETINGS

(In thousands of dollars)

	May 1948			May 1947	Cumulative receipts January 1 to May 31	
State	Crops	Livestock	Total	Total	1948	1947
Arizona	$ 6,602	$ 7,984	$ 14,586	$ 12,396	$ 82,145	$ 91,363
Louisiana	13,058	7,157	20,215	13,616	114,042	96,487
New Mexico	1,135	7,121	8,256	7,413	50,433	48,965
Oklahoma	9,255	25,543	34,798	27,985	184,807	274,448
Texas	43,472	93,248	136,720	116,433	678,919	676,656
Total	$73,522	$141,053	$214,575	$177,843	$1,110,346	$1,187,919

SOURCE: United States Department of Agriculture.

CASH RECEIPTS FROM FARM MARKETINGS

(In thousands of dollars)

	June 1948			June 1947	Cumulative receipts January 1 to June 30	
State	Crops	Livestock	Total	Total	1948	1947
Arizona	$ 15,024	$ 5,093	$ 20,117	$ 17,292	$ 102,262	$ 91,363
Louisiana	5,627	8,941	14,568	12,026	128,610	96,487
New Mexico	1,750	4,480	6,230	6,744	56,663	48,965
Oklahoma	71,244	38,277	109,521	106,562	294,328	274,448
Texas	53,562	94,826	148,388	176,657	827,307	676,656
Total	$147,207	$151,617	$298,824	$319,281	$1,409,170	$1,187,919

SOURCE: United States Department of Agriculture.

Range and pasture feed showed some improvement in eastern, central, and southern areas of the District during the first part of September following general rains which effectively broke droughty conditions and started some new grass. In the northern Panhandle counties of Texas, where showers were received during August, grass is supplying excellent grazing. In the western part of the District, dry grass is short and rain is urgently needed to start new range feed. Some supplemental feeding was being carried on in central and western parts of Texas during the first part of September. Prospects are good for fall and winter wheat pastures, as a limited acreage of wheat was seeded in the northern High Plains in early September and seeding was expected to get under way on a large scale there and in the Edwards Plateau areas after mid-September.

Cattle in the northern Plains counties of Texas, where range feed was generally abundant, were in good condition early in September. In some eastern, central, and southern counties of Texas where dry feed was very short, cattle have shown considerable shrinkage despite supplemental feeding. Elsewhere, cattle were holding flesh fairly well on cured grass. Demand for stocker cattle continues very strong, and contracting of this year's calf crop was fairly active around mid-September. Sheep and lambs in Texas were in only fair flesh in parts of the plateau country and in poor flesh in much of the Trans-Pecos area at mid-September. It is expected that if rains come soon there will be a strong demand for ewes and new lambs for replacements. Also, if the present winter wheat prospects materialize, lambs will be in very strong demand for grazing.

LIVESTOCK RECEIPTS—(Number)

Class	Fort Worth			San Antonio		
	August 1948	August 1947	July 1948	August 1948	August 1947	July 1948
Cattle	89,247	70,561	69,831	39,238	29,620	26,520
Calves	31,086	45,276	22,799	33,615	20,026	17,914
Hogs	32,928	30,300	37,863	7,625	5,204	6,862
Sheep	165,828	102,291	124,602	98,571	50,014	54,599

COMPARATIVE TOP LIVESTOCK PRICES

(Dollars per hundredweight)

Class	Fort Worth			San Antonio		
	August 1948	August 1947	July 1948	August 1948	August 1947	July 1948
Beef steers	$33.50	$25.00	$35.00	$28.00	$24.00	$32.00
Stocker steers	31.00	22.00	28.50	28.65	21.50	27.75
Heifers and yearlings	33.50	25.00	35.00	27.00	24.50	30.25
Butcher cows	23.50	18.00	24.50	24.00	17.50	25.00
Calves	28.00	24.00	32.50	28.50	24.00	32.50
Hogs	30.00	28.10	28.75	28.25	27.50	29.00
Lambs	29.00	24.00	31.50	27.00	21.75	26.50

Livestock marketing in Texas fell to a low level during July, as rains over most of the grazing areas of the State gave promise of an improvement in the supply of grass and range feed. However, the drought of August caused livestock raisers to market in very large volume, raising receipts at the Fort Worth and San Antonio markets 38 percent over July and 41 percent over August 1947. As sheep ranges suffered the severest drought damage, receipts of sheep and lambs at these markets during August rose 74 percent over the same month last year and, contrary to the usual seasonal change, rose 48 percent over July. Cattle and hog receipts were up 28 percent and 14 percent, respectively, over August of last year, while calf receipts were down about 1 percent.

The mid-month price report of the United States Department of Agriculture indicates that prices received by farmers for most crops and livestock declined during the month ended August 15. Declines in prices received for all grains, hay, cotton and wool were continuations of trends evident in previous months. Cottonseed, after advancing steadily for four months, declined substantially. Moderate declines occurred in prices received for beef cattle, veal calves, and lambs, while hog prices, continuing the upward trend of the previous four months, made a slight increase. Spot commodity quotations reveal that from August 15 to mid-September, prices received for cotton, grains, and most classes of livestock fluctuated within very narrow margins.

FINANCE

Among the principal changes in the condition of selected member banks in leading cities of the Eleventh Federal Reserve District during the five-week period ended Sptember 15 were increases in most of the major loan and deposit classifications and a moderate decline in total investments.

Total loans of these banks amounted to $1,046,089,000 on September 15, or $15,017,000 more than the amount reported on August 11 and over $184,000,000 above the total outstanding approximately one year ago. Commercial, industrial, and agricultural loans followed an irregular pattern during the five-week period, rising between August 11 and August 25 by $5,975,000 and then declining during the last week in August and the first week in September. During the week ended September 15, however, the volume turned upward again, as these loans increased by $3,818,000. Real-estate loans increased during the five-week period by $2,133,000, continuing the steady increase that has characterized the movement of this classification of loans throughout the year. The category "all other" loans, which includes consumer loans, showed a substantial increase of $7,461,000 during the last three weeks in August and the first half of September.

Reports indicate a continuing strong demand for credit for commercial and industrial purposes and for real-estate and consumer transactions. The more-than-average increase in consumer-type loans during the last week in August and the first week in September may have been influenced by the earlier announcement that Regulation W would be re-established, effective September 20. Seasonal demands for commercial and industrial loans have added their strength to the generally strong underlying demand for those types of credit.

As a further step toward restraining inflationary expansion of bank credit, the Board of Governors of the Federal Reserve System announced on September 8 an increase in the amount of reserves required to be maintained with Federal Reserve banks by banks which are members of the System. That increase in reserve requirements raised the requirement on net demand deposits for central reserve city banks from 24 to 26 percent, ef-

CONDITION STATISTICS OF WEEKLY REPORTING MEMBER BANKS IN LEADING CITIES—Eleventh Federal Reserve District

(In thousands of dollars)

Item	Sept. 15, 1948	Sept. 17, 1947	August 11, 1948
Total loans and investments	$2,287,623	$2,156,543*	$2,275,496
Total loans—Net‡	1,040,115		1,024,799
Total loans—Gross	1,046,089	862,049*	1,031,072
Commercial, industrial, and agricultural loans	712,574	574,793	705,923
Loans to brokers and dealers in securities	6,355	7,485	7,043
Other loans for purchasing or carrying securities	60,066	70,183	60,491
Real-estate loans	88,013	75,823	85,880
Loans to banks	557	316	672
All other loans	178,524	133,449	171,063
Total investments	1,241,534	1,294,494	1,244,424
U. S. Treasury bills	44,523	18,607	46,930
U. S. Treasury certificates of indebtedness	197,077	213,402	186,435
U. S. Treasury notes	116,690	127,413	122,148
U. S. Government bonds (incl. gtd. obligations)	761,717	829,752	767,487
Other securities	121,527	105,320	121,424
Reserves with Federal Reserve Bank	516,058	478,784	502,455
Balances with domestic banks	315,392	326,555	282,272
Demand deposits—adjusted*	1,937,858	1,820,567	1,910,486
Time deposits	416,094	378,533	417,570
United States Government deposits	37,000	26,207	35,098
Interbank deposits	597,080	615,257	566,344
Borrowings from Federal Reserve Bank	None	None	None

*Includes all demand deposits other than interbank and United States Government, less cash items reported as on hand or in process of collection.

‡After deductions for reserves and unallocated charge-offs.

*Prior to June 30, 1948, the individual classes of loans were reported net; however, the amount of reserves deducted subsequent to June 30, 1948, was so small as to have no significant effect upon the comparability of the data.

fective September 24, for reserve city banks from 20 to 22 percent, also effective September 24, and for nonreserve city banks from 14 to 16 percent, effective September 16. The reserve requirement on time deposits was raised from 6 to 7-½ percent for all classes of banks but was made effective September 24 for the central reserve and reserve city banks and September 16 for the nonreserve city banks. This action was taken on the basis of the temporary additional authority given to the Board of Governors at the recent special session of Congress permitting the Board to raise reserve requirements of member banks 4 percentage points against net demand deposits and 1-½ percentage points against time deposits above the legal limit at the time of the Congressional action. Remaining authority of the Board of Governors to raise reserve requirements of member banks would permit, if the situation should demand, a further increase against net demand deposits of reserve city banks and nonreserve city banks of 2 percentage points and an increase in the reserves on net demand deposits of central reserve city banks by 4 percentage points.

Deposits of individuals, partnerships, and corporations at selected member banks in the District increased by $76,077,000 during the five weeks ended September 15. Relatively moderate fluctuations occurred each week from August 11 through September 8, with an increase of more than $78,000,000 being reported for the last week of the period. Demand deposits adjusted showed an increase of $27,372,000, while interbank deposits increased by $30,736,000.

Gross demand deposits and time deposits of the member banks of the District increased during August, as the former type of deposits rose to $5,112,411,000 and time deposits increased to $591,551,000. The increase in gross demand deposits during August occurred at the country banks of the District, which reported a growth of more than $23,000,000 in their demand deposits, while the expansion of time deposits occurred at the reserve city banks, as this type of deposits increased at those banks from $375,215,000 to $379,803,000. Reserve city banks reported a moderate decline in gross demand deposits, while country banks reported a slightly smaller volume of time deposits.

GROSS DEMAND AND TIME DEPOSITS OF MEMBER BANKS

Eleventh Federal Reserve District

(Averages of daily figures. In thousands of dollars)

Date	Combined total		Reserve city banks		Country banks	
	Gross demand	Time	Gross demand	Time	Gross demand	Time
August 1946	$4,914,883	$496,842	$2,402,647	$316,175	$2,512,236	$180,667
August 1947	4,845,031	540,172	2,324,633	338,401	2,520,398	201,771
April 1948	4,987,656	574,507	2,354,485	362,306	2,633,171	212,201
May 1948	4,997,789	569,656	2,384,586	358,943	2,613,203	210,713
June 1948	5,044,942	576,282	2,415,559	364,548	2,629,383	211,734
July 1948	5,096,434	587,716	2,456,933	375,215	2,639,501	212,501
August 1948	5,112,411	591,551	2,449,802	379,803	2,662,609	211,748

SAVINGS DEPOSITS

Eleventh Federal Reserve District

City	Number of reporting banks	August 31, 1948		Percentage change in savings deposits from	
		Number of savings depositors	Amount of savings deposits	August 31, 1947	July 31, 1948
Louisiana: Shreveport	3	32,810	$ 24,876,671	— 5.3	— 1.7
Texas:					
Beaumont	3	12,167	6,246,144	— 8.6	— 0.4
Dallas	8	142,797	77,935,685	— 0.1	— 0.4
El Paso	2	32,247	22,160,701	— 5.1	— 1.0
Fort Worth	4	43,110	34,031,062	— 2.2	— 0.8
Galveston	4	23,293	21,913,785	0.1	— 0.5
Houston	8	101,362	72,958,193	4.0	0.03
Lubbock	2	6,362	4,869,965	— 6.1	— 0.1
Port Arthur	2	1,433	1,779,230	— 1.4	— 0.5
San Antonio	5	38,862	45,486,503	— 3.0	— 0.7
Waco	3	10,029	9,772,135	2.4	— 0.3
Wichita Falls	3	7,052	4,634,158	— 0.8	0.5
All other	55	62,894	53,958,202	0.4	— 0.5
Total	102	514,418	$380,622,434	— 0.7	— 0.5

Bank debits reported in 24 cities in the District were 6 percent lower in August than during the preceding month but were 19 percent above August 1947. Banks in three-fourths of the reporting cities reported declines in bank debits during August as compared with the July level, while the remaining cities reported more or less moderate increases, with the exception of Texarkana, which reported an increase of 23 percent. Bank debits during August were lower in the largest cities of the District, including Dallas, Fort Worth, Houston, El Paso, Austin, and San Antonio. Little change from the preceding month was reported in the annual rate of turnover of deposits. For the past few months, the deposit turnover has been running at slightly more than 13 times a year, and while this is considerably above the rate of a year ago, only fractional changes have occurred in recent months.

BANK DEBITS, END-OF-MONTH DEPOSITS, AND ANNUAL RATE OF TURNOVER OF DEPOSITS

(Amounts in thousands of dollars)

City	Debits			End-of-month deposits*	Annual rate of turnover		
	August 1948	Pctg. change over August 1947	Pctg. change over July 1948	Aug. 31, 1948	August 1948	August 1947	July 1948
Arizona: Tucson	$ 57,445	22	— 4	$ 85,278	8.3	7.2	8.8
Louisiana:							
Monroe	33,030	27	— 3	41,069	10.0	8.2	10.3
Shreveport	123,228	14	— 9	162,582	9.4	9.0	10.3
New Mexico: Roswell	12,450	15	— 5	18,146	8.4	7.4	9.1
Texas:							
Abilene	32,990	21	1	41,975	9.4	8.5	9.2
Amarillo	88,840	8	— 6	86,218	12.5	12.5	13.3
Austin	101,931	13	— 3	104,779	11.6	11.2	12.1
Beaumont	97,942	39	2	98,450	11.8	10.1	11.9
Corpus Christi	88,412	8	6	81,202	13.4	14.3	13.3
Corsicana	10,215	24	8	19,083	6.5	5.3	6.0
Dallas	967,703	19	— 9	724,709	16.1	14.6	17.5
El Paso	106,454	20	—11	111,591	11.5	10.2	12.8
Fort Worth	305,777	4	—12	278,412	13.3	13.0	15.1
Galveston	69,462	20	— 2	97,747	8.8	7.8	9.2
Houston	1,053,278	29	— 4	902,604	14.0	12.7	14.8
Laredo	15,045	4	—12	23,435	7.8	8.4	8.8
Lubbock	54,016	9	— 9	65,081	10.0	10.9	10.6
Port Arthur	34,331	11	—10	39,298	10.4	9.6	11.5
San Angelo	30,166	17	3	38,978	9.2	8.4	8.9
San Antonio	233,757	12	— 4	318,637	8.9	7.9	9.2
Texarkana‡	19,562	49	23	23,041	10.4	7.2	8.5
Tyler	38,931	15	—11	54,341	8.6	8.4	9.7
Waco	47,474	6	— 2	64,289	9.0	8.8	9.2
Wichita Falls	53,123	25	— 3	81,843	7.9	7.1	8.3
Total—24 cities	$3,675,562	19	— 6	$3,562,788	13.4	11.4	13.3

*Demand and time deposits at the end of the month include certified and officers' checks outstanding but exclude deposits to the credit of banks.

‡This figure includes only one bank in Texarkana, Texas. Total debits for all banks in Texarkana, Texas-Arkansas, including two banks located in the Eighth District, amounted to $29,422.

Principal changes in the condition of the Federal Reserve Bank of Dallas for the month ended September 15 reflected an increase of $7,658,000 in Federal Reserve notes of the Dallas Bank in actual circulation, bringing the total outstanding on September 15 to $617,275,000; a decline in holdings of United States Government securities from $976,665,000 to $960,988,000; and a decline in total gold certificate reserves of approximately $35,800,000. Foreign loans on gold showed a relatively small increase, while discounts for member banks declined to $792,000.

MEMBER BANK RESERVES AND RELATED FACTORS

Eleventh Federal Reserve District

(In millions of dollars)

Item	Changes in weeks ended					Cumulative changes	
	Sept. 15, 1948	Sept. 8, 1948	Sept. 1, 1948	Aug. 25, 1948	Aug. 18, 1948	5 weeks ended Sept. 15, 1948	Jan. 1 to Sept. 15, 1948
Federal Reserve credit—local	11.5	— 1.4	2.3	— 2.1	1.8	12.1	4.0
Interdistrict commercial & financial transactions	—11.3	12.2	—3.2	—2.0	—12.0	—16.3	—119.1
Treasury operations	13.3	22.9	12.6	4.8	1.8	55.4	119.0
Currency transactions	3.6	—5.7	—5.0	—1.7	—1.8	—10.6	2.0
Other deposits at the Federal Reserve Bank	— 0.1	0.1	0.7	—0.6	—0.1	....	0.6
Other Federal Reserve accounts	0.4	—0.1	0.2	—0.1	0.2	0.6	6.2
Member bank reserve balances	17.4	28.0	7.6	—1.7	—10.1	41.2	12.7

Note: Amounts preceded by a minus sign reduce reserves; all others add to reserves.

CONDITION OF THE FEDERAL RESERVE BANK OF DALLAS

(In thousands of dollars)

Item	Sept. 15, 1948	Sept. 15, 1947	August 15, 1948
Total gold certificate reserves	$549,212	$487,866	$585,019
Discounts for member banks	792	300	3,750
Foreign loans on gold	8,602	974	7,912
U. S. Government securities	960,988	950,148	976,665
Total earning assets	970,382	951,422	988,327
Member bank reserve deposits	875,794	811,651	847,497
Federal Reserve notes in actual circulation	617,275	616,437	609,617

NEW MEMBER BANK

The Empire State Bank of Dallas, Texas, a newly organized institution, opened for business September 20, 1948, as a member of the Federal Reserve System.

This bank has paid-in capital funds of $1,200,000, including capital of $750,000, surplus of $250,000, and undivided profits of $200,000. Its officers are: Ellis C. Huggins, President; Michaux Nash, Executive Vice President; T. W. Rutledge, Vice President; and Clyde E. Crosby, Cashier.

INDUSTRY

The daily average production of crude petroleum in August continued at near record levels in the Eleventh Federal Reserve District and in the United States set a new record of 5,516,987 barrels daily. Production in the District, which averaged 2,693,000 barrels daily, was only 2,008 barrels under the record level of June and was 24,392 barrels daily larger than in July and 186,600 barrels in excess of that in August 1947. Production outside of the Eleventh District rose to 2,823,087 barrels daily, exceeding the rate for the previous month by 32,979 barrels and the August 1947 rate by 189,638 barrels.

CRUDE OIL PRODUCTION—(Barrels)

Area	August 1948 Total production	August 1948 Daily avg. production	Increase or decrease in daily average production from July 1948	Increase or decrease in daily average production from August 1947
Texas:				
District 1	898,400	28,981	66	5,475
2	5,547,700	178,958	1,677	19,624
3	15,297,350	493,463	2,221	6,380
4	7,762,400	250,400	1,423	9,052
5	1,523,650	49,150	818	9,629
6	9,439,150	304,489	991	—19,069
Other 6	3,731,350	120,366	—890	4,410
7b	1,577,600	50,890	1,583	11,650
7c	1,354,600	43,697	765	4,165
8	21,804,600	703,374	12,426	84,005
9	4,278,900	138,029	1,684	11,092
10	2,670,600	86,148	—2,525	2,580
Total Texas	75,886,300	2,447,945	20,239	148,993
New Mexico	4,112,850	132,673	3,992	24,019
North Louisiana	3,511,750	113,282	161	13,648
Total Eleventh District	83,510,900	2,693,900	24,392	186,660
Outside Eleventh District	87,515,700	2,823,087	32,979	189,638
United States	171,026,600	5,516,987	57,371	376,298

SOURCE: Estimated from American Petroleum Institute weekly reports.

Refinery operations, both in the District and the Nation, declined slightly in August as compared to July but continued well above the rate of a year ago. Crude runs to stills averaged 1,741,000 barrels daily in the Eleventh District, or 32,000 barrels daily less than in July but 205,000 barrels above August 1947. The average for the United States was 5,589,000 barrels daily, or 98,000 barrels below the previous month but 372,000 barrels above August 1947. Stocks of crude oil at the end of August were 2 percent above July levels but fractionally below a year ago. Gasoline production in August was 1 percent below the July rate, though 8 percent above that for a year ago. The seasonal peak in gasoline consumption was passed without evidence of shortage. The high level of refinery operations during the spring and summer months has enabled the industry to make considerable progress in building up stocks of refined products, despite the heavy demand. This has been facilitated by increased imports and decreased exports, with the Economic Cooperation Administration purchasing its requirements largely from offshore sources.

The Interstate Oil Compact Commission, in a recent report, estimated the United States demand for crude oil and natural gas liquids during the October 1948-March 1949 winter season at 6,743,000 barrels daily, or 449,000 barrels more than last season. Stocks of refined products are above levels of a year earlier, ranging from 13 percent for gasoline to 31 percent for residual fuel oil, and are better distributed geographically. With some increase in imports, supplies should be adequate to meet the winter demands.

Affecting the national picture has been the reduction of refinery operations in California during September due to labor difficulties, resulting in some diversion of petroleum products from the Midwest to that area and in an embargo being placed on exports of such products from the West Coast.

Drilling operations, as measured by the number of wells completed, continue at high levels, with the August figures for both the United States and the District moderately exceeding those for July and considerably exceeding the completions of August 1947.

The value of construction contracts awarded in the Eleventh District during August was $75,883,000, which is 4 percent above the July level and 11 percent above the August 1947 figure. Residential building contract awards in August were 28 percent above those of July and 24 percent above those of the same month of last year. Nonresidential construction for

VALUE OF CONSTRUCTION CONTRACTS AWARDED

(In thousands of dollars)

	August 1948	August 1947	July 1948	January 1 to August 31 1948	January 1 to August 31 1947
Eleventh District—total	$ 75,883	$ 68,120	$ 72,997	$ 550,623	$ 451,020
Residential	24,748	19,930	19,309	182,664	166,774
All other	51,135	48,190	53,688	367,959	284,246
United States*—total	854,091	823,216	962,685	6,583,581	4,976,115
Residential	337,550	308,937	349,699	2,510,818	2,018,724
All other	516,541	514,279	612,986	4,072,763	2,957,391

*37 states east of the Rocky Mountains.

SOURCE: F. W. Dodge Corporation.

BUILDING PERMITS

City	August 1948 No.	August 1948 Valuation	Percentage change valuation from Aug. 1947	Percentage change valuation from July 1948	Jan. 1 to Aug. 31, 1948 No.	Jan. 1 to Aug. 31, 1948 Valuation	Percentage change valuation from 1947
Louisiana:							
Shreveport	308	$ 986,024	38	7	2,684	$ 23,333,617	238
Texas:							
Abilene	79	330,295	26	20	740	3,644,035	25
Amarillo	240	1,196,206	38	15	1,589	7,684,917	45
Austin	447	2,270,410	22	21	2,742	17,308,040	29
Beaumont	426	881,889	79	—30	2,901	6,954,138	59
Corpus Christi	290	822,917	—44	—39	2,458	12,063,789	19
Dallas	1,370	5,279,527	4	—15	11,029	64,708,578	87
El Paso	143	596,773	—21	63	986	6,733,796	51
Fort Worth	679	1,968,123	—23	—34	4,583	19,937,472	26
Galveston	156	178,192	—16	—80	1,322	2,797,655	76
Houston	780	8,047,000	43	— 7	6,226	69,436,797	55
Lubbock	230	887,564	17	—57	1,905	9,473,776	21
Port Arthur	206	475,631	169	—35	1,126	2,353,243	53
San Antonio	1,295	3,421,734	42	13	9,983	24,760,877	45
Waco	161	751,600	—18	—11	1,222	8,797,179	51
Wichita Falls	99	269,900	—27	5	599	2,905,266	62
Total	6,909	$28,363,785	15	—13	52,095	$282,893,175	59

August was 5 percent below July but was 6 percent above a year ago. Contract awards for the first eight months of 1948 were 22 percent above the corresponding period of 1947, reflecting increases of 10 percent for residential and 29 percent for nonresidential construction.

Cotton consumption in the United States in August was 728,732 bales, or 101,339 more than in July and 18,131 more than in August 1947. The demand for cotton textiles continues largely on a current requirements basis, with the number of cotton consuming spindles in operation during the last week of August being fractionally above a year earlier. A number of New England mills have recently closed due to cost as well as market factors.

DOMESTIC CONSUMPTION AND STOCKS OF COTTON—(Bales)

	August 1948	August 1947	July 1948
Consumption at:			
Texas mills	12,090	11,887	11,936
United States mills	728,732	712,864	627,393
U. S. stocks—end of month:			
In consuming establishments	1,246,848	1,155,481	1,471,644
Public storage and compresses	1,723,616	840,201	1,335,996

COTTONSEED AND COTTONSEED PRODUCTS

August 1948

	Texas		United States	
	August 1 to August 31		August 1 to August 31	
	This season	Last season	This season	Last season
Cottonseed received at mills (tons)	191,233	120,322	373,048	167,444
Cottonseed crushed (tons)	87,318	61,311	173,060	101,917
Cottonseed on hand August 31 (tons)	168,109	113,439	289,068	165,055
Production of products:				
Crude oil (thousand pounds)	26,036	18,248	51,209	31,032
Cake and meal (tons)	42,414	29,662	80,566	46,971
Hulls (tons)	19,238	13,046	39,314	23,141
Linters (running bales)	28,096	19,226	53,165	31,738
Stocks on hand August 31:				
Crude oil (thousand pounds)	4,717	4,606	12,163	8,405
Cake and meal (tons)	33,700	6,532	74,554	26,722
Hulls (tons)	19,150	11,990	44,219	34,554
Linters (running bales)	48,824	20,672	101,348	71,888

SOURCE: United States Bureau of Census.

Employment this summer reached new highs in both the District and the Nation. The preliminary estimate of nonagricultural employment in Texas during September is 2,294,600, or 15,000 more than in July or August. The return of teachers to schools, the seasonal fall increase in retail trade, and the recruiting of additional workers for defense plants account for the September increase and, with the re-entrance of students in schools and the demand for cotton pickers, account for a tightening of the labor market.