

MONTHLY BUSINESS REVIEW

of the FEDERAL RESERVE BANK of Dallas

Volume 33

Dallas, Texas, March 1, 1948

Number 3

DISPOSAL AND UTILIZATION OF WAR MANUFACTURING FACILITIES IN THE SOUTHWEST

R. B. JOHNSON, *Industrial Economist, Federal Reserve Bank of Dallas*

During the 1930's, considerable progress was made in attracting industrial activities to the Southwest. Large catalytic refineries and other petroleum industry installations and major chemical plants were constructed on the Gulf Coast, where the abundant reserves of crude oil, natural gas, sulphur, and calcium deposits, together with access to intracoastal and ocean transportation, created a favorable environment for the successful operation of such industries. Important facilities to produce magnesium and other products from sea water also were built along the coast during the decade preceding the war. In addition, the apparel industry in North-Central Texas was expanded substantially, as producers attempted to take advantage of the large supply of labor available in an area located near the center of a growing market. Moreover, in various sections of the region metal products, building products, and food processing industries enlarged their facilities and increased output in response to growing regional demands.

Despite such evidences of industrial development of the Southwest, at the time of the outbreak of war in Europe the area was recognized principally as a source of supply of raw materials to other areas for processing and fabrication. Although advantages which normally attract industries to an area, such as availability of fuels, raw materials, and labor, were possessed by the Southwest, large fabricating plants had tended to locate nearer their more important markets and their sources of supply of trained workers and semi-finished materials. Consequently, industry was a relatively unimportant contributor to employment and income in the Southwest when the war began.

In 1939, only slightly more than 3 percent of the wage earners in manufacturing in the United States were employed in the five southwestern states—Arizona, Louisiana, New Mexico, Oklahoma, and Texas—although those states contained approximately 9 percent of the population of the Nation. Whereas in the United States about 160 of every 1,000 gainfully employed persons were engaged in manufacturing, in Texas and other southwestern states only about 60 of every 1,000 were thus employed. Concentration of activity in the production and processing of raw materials tended to restrict the opportunities for investment of capital and thus limited outlets for profitable employment of skills and managerial talents. Moreover, primary dependence upon agriculture resulted in a substantial proportion of the population being employed in a field in which rates of return were low and seasonal unemployment on a large scale inevitable. Consequently, the labor force of the area was used less intensively and compensated more meagerly than in areas in which manufacturing accounted for a more significant portion of employment. It was generally agreed, therefore, that increased and more widely diversified manufacturing activity in the Southwest would be very desirable.

The great demands for manufactured goods created by the war required nationwide expansion of industrial facilities supported to a large extent with public funds, and the Southwest received an important share of this expansion. The advantages which had led to growth of the chemical and

petroleum industries in the area during the decade preceding the war stimulated additional wartime expansion to provide such petro-chemicals as super-fuels, explosives, and synthetic rubber components. The Texas port areas attracted wartime shipyards, additional magnesium facilities, and plants to process foreign ores. During the initial stages of the National Defense Program, shortage of skilled labor and lack of adequate manufacturing facilities handicapped the Southwest in its bids for many types of contracts and war plants. After 1941, however, availability of unskilled labor in the Southwest, which during the labor-surplus years of the 1930's had not been a particularly important factor in locating plants, became an important consideration as full employment was approached in the Nation. In addition, the great distance of the Southwest from the Atlantic and Pacific seaboard, which before the war had deterred location of plants in this region, proved an advantage, since it permitted plants to be placed where they might be protected more easily from possible attack by sea and air. These and other factors led to the location of aircraft, ordnance plants, and shipyards in the area.

From July 1940 to the end of the war, 610 manufacturing plants were constructed or expanded in the Eleventh Federal Reserve District at an estimated cost of \$1,470,000,000. Although the amount spent was not great relative to the \$23,000,000,000 spent on such facilities in the Nation, it perhaps doubled the investment in manufacturing establishments in the district and supported an unusually rapid expansion and diversification of industrial activity. Throughout the southwestern region the capacity of many established plants was greatly enlarged, and in several sections very large new facilities were built, some of which were designed to manufacture products which had not been produced before in the area. As the new facilities were brought into operation and activity in established plants was intensified, the relative significance of industry as an employer and source of income increased. From mid-1940 to the peak of war activity in November 1943, the number of workers engaged in manufacturing rose from 185,000 to 443,000 in Texas and from 340,000 to 764,000 in the five southwestern states. These increases in employment were made possible principally by wartime expansion of facilities.

This rapid wartime expansion of manufacturing facilities raised important questions for the southwestern economy. Could the new facilities be employed profitably after the war? Would the gains in industrial employment be retained? Whether the plants could be converted successfully to peacetime operations seemed very likely to be an important determinant of the rapidity with which southwestern industry could be developed in the postwar period.

Although nearly three years have passed since the end of the war, it is perhaps too early to measure the accomplishment in converting war facilities. The industrial demands of the postwar period have created scarcities which have induced rapid and perhaps uneconomic utilization of some installations. At the same time the troubled international situation has constrained the government to defer disposition of ordnance, aircraft, shipyards, and other plants. Accurate evaluation of the success in utilizing wartime additions to plant capacity will be possible only after experience in a more normal, more intensely competitive situation. However, the contributions of the war manufacturing facilities to the southwestern economy during the initial period of postwar readjustment are measurable. Moreover, appraisal of the problems accompanying their disposal and review of the progress made thus far in converting to peacetime operations should reveal developments which may be significant to the southwestern economy.

The Characteristics of War Industrial Facilities in the Southwest

The wartime facility expansion in the Southwest had several noteworthy characteristics which affected disposal and which may prove important in determining the long-run effects upon the economy of the region. Although construction of plants to produce various types of goods was authorized, major expenditures were confined to a few industries, a relatively small number of establishments, and a few localities. Most of the large war facilities and the major portion of total expenditures on them were financed partly or exclusively with public funds. In addition, the largest investments were made in chemical, petroleum, and related plants where the capital requirements were high and the labor needs small. Moreover, the war plants in the Southwest which utilized large numbers of workers, such as the shipyards, aircraft plants, and ordnance units, were principally specialized wartime installations.

The diversity of the wartime facility expansion in the Southwest is indicated by Table I. Between 1940 and 1945, sizeable expenditures were authorized to provide additional capacity in the food processing, paper, apparel, rubber, and building products industries of the Eleventh District. Among the larger facilities authorized in the area by the War Production Board were rubber and glass products plants at Waco, Texas; food and metal products plants at Dallas, Fort Worth, and Houston, Texas; and metal products and paper plants in North Louisiana and North-Central Texas. In addition, many smaller food, building products, wood, and apparel plants were enlarged or constructed.

Total wartime expenditures in these industries were dwarfed, however, by those in the chemical, petroleum, ordnance, aircraft, basic metals, and shipbuilding industries. The authorized cost of chemical plants accounted for more than one-third of total expenditures on war manufacturing facilities in the district; refineries and related installations, about 23 percent of the total; and ordnance, iron and steel, nonferrous metals, shipyards, and aircraft plants, all but about 6 percent of the remainder.

TABLE II

SIXTY LARGEST WAR MANUFACTURING FACILITIES*
ELEVENTH FEDERAL RESERVE DISTRICT

Type Facility†	(Thousands of dollars)			
	Number Facilities	Estimated Total Cost	Publicly Financed	Privately Financed
Chemicals and allied products.....	19	\$ 438,576	\$ 370,140	\$ 68,436
Products of petroleum and coal...	18	295,163	173,405	121,758
Ordnance‡.....	8	193,314	188,925	4,389
Iron and steel and their products..	2	71,334	70,683	651
Nonferrous metals and their products.....	4	111,402	91,909	19,493
Transportation equipment:				
Aircraft.....	3	119,078	117,931	1,147
Shipbuilding and repair.....	5	53,369	49,960	3,409
Rubber products§.....	1	6,220		6,220
Total sixty facilities.....	60	1,288,456	1,062,953	225,503
All other, Eleventh District.....	550	182,628	74,621	108,007
Total, Eleventh District....	610	\$1,471,094	\$1,137,574	\$333,510

*Individual awards in excess of \$5,000,000. Expansions authorized from July 1, 1940 through December 31, 1944.

†Classes conform to those of *Standard Industrial Classification Manual*, Bureau of the Budget.

‡Primarily iron and steel and their products, or machinery, and munitions loading.

§Basic chemical components of synthetic rubber included in Chemicals and allied products.

SOURCE: War Production Board.

TABLE I

WAR MANUFACTURING FACILITIES AUTHORIZED IN TEXAS AND
IN ELEVENTH FEDERAL RESERVE DISTRICT* BY
TYPE OF FACILITY

Type Facility†	Texas		Eleventh District	
	Estimated No. Facilities	Estimated Total Cost	Estimated No. Facilities	Estimated Total Cost
Chemicals and allied products.....	70	\$ 477,738	87	\$ 489,142
Products of petroleum and coal...	96	297,479	113	337,495
Crude petroleum and natural gasoline production.....	14	4,875	14	4,875
Ordnance‡.....	51	183,037	57	219,608
Iron and steel and their products..	37	80,486	38	80,631
Machinery, except electrical.....	16	6,199	16	6,199
Nonferrous metals and their products.....	14	116,913	17	120,435
Transportation equipment:				
Aircraft.....	18	119,025	20	125,569
Shipbuilding and repair.....	18	58,060	18	58,060
Stone, clay, and glass products....	13	2,572	15	2,669
Textile mill products and apparel..	14	873	14	873
Rubber products§.....	5	10,728	5	10,728
Lumber.....	4	181	8	507
Furniture.....	4	209	4	209
Paper and allied products.....	2	2,217	5	2,548
Agricultural services, food processing, and similar.....	149	9,862	167	10,621
Unclassified.....	12	925	12	925
Total.....	537	\$1,371,379	610	\$1,471,094

*Excluding awards of less than \$25,000. Expansions authorized from July 1, 1940 through December 31, 1944.

†Classes conform to those of *Standard Industrial Classification Manual*, Bureau of the Budget.

‡Primarily iron and steel and their products, or machinery, and munitions loading.

§Basic chemical components of synthetic rubber included in Chemicals and allied products.

SOURCE: War Production Board.

Although 610 facilities were constructed or expanded significantly in the district, a few large installations accounted for the major portion of total expenditures. As Table II indicates, 88 percent of the total was in 60 facilities. Among these major facilities were 19 chemical installations, four of which cost more than \$35,000,000 each; two very large aircraft plants representing expenditures of \$35,000,000 and \$77,000,000; a large magnesium installation and its closely associated facilities representing an expenditure of approximately \$85,000,000; 8 ordnance plants, one costing \$30,000,000, another \$50,000,000; iron and steel plants costing approximately \$25,000,000 and \$45,000,000; and shipyards, chemical plants, refineries, nonferrous metal plants, and other facilities costing from \$5,000,000 to \$30,000,000.

The expenditures on war manufacturing facilities also centered in a few localities, as indicated by Table III and the map locating major plants. Twenty-two counties and parishes in the district

received 95 percent of total expenditures. These counties contained the principal prewar industrial installations of the district and attracted the wartime industrial expansion, in part, because they possessed skilled manpower, warehousing space, freight depots, machine shops, and other facilities which industry requires for efficient operation. Plants costing approximately \$875,000,000 and accounting for nearly 60 percent of total expenditures in the district were constructed in six Texas coastal counties. Other important centers of concentration were North-Central Texas, the Texas Panhandle, parts of East Texas and North Louisiana, and Southeast New Mexico.

TABLE III
COUNTIES AND PARISHES RECEIVING LARGEST AWARDS OF WAR MANUFACTURING FACILITIES AUTHORIZED IN ELEVENTH FEDERAL RESERVE DISTRICT*

County or Parish	(Thousands of dollars)			Principal Types of Facilities
	Estimated Total Cost	Publicly Financed	Privately Financed	
Texas				
Bowie (Texarkana).....	\$ 51,482	\$ 51,482	..	Ordnance.
Brazoria (Freeport, Velasco).....	160,345	128,822	\$ 31,523	Nonferrous metal, chemicals, and products of Petroleum.
Dallas (Dallas, Garland, Grand Prairie)...	54,892	44,314	10,578	Aircraft, metal products, chemicals, ordnance.
Galveston (Galveston, Texas City).....	104,598	71,968	32,630	Shipyards, chemicals, products of petroleum, and nonferrous metals.
Harris (Baytown, Houston).....	345,196	280,364	64,832	Shipyards, iron and steel products, chemicals, Ordnance, and products of petroleum.
Harrison (Karnac).....	23,427	23,350	77	Chemicals.
Hutchinson (Borger).....	70,075	50,074	20,001	Chemicals and products of petroleum.
Jefferson (Beaumont, Port Arthur).....	201,432	143,838	57,594	Ordnance, shipyards, metal products, chemicals, and products of petroleum.
McLennan (McGregor, Waco).....	38,158	27,516	10,642	Ordnance and rubber products.
Moore (Dumas).....	34,970	33,057	1,913	Chemicals and allied products and nonferrous metals.
Morris (Daingerfield).....	23,998	23,998	..	Iron and steel.
Nueces (Corpus Christi).....	50,068	22,069	27,999	Products of petroleum, nonferrous metals, and chemicals.
Orange (Orange).....	12,936	11,445	1,491	Shipyards.
Potter (Amarillo).....	29,471	23,227	1,244	Ordnance and chemicals.
Tarrant (Fort Worth).....	88,933	83,969	4,964	Aircraft, chemicals, ordnance, and metal products.
Travis (Austin).....	15,184	15,039	145	Nonferrous metals.
Arizona				
Pima (Tucson).....	6,544	6,544	..	Aircraft modification.
Louisiana				
Caddo (Shreveport).....	6,578	3,469	3,109	Ordnance and products of petroleum.
Ouachita (Monroe).....	21,225	20,580	645	Chemicals and allied products.
Webster (Cotton Valley, Minden).....	42,235	38,875	3,360	Ordnance and products of petroleum.
New Mexico				
Eddy (Carlsbad).....	10,269	4,059	6,210	Chemicals and allied products (potash).
Lea (Eunice, Hobbs).....	5,969	2,163	3,806	Chemicals and allied products and products of petroleum.
22 Counties and Parishes.....	1,397,985	1,115,222	282,763	
All other, Eleventh District.....	73,099	22,352	50,747	
Total, Eleventh District.....	\$1,471,094	\$1,137,574	\$ 333,510	

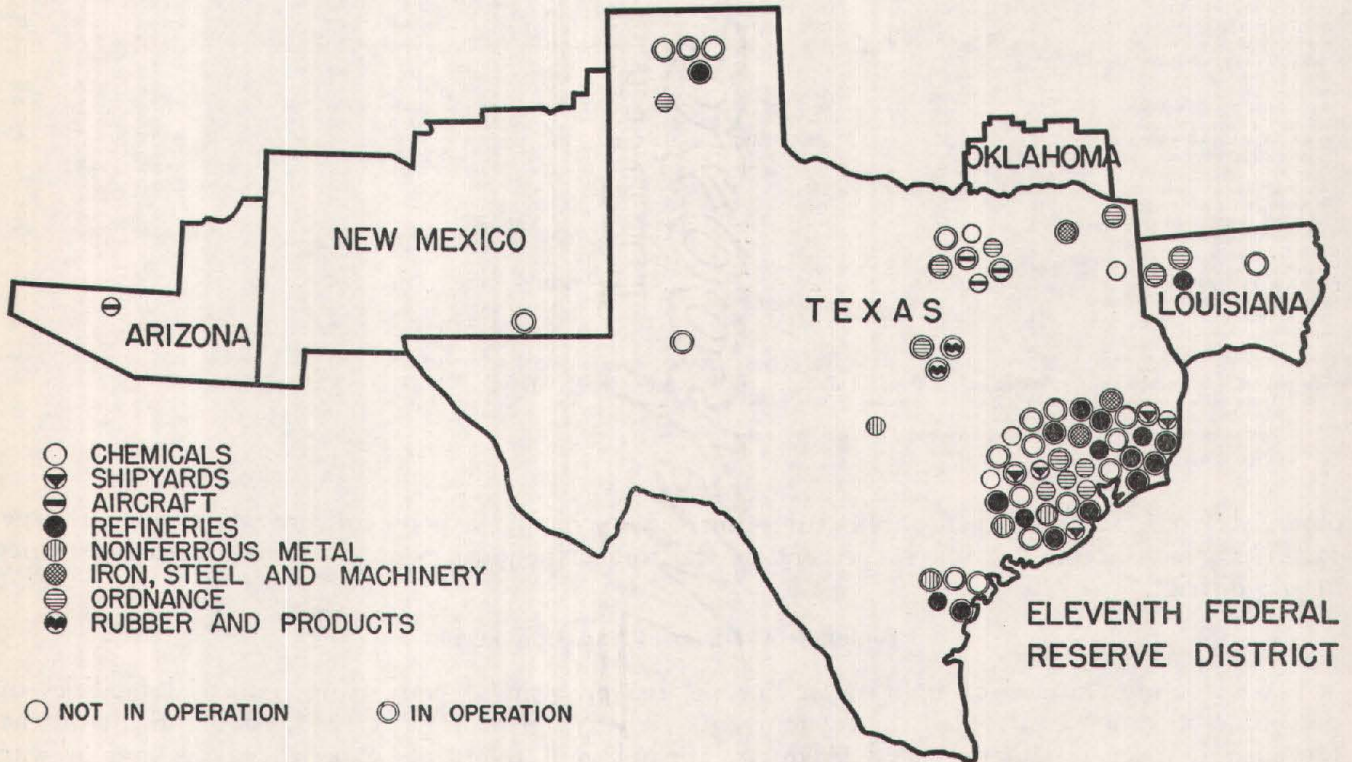
*Total awards of \$5,000,000 or more.

These sections of the district tended to "specialize" in certain types of war manufacturing facilities. A diversified expansion of heavy industry occurred in the Texas coastal area. Chemical facilities were provided near Houston, Beaumont, Texas City, and Corpus Christi to manufacture superphosphates, sulphuric acid, caustic soda, chlorine, synthetic rubber components, and various other products. These plants were closely related to large petroleum installations which already existed or which were constructed during the war period to produce super-fuels. In addition, Galveston, Houston, Orange, and Beaumont in the coastal area were sites for five large shipyards; a large iron and steel plant was built near Houston; a tin processing plant at Texas City; and the largest magnesium facilities in the world at Freeport. Many smaller installations to produce metal products, machinery, ordnance, foods, and other products also were constructed in the coastal area.

Largely because of the desire to locate such facilities in well-protected inland regions, the North-Central Texas, East Texas, and North Louisiana areas attracted ordnance and aircraft installations requiring large numbers of unskilled and semi-skilled workers. Located in the Dallas-Fort Worth area were two very large and three smaller aircraft plants, as well as other plants for the manufacture of iron and steel products, machinery, chemicals, and food products. Large ordnance plants were constructed in McLennan County in Central Texas, in Bowie and Harrison Counties in East Texas, and

in Webster Parish in North Louisiana. A large iron and steel installation was built at Daingerfield in East Texas to utilize East Texas iron ores and Oklahoma coal, while important chemical and petroleum installations were provided in Webster and Ouachita Parishes in North Louisiana.

MAJOR WAR MANUFACTURING FACILITY EXPANSIONS AND ADDITIONS



The larger facilities in the Panhandle were built to manufacture petroleum products and chemicals. Big plants to synthesize chemicals for use in explosives, super-fuels, and components of synthetic rubber were constructed near Borger, Dumas, and Amarillo. The large amounts of carbon black needed in synthetic rubber products required substantial expansion of carbon black capacity in that area. Substantial investments also were made in natural gas processing plants to recover helium from Panhandle deposits. Investments in Southeast New Mexico were principally for expanding output of carbon black in Lea County and potash in Eddy County. War manufacturing facilities in other areas in the district were comparatively small and generally designed to enlarge existing food products, apparel, metal products, and building materials plants.

The methods of financing war industrial facilities varied considerably. Some new plants and plant additions and many equipment installations were financed directly with private funds. About 88 percent of total authorized expenditures, however, were financed publicly. Some facility costs were met by the Government with the provision that payment by the private operator would be extracted from receipts on government contracts. Equipment also frequently was installed in private facilities by government procurement agencies without transferring title to the operator. Other government-financed plants were leased to private operators under purchase options, and many large plants were retained by the Government and operated under private managements.

Expenditures on facilities with assured postwar uses generally were privately financed. As might be expected, however, facilities whose peacetime utilization could not be forecast or which were subject to heavy depreciation or likely to become obsolete before the end of the war were financed principally by the Government. Thus, plants to manufacture building products, textiles, lumber, furniture, paper, and foods were financed almost exclusively by private funds; oil and gas field installations also drew upon private capital; and refinery expansion was supported principally by

private sources or jointly with the Government. On the other hand, ordnance, iron and steel, chemical, aircraft plants, and shipyards were constructed largely at public expense. Also, it will be

TABLE IV
WAR MANUFACTURING FACILITIES AUTHORIZED IN TEXAS* BY TYPE OF FACILITY
AND CHARACTER OF FINANCING

(Thousands of dollars)

Type Facility†	Est. No. Facilities	Estimated Total Cost	Publicly Financed				Privately Financed				Jointly Financed					
			No.	Total	Structure	Equip-ment	No.	Total	Structure	Equip-ment	Other	No.	Total	Structure	Equip-ment	Other
Chemicals and allied products.....	70	477,738	19	289,736	90,714	199,022	42	64,830	14,051	49,844	935	9	123,172	24,940	98,010	222
Products of petroleum and coal.....	96	297,479	7	29,623	3,153	26,470	75	54,794	10,520	36,615	7,659	14	213,062	23,854	182,803	6,405
Crude petroleum and natural gaso- line production.....	14	4,875	..	..	..	..	14	4,875	960	3,843	72	..	..	..	..	..
Ordnance‡.....	51	183,037	26	157,693	96,825	60,865	10	1,153	371	756	26	15	24,191	3,711	20,232	248
Iron and steel and their products.....	37	80,486	14	41,538	22,158	19,380	20	3,903	1,273	2,328	302	3	35,045	13,296	21,689	60
Machinery, except electrical.....	16	6,199	2	221	..	221	13	5,432	2,561	2,807	64	1	546	133	413	..
Nonferrous metals and their products	14	116,913	3	24,507	10,490	14,017	8	7,386	1,735	5,430	221	3	85,020	42,996	41,979	45
Transportation equipment:																
Aircraft.....	18	119,025	9	80,363	43,322	32,041	6	800	330	251	219	3	37,862	18,510	19,332	20
Shipbuilding and repair.....	18	53,060	3	13,917	9,279	4,638	11	2,286	793	1,330	163	4	41,857	25,849	15,720	288
Stone, clay, and glass products.....	13	2,572	1	137	..	137	12	2,435	691	1,507	237	..	..	..	..	..
Textile mill products and apparel.....	14	873	..	..	..	..	14	873	238	487	148	..	..	..	..	..
Rubber products§.....	5	10,728	..	..	..	..	3	6,313	1,526	4,762	25	2	4,415	1,119	3,140	156
Lumber.....	4	181	..	..	..	..	4	181	63	118	..	..	..	..	..	..
Furniture.....	4	209	1	51	..	51	2	103	103	..	1	..	55	..	55	..
Paper and allied products.....	2	2,217	..	..	..	..	2	2,217	473	1,744	..	..	..	..	..	..
Agricultural services, food process- ing, and similar.....	149	9,862	..	..	..	..	147	8,477	4,762	3,266	449	2	1,385	555	830	..
Unclassified.....	12	925	..	..	..	..	11	615	271	167	177	1	310	154	150	6
Total.....	537	1,371,379	85	637,766	280,944	356,842	394	166,673	40,721	115,255	10,697	58	566,920	155,117	404,353	7,450

*Excluding awards of less than \$25,000. Expansions authorized from July 1, 1940 through December 31, 1944.

†Classes conform to those of *Standard Industrial Classification Manual*, Bureau of Budget.

‡Primarily iron and steel and their products or machinery.

§Basic chemical components of synthetic rubber included in Chemicals and allied products.

SOURCE: War Production Board.

observed from Table II that public funds met the principal expense of providing the 60 large facilities which accounted for 88 percent of the total expenditures on war manufacturing plants in the district.

Problems of Disposal and Conversion

Well before the end of fighting in Europe, the problem of converting industrial facilities to peacetime operation confronted the economy. As early as the autumn of 1943, establishments in the Eleventh District producing metal products, apparel, and foodstuffs experienced declines in war orders which enabled them to shift a greater portion of their capacity to producing oil field equipment, agricultural implements and machinery, civilian clothing, and foods for the civilian market. These plants were privately-owned components of a prewar industry whose products were in great demand, and they converted with virtually no difficulty. It was obvious, however, that many government-financed facilities could not effect a similar shift as easily and that their conversion would raise important problems for the industries of which they were a part and the communities in which they were located.

From the point of view of adaptability to peacetime operations, nearly all large war industrial facilities in the Southwest can be classed in one of three categories. Some of the plants were important additions to established industries. In this classification fell many of the chemical plants, including the carbon black, heavy chemicals, and some of the petro-chemical installations; most of the refineries and natural gasoline plants; and the metal, food, textile, apparel, wood, rubber, and building products plants. Such facilities were readily convertible, generally efficient, and well adapted to utilize the resources of the region. Moreover, many of them were needed to replace obsolete plants or to provide additional capacity required to fulfill well-established market demands. Although serious administrative and financial problems might accompany their conversion, they were equipped to shift readily into important functions in the postwar economy. In the aggregate, however, they employed few workers as compared with the shipyards, aircraft plants, and ordnance works.

A second group included war industrial facilities which were potentially usable in a peacetime economy but whose capacity, when considered with that of similar installations in other sections, might exceed postwar requirements. In this category were the large shipyards, aircraft plants, and basic metals plants. Whether they were absorbed depended in part upon the magnitude of demand for their products and, in the case of the aircraft plants and shipyards, upon their convertibility to an entirely different line of production. The aircraft plants, for example, might be used in assembling

cars, trucks, iceboxes, and other consumer durables. The shipyards might be used as loading docks, drydocks, and perhaps as fabricating plants for heavy steel equipment, if large demands for those services developed, but were unlikely to be used after the war to manufacture the types of vessels for which they had been constructed. Whether the new iron and steel, magnesium, and tin plants would be used after the war appeared to depend principally upon the magnitude of postwar requirements for basic metals.

Conversion of plants in the second category, particularly the aircraft plants and shipyards, appeared very uncertain. Moreover, their conversion problem was significant because they were among the more important wartime employers of manufacturing labor in the Southwest. In Texas, aircraft construction employed 82,000 and shipbuilding 96,000 at the peak of war employment, when they accounted for more than 40 percent of total manufacturing employment in the State. Moreover, both activities drew extensively upon other manufacturing organizations to supply the components of their finished products, and thus their total contribution to industrial employment and activity in the region was greater than is indicated by the large proportion of manufacturing employment for which they accounted directly.

The third major category of war facilities included those plants whose postwar use probably would be limited to supplying military requirements. The most important plants in this group were the ordnance plants. They generally were located in areas isolated from large centers of population; their design was very specialized; and their equipment, not easily converted to alternative uses. Ordnance plants, likewise, were among the more important employers of manufacturing workers during the war, accounting for an estimated 10 percent of total manufacturing employment in Texas. In the third category, also, were chemical plants designed to produce highly specialized products, including toluol, propellant fuels, and some of the products from which certain types of synthetic rubber were compounded, and some metal products plants, which because of their size or specialized character were adaptable only to production of very heavy equipment.

Three avenues of disposal of publicly-owned plants were open to the Government: the plants could be held as stand-by units to provide facilities for ready use in national emergencies; they might be scrapped in order to restore land and materials to productive channels; or they might be converted to civilian operation through sale, rental, or lease arrangements at prices taking into account their deficiencies as peacetime units.

The problem of disposal was further complicated by numerous considerations of public policy. For example, in which region should the stand-by plants be concentrated? The choice might determine whether a region suffered severe postwar readjustments. If plants should be declared surplus, should they be left intact or dismantled and distributed as components? Should priorities be established to govern disposal, giving preference to industries which required additional postwar capacity, and should disposition be designed to foster competition and avoid monopoly? Whether stand-by plants and surplus plants should be leased and rented and whether multiple occupancy was feasible also were significant questions. Perhaps most important of all, what price policy was appropriate? Low pricing might induce rapid disposal and utilization, thereby probably contributing to maintenance of high levels of employment; on the other hand, such a policy might seriously penalize investors in plants built with private funds at costs higher than the price set upon government-financed facilities.

Progress in Disposition and Conversion

Fear that general business activity and employment would recede during the transition from war to peace led to adoption of procedures to expedite conversion of war facilities. Liberal financing arrangements and simple accounting procedures were established well before the end of the war to transfer government-owned equipment to private operators when war contracts were terminated. In contrast with the experience after World War I, the accounting, financial, and simpler mechanical adjustments required to terminate war contracts and initiate production for a civilian market were completed very rapidly, so that privately-owned and smaller government-owned plants effected the transition to peacetime operations with virtually no delay.

In the case of major facilities owned by government agencies, disposal and conversion proved more cumbersome. Such a property might be declared surplus by the owning agency or retained on a stand-by basis. If declared surplus, it might be sold or leased direct to private industry, transferred to another public agency, or turned over to the War Assets Administration for disposal. The offices of real property disposal in the zonal offices of the War Assets Administration arranged disposal of surplus plants, insofar as possible, to foster competition, maintain employment, establish well-balanced industrial structures, and recover a reasonable portion of the original cost of the plants without conflicting with other important objectives.

The economic environment in which disposal of war plants was undertaken stimulated rapid transfer from public to private ownership. Unprecedented demands for nearly all types of manufactured goods enlarged requirements for factory space and equipment. Increasing consumer demands and rising commodity prices in many cases provided adequate hedges against the risks attending conversion of plants and development of peacetime managerial organizations. In addition, rising costs of construction improved the competitive position of the war plants, which, although often constructed at high cost by prewar standards, in many cases could not have been duplicated in 1946 or 1947 at their wartime cost.

As Tables V and VI indicate, conversion of many of the major war manufacturing facilities in Texas has been effected successfully. The 16 major facilities financed principally with private funds shifted from war production to peacetime activities without delay and now are operating more intensively than during the war. Of the 53 major war facilities in Texas financed principally with public funds, 39 are being operated (although several are on very limited schedules), 22 by owners and 17 under lease; 5 are being held as stand-by facilities; 5 have been declared surplus but have not been sold or leased and are not in operation; and 4 have been dismantled, destroyed, or transferred to nonmanufacturing uses pending probable dismantling. Three of the five plants which have been declared surplus but which are not in operation may soon be in use if current negotiations to lease or buy are successful.

Petroleum and Chemical Installations

Many of the refineries and chemical plants have continued in operation without interruption. One highly specialized refining unit in the Coastal area was dismantled, and two other single purpose petroleum industry units have remained idle, including one in North Louisiana held as a stand-by plant and a surplus unit near Corpus Christi. All other major refining installations built in the district during the war are active.

All major chemical plants which were built to produce or compound components of synthetic rubber, including two installations in the Panhandle and eight in the Coastal area, have remained in operation except one butadiene plant at Houston, which is being held as a stand-by installation. These plants continue to produce synthetic rubber or have shifted to production of components of plastics. Several operate at capacity, but the majority are on reduced schedules. Plants which manufacture ammonia, toluol, and heavy chemicals are in operation, some as units of refineries, others as independent plants. One large plant in East Texas which produced TNT and propellant fuel during the war is held in stand-by status. Another at Texas City was destroyed shortly after being transferred to private ownership in the spring of 1947 but is being rebuilt. All other large chemical installations in the district are fully or partially utilized.

Basic Metals Plants

The large magnesium plant at Freeport has been transferred to private ownership and is operating at a level somewhat below that attained during the war. The magnesium plant at Austin is closed, but other nonferrous metal installations in the Panhandle and at Corpus Christi and the tin plant at Texas City are active. The iron and steel plants at Houston and in East Texas which were constructed during the war are in full operation under private ownership and lease.

Aircraft Plants and Shipyards

Sections of the large aircraft plant at Dallas are being used by several manufacturing organizations which produce gas stoves, light aircraft, and other products; as office space for the War Assets Administration zone office; and as warehouse space. The facility has been transferred to the Navy,

and negotiations are under way to resume production of military aircraft in the remaining portions of the plant. The large aircraft plant at Fort Worth continues to operate as an Army facility, producing experimental and other planes. One smaller aircraft plant in Fort Worth is inactive and up for sale or lease; one near Dallas is operating under a private lease-purchase agreement, producing various products including bus bodies; and another in Dallas is being used principally as office space.

The shipyards are being used less intensively. One large yard at Houston is closed but may be used eventually as a Navigation District "International Zone." Another at Houston was transferred to private ownership and is in operation on a substantially reduced scale, principally as a dock. The large yard at Beaumont is being utilized for ship repair, some new construction, and steel fabrication; the yard at Galveston, principally as a drydock; and the yard at Orange is closed but may be used for steel fabrication.

Ordnance and Metal Products Plants

Many of the smaller plants which produced ordnance materials during the war were well equipped to shift to fabricating structural steel or producing various metal products, including oil field equipment and agricultural machinery. Most of these plants converted quickly, some well before the end of the war. Two plants at Houston were purchased by their operators and became the major postwar facilities of their organizations. Plants in Fort Worth, Texas, and Shreveport, Louisiana, have been converted in much the same way. Conversion of the larger ordnance installations, however, has proved difficult. The plants producing explosive compounds are idle or are being operated on a very limited scale; the bomb and shell loading plants are closed, only partially converted, or operated by the military; and the large tooling establishments are idle. Only one of the large ordnance facilities is operating intensively—a plant in East Texas under Army supervision. Plants in North Louisiana and at Houston are being held as stand-by units. In addition, two plants at Houston and one at Dallas have been declared surplus but are not occupied except as office space. A plant in the Panhandle is being used in part as an experimental station by two colleges and one in Central Texas is shared by a college experimental unit, a manufacturer of stoves, and a chemical company.

Other Facilities

Other facilities, including many small plants and installations, either have been dismantled or are being used intensively. Food processing, glass, rubber products, and other installations built during the war are in use in nearly every section of the district. Among these are large potash mining installations in Eddy County, New Mexico, glass and rubber plants at Waco, Texas, and food products and related installations in Dallas and Fort Worth, Texas.

Postwar Effects of Wartime Industrial Expansion

The immediate effect of the wartime expansion of industrial facilities upon the Southwest is best measured by the employment opportunities which it has provided in the region. When the war began in Europe in 1939, about 168,000 persons were engaged in manufacturing in Texas, which accounted for approximately 90 percent of the total in the Eleventh District. Five years later at the peak of war employment in 1943, nearly 443,000 persons were engaged in manufacturing in the State. This very marked rise reflected principally the expansion of employment in the aircraft and shipbuilding, primary metal, metal fabricating, and chemical industries, whose capacities were substantially increased by construction of war facilities.

The end of the war brought about a significant downward adjustment in employment. In November 1945, manufacturing employment in Texas was 30 percent below the war peak, reflecting principally cutbacks in employment in aircraft plants and shipyards. Thereafter, the level of manufacturing employment increased. By November 1947, it had been restored to 348,000, which, although 22 percent below the war peak, was 107 percent above the 1939 level.

From Tables V and VI it is apparent that major industrial facilities built during the war contributed importantly to this higher postwar level of manufacturing employment. The 69 major war industrial facilities in Texas, whose performance is reviewed in the tables, provide employment for 59,000 workers at present, which is about 17 percent of all manufacturing workers now employed in

the State, and are responsible for about one-third of the increase in manufacturing employment above the 1939 level. The 16 major war facilities which were financed largely with private funds now provide employment for 22,000 persons, a greater number of workers than at their peak of war activity. Although employment in the 53 plants which were largely publicly financed has declined very markedly from the war peak, when they employed nearly one-half of all manufacturing workers in Texas, they are using somewhat more than 37,000 workers.

In addition to its substantial contribution to postwar employment in manufacturing in the Southwest, the wartime industrial expansion has significantly changed the character of southwestern industry. The successful shift of many war facilities to peacetime operations has greatly expanded and diversified the industrial structure of the area. The aircraft facilities provide virtually a new member in the Southwest's list of industries. The iron and steel plants built during the war likewise establish a new industry whose presence may influence profoundly the future direction of industrial development. On the Texas Gulf Coast a very large nonferrous metals industry has been created, largely during the war years, including a great magnesium plant, a tin processing plant, and facilities to process other nonferrous metal ores from abroad, developments which may presage further expansion of the basic metals industry on the Texas coast to process foreign ores imported to supplement dwindling domestic supplies.

TABLE VI
DISPOSAL AND UTILIZATION OF MAJOR WAR MANUFACTURING FACILITIES IN TEXAS
FINANCED PRINCIPALLY WITH PUBLIC FUNDS

Type Facility	Number of Facilities	Total Cost	Publicly Financed	Privately Financed	(Thousands of dollars)						
					—No. of Employees—		Current Status (Number Facilities)			Not Operating	
					War Peak*	Post War†	Operating	Leased	Standby	Surplus-Unsold	Other
Chemicals and related	18	\$393,246	\$365,190	\$28,056	11,565	5,770	6	9	2	..	1
Ordnance	11	170,058	168,157	1,901	32,345	5,540	5	2‡	1	3	..
Aircraft	5	117,986	115,860	2,126	79,035	13,275	..	3	..	1	1
Nonferrous metals	3	105,463	91,909	13,554	3,380	1,550	1	1	..	..	1
Iron, steel, and machinery	5	76,352	74,215	2,137	4,000	4,700	4	1	..	..	..
Products of petroleum	6	65,737	53,407	12,330	1,920	980	3	..	1	1	1
Shipbuilding and repair	5	53,369	49,960	3,409	84,380	5,740	3	1	1	..	..
Total	53	\$982,211	\$918,698	\$ 63,513	216,625	37,555	22	17	5	5	4

*Selected dates, 1943 and 1944.

†Latest date available.

‡Red River Ordnance at Bowie operated by Army.

In addition, the wartime chemical plants, refineries, and metal products plants have added significantly to the capacity of industries which were important in the Southwest before the war, providing additional impetus to their growth. Coordination of the operations of large-scale refining and chemical plants built or enlarged during the war already has revealed opportunities for additional chemical expansion and is attracting further investment in such plants to the coastal area. During 1947, 13 major chemical projects were announced or initiated on the coast, several of which will be closely related to installations built during the war. The smaller metal products plants provided in the area are being used to service a growing regional industrial structure, to provide materials in support of the boom in heavy construction in the district, and to manufacture oil field and agricultural equipment for a world market. Larger metal products plants, now idle, may be converted to fabricating units if metals become available and present large demands for heavy equipment and other durables persist; and the shipyards will perform important functions as large drydocks and heavy fabricating units, adding needed components to the Texas coastal industrial structure.

Perhaps the most important benefits derived in the Southwest from the wartime expansion, however, will be those based upon changes in the skills and perspectives of workers and administrators

TABLE V

UTILIZATION OF MAJOR WAR MANUFACTURING FACILITIES IN TEXAS FINANCED PRINCIPALLY WITH PRIVATE FUNDS

Type Facility	Number of Facilities	(Thousands of dollars)			—Number of Employees—	
		Total Cost	Publicly Financed	Privately Financed	War Peak*	Post War†
Products of petroleum	7	\$137,515	\$52,683	\$ 84,832	11,790	12,170
Chemicals and related	5	37,859	471	37,388	1,085	2,670
Nonferrous metals	1	5,939	..	5,939	470	455
Rubber products	1	4,275	900	3,375	60	860
Machinery	1	3,739	..	3,739	6,145	4,820
Paper and allied	1	2,168	..	2,168	605	780
Total	16	\$191,495	\$54,054	\$137,441	20,155	21,755

Selected dates, 1943 and 1944.

*Selected dates, 1943 and 1944.

†Latest date available.

in the area rather than the impermanent wartime additions to plants and equipment. During the war, several hundred-thousand former tradespeople, farmers, and housewives worked in the major southwestern war facilities and smaller installations which served them. Plant managements became skilled in operating on a very large scale, and their suppliers became familiar with the requirements of large volume producers. The skills and habits of mind which southwestern labor and management absorbed during the period of intensive work with war industrial facilities are perhaps more important assets than the plants, for upon the skills can be founded a permanent, efficient, growing industrial structure to use the abundant resources of the area.

These various benefits of the wartime expansion of manufacturing facilities have not been shared equally by all sections of the district. It is evident from Tables III and VII that the expansion had far greater wartime and postwar impacts upon some localities than others. The 47 largest war facilities, located in five Texas coastal counties, account for 75 percent of the increase from 1939 to the present in total manufacturing employment in those counties. Moreover, these facilities account for about 10 percent of all manufacturing employment in Texas and for almost 20 percent of the increase in manufacturing employment in the State since 1939. As a result of the wartime facility expansion, Coastal Texas possesses a diversified heavy industry comprised of large chemical units, petroleum installations, iron, steel, magnesium, and tin plants, shipyards, and metal products plants.

TABLE VII

DISPOSAL AND UTILIZATION OF MAJOR WAR MANUFACTURING FACILITIES IN REGIONS OF PRINCIPAL CONCENTRATION

(Thousands of dollars)

Regions	Facilities		Total Employment		Disposal		Number of Facilities	
	Total Cost	Number	War Peak	Post War	Operating	Standby	Surplus	Other
Five Texas Coastal Counties*	\$ 795,440	47	115,590	34,565	36	4	5	2
Three North-Central Texas Counties†	161,634	10	87,575	14,995	7	..	2	1
Three Panhandle Texas Counties‡	130,116	5	7,950	2,680	4	..	1	..
Three East Texas Counties§	98,828	3	15,175	4,740	2	1	..	..
Total, fourteen Texas Counties.....	\$1,186,018	65	226,290	56,980	49	5	8	3

*Brazoria, Galveston, Harris, Jefferson, Nueces.
 †Dallas, McLennan, Tarrant.
 ‡Hutchinson, Moore, Potter.
 §Bowie, Harrison, Morris.

Three North-Central Texas counties also have derived important although less impressive benefits from wartime expansion. The three counties and surrounding areas have expanded their apparel, food processing, and metal products industries substantially during the war and have added large aircraft assembly plants as an important employer and source of income. Employment in their larger war facilities now totals about 15,000, representing 20 percent of total manufacturing employment in the counties, and will rise above 23,000 if plans to utilize aircraft facilities more intensively materialize.

Advances in the Panhandle, Southeast New Mexico, East Texas, and North Louisiana, although less marked, have added significantly to the importance of industry in those areas. Other sections of the District, although receiving little direct benefit from wartime industrial growth, participate in the increased flow of income which has been derived from it.

Despite the impressive growth of the past eight years, however, the Southwest is not yet a major industrial area. Unlike some sections of the East and Middle West, it has not retained all of its wartime gains in manufacturing employment. Employment in major war plants in Texas is 83 percent below the war peak; total manufacturing employment in the State is down 22 percent. Those plants which were most successful in converting to peacetime operations, the petroleum and chemical plants, utilize comparatively few workers; the large wartime fabricating plants—aircraft plants, ordnance units, and shipyards—have closed or cut back operations drastically. Although manufacturing employment has doubled in the Southwest since 1939, only about 4 persons out of every 1,000 who live in the region are engaged in manufacturing whereas in the United States 9.5 of every 1,000 and in heavily industrialized states such as New York, Pennsylvania, Massachusetts, and Michigan 13 to 15 of every 1,000 are thus employed. A fundamental question, therefore, still confronts the southwestern economy—whether manufacturing activities which utilize large numbers of workers can be added to the basic extractive industries which now are the principal source of employment. Progress toward the attainment of this objective, however, will be facilitated by the presence of war-built manufacturing plants and the availability of administrators and craftsmen trained during the war.

Review of Business, Industrial, Agricultural, and Financial Conditions

DISTRICT SUMMARY

The most important economic development in the district and in the United States during the past month was a sharp decline in prices of many agricultural commodities, which is discussed elsewhere in the REVIEW.

Daily average crude oil production reached new peaks in the district and in the United States during January, and these high levels are being maintained in February. The value of construction contracts awarded in this district was at a higher level during January than in either of the two preceding months but was considerably smaller than in January 1947.

The extended period of severely low temperatures, snows, and rains halted field work and the growth of crops and of range vegetation; damaged commercial truck crops and reduced the value of marketing; and caused a shrinkage in livestock weights. On the other hand, the protective snow cover prevented damage to small grains, and the additional moisture will sustain growth into the spring. The alternative freezes and thaws mellowed the soil, improving the condition for spring planting. The severe freezes also probably destroyed large numbers of hibernating insects, reducing the potential insect damage during the crop growing season.

Reflecting in part adverse weather conditions, the year-to-year increase in department store sales which had widened considerably in the closing months of 1947 was narrowed to 7 percent in January.

BUSINESS

The dollar volume of consumer buying at reporting department stores in the district during January was 7 percent higher than in January 1947, although it showed a seasonal decline of 50 percent from the record volume in December last year. The seasonally adjusted index of department store sales stood at 390 percent of the 1935-1939 average in January as compared with 388 percent in December and 364 percent in January last year. During the first three weeks in January, the gain in sales over the corresponding period of the preceding year was only moderately below the 16 percent margin shown in December, but with the advent of severely low temperatures sales dropped sharply and fell below those of a year earlier. The continuation of adverse weather and poor shopping conditions during the first half of February was probably a major factor in holding sales for this period to a level approximately the same as those a year ago.

The ratio of credit sales to total sales continued to increase in January, amounting to 63 percent as compared with 61 percent in December and 58 percent in January last year. Collections on regular charge accounts were well sustained during the month, constituting 53 percent of accounts receivable outstanding at the beginning of January. Collections on installment accounts, however, dropped to 22 percent as compared with 27 percent in December.

Merchandise inventories of reporting department stores rose 6 percent during January and at the end of the month were 20 percent larger than a year earlier. On a seasonally adjusted basis, inventories on January 31 were 385 percent of the 1935-1939 average, as compared with 326 percent on January 31, 1947. The volume of outstanding orders at the end of January showed little change from either the preceding month or the corresponding month last year.

At reporting furniture stores in the district, January sales declined 42 percent from those in December but exceeded those of January 1947 by 13 percent. Credit sales, amounting to 82 percent of the total, were in about the same proportion as in

WHOLESALE AND RETAIL TRADE STATISTICS

	Number of reporting firms	Net sales			Percentage change in		Stocks †	
		January 1947	January 1948	December 1947	Jan. 1 to Jan. 31, 1948	January 1947	January 1948	December 1947
Retail trade:								
Department stores:								
Total 11th Dist.....	48	7	-50	7	24	6		
Corpus Christi.....	4	-4	-54	-4	-14	-2		
Dallas.....	7	-3	-49	-3	10	8		
Fort Worth.....	4	10	-53	10	20	8		
Houston.....	7	20	-52	20	44	5		
San Antonio.....	5	16	-40	16	15	-2		
Shreveport La.....	3	6	-57	6	..	..
Other cities.....	18	4	-54	4	22	8		
Retail furniture:								
Total 11th Dist.....	41	13	-42	..	5	3		
Dallas.....	3	25	-32	..	-5	3		
Houston.....	5	20	-45	..	..	..
Port Arthur.....	3	10	-14	..	..	..
San Antonio.....	4	14	-46	..	..	..
Wholesale trade*:								
Automotive supplies	6	-5	19	..	20	-6		
Drugs.....	4	-1	13	..	-8	5		
Groceries.....	24	-1	18	..	17	4		
Hardware.....	6	4	23	..	23	14		
Tobacco & products.	7	3	-5	..	9	3		

*Compiled by United States Bureau of Census. (Wholesale trade figures preliminary.)

†Stocks at end of month.

INDEXES OF DEPARTMENT STORE SALES AND STOCKS

	Daily average sales—(1935-1939=100)							
	Unadjusted*		Adjusted		Unadjusted*		Adjusted	
	January 1948	Dec. 1947	Nov. 1947	January 1947	January 1948	Dec. 1947	Nov. 1947	January 1947
District.....	316	633	507	295r	390	388	415	364r
Dallas.....	295	579	467	303r	359	366	386	369r
Houston.....	348	726	595	291r	447	457	491	373r

	Stocks—(1935-1939=100)							
	Unadjusted*		Adjusted		Unadjusted*		Adjusted	
	January 1948	Dec. 1947	Nov. 1947	January 1947	January 1948	Dec. 1947	Nov. 1947	January 1947
District.....	346	333r	382	294	385	397r	357	326

*Unadjusted for seasonal variation.

r-Revised.

December but were somewhat higher than the 80 percent reported in January last year. Inventories increased 3 percent in January and at the close of the month were 5 percent larger than on the corresponding date of 1947.

AGRICULTURE

Dry, cold weather over most of the district early in the year was followed late in January and the first part of February by extremely low temperatures, accompanied by snow and rain. Winter plowing and growth of winter crops and ranges were checked, but a protective snow cover prevented damage to wheat, and increased moisture supplies improved the outlook for the crop. Most vegetable crops in the winter vegetable areas suffered some damage or were killed during the period of low temperatures, but the citrus crop was unharmed. Ranges and pastures afforded only very limited feed, but although livestock are in below normal condition for this season of the year, losses as a result of the cold weather were generally light. The numbers of cattle and sheep and lambs on feed in the district on January 1 were smaller than the numbers a year earlier. January receipts of livestock at central markets in Texas generally were below normal for this season of the year. Prices received by farmers in Texas continued to move upward until mid-

January, but prices of grains, cotton, livestock, and several other commodities have declined sharply since that time.

Stocks of wheat in the states lying wholly or partly within the Eleventh Federal Reserve District on January 1 were about twice those of a year earlier despite generally heavy millings and large exports since the 1947 harvest. Total stocks reported in Texas and in Oklahoma were 57,489,000 bushels and 43,609,000 bushels, respectively, or about 125 percent and 64 percent above the stocks of a year ago. Stocks of 1,619,000 bushels in Louisiana were about twice those of a year earlier, while stocks of 3,099,000 bushels in New Mexico were almost five times those of the same date last year. Stocks of 223,000 bushels in Arizona, on the other hand, were slightly lower than a year earlier. Stocks of wheat stored on farms in the five states, which were 80 percent above those of the same date a year earlier, represented 40 percent of all stocks, as compared with 44 percent last year. Stocks of corn in all off-farm positions were above those of last year in New Mexico and Texas but were substantially lower in Arizona, Louisiana, and Oklahoma. Stocks of rye and oats in the five states were above those of January 1947, and stocks of barley were lower. Stocks of grain sorghums in all positions in the five states, estimated for the first time on January 1, 1948, were placed at 10,539,000 bushels, 85 percent of which was in Texas.

CASH FARM INCOME

	(Thousands of dollars)					
	November 1947		Nov. 1947	Total receipts		
	Receipts from Crops	Livestock*		Nov. 1946	Jan. 1 to Nov. 30 1947	1946	1945
Arizona.....	\$ 11,185	\$ 9,978	\$ 21,163	\$ 26,692	\$ 156,340	\$ 147,749
Louisiana.....	27,013	10,651	37,664	51,485	273,695	225,445
New Mexico.....	9,295	25,865	35,160	37,549	164,043	130,036
Oklahoma.....	38,690	28,278	66,968	59,112	629,582	435,321
Texas.....	147,212	63,722	210,934	171,274	1,776,979	1,259,152
Total.....	\$233,395	\$138,494	\$371,889	\$346,112	\$3,000,030	\$2,203,703

*Includes receipts from the sale of livestock and livestock products.

SOURCE: United States Department of Agriculture.

Conditions in the winter vegetable areas of Texas the first half of January were mostly favorable, with good harvesting weather and moderate temperatures. Field work was active, and shipments of vegetables made good progress. The last week of January, however, was very unfavorable in all winter vegetable areas. A cold front extending as far south as Brownsville brought freezing temperatures and drizzling rain, which coated all fields with ice. This cold spell was followed by a frost, and extensive damage to vegetable crops resulted, particularly to spring crop plantings of sweet corn, potatoes, and tomatoes. The corn crop was severely damaged, and recovery is doubtful. The tomato plants were killed, and most potatoes were cut back to the ground, but potatoes were in such a stage that most fields were expected to grow out. Most root crops suffered damage to tops, and leafy crops were burned. In the Winter Garden and Eagle Pass areas, damage was less severe because of the more hardy type of crops growing and because the drier atmosphere there prevented ice formation. Shipments of vegetables, except cabbage, from Texas were curtailed as a result of the cold weather.

The Texas citrus crop withstood the cold weather of late January without showing evidence of damage. Harvesting made fair progress, but shipments have been running considerably behind those of last year, despite the fact that this year's production of oranges and grapefruit is of record volume. At mid-February, shipments of grapefruit and oranges from the Lower Rio Grande Valley amounted to only about 72 percent of those to the same date during the previous season.

Ranges and pastures have deteriorated sharply since the first of the year, and new growth of winter weeds, grass, and clovers was practically at a standstill during January and the first half of February. Sleet, ice, and snow covered ranges and grain fields over the northern and northwestern parts of the district the last week of January, and increased feeding of roughage and cake was necessary. Shortages of supplemental feeds developed in some areas, and considerable quantities of hay and concentrates were shipped in to provide feed to carry livestock through the remainder of the winter. The condition of ranges in Texas on February 1 was about 5 percent below that on January 1 and about 8 percent below average for that date. Increased moisture supplies, however, are expected to be beneficial to the development of range feeds when temperatures moderate.

Cattle and calves showed considerable shrinkage as a result of the severe winter weather and unsatisfactory condition of ranges and pastures, but losses were reported to be light. Cattle generally are coming through the winter in only fair flesh, and in Texas the condition on February 1 was reported to be about 6 percent below that of a month earlier and about 5 percent below average for this season of the year. The condition of sheep and lambs also deteriorated and despite heavy supplemental feeding are in below average flesh. The cold rain and sleet in late January caused some losses among early lambs in Edwards Plateau counties, but ewe losses were moderate. On February 1, the condition of sheep and lambs in Texas was estimated to be 6 percent below normal.

The number of cattle on feed in Texas on January 1 of this year was estimated at 115,000 head, or about 5 percent below a year earlier, due principally to a sharp reduction in numbers of cattle on wheat pastures. Oklahoma reported 50,000 head of cattle on feed, the same number reported in 1947. The number of cattle reported on feed in Arizona was 65,000 head, or 30 percent above last year, while the 22,000 head reported for New Mexico was twice the number of a year earlier. The total number of cattle on feed in the United States was 12 percent smaller than a year earlier and the smallest since 1940. The declines occurred mainly in the North Central Region, while most western states showed small increases.

The number of sheep and lambs on feed in Texas on January 1 was estimated at 75,000 head, or 65 percent below the number in 1947. Oklahoma reported 25,000 head, also about 65 percent below the previous year. New Mexico and Arizona reported 44,000 head and 55,000 head, respectively, representing increases of 69 and 72 percent above January 1, 1947.

LIVESTOCK RECEIPTS—(Number)

	Fort Worth			San Antonio		
	January 1948	January 1947	December 1947	January 1948	January 1947	December 1947
Cattle.....	34,437	57,906	58,315	29,342	28,691	27,607
Calves.....	27,303	30,040	38,405	17,949	19,250	20,583
Hogs.....	70,932	91,385	103,042	12,648	8,193	11,712
Sheep.....	45,439	52,167	54,222	21,065	11,117	27,429

COMPARATIVE TOP LIVESTOCK PRICES

	(Dollars per hundred weight)					
	January 1948	January 1947	December 1947	January 1948	January 1947	December 1947
Beef steers.....	\$32.25	\$25.00	\$32.00	\$29.00	\$24.50	\$26.50
Stocker steers.....	27.50	18.50	24.00	20.00	22.00	27.50
Heifers and yearlings.....	33.25	26.00	33.00	29.00	14.00	21.00
Butcher cows.....	22.50	15.00	20.00	22.50	14.00	21.00
Calves.....	30.00	21.00	28.00	28.00	22.50	26.00
Hogs.....	28.25	24.10	28.00	27.50	23.00	27.00
Lambs.....	26.00	23.00	23.50	24.25	20.35	22.75

The movement of livestock into the Fort Worth and San Antonio markets in January fell far below that of the preceding month and generally below that of January 1947. Receipts of cattle were 26 percent below those of both December and January of last year, while the number of hogs received fell 16 percent below the preceding month and 27 percent below the same month last year. The movement of sheep was 5 percent above December but 19 percent below that of the previous January.

RECENT COMMODITY MARKET DEVELOPMENTS

The most important economic development during the past month was the sharp decline of prices of basic agricultural commodities. During the last two weeks in January, prices of grains and oil-bearing crops had receded rather significantly from the postwar peaks established about the middle of the month, and, then, on February 3 corn futures broke sharply. On February 4 the abrupt decline extended to other grains and to oil-bearing crops as prices declined the permissible limits, while prices of other farm products, including cotton and livestock, also declined significantly. Limit losses were generally characteristic of price movements on February 5 and 6, followed by a mixed trend on February 7 and recoveries on the following market day. The weakness of the price structure quickly reasserted itself, however, and on February 10 and 11 sharp losses were suffered.

The magnitude of the readjustment in basic agricultural commodity prices is indicated by the following quotations on the Chicago and New Orleans exchanges. July wheat, which closed at a postwar peak of \$2.73 per bushel on January 16, closed at \$2.57 on February 3 and at \$2.17 on the 11th—a decline from the peak of 21 percent. September corn, which reached a postwar peak of \$2.41 per bushel on January 15, closed at \$2.17 on February 3 and \$1.79 per bushel on February 11—a decline from the peak of 26 percent. July oats, which closed at \$1.09 per bushel on January 16, closed at \$0.99 on February 3 and at \$0.84 on February 11—a decline from January 16 of 23 percent. July soybeans, which closed at \$4.33 per bushel on January 16, closed at \$3.77 on February 3 and \$3.33 on February 11—a decline from January 16 of 23 percent. October cotton, which was 31.87 cents per pound on January 12, closed at 31.44 cents on February 3 and at 29.10 on February 11—a decline from January 12 of 9 percent.

The decline in prices of other agricultural products was generally less pronounced. Livestock prices remained relatively stable during January, in contrast to the performance of other farm commodities, but moved slowly downward during the first week in February and declined sharply at the beginning of the second week. During the first 10 days of February, prices for good to choice hogs on the Fort Worth market declined about 21 percent to \$21.00 per hundred pounds; prices for slaughter steers declined 5 percent to \$26.50 per hundred; and slaughter lambs fell 4 percent to \$22.75 per hundred. Prices received by farmers for milk and eggs changed little, but butter and egg prices declined substantially on the commodity exchanges. Wool prices again moved downward toward the Commodity Credit Corporation's purchase price.

A combination of factors appears to have contributed to the price break. Revision of estimates of the probable supply and demand relationship for wheat, corn, and other grains indicated a more favorable supply situation than had been anticipated. Favorable weather abroad has improved substantially the outlook for world wheat production, while snow

in this country provided protection and moisture for winter wheat. Domestic stocks of wheat were reported at a very high level at the beginning of the year, and somewhat larger quantities of grains had moved into marketing channels during January. Also the wheat crop prospects in southern hemisphere countries, such as Australia and Argentina, were favorable, and those countries, together with Canada, seemed likely to supply an increasing part of the European requirements.

Developments such as these influencing the supply side of the grain equation were accompanied by downward revision of prospective requirements for foreign demand and by indications of a stiffening consumer resistance in this country to high prices of various products requiring feed grains in their production. Most recent reports indicate that purchases of wheat by the Government to meet its foreign commitments during the February-June period would be smaller than had been anticipated, since the Commodity Credit Corporation was reported as needing only slightly more than 75,000,000 bushels of additional wheat to satisfy the 450,000,000 bushel goal for the current season. Then too, some proposals submitted to Congress had indicated the possibility of smaller movements of wheat abroad under the Marshall Plan during 1948-1949 than the 450,000,000 to 500,000,000 bushel quota which had been expected. Moreover, the improved crop outlook in Europe and elsewhere suggested that grain demands against the United States might be lowered as Europe and other sources of grain might contribute more to the requirements of the Marshall Plan nations.

In the domestic market, especially during January, indications appeared that certain commodity prices had entered vulnerable areas. Increasing consumer resistance to higher prices, reflected by reduced consumer purchase of meats, butter, and other dairy products, was reported more frequently. Also, industrial users appeared to have acquired more adequate stocks of grain to meet prospective requirements until the new crop became available. In addition to these developments, some important basic commodities had moved into market channels in greater volume, including foreign oil-bearing products, livestock products, and grains, while large stocks of some foods had begun to accumulate at wholesale and retail levels. Factors such as these contributed to the uncertainty regarding the continuing strength of the domestic demand for grains and other basic agricultural products at the high prices then prevailing.

When grain prices broke in response to these bearish developments, liquidation of long positions and hedging against holdings added pressures to the decline; moreover, an increased movement of grain to markets contributed to weakness in futures. The close correlation between grain prices and the prices of other feeds and livestock led to immediate declines in other important agricultural commodities.

It is too early to appraise accurately the effects of the decline in prices. Much will depend upon whether the decline continues and particularly whether it extends its influences into manufactured goods areas. Moreover, the reaction of businessmen and consumers and the policies followed by the Government will be important contributing factors in determining the ultimate consequence of the market developments. It is possible that readjustments resulting from the break in the commodity markets could be effected without too serious consequences in the economy as a whole if business confidence is maintained and widespread cutbacks in activity are avoided. The price readjustment has tended to remove important commodities from vulnerable price areas and should lead to a better balanced price structure and possibly to a more orderly

flow of goods if speculative holdings are reduced. However, the psychological impact of a price decline of the magnitude of the recent break might be severe and widespread, and the danger of such an occurrence should not be minimized. If bankers, businessmen, and others generally lose confidence in the ability of the business and financial structure to stabilize itself at reasonably readjusted levels, the price break could generate far-reaching readjustments throughout the economy. Perhaps the only conclusion that can be made this early is that the break has had a sobering effect upon business and agricultural planning and appears to have been accepted rather widely as an indication that the inflationary peak in basic agricultural commodities has been passed.

FINANCE

During the five-week period ended February 11, total loans of the weekly reporting member banks in the Eleventh District showed an increase of \$6,692,000, reflecting increases in all categories of loans except loans to brokers and dealers in securities and other loans for security trading. The trend of loans made by the weekly reporting member banks, however, changed during the five-week period as declines in total loans were reflected during the last three weeks of the period aggregating approximately \$15,200,000, in contrast with increases during the first two weeks amounting to approximately \$21,800,000.

The declining loan trend during the last half of January and early February probably reflected, in part, a seasonal movement and, in addition, the increased caution of bankers with regard to loan extensions, which has become more apparent during recent weeks. For some time monetary and credit authorities have urged more cautious lending policies on the part of banks and have directed credit policy toward that end, while the Voluntary Credit Control Program of the American Bankers Association has had the same objective. These developments, together with the restrictive influence of Treasury fiscal policy especially during the last few weeks and possibly the sobering effect of recent weakness in the commodity markets, appear to have caused bankers to be somewhat more restrictive in their loan policies. Commercial, industrial, and agricultural loans, which totaled approximately \$716,700,000 on January 7, 1948, rose to \$732,700,000 during the week ending January 28 and then declined during the following two-week period to a total of approximately \$724,400,000 on February 11.

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

(Thousands of dollars)

	Feb. 11, 1948	Feb. 12, 1947	January 7, 1948
Total loans and investments	\$2,238,805	\$2,096,312	\$2,267,461
Total loans	1,029,957	827,109	1,023,265
Commercial, industrial, and agricultural loans	724,421	542,165	716,747
Loans to brokers and dealers in securities	5,764	7,566	7,030
Other loans for purchasing or carrying securities	60,247	74,526	60,990
Real estate loans	78,686	64,534	77,439
Loans to banks	413	420	289
All other loans	160,426	137,898	154,761
Total investments	1,208,848	1,269,203	1,244,196
U. S. Treasury bills	4,779	34,306	8,542
U. S. Treasury certificates of indebtedness	166,265	259,682	167,862
U. S. Treasury notes	96,761	129,597	119,033
U. S. Government bonds (inc. gtd. obl.)	827,167	758,040	839,191
Other securities	113,886	87,578	109,568
Reserves with Federal Reserve Bank	475,479	444,291	502,386
Balances with domestic banks	252,240	248,769	307,268
Demand deposits—adjusted*	1,843,482	1,686,366	1,865,466
Time deposits	391,943	367,011	384,920
United States Government deposits	27,483	59,639	19,988
Interbank deposits	568,739	554,985	678,494
Borrowings from Federal Reserve Bank	8,200	1,500	2,500

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

The total deposits of the weekly reporting member banks in this district declined \$117,131,000 during the five-week period ended February 11, as demand deposits adjusted declined by almost \$22,000,000 and interbank deposits were reduced by more than \$109,750,000. The decline in demand deposits adjusted probably reflects the impact of income tax payments on deposit accounts of individuals, partnerships, and corporations, while the decline in interbank deposits may have been in response to the pressure on member bank reserve positions as banks attempted to ease their positions by drawing in a portion of funds deposited with their city correspondents. It is probable that these developments with respect to deposits will continue, at least during the next two or three weeks when income tax payments will increase in volume.

GROSS DEMAND AND TIME DEPOSITS OF MEMBER BANKS

Eleventh Federal Reserve District
(Average of daily figures in thousands of dollars)

		Combined total		Reserve city banks		Country banks	
		Gross demand	Time	Gross demand	Time	Gross demand	Time
January	1946	\$5,215,222	\$452,353	\$2,681,476	\$286,583	\$2,533,746	\$165,770
January	1947	4,786,948	510,956	2,293,445	325,735	2,493,503	185,221
September	1947	4,925,009	540,511	2,360,755	337,863	2,564,254	202,648
October	1947	5,100,591	541,504	2,437,292	337,197	2,663,299	204,307
November	1947	5,286,063	543,685	2,524,890	337,324	2,761,173	206,361
December	1947	5,284,150	549,898	2,516,849	342,638	2,767,301	207,060
January	1948	5,319,138	557,571	2,527,706	349,429	2,791,432	208,142

Also reflecting the influence of more restrictive credit policies, total investments of the weekly reporting member banks in the district declined by \$35,348,000 between January 7 and February 11. Largest declines in investments were shown in holdings of United States Treasury notes, which were reduced by almost \$22,300,000, and holdings of United States Government bonds, which declined by over \$12,000,000. Holdings of other types of Government securities also were reduced, while investments in all other stocks, bonds, and securities increased by approximately \$4,300,000.

SAVINGS DEPOSITS

Reporting Banks—Eleventh Federal Reserve District

	Number reporting banks	January 31, 1948		Percentage change in savings deposits from	
		Number of savings depositors	Amount of savings deposits	Jan. 31, 1947	Dec. 31, 1947
Beaumont	3	12,085	\$ 6,455,434	-13.7	- 1.9
Dallas	8	140,254	78,925,490	3.4	- 0.7
El Paso	2	35,169	23,687,026	- 0.6	- 1.2
Fort Worth	3	42,537	35,013,252	2.3	0.2
Galveston	4	23,275	21,619,577	5.0	- 1.2
Houston	8	105,745	71,413,928	0.6	1.8
Lubbock	2	1,344	1,997,483	- 6.3	2.6
Port Arthur	2	6,115	4,968,670	- 5.5	0.5
San Antonio	5	39,731	47,902,119	3.8	- 0.7
Shreveport, La.	3	32,649	25,695,694	- 2.1	- 0.8
Waco	3	10,140	9,720,859	2.1	- 0.3
Wichita Falls	3	6,990	4,602,045	- 0.7	- 1.5
All other	56	63,908	55,198,401	3.3	- 0.4
Total	102	519,942	\$387,199,978	1.7	- 0.2

During January, savings deposits of 102 reporting banks in principal cities in the district showed a slight fractional decline. Largest decreases were reported by banks in Wichita Falls, Galveston, Beaumont, and El Paso, while banks in Houston and Lubbock reported increases of 1.8 percent and 2.6 percent, respectively. During the past year, savings deposits of the banks in these reporting cities have shown an increase of about 1.7 percent, but the variation as between cities has been rather significant as banks in Beaumont have reported a decline in savings deposits of about 13.7 percent for the year, while reporting banks in Galveston show an increase of 5 percent.

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

(Dollar figures in thousands)

City	Debits			End-of-month deposits* Jan. 31, 1948	Annual rate of turnover		
	January 1948	Jan. 1947	Dec. 1947		Jan. 1948	Jan. 1947	Dec. 1947
Tucson, Ariz.	\$ 65,686	41	1	\$ 86,475	9.2	7.1	9.2
Monroe, La.	36,465	12	4	41,632	10.2	10.2	10.0
Shreveport, La.	136,714	21	4	154,879	10.4	9.5	10.2
Roswell, N. M.	15,879	21	1	18,839	9.8	8.3	9.6
Abilene	35,164	33	-5	41,677	10.1	8.2	10.8
Amarillo	92,656	32	4	85,441	13.1	11.6	12.6
Austin	133,135	8	31	99,576	15.5	14.8	11.8
Beaumont	101,646	39	21	98,064	12.4	10.3	10.3
Corpus Christi	83,766	31	10	73,185	13.4	11.2	12.1
Corseana	12,592	15	-2	20,059	7.4	6.8	7.6
Dallas	1,058,398	29	-6	697,746	18.0	15.2	19.2
El Paso	134,473	27	3	119,422	13.4	11.6	13.4
Fort Worth	325,656	21	-11	273,453	14.3	12.1	15.8
Galveston	62,609	12	-7	92,510	8.2	8.2	8.8
Houston	1,047,379	36	-1	825,384	15.0	12.4	15.1
Laredo	17,553	2	2	21,771	10.3	9.7	10.3
Lubbock	83,355	58	-3	71,047	13.9	11.0	14.9
Port Arthur	34,906	22	3	40,689	10.2	8.9	10.1
San Angelo	32,793	44	1	38,315	10.2	7.2	10.0
San Antonio	267,686	20	-1	312,908	10.1	8.6	10.1
Texarkana†	15,540	3	-6	22,941	8.0	7.7	8.5
Tyler	42,549	26	4	51,301	9.8	9.1	9.7
Waco	54,668	15	-4	65,480	10.0	9.1	10.2
Wichita Falls	53,293	21	-1	77,099	8.2	7.9	8.3
Total—24 cities	\$3,944,561	28	-2	\$3,429,893	13.7	11.6	13.9

*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 \$25,747.

Bank debits in the 24 reporting cities amounted to \$3,944,-561,000 during January, an increase of approximately 28 percent over the same month of last year but a decline of 2 percent from the preceding month. The annual rate of turnover of deposits showed little change during January from the rate reported in December. During the past year, however, there has been an increase in the annual rate of turnover from 11.6 in January 1947 to 13.7 during January 1948. These figures reflect the more active use of bank deposits, which would be expected as a result of the increased business activity and the substantially greater degree of inflation which characterized our business and financial system during January 1948, in contrast with January a year earlier.

Principal changes in the condition of the Federal Reserve Bank of Dallas during the month ending February 15 were a decrease in holdings of United States Government securities from \$972,846,000 to \$938,062,000 and a decrease in member bank reserve deposits from \$860,641,000 to \$824,143,000. Federal Reserve notes of this bank in actual circulation declined by slightly more than \$10,000,000 during the month ended February 15 and represented, at least in large part, a seasonal return flow of currency to the banking system.

CONDITION OF THE FEDERAL RESERVE BANK OF DALLAS

(Thousands of dollars)

	Feb. 15, 1948	Feb. 15, 1947	January 15, 1948
Total gold certificate reserves	\$549,737	\$474,306	\$541,672
Discounts for member banks	5,800	5,525	1,500
Foreign loans on gold	4,481	4,349	2,747
U. S. Government securities	938,062	908,308	972,846
Total earning assets	948,343	918,182	977,093
Member banks reserve deposits	824,143	748,198	860,641
Federal Reserve Notes in actual circulation	601,575	582,979	611,881

Preliminary earnings figures of all member banks in the country, as reported by the Board of Governors of the Federal Reserve System, show net profits during 1947 of \$654,-000,000, a decrease of \$104,000,000 or 14 percent from the amount reported for 1946. Earnings from Government securities aggregating \$917,000,000 showed a decline of about \$137,-000,000 from the 1946 peak; but earnings from loans, re-

flecting the substantial increase in loan volume as well as somewhat firmer interest rates, increased by \$266,000,000 to reach a total of \$1,038,000,000. Losses and charge-offs on assets exceeded recoveries and profits for the first time since 1942, the amount of excess being \$17,000,000. During 1947, recoveries and profits were about \$125,000,000 less than in 1946,

MEMBER BANK RESERVES AND RELATED FACTORS

Eleventh Federal Reserve District

(Millions of dollars)

	Changes in weeks ended				Cumulative changes	
	Feb. 11, 1948	Feb. 4, 1948	Jan. 28, 1948	Jan. 21, 1948	4 weeks ended Feb. 11, 1948	Jan. 1 to Feb. 11, 1948
Federal Reserve Credit—local	-0.3	-3.6	15.4	-5.8	5.7	5.7
Interdistrict commercial & financial transactions	22.7	28.6	-5.4	10.8	56.7	21.7
Treasury operations	-28.9	-26.4	-48.5	-10.9	-114.7	-99.5
Currency transactions	2.4	0.9	5.4	4.3	13.0	30.1
Other deposits at the Federal Reserve Bank	-0.1	-0.2	0.1	0.4	0.2	0.4
Other Federal Reserve Accounts	0.2	0.3	0.5	0.2	1.2	1.7
Member Bank reserve balances	-4.0	-0.4	-32.5	-1.0	-37.9	-39.9

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

while losses and charge-offs were about the same in both years. All classes of banks reported decreased earnings, as net profits of the central reserve city banks decreased by about \$25,000,-000, reserve city banks about \$38,000,000, and country banks about \$40,000,000.

INDUSTRY

The monthly value of awards for construction in this district has declined about 25 percent from the postwar peak reached last fall, reflecting a marked decline in awards for nonresidential construction, and in January was considerably smaller than a year earlier. The construction industry in the district is entering the spring season, however, with perhaps the largest backlogs of work in progress and work commitments in its peacetime experience. Throughout the district, substantial amounts of industrial and commercial building are under way or are soon to be initiated; road building and other public construction programs exceeding those of any year during the past decade probably will be undertaken; very substantial utilities construction is programmed; and a greater number of dwellings may be provided in 1948 than in any prior year. Should a substantial portion of total programmed construction be initiated, the amount of construction put in place during 1948 may exceed the record for a peacetime year established in 1947.

VALUE OF CONSTRUCTION CONTRACTS AWARDED

(Thousands of dollars)

	January 1948	January 1947	December 1947
Eleventh District—total	56,700	702,225	50,078
Residential	25,748	24,187	14,511
All other	30,952	46,038	35,567
United States*—total	615,206	571,628	625,363
Residential	239,098	257,419	226,796
All other	376,108	314,209	398,567

*37 states east of the Rocky Mountains.

Ⓟ—Preliminary.

SOURCE: F. W. Dodge Corporation.

Maintenance of construction at high levels during 1948 will be facilitated by recent improvements in the flow of building materials and by the large force of building craftsmen assembled during 1947. It should be borne in mind, however, that a substantial increase in construction volume could lead to recurrence of the material and labor shortages which limited

initiation of construction and slowed completion of projects in 1946 and early in 1947. Although production of important building materials has reached all-time peak levels in the Nation, and total output of building materials exceeds the high rate in 1941, inventories of most building materials in this district still are small relative to the large requirements for them; and many materials, including cement, gypsum board and lath, cast iron soil pipe, nails, and some plumbing

district, or about 5,000 more than during 1946, as the accompanying table indicates. Somewhat fewer units were scheduled in representative small cities than in the preceding year, but it is estimated that in the district as a whole a substantially larger number of urban dwellings was programmed. Moreover, the completion rate was more rapid, and many units scheduled in 1946 were completed in 1947. Preliminary data indicate that perhaps 80,000 non-farm dwelling units were provided in Texas during 1947, as compared with about 75,000 in 1946 and the prewar peak of 39,500 in 1941.

BUILDING PERMITS

	January 1948		Percentage change valuation from	
	Number	Valuation	Jan. 1947	Dec. 1947
Abilene	98	\$ 336,450	143	- 9
Amarillo	150	798,115	88	52
Austin	321	2,079,919	114	40
Beaumont	246	675,634	124	- 59
Corpus Christi	313	1,613,195	46	84
Dallas	1,038	8,059,172	205	41
El Paso	154	1,011,193	46	109
Fort Worth	381	1,291,696	- 28	- 35
Galveston	143	310,578	165	- 29
Houston	995	15,027,950	101	105
Lubbock	220	719,792	77	- 39
Port Arthur	35	86,900	- 32	23
San Antonio	1,293	3,519,830	144	48
Shreveport, La.	220	873,888	- 7	34
Waco	156	2,624,000	487	273
Wichita Falls	67	376,916	128	- 41
Total	5,830	\$39,305,228	105	50

fixtures, are in very limited supply. In addition, trained construction labor already is being utilized intensively in nearly all sections of the district, and additional workmen can be obtained only from among unskilled groups.

As indicated above, an important component of the backlog of construction demand consists of prospective residential construction. During the last quarter of 1947 and January of this year, awards for residential building in this district totaled approximately \$90,000,000, as compared with \$60,000,000 during the comparable period a year earlier, and accounted for about 35 percent of the total value of awards. The diminishing supply of mortgage credit available for financing new construction is reported to be requiring some prospective builders to curtail or defer residential projects, and the recent severe break in commodity prices may lead other builders to delay some projects in anticipation of declines in the prices of materials. If construction is initiated on a substantial portion of existing commitments for construction of new dwellings, however, the rate of residential building in the district may rise well above the high level maintained last year.

ESTIMATED NUMBER OF NEW DWELLING UNITS SCHEDULED TO BE STARTED IN URBAN AREAS DURING 1946 AND 1947*

	Eleventh Federal Reserve District					
	Total 1946	Total 1947	First quarter	Second quarter	Third quarter	Fourth quarter
Amarillo	1,193	1,152	226	297	316	313
Austin	2,989	2,230	480	690	577	487
Beaumont	559	800	168	184	212	236
Corpus Christi	1,064	1,705	467	441	466	331
Dallas†	5,751	9,014	1,639	3,129	1,982	2,264
El Paso	393	860	80	123	472	185
Fort Worth	4,194	4,493	843	1,123	1,572	955
Galveston	290	206	61	53	45	47
Houston†	5,656	6,699	1,195	1,963	1,906	1,635
San Antonio†	4,007	4,058	903	1,843	21	1,291
Waco	843	826	164	214	301	147
Total Texas Metropolitan	26,939	32,047	6,226	10,060	7,870	7,891
Shreveport, La.	1,076	1,202	301	279	269	353
Tucson, Ariz.	654	499	88	136	147	128
15 representative‡ Southwestern cities of 10,000 to 50,000	5,331	4,989	1,130	1,112	1,542	1,205

*Bureau of Labor Statistics estimates based on building permits.

†Includes adjacent townships in the metropolitan area.

‡Brownsville, Bryan, Denton, Laredo, Lubbock, Marshall, Port Arthur, San Angelo, Sweetwater, Tyler, Wichita Falls, Texas; Mansfield and Monroe, Louisiana; Roswell and Carlsbad, New Mexico.

During 1947, approximately 33,000 dwelling units were scheduled to be started in the twelve metropolitan areas of this

Consumption of petroleum products in the United States during the winter months is running at a much higher rate than anticipated, further taxing the capacities of the producing, refining, and distributing divisions of the petroleum industry to meet essential requirements. Total United States demand for petroleum products, which averaged 5,909,000 barrels daily last year, is expected by some petroleum industry analysts to average about 6,130,000 barrels daily in 1948 and 6,300,000 daily the first quarter of the year.

Daily average production of crude oil in the United States and in the Eleventh District was raised slightly in January to new peaks of 2,614,000 and 5,320,000 barrels respectively. These peak levels of production were attained by producing

CRUDE OIL PRODUCTION—(Barrels)

	January 1948		Increase or decrease in daily average production from	
	Total production	Daily avg. production	Dec. 1947	January 1947
District 1	792,250	25,556	667	6,475
2	5,211,050	168,098	4,003	34,875
3	15,383,900	496,255	7,771	83,331
4	7,924,850	255,640	- 2,224	48,966
5	1,365,350	44,044	1,691	10,273
6	9,128,600	294,471	445	- 7,632
Other	3,745,650	120,827	1,156	21,384
7b	1,329,950	42,902	757	8,863
7c	1,325,950	42,773	1,289	15,167
8	20,418,750	658,669	9,338	191,388
9	4,413,350	142,366	5,424	24,135
10	2,853,100	92,036	2,668	10,057
Total Texas	73,892,750	2,383,637	32,985	447,282
New Mexico	3,810,700	122,926	2,802	19,544
North Louisiana	3,322,250	107,169	- 1,054	12,519
Total District	81,025,700	2,613,732	34,733	479,345
Outside District	83,900,147	2,706,457	11,025	218,886
United States	164,925,847	5,320,189	45,758	698,231

SOURCE: Estimated from American Petroleum Institute weekly reports.

in nearly all fields at indicated maximum efficient rates. Some further increase in production in this district may be effected in February and March, without lowering ultimate recovery from the natural reservoirs, by increasing allowables in the East Texas and in certain other fields. Maximum efficient rates of production in many fields also may be raised over a longer period by further developmental drilling. Substantial increases in production may not be possible without reducing ultimate recovery from the natural reservoirs, however, unless major new fields are discovered.

PROVED CRUDE OIL RESERVES AND PRODUCTION*

Area	(Thousands of barrels)			Production 1947	Net change in Reserves 1-1-47 to 1-1-48
	Reserves 1-1-48	Reserves 1-1-47	Gross Additions 1947†		
North Louisiana	400,000	407,769	31,520	39,280	- 7,769
New Mexico	540,000	507,914	73,076	40,970	32,086
Texas	13,465,000	11,800,162	2,513,128	848,290	1,664,838
Total Eleventh District	14,405,000	12,715,845	2,617,724	928,549	1,689,155
Total United States	23,737,000	21,345,138	4,288,541	1,896,679	2,391,862

*Including condensate.

†Gross additions to proven reserves by discoveries of new fields, extensions of old fields, and revisions of former estimates.

SOURCE: The Oil and Gas Journal.

MONTHLY BUSINESS REVIEW

TOTAL WELL COMPLETIONS
(Footage in thousands of feet)

Area	1947		1946	
	No. Wells	Footage	No. Wells	Footage
North Louisiana.....	1,023	3,064	810	3,253
New Mexico.....	607	2,513	463	1,762
Texas.....	9,518	40,849	8,382	35,924
Total Eleventh District.....	11,148	46,426	9,655	40,939
Total United States.....	33,646	113,212	30,845	101,493

SOURCE: *World Oil*.

Exploratory and developmental drilling yielded encouraging results in the district and in the United States in 1947. During the year a record number of wells were completed, and more footage was drilled than in any prior year. In addition, a record number of exploratory wells were completed. This intensive drilling program was rewarded by important additions to known fields and significant new discoveries. Estimated additions to proved reserves totaled 2,617,000,000 barrels in the district and exceeded withdrawals by 1,689,000,000 barrels. Net additions to proved reserves outside the district totaled about 700,000,000 barrels.

DOMESTIC CONSUMPTION AND STOCKS OF COTTON—(Bales)

	January 1948	January 1947	December 1947	August 1 to This season	January 31 Last season
Consumption at:					
Texas mills.....	13,534	19,419	12,726	75,564	113,143
United States mills.....	860,202	940,994	753,406	3,883,965	5,213,413
U. S. stocks—end of month:					
In consuming establm'ts...	2,222,254	5,116,954	.....	.....	.....
Public stg. & compresses..	2,270,764	5,228,327	.....	.....	.....

COTTONSEED AND COTTONSEED PRODUCTS

	Texas		United States	
	August 1 to This season	January 31 Last season	August 1 to This season	January 31 Last season
Cottonseed received at mills (tons).....	1,084,577	539,626	3,795,325	2,823,221
Cottonseed crushed (tons).....	771,455	485,561	2,778,869	2,174,269
Cottonseed on hand January 31 (tons).....	367,550	111,319	1,115,984	766,758
Production of products:				
Crude oil (thousand pounds).....	236,344	144,731	853,648	677,340
Cake and meal (tons).....	364,549	227,231	1,284,575	959,571
Hulls (tons).....	173,242	107,258	627,353	503,007
Linters (running bales).....	256,520	166,524	867,852	697,719
Stocks on hand January 31:				
Crude oil (thousand pounds).....	18,316	8,774	55,536	36,536
Cake and meal (tons).....	13,231	46,297	71,207	160,033
Hulls (tons).....	18,955	34,128	72,533	102,576
Linters (running bales).....	46,034	18,941	204,250	106,574

SOURCE: United States Bureau of Census.