

# MONTHLY BUSINESS REVIEW



FEDERAL RESERVE BANK OF DALLAS

Vol. 40, No. 6

DALLAS, TEXAS

June 1, 1955

## SOUTHWEST OIL MARKETS

JACK D. COLCLOUGH, *Petroleum Economist*  
*Federal Reserve Bank of Dallas*

*This is the third in a series of articles about the oil industry in the Southwest which will appear in the **Monthly Business Review** from time to time. Additional copies of this article may be obtained by addressing a request to:*

*Research Department  
Federal Reserve Bank of Dallas  
Dallas, Texas*

The future of the Southwest's oil industry depends on markets, as well as on the success in discovering new pools and new methods of obtaining additional oil from existing pools. In recent years, the region's capacity to produce oil has become progressively larger than the amount of oil actually produced. Production has been governed by the market existing for the oil. This situation reflects, in part, the mechanism whereby conservation bodies in the principal producing states of the Southwest, according to the laws of the respective states, must recognize market demand in setting oil allowables.

Market demand has been the dominant factor determining not only the volume of production but also, over the long run, the region's capacity to produce. Trends in demand tend to cause similar trends in exploratory activity, upon which producing capacity is heavily dependent. Undoubtedly, the tremendous growth in the Nation's demand for oil during the past 50 years has been a powerful factor stimulating exploration in the Southwest and, hence, the region's capacity to produce oil. On the other hand, the availability of abundant oil supplies in the region, through the discovery of many rich pools, has promoted an expansion in the use of oil and in its market. Thus, a phenomenon of action and interaction has existed, with demand and supply tending to increase each other.

The demand for oil in the world markets has grown rapidly during the postwar period, and oil companies and independent operators have been encouraged to expand exploratory

activity to new areas as a means of helping to assure a sufficient supply to meet rising demand. During this period, tremendous fields have been developed in the Middle East; production has expanded markedly in Venezuela; and major discoveries have added Canada to the growing list of important oil-producing countries. In the United States, reserves have continued to rise and production has increased substantially, with a major portion of the gain occurring in the Southwest. Nevertheless, new producing areas have been opened up in the Williston Basin and in the Denver-Julesburg Basin, and substantial increases in production have occurred in other producing areas in Wyoming, Oklahoma, and Kansas. These new discoveries have added tremendously to total proved reserves; and the increase in the world's oil-producing capacity, or readily developed potential capacity, has outrun — at least temporarily — even the large increases in demand.

The postwar development of new major oil resources in various parts of the world has resulted in a considerable rearrangement of markets. An oil market tends to be supplied by the most accessible oil-producing area, that is, the area with the lowest transportation cost to that particular market. Insofar as the oil from the most accessible area is insufficient to meet demands, the market then tends to be supplied with oil from the next most accessible producing area, and so on. Similarly, oil produced in any particular area tends to move to the most accessible market. If the production of a particular area is larger than can be absorbed by the most accessible market, the excess tends to go to the next most accessible market, and so on.

The extent to which oil produced in any particular area may enter more distant markets depends upon the size of the more accessible markets, the magnitude of production in the area, the type of crude produced, the type and availability of transportation facilities, the cost of gathering and transporting the oil to different markets, the cost of producing the oil, and prevailing prices in individual markets. As progressively less accessible markets are reached, at some point the cost of transporting the oil to a particular market will become so great that the prevailing price in that market — less transportation and gathering costs — will yield a return which is insufficient to cover out-of-pocket costs of producing the oil for that market. Of course, as long as the net return, after deduction of transportation and gathering costs, is sufficient to cover operating costs of producing the oil (which are generally a small portion of the total cost of finding and producing the oil), there will be some incentive to produce the oil. Exploration and drilling costs are considered fixed charges, already incurred, so that any return on them is preferable to no return at all.

While these are the basic economic considerations, there are several other factors affecting a practical decision as to which markets to enter from a particular producing area. If a surplus in world oil-producing capacity exists, as is the case today, the principle of expanding distribution to the least accessible markets permitted by the cost of producing and transporting the oil likely would be modified. Such action probably would be deterred by the fear that the competition of new oil with existing oil supplies in these markets might cause a break in the petroleum price structure. A break in oil prices would increase the number of producers unable to obtain a sufficient return to cover their total costs and would drive out marginal production. Moreover, such a break would tend to reduce returns received from oil sold even in the most accessible markets.

Prorating in accordance with market demand, as authorized by the conservation statutes of major producing southwestern states, is another factor influencing markets served by particular areas. It acts as a stabilizing force on market prices, operating to check both decreases (by restricting production) and increases (by making available spare capacity to meet surges in demand). By holding the Southwest's production in line with market demand, prorating undoubtedly facilitates entry into new markets of expanding oil production from areas where production is unrestricted. Trade barriers in international commerce — such as exchange controls, tariffs, and quotas — or the fear of imposition of such, also tend to alter the flow of oil to the most accessible markets.

When seeking a market, oil from a newly developed area must face the fact that any market already is being supplied by another source. If the market is expanding rapidly enough, the entry of new oil is made easier. In order to enter the market, new oil may have to sell at a delivered price which is a little lower than that of existing supplies. However, in the world markets the major processors or buyers of crude oil are also important producers of oil, with production sometimes scattered over many parts of the world. Under these circumstances, the entry of oil from a new producing area into

an existing market frequently is simplified. Sometimes a producer is induced to become a processor in order to provide an assured outlet for his crude production.

These general forces have operated in the postwar period to mold the rearrangement of the world's oil markets resulting from the emergence of new major oil-producing areas. However, any attempt to explain particular market developments in terms of specific, precisely weighted factors involves great difficulty. The main purpose of this article is to show the statistical position of southwest oil in various markets and changes in the sources of supply of these markets.

The Southwest, long the world's dominant producing area and a major supplier of many of the important markets, has been affected more keenly than most other oil-producing areas by the rearrangement of markets. This rearrangement has not meant a loss in the aggregate market for southwest oil, which has expanded greatly; rather, it has been reflected in a loss in only some markets, a reduction of the Southwest's share in others, and an increase in both the region's volume and its share in still other markets. These developments will be considered in detail in succeeding sections.

For the purposes of this study, the markets of southwest oil are divided into five general marketing areas in this country and the export market. The five general marketing areas are those established by the Petroleum Administration for War during World War II and are now used by the United States Bureau of Mines. They are as follows: District 1, of which the East Coast is the major portion; District 2, which comprises the Middle West; District 3, which includes most of the Southwest, comprising the States of New Mexico, Texas, Louisiana, Arkansas, Mississippi, and Alabama; District 4, which covers the Rocky Mountain States; and District 5, which is made up of the Pacific Coast States, Arizona, and Nevada. In this article, District 3 will be considered the Southwest.

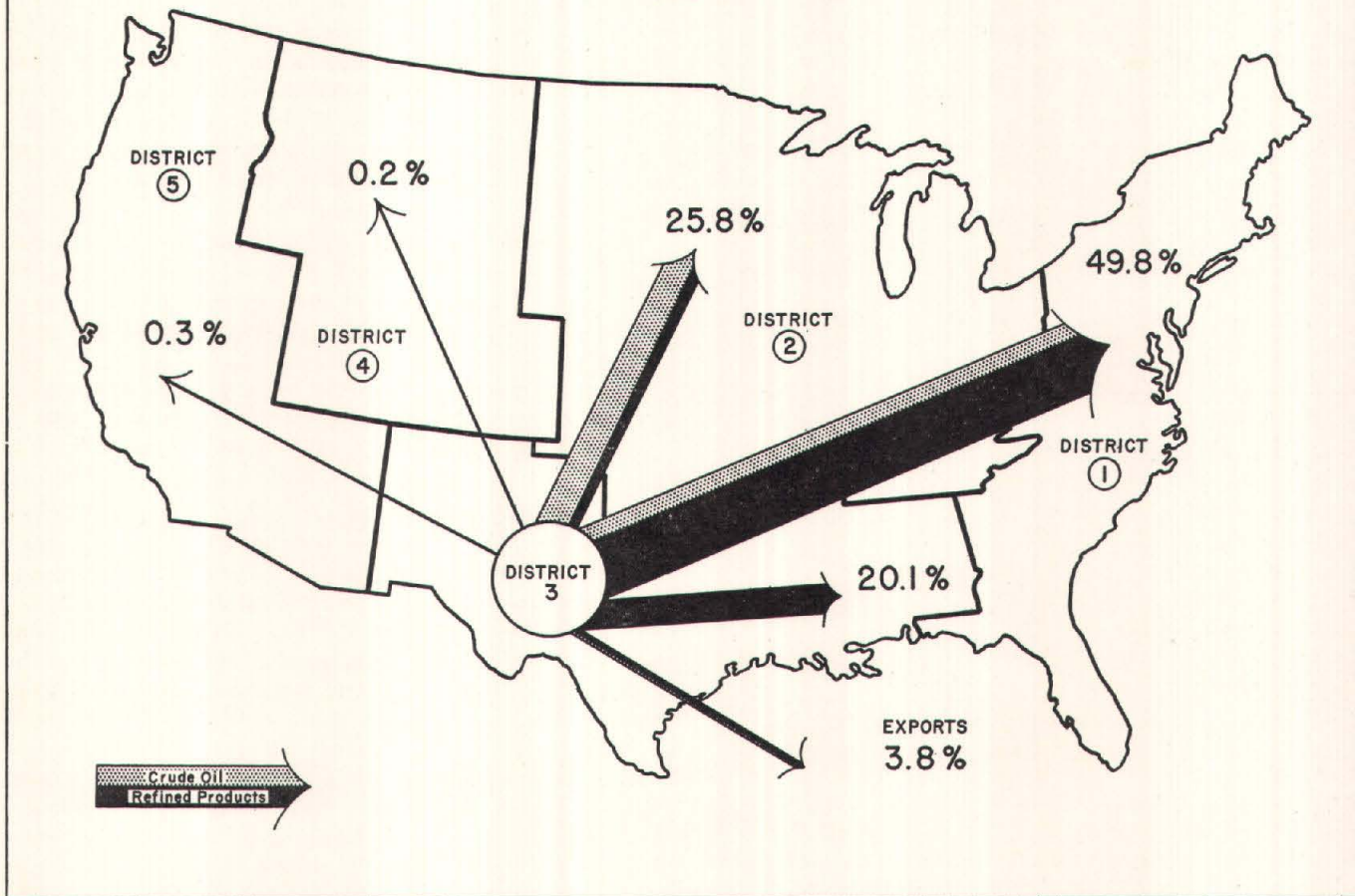
Comprehensive statistical data on the source of supply of crude oil and refined products marketed in the five major areas are not available, and it has been necessary to supplement reported data with estimates. Some of these estimates are based on fragmentary data, but, fortunately, the estimates are for segments which constitute only a small portion of the total supply in each district.

This study is limited to crude oil and its refined products. Natural gas liquids are excluded, except insofar as they are components of refined products shipped by refineries in one district to markets in another district.

### Distribution of Southwest Oil

Most of the Southwest's oil is marketed in three areas: Districts 1, 2, and 3 (the East Coast, Middle West, and Southwest, respectively), although relatively small quantities are shipped to the remaining two general marketing areas in the Nation, as well as to many foreign countries. In 1954 the three principal areas accounted for about 96 percent of marketed south-

## DISTRIBUTION OF SOUTHWEST OIL 1954



west oil. District 1 was the prime market, accounting for almost 50 percent of the Southwest's oil; District 2 ranked second, with 26 percent; and District 3 ranked third, receiving 20 percent. Most of the remaining 4 percent was exported.

The relative importance of the Southwest's oil markets has changed somewhat in the postwar period and significantly since prewar days. While District 1 has continued as the largest outlet for the region's oil, it has declined in relative importance. The export market, which was the third-ranking market in 1939, now is a poor fourth. While the proportion of the Southwest's market in District 1 and foreign countries has decreased, the proportion in Districts 2 and 3 has increased, with the sharpest gain occurring in District 2.

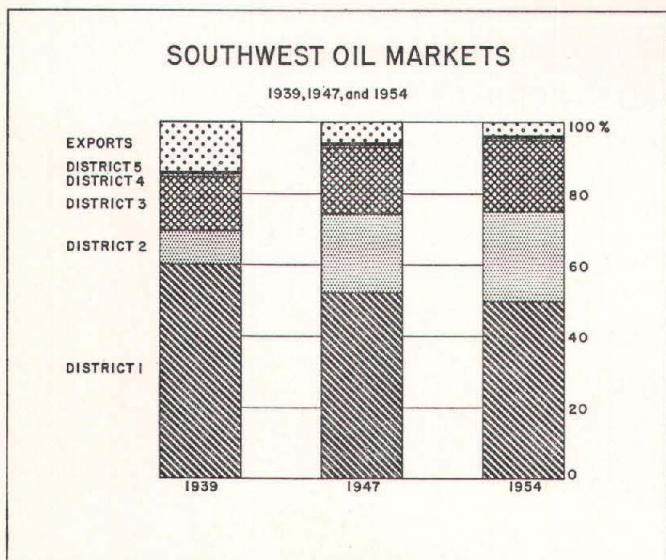
Nearly all the crude oil produced in the Southwest is shipped initially to refineries, with the bulk going to refineries in the region itself. Of approximately 1,381,000,000 barrels of southwest crude oil marketed in 1954, refineries in the region received 944,000,000 barrels, or 68 percent, and the remaining 437,000,000 barrels were shipped to refineries in other parts of the country or in foreign lands.

On the other hand, the major portion of the Southwest's refinery products is marketed outside the region. In 1954, District 3 shipped to other areas over 665,000,000 barrels of refined products, which is equivalent to 71 percent of the region's crude charged to its refinery stills. The other 29 percent (278,000,000 barrels) represented products that the southwest refineries distributed within the region itself or utilized in their operations.

The total volume of southwest oil, both crude and refined, shipped to markets outside the region in 1954 amounted to 1,103,000,000 barrels. Of this amount, 665,000,000 barrels, or 60 percent, consisted of refined products and 437,000,000 barrels, or 40 percent, were crude oil.

### The Markets

In order to appraise properly the changes which have been occurring in the markets for southwest oil, it is desirable to examine the particular markets themselves. Pertinent considerations for the individual markets include the supply of oil available in the market and the Southwest's share of this



supply represented production in the district itself, oil from the Middle West, and a relatively small quantity of residual oil brought from the West Coast.

The supply of oil in District 1 has increased greatly over the past 15 years, with the total supply in 1954 more than double that of 1939. The increased supplies were furnished entirely by the Southwest and imports; the volume of oil coming from District 1 or from other areas actually has declined since 1939. Southwest (District 3) shipments to District 1 rose from 392,000,000 barrels in 1939 to 687,000,000 barrels in 1954, a 75-percent increase. Most of this gain was in the form of refined products. Meanwhile, District 1's imports of foreign oil increased tenfold from 36,000,000 barrels in 1939 to 351,000,000 barrels in 1954. As these figures indicate, imports constituted a relatively small part of District 1's oil supply prior to World War II, but in the postwar years the rate of increase in imports has been considerably greater than that in shipments from the Southwest. As a result, imports' share of the District 1 market has increased steadily, while the Southwest's share has tended to decline.

supply, as well as changes in the gross supply and in the absolute amount and proportion furnished by the Southwest. Since the gross supply of oil in the markets served by the Southwest is determined largely by the aggregate consumption of petroleum products in these markets, attention should be given to trends in consumption. Moreover, in order to understand trends in aggregate consumption and to formulate some opinion as to the outlook for oil requirements in these markets, it is desirable to examine trends in consumption of some of the major products, including trends in consumption by some of the more important users of these products.

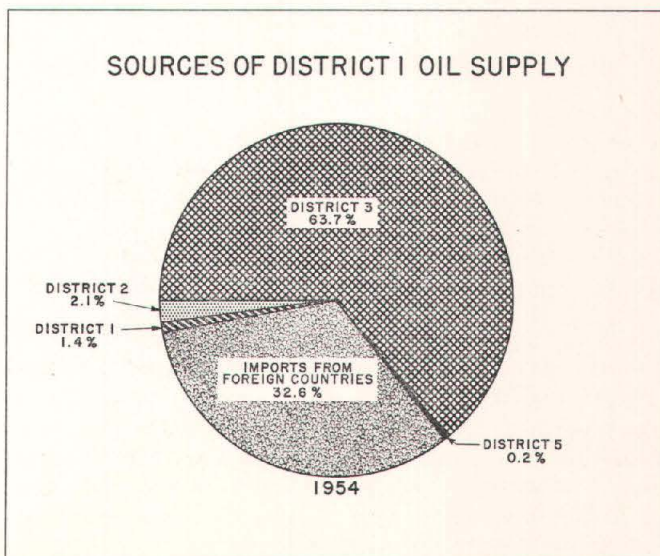
#### District 1

District 1, mainly the East Coast, is the largest market for petroleum products in the Nation. While figures on total consumption of petroleum products in District 1 are not published, available data indicate that this area's consumption in 1954 was somewhat in excess of a billion barrels. In that year, the gross supply of oil in District 1, consisting of crude oil received by its refineries and refined products shipped in from other districts or foreign countries, amounted to 1,079,000,000 barrels. All but a very small portion of this oil was consumed in District 1; probably less than 25,000,000 barrels of this supply were sent to other districts or exported. District 1's aggregate consumption of the four major refined products — gasoline, kerosene, distillate fuel oil, and residual fuel oil — amounted to 970,000,000 barrels in 1953, or 41 percent of the national total.

The Southwest furnishes District 1 with the major part of its oil supplies, although imports from foreign countries also claim a substantial share of the market. In 1954 the Southwest accounted for 64 percent of the gross supply of oil in District 1, with shipments to this area totaling 687,000,000 barrels, of which 171,000,000 barrels were crude oil and 516,000,000 barrels were refined products. Imports of foreign oil comprised 33 percent, totaling 351,000,000 barrels, of which over 213,000,000 barrels were crude and 138,000,000 barrels, refined products. The remaining small portion of District 1's

The increase of oil supplies in District 1 generally has reflected the rise in the demand for and consumption of petroleum products in that area. Sales of the four major refined products increased 531,000,000 barrels — or 121 percent — between 1939 and 1953, with gasoline, distillate fuel oil, and residual fuel oil sharing nearly equally in the expansion. The rate of increase was about in line with the national average.

Gasoline consumption — which, in terms of volume, comprises about two-fifths of the total of the four major products — increased 187,000,000 barrels, or 95 percent, from 1939 to 1953. Despite the large gain, this rate of increase was smaller than that of distillate or residual fuel oil and was the smallest of any of the major marketing areas in the Nation. While the percentage rise in nonhighway consumption of motor fuel was roughly comparable to the national average, the relative increase in motor vehicle consumption in the



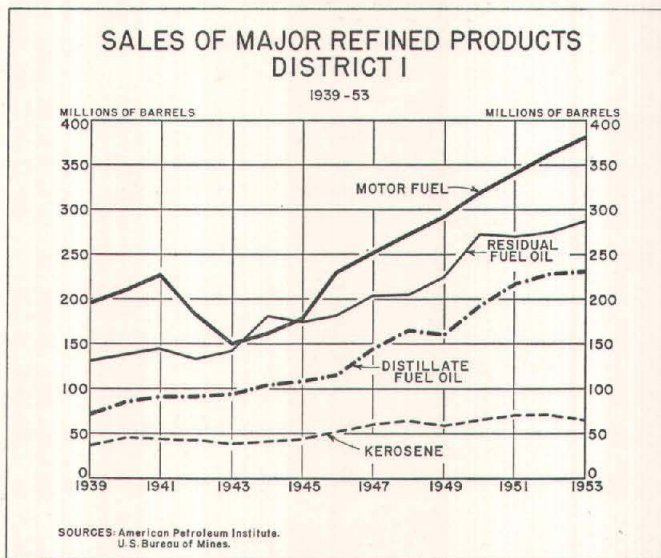
district failed to keep pace with that in the Nation as a whole. Partly accounting for this lag was the less rapid growth in motor vehicle registrations, but a more important factor was the considerably smaller rise in consumption per vehicle in District 1 as compared with other sections of the Nation. The greater concentration on the East Coast of large cities with more serious parking and traffic congestion problems probably tends to discourage automobile usage, and thus gasoline consumption.

The increase in distillate fuel oil consumption, up 223 percent between 1939 and 1953, has been an outstanding feature in the District 1 oil market during the past 15 years. Distillate fuel oil accounted for 233,000,000 barrels, or 24 percent, of the total volume of major products sold in the district in 1953, as compared with only 16 percent in 1939. The most important factors in this growth have been the increased demands for home heating, the conversion of railroad locomotives to diesel engines, and the rise in sales to industrial users.

District 1 is by far the Nation's most important market for kerosene, although this product accounts for less than 7 percent of the total volume of the four major products in the district. In 1953, kerosene sales in District 1 constituted about three-fifths of the national total and were more than double those of the next-ranking consuming area. However, the increase in kerosene sales since 1939 has been considerably smaller than that of other major products.

Sales of residual fuel oil in District 1 in 1953 amounted to 287,000,000 barrels, comprising a little over one-half of the national total for this product and about 30 percent of the aggregate volume of the four major products in the district. Residual oil sales rose about 155,000,000 barrels, or 117 percent, from 1939 to 1953, with large gains in consumption for industrial, electric power, heating, and nearly all other uses except railroads.

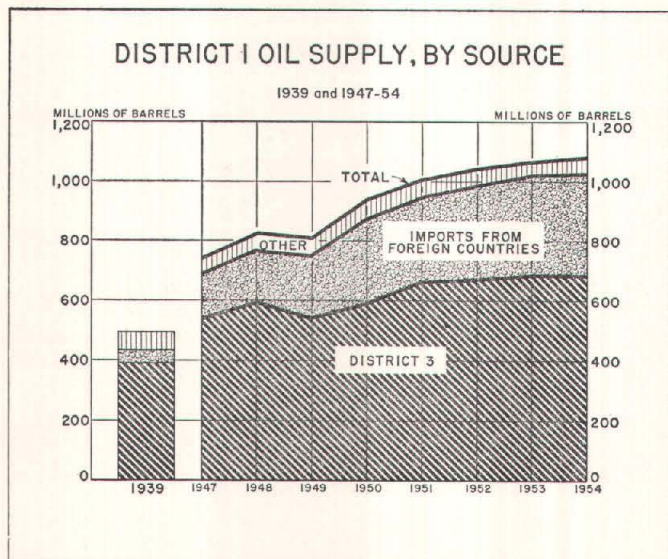
The market for petroleum products in District 1 probably will continue to grow, although the rate of increase may be



open to question. Gasoline consumption has shown steady increases of a little more than 20,000,000 barrels per year in the postwar period, but the limiting factors in the district's relatively small rise in gasoline consumption per vehicle may restrict future increases in gasoline sales unless adequate solutions are found to these problems. Mild winters in 1952-53 and 1953-54 and the introduction of the Southwest's natural gas into the area have tended to reduce expansion of heating oil sales in recent years. While the mild winters may be a temporary influence (the winter of 1954-55 showed temperatures more in line with the long-term average), natural gas probably will continue to provide strong competition in the fuel oils market. The sharply rising trend in distillate oil consumption by railroads probably will level off, since dieselization has been largely completed. On the other hand, the expanding economy of the area, including the rise in population and the growth in income, undoubtedly will offer new and enlarged outlets for petroleum products.

Although consumption of oil in District 1 is likely to expand during the coming years, there is no assurance that the volume of southwest oil marketed in the area will continue to grow. Of course, prospects for southwest oil will be more favorable if District 1 consumption follows a rising trend, but the faster rate of growth in imports of foreign oils undoubtedly presents a threat to the expansion of southwest oil in the District 1 market.

An important part of the increase in imports of foreign oil has been residual fuel oil. Because of the low value of this product, as well as the relatively low yield from high-gravity southwest crude as compared with much Venezuelan crude, southwest refiners have not actively promoted the residual fuel oil market. The result has been that practically all of the increase in residual oils in District 1 has come from foreign sources. Nevertheless, even if residual oils are eliminated, District 1 oil from foreign sources has experienced a more rapid growth than that from the Southwest. In the early postwar years, tightness in domestic supplies tended to favor the growth of imports, but the major factors in the growth of imports into District 1 have been the dis-



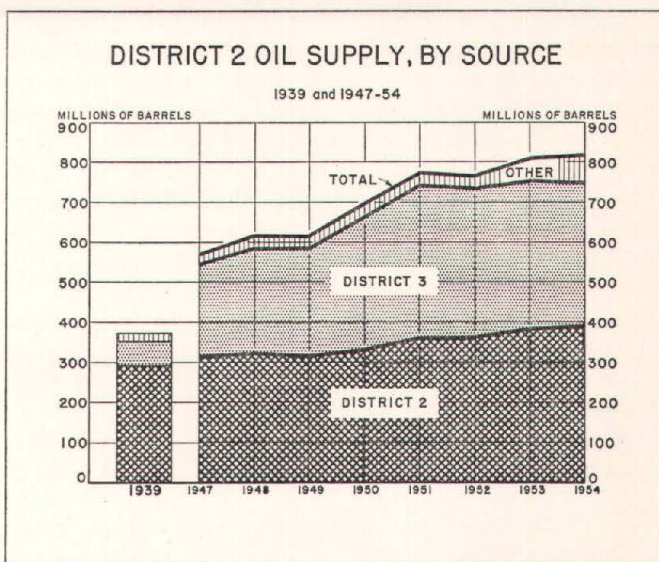
covery and development of tremendous oil fields in the Middle East and the marked expansion in the tanker capacity, resulting in relatively low ocean transportation rates. The Southwest's oil is likely to continue to meet severe competition from foreign oil in the District 1 market unless foreign demand increases sufficiently to take up available foreign supplies, tanker rates rise substantially, or restrictions are placed on the volume of imports.

#### District 2

District 2, mainly the Middle West, is the Nation's second-ranking market for petroleum products. In 1954 the gross supply in the district — crude oil received by the district's refineries and refined products originating at refineries in other districts — totaled 817,000,000 barrels, most of which was utilized in the area. Available data for the previous year show the district's aggregate consumption of major refined products at 712,000,000 barrels, or 30 percent of the national total.

The principal sources of supply of the District 2 market are production from the district itself and shipments from District 3, the Southwest. These two sources furnished almost 92 percent of the district's total supply in 1954. The remaining 8 percent came largely from the producing Rocky Mountain States, with small quantities imported from Canada and shipped in from District 1.

Oil supplies of District 2 have changed considerably during the past 15 years, both as to magnitude and with respect to source. The gross supply in 1954 was 121 percent greater than in 1939, with about two-thirds of the increase accounted for by gains in shipments from the Southwest. Shipments from District 3 to District 2 in 1954, totaling 356,000,000 barrels, were almost six times as large as in 1939. In the same period, District 2 oil supply obtained from its own crude production increased only 96,000,000 barrels, and its share of the area's gross supply dropped from 80 percent to 48 percent. Although oil shipments from District 4 expanded markedly during the war and early postwar years, an even



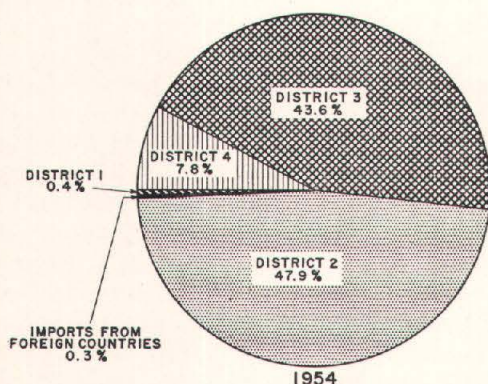
larger increase has occurred during the past few years, following the completion of several new pipelines from the Rocky Mountain area to the Middle West. The importation of Canadian oil into District 2 is a recent development.

The consumption of petroleum products in District 2 apparently has been rising at about the same rate as in the Nation as a whole. Aggregate sales of major refined products in 1953, at 712,000,000 barrels, were 390,000,000 barrels — or 121 percent — higher than in 1939, with most of this increase coming from gains in gasoline and distillate fuel oil.

More gasoline is consumed in District 2 than in any other major marketing area in the Nation. In 1953, gasoline consumption in the area amounted to 428,000,000 barrels, or 36 percent of the national total, and accounted for 60 percent of the aggregate volume of the four major products sold in the district. Nonhighway users, particularly agriculture, constitute a very important market for gasoline, although the bulk of the district's consumption is accounted for by highway users — automobiles, trucks, and buses. Gasoline consumption has expanded markedly during the past 15 years, but the rate of increase has lagged somewhat behind that for the Nation as a whole. This slower growth reflects a smaller relative increase in the district's motor vehicle registrations, which, in turn, may be due — at least in part — to the lower than national average rate of increase in population.

Distillate fuel oil sales in District 2 have been showing the most rapid growth of the major petroleum products. In 1953, sales of this product were almost four times as large as in 1939, amounting to 157,000,000 barrels — or 22 percent of the aggregate volume of the four major products. Practically all types of users increased their consumption markedly, with the outstanding gain occurring in the railroads. The growth in distillate sales for heating purposes has been smaller than that for most other types of users, but heating still represents the most important use for this product, accounting for about one-half of total sales in 1953.

#### SOURCES OF DISTRICT 2 OIL SUPPLY



District 2 is the second-ranking market for kerosene in the Nation, with sales in 1953 amounting to 34,000,000 barrels, or 30 percent of the national total. Moreover, District 2 kerosene sales increased 135 percent between 1939 and 1953, a larger rate of gain than in any other major marketing area.

Residual fuel oil represents a smaller proportion of the aggregate volume of the four major refined products in District 2 than in any other district, constituting only 13 percent in 1953. The rate of growth of this product has been smaller than that for any other major product. Sales to industrial users (mines, smelters, and manufacturing establishments), which account for more than one-half of the residual fuel oil sold in the district, have expanded appreciably during the past 15 years, but sales to other users have shown considerable variation.

The outlook for a continued increase in the demand for oil in District 2 is encouraging in view of the marked growth in the area's economy and in its consumption of petroleum products during the past 15 years. However, southwest oil is likely to face strong competition for the expanding market.

As crude production in District 2 increases, it will be utilized to meet at least part of the growing needs within the district. Production in Oklahoma has risen appreciably and Kansas production has shown a moderate gain during the postwar period, although part of these increases has been offset by a decline in production in Illinois. Production in relatively new producing areas — such as the Williston Basin in North Dakota and the Denver-Julesburg Basin in western Nebraska — while still small, has been increasing rapidly. Nevertheless, unless the district's crude-producing capacity expands much faster than it has in recent years, at least part of the rising demand will have to be met by shipments from other districts.

For that portion of the District 2 market supplied by out-of-district areas, southwest oil will have to contend with Rocky Mountain oil, as well as oil from Canada. Until recent

years, oil development in the Rocky Mountain States has been handicapped by limited transportation outlets to important oil markets. During the past 3 years, however, three crude pipelines have been built from producing areas in District 4 to refineries in District 2, providing a strong stimulus to drilling activity in this area and increasing substantially the movement of oil to District 2. In all probability, shipments of Rocky Mountain oil to the Middle West will continue to rise and may take an enlarging share of the market.

While Canadian oil is currently an insignificant source of District 2's oil supply, the development of oil resources in western Canada is creating pressure for outlets for this oil. An increase in Canadian shipments to District 2 may be anticipated. There is now being built in Minnesota a refinery designed to use Canadian crude which will be brought in by a pipeline connecting with the existing Interprovincial Pipeline.

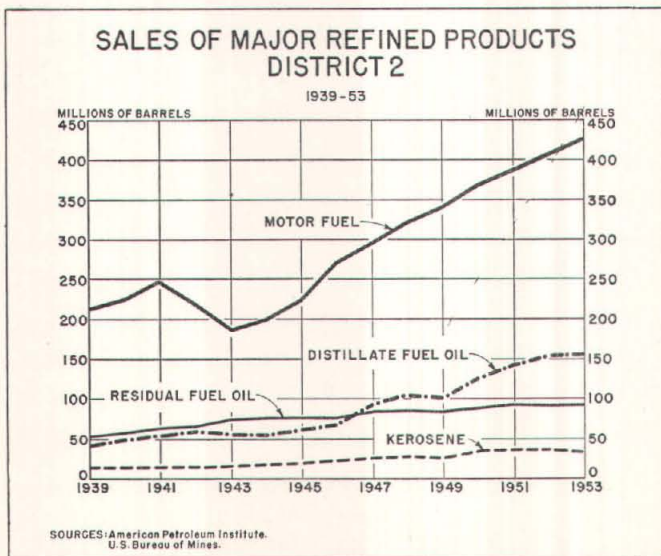
In view of these considerations, the outlook for continued expansion of the Southwest's oil markets in the Middle West is not particularly favorable. Although southwest oil probably will continue to comprise an important portion of District 2's total supply, it is unlikely that the region's oil will show the marked increases during future years that it has experienced in the past.

#### District 3

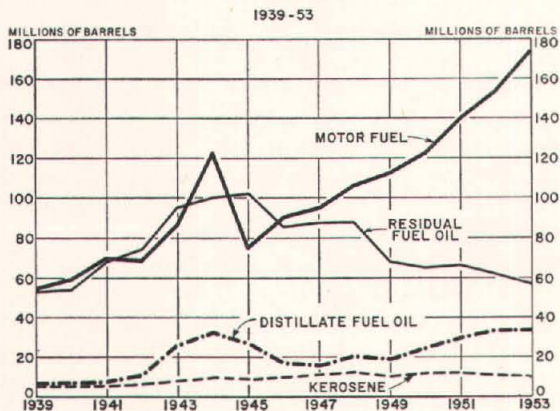
The District 3 market, the Southwest itself, has registered a larger relative expansion during the past 15 years than any other major market in the Nation except District 4. Nevertheless, total consumption of petroleum products in the area is still comparatively small in relation to that of the East Coast and Middle West. The district's gross supply of oil totaled 962,000,000 barrels in 1954, not including crude oil produced in the district and then shipped to refineries in other areas. Less than one-third of the gross supply is utilized within the district; over two-thirds is shipped as refined products to other parts of the Nation or to foreign countries. Total consumption of the four major refined products in District 3 in 1953, at 276,000,000 barrels, comprised about 12 percent of the national total.

District 3 obtains all but a fraction of its total supply from local production. Only 2 percent of the district's gross supply in 1954 originated outside the district — largely from Oklahoma in District 2 and imports of foreign oil.

In view of the faster rate of economic growth in the Southwest than in most other sections of the Nation, it is reasonable to expect the market for petroleum products in this area to show a similar pattern. Between 1939 and 1953, the aggregate consumption of the four major refined products increased 131 percent in District 3, as compared with 122 percent in the Nation as a whole. This comparison, however, conceals the fact that during the war years the relative growth in district consumption was considerably greater than in the Nation and during the postwar period it has been somewhat less than in the Nation. The slower growth in the



### SALES OF MAJOR REFINED PRODUCTS DISTRICT 3



SOURCES: American Petroleum Institute.  
U. S. Bureau of Mines.

postwar period has been due entirely to a lag in residual fuel oil. Consumption of the other major products — gasoline, distillates, and kerosene — has expanded more rapidly in both the war and the postwar period than in the Nation as a whole.

District 3's gasoline consumption, which comprises over three-fifths of the aggregate volume of the major refined products sold in the area, has been registering an outstanding growth. Consumption in 1953 amounted to 175,000,000 barrels, which is 213 percent larger than in prewar 1939; the increase in the Nation was 118 percent. The district led the Nation during this period in the relative increase in motor vehicle registrations, with such registrations more than doubling in District 3. Moreover, gasoline consumption per vehicle, which is the highest for any district in the Nation, also increased considerably more than the national average.

Sales of distillate oils in District 3, although constituting only one-eighth of the total volume of the four major products, have shown the most rapid growth of any of these products. Total sales of distillate fuel oil in 1953, 34,000,000 barrels, were six times as large as in 1939. The most important single factor in the rising demand for distillate has been the tremendous increase in railroad consumption, although distillate sales to industrial and other users also have increased substantially.

Kerosene, the least important of the four major products, comprises less than 4 percent of the aggregate volume of these products consumed in District 3. Although the district's kerosene sales in 1953 were more than double the 1939 level, the increase occurred largely during the war years.

Unlike that in other districts, the demand for residual fuel oil in District 3 has increased very little since prewar days. Total sales in 1953, at 58,000,000 barrels, were only 8 percent higher than in 1939; this product's share of the four major products volume decreased from 45 percent to 21 percent during the period. The only important user in the district showing a significant increase in demand was the ship-

bunkering trade. On the other hand, the dieselization of railroads has reduced sharply their consumption of residual fuel oil. Furthermore, natural gas has displaced a substantial amount of the residual oils used as fuel by District 3 refineries and has limited the increase in the consumption of these oils by the district's fast-growing manufacturing industries.

The outlook for southwest oil is probably more favorable in District 3 than in any other major marketing area. Consumption in this area undoubtedly will continue to increase markedly as the district's economy develops. Moreover, any gains in the use of petroleum products in the district are likely to result in a corresponding increase in sales of southwest oil. Oil from other areas has been, and probably will continue to be, an insignificant factor in the District 3 market.

#### Other Markets

District 4, the Rocky Mountain area, is practically a self-contained market. Over 95 percent of the oil consumed in the district is produced there. The remaining 5 percent is furnished by Districts 2, 3, and 5, with District 3 accounting for the major part. The District 4 market is the smallest of the Nation's five major markets, but it has experienced the largest relative expansion since 1939. The aggregate volume of the four major products consumed in District 4 in 1953 was four times as large as the prewar level. The increase was met by rising oil production in the district itself. Although this market probably will continue to grow, it appears likely that expanding oil production in the area will be more than sufficient to meet increased demands. Consequently, the outlook does not appear favorable for any substantial increase in shipments of southwest oil to District 4.

The West Coast States and Arizona and Nevada, which comprise District 5, rank third in the Nation as a market for petroleum products. This market has been supplied almost exclusively by California oil production, with the Southwest and other areas furnishing only minor quantities. In recent years, however, California production has been having difficulty keeping up with the markedly rising demand, and more oil has been obtained from other areas, principally from foreign countries. In 1954, District 5's gross supply of oil was derived from the following sources: California, 92 percent; imports, 5 percent; District 4, 2 percent; and District 3, 1 percent.

A continued rapid growth in the demand for petroleum products in District 5 may necessitate an increasing volume of oil shipments from other areas. Whether or not the Southwest will be able to obtain a significant share of this expanding market is open to question. A greater portion of the petroleum needs of the northern section of District 5 probably will be met by imports — particularly from Canada — as well as by shipments from District 4, to some extent.

While geographic proximity enhances the opportunity for southwest oil to increase its market in the Arizona portion of District 5, Arizona accounts for a relatively small part



of the district's total oil needs. The major part of the District 5 market is in California, and for the Southwest to secure an appreciable share of this district's volume, it must tap the California market. At the present time, no pipeline exists between the Southwest and California; until such a pipeline is constructed, southwest oil probably cannot compete with foreign oil for that portion of California demand which cannot be met by local production. Although proposals for such a pipeline have been made, support from potential west coast buyers and from southwest producers thus far has been insufficient to justify such a project. It would appear likely that southwest oil will not reach California in any large volume unless, or until, a substantial deficiency develops in that area and an increasing amount of excess producing capacity in the Southwest intensifies pressure for the development of new markets.

The export market for southwest oil has contracted substantially during the postwar period, with the major loss occurring in gasoline shipments to the European market. European refining capacity has been built up rapidly during the same period, and the refineries — operating largely on middle east crude — are now able to meet most of the motor fuel requirements of this broad market. Moreover, exports of southwest crude to Canada, which has been the region's most important foreign export market for crude, also have declined markedly in recent years. Southwest crude has tended to be displaced in some Canadian markets by the expanding production in that country. In other Canadian markets, southwest crude has experienced increasing competition from middle east and Venezuelan oil.

### Conclusion

In considering the market outlook for southwest oil, it is necessary to differentiate between the short run, covering the next several years, and the long run, covering the next several decades. Most of the trends and developments discussed in this article are significant in the short-run outlook. While some of them also are important over the long run, a number of other factors which have not been considered will influence the long-range picture. In fact, the long-run outlook involves an almost entirely new perspective.

Of vital importance in the short run is the fact that the world's petroleum industry now has an excess of producing capacity relative to the world demand for oil. In the postwar period, major discoveries have added to the world's proved crude oil reserves at a considerably greater rate than the world's demand has increased. Total proved crude oil reserves in the world increased about one and a half times between the end of 1947 and the end of 1954; whereas, the world demand for oil, as reflected by production, rose only about two-thirds. Under these circumstances, the pressures of crude seeking an outlet have increased markedly and are manifested in an intensification of competition in the world's crude markets.

While proved reserves in the Southwest have risen appreciably in the postwar period, the major part of the gain in the world's crude reserves has occurred in the Middle East.

Moreover, the relative increase in proved reserves not only in the Middle East but also in Canada and some of the states in this Nation (such as Montana, Wyoming, North Dakota, Nebraska, and Oklahoma) has been substantially greater than in states in the Southwest — District 3.

The Southwest, as the world's leading producing area and as an important supplier of a number of the major markets, naturally has felt keenly the mounting pressure of crude from other areas seeking a market. In the most important market for southwest oil, the East Coast, imports have expanded markedly and have been claiming an increasing share of the total market, although southwest oil shipments to that area also have continued to increase. With imports supplying a larger portion of the east coast market, more southwest oil has been diverted to the middle west market to fill the growing deficit between demand in that market and local production. However, in recent years, rising shipments from Rocky Mountain States have tended to halt the southwest expansion in the middle west market. Moreover, Canadian oil is beginning to enter the middle west market and may be expected to increase in volume during the coming years.

The Southwest's export market also has decreased in the postwar period, and further losses seem probable. Although some southwest oil is shipped in the form of refined products to the Rocky Mountain area, major gains in this area appear unlikely in view of the rising trend in local production. Possibilities for the Southwest's obtaining new markets on the West Coast do not appear to be immediately attractive and will not become attractive unless a pipeline outlet is provided to that area. The home market, District 3, however, is growing rapidly, and southwest oil reasonably can expect to obtain practically all the gains that occur in this area.

In view of recent developments, the immediate market outlook for southwest oil is not particularly encouraging. If current trends continue, the Southwest's share in most of the major markets it now serves is likely to be reduced, and the increase in the volume of southwest oil shipments to these markets may tend to be limited.

While the short-term outlook is not particularly bright for southwest oil, the long-range outlook is favorable. Over the long run, any surplus in the world's producing capacity is likely to be eliminated. A rapid rate of increase in the world's oil demand generally is expected to continue during the next few decades. The relative increase in demand in other parts of the world has been considerably larger than in the United States, and a continuing expansion in demand in these foreign countries is likely to absorb the bulk of foreign production which will become available. While the proportion of southwest oil going to the various markets may continue to change and the Southwest's share in particular markets may decline, over the long run the total amount of oil marketed by southwest producers probably will expand considerably. From a long-range standpoint, a market probably will be available for all the oil the region can produce economically, and the principal limiting factor will be the success in finding new oil pools and new means for producing existing oil resources of the region.

## REVIEW OF BUSINESS, AGRICULTURAL, AND FINANCIAL CONDITIONS



The dollar volume of sales at District department stores was the highest for any April of record, gaining 10 percent over March and 12 percent over April a year ago. The greatest percentage gains were made by homefurnishings items. Department store inventories at the end of April were 4 percent above last year and were approximately the same as at the end of March. District furniture store sales were 21 percent higher than in April a year earlier and 7 percent above March.

Rains over most of the District during May materially brightened crop prospects but came too late to save a large part of the wheat crop. The 1955 winter wheat crop is indicated, as of May 1, at 56 percent below 1954 production and only one-third as large as the 10-year average. Cash receipts from marketings of crops and livestock in District states during February were about 6 percent less than in February 1954.

Crude oil production in the District was reduced markedly in May in recognition of a substantial increase in crude stocks and seasonally lower demand. A further decline is indicated for June and July in view of the smaller allowables announced by the Texas Railroad Commission. District refinery crude runs decreased moderately during the first part of May, following an appreciable decline in April.

Nonagricultural employment in the District states during April demonstrated a greater than usual seasonal increase. Gains were experienced in almost all industries, although the rise in manufacturing employment was held down by a major work stoppage.

The value of construction contract awards in the District during April was 6 percent above March, with nonresidential construction accounting for the gain.

During the 4 weeks ended May 18, strong demands on the part of businesses and consumers helped to push loans and discounts of the District's weekly reporting member banks to an all-time peak of \$2,248,809,000. This loan expansion brought the total gain since the beginning of the year to \$76,178,000, or approximately four times the growth in the comparable 1954 period.



Department store sales in the Eleventh Federal Reserve District rose during April to the highest monthly level for the year to date, increasing 10 percent above March despite the earlier date of Easter this year. The March-to-April gain was larger than is usual at this season, with the dollar volume of sales during the month being the highest for any April of record. April sales increased 12 percent above those of April 1954, reflecting partially the continued heavy demand for consumer durable goods.

The adjusted sales index — which makes allowances for normal seasonal influences, changes in the dates of Easter, and variations in the number of trading days — rose from 131 in March to 140 in April. The previous record high for April was 124 in 1953.

Weekly department store reports show that the normal decline in sales during the week after Easter was followed by a sharp seasonal upturn in buying which raised sales for the 2 weeks preceding Mother's Day to a record level — 17 percent above the corresponding 2 weeks last year and 11 percent above the previous record high for the same period in 1953.

An analysis of April sales reveals that most of the major departments maintained the high levels of sales experienced during the first quarter of 1955, with the greatest percentage gains being made by the homefurnishings items. Although down slightly from the high levels of March, sales of furniture and bedding were up 31 percent from April last year; major household appliances, 35 percent; domestic floor coverings, 36 percent; and radios and television sets, 54 percent.

## RETAIL TRADE STATISTICS

(Percentage change)

Line of trade by area	NET SALES			STOCKS <sup>1</sup>	
	April 1955 from		4 mo. 1955 comp. with 4 mo. 1954	April 1955 from	
	April 1954	March 1955		April 1954	March 1955
<b>DEPARTMENT STORES</b>					
Total Eleventh District.....	12	10	11	4	-1
Corpus Christi.....	23	13	19	17	2
Dallas.....	11	7	13	8	1
El Paso.....	11	15	11	4	-2
Fort Worth.....	15	28	11	4	-4
Houston.....	11	7	9	-1	-5
San Antonio.....	6	-4	8	3	0
Shreveport, La.....	10	16	7	8	-5
Waco.....	15	21	12	1	5
Other cities.....	18	20	16	7	0
<b>FURNITURE STORES</b>					
Total Eleventh District.....	21	7	20	11	7
Austin.....	18	2	23	0	6
Dallas.....	33	15	25	26	4
Houston.....	33	12	32	28	17
Port Arthur.....	38	14	11	3	8
San Antonio.....	19	-1	15	0	3
Other cities.....	1	-6	6	1	3
<b>HOUSEHOLD APPLIANCE STORES</b>					
Total Eleventh District.....	7	1	—	—	—
Dallas.....	-2	-7	—	—	—

<sup>1</sup> Stocks at end of month.

INDEXES OF DEPARTMENT STORE SALES AND STOCKS

(1947-49 = 100)

Area	UNADJUSTED				ADJUSTED <sup>1</sup>			
	April 1955	Mar. 1955	Feb. 1955	April 1954	April 1955	Mar. 1955	Feb. 1955	April 1954
SALES—Daily average								
Eleventh District.....	136	120r	103r	122r	140	131r	127r	123r
Dallas.....	129	116	107	116	138	122	126	122
Houston.....	148	133	112	133	152	148	143	134
STOCKS—End of month								
Eleventh District.....	143p	144	132r	137r	134p	135	135r	130r

<sup>1</sup> Adjusted for seasonal variation.  
r—Revised.  
p—Preliminary.

On the other hand, sales of women's and misses' accessories were up 1 percent from last year; women's and misses' ready-to-wear, 4 percent; and men's and boys' wear, 11 percent. The smaller percentage gains in sales of soft goods, however, reflect, in part, the earlier date of Easter this year.

Instalment sales in the District in April were 41 percent more than a year earlier, continuing the steady increase which began in the latter part of 1954. Both cash sales and regular charge sales rose 5 percent above April last year; they were up 8 percent and 2 percent, respectively, from March. While cash sales in April 1955 constituted about the same proportion of total department store sales as in 1954—33 percent and 34 percent, respectively—charge sales became relatively less important and instalment accounts, relatively more important than a year ago.

Instalment accounts receivable at department stores in the District rose 1 percent during April and at the end of the month were 8 percent greater than on the same date in 1954. Collections on instalment accounts during the month were down 5 percent from March but were 14 percent above those in April 1954. Charge account collections were 12 percent below March but were 6 percent above the amount collected during April a year earlier.

Department store stocks continued at a high level during April for the fourth consecutive month and were approximately the same as at the end of March, although 4 percent above those of April 1954. Merchandise on order at the end of April was down 22 percent from March, which is in line with the seasonal pattern at this time of the year, but was 28 percent higher than in April last year.

The improvement in District furniture store sales which began in the fall last year was maintained through April. Sales during the month were 21 percent higher than in April 1954 and were 7 percent above March. A 7-percent increase in inventories during April was more than is usual for this time of the year; at the end of the month, stocks were 11 percent higher than a year ago.

Rains over most of the District during May materially brightened crop prospects. In the early part of the month, the heaviest precipitation occurred east of a line from Hobbs



LIVESTOCK RECEIPTS

(Number)

Class	FORT WORTH MARKET			SAN ANTONIO MARKET		
	April 1955	April 1954	March 1955	April 1955	April 1954	March 1955
Cattle.....	67,378	55,007	53,452	30,604	28,924	18,857
Calves.....	13,768	13,793	15,004	15,494	12,348	11,961
Hogs.....	55,629	52,083	67,274	2,844	—	3,584
Sheep.....	156,860	163,347	138,923	136,305	140,039	120,078

<sup>1</sup> Includes goats.

to Clovis, New Mexico, and north of a line from Hobbs, New Mexico, to Cotulla and Corpus Christi, Texas. In the middle of the month, very heavy rains fell in the Panhandle and central, south-central, and east Texas and in north Louisiana. From 5 to 10 inches of rain were recorded in several localities of central Texas. Showers in parts of central and southern New Mexico and the Lower Rio Grande Valley of Texas were mostly light and scattered.

The May rains came too late to save a large part of the dry-land wheat in the High Plains of Texas and New Mexico, but the remaining crop responded to improved moisture, although yields are expected to be low. Irrigated wheat in this area is making good progress, as insect infestation has diminished. Deterioration of drought-stricken grains in the Low Rolling Plains, Cross Timbers, and northern Blacklands of Texas was checked by the rainfall. In these areas a considerable acreage of oats with short straw and undeveloped grain was baled for hay.

The precipitation increased farmers' hopes for seeding grain sorghums in the High Plains of Texas and New Mexico and provided needed moisture for additional plantings in parts of the Low Rolling Plains and Cross Timbers. In the Low Rolling Plains and in the Blacklands and eastern counties, where favorable moisture conditions had permitted seeding, the rain was helpful in maintaining development of corn and sorghums. The moisture was especially beneficial to feed crops in south Texas, where corn is tasseling and grain sorghums are heading.

Early planted cotton in the southern valleys of New Mexico and the Trans-Pecos area of Texas is up to a stand, although some wind-damaged cotton was replanted. Seeding is being rushed to completion in eastern New Mexico and the High Plains of Texas. Irrigated cotton in the Lower Valley is mak-

FARM COMMODITY PRICES

Top Prices Paid in Local Southwest Markets

Commodity and market	Unit	Comparable week		
		Week ended May 20, 1955	last month	last year
COTTON, Middling 15/16-inch, Dallas....	lb.	\$ .3350	\$ .3255	\$ .3415
WHEAT, No. 1 hard, Fort Worth.....	bu.	2.78	2.70½	2.62
OATS, No. 2 white, Fort Worth.....	bu.	.98¾	.99¼	1.03¼
CORN, No. 2 yellow, Fort Worth.....	bu.	1.84¾	1.84½	1.88¾
SORGHUMS, No. 2 yellow, Fort Worth....	cwt.	3.03	2.77	3.28
HOGS, Choice, Fort Worth.....	cwt.	18.50	18.25	27.75
SLAUGHTER STEERS, Choice, Fort Worth...	cwt.	24.00	25.00	25.00
SLAUGHTER CALVES, Choice, Fort Worth...	cwt.	22.00	22.50	23.00
STOCKER STEERS, Choice, Fort Worth.....	cwt.	22.00	22.50	22.00
SLAUGHTER SPRING LAMBS, Choice, Fort Worth.....	cwt.	22.50	22.00	26.00
BROILERS, south Texas.....	lb.	.30	.30	.25

## COTTON ACREAGE, PRODUCTION, AND VALUE OF PRODUCTION

Five Southwestern States and United States

(In thousands)

Area	Acreage harvested		Bales produced <sup>1</sup>		Value of lint and seed	
	1954	1953	1954	1953	1954	1953
Arizona.....	420	690	911	1,070	\$ 178,405	\$ 201,893
Louisiana.....	688	950	572	806	110,996	150,967
New Mexico....	204	315	316	327	63,953	65,674
Oklahoma.....	930	1,020	293	437	52,831	73,612
Texas.....	7,730	8,900	3,923	4,317	737,311	755,180
Total.....	9,972	11,875	6,015	6,957	\$1,143,496	\$1,247,326
United States	19,251	24,341	13,679	16,465	\$2,645,490	\$3,009,935

<sup>1</sup> 500 pounds gross weight.

SOURCE: United States Department of Agriculture.

ing good growth and setting a heavy crop. Early season spraying to control insects is active in southern counties of Texas and in Louisiana.

Commercial vegetables in irrigated areas of Texas are making good progress. Dry-land cantaloupes, cucumbers, tomatoes, and watermelons in the Coastal Bend are responding to the timely rains, but additional moisture will be needed soon. Tomato harvest is under way in the Lower Valley, and the crop in east Texas is setting fruit. In the southern part of the State, harvest of onions is virtually complete except in the Winter Garden area and at Eagle Pass; the crop is making good growth in north Texas.

Range conditions as of May 1 in Arizona and New Mexico were the poorest for any May 1 in the past 10 years and in Texas were the worst since 1925, according to the United States Department of Agriculture. In the eastern part of the District, lush rescue grass and clovers have matured quickly as a result of the hot, dry weather. The May rains started grass and weeds on dry ranges in the western part of the District and provided moisture for development of summer pasture forage in the eastern areas. Livestock in the range areas are being maintained in poor to fair condition by heavy supplemental feeding.

According to the Department of Agriculture, the value of cotton lint and seed in 1954 in the United States is estimated at \$2,645,490,000, down 12 percent from the 1953 total, while the total acreage harvested was 21 percent below that in 1953. In District states the value of cotton lint and seed in 1954 was \$1,143,496,000, or 8 percent less than a year earlier, while the harvested acreage of cotton was 16 percent smaller than in 1953.

## WINTER WHEAT PRODUCTION

Four Southwestern States and United States

(In thousands of bushels)

Area	1955	1954	Average 1944-53
	Indicated May 1		
Arizona.....	864	588	604
New Mexico....	428	400	2,867
Oklahoma.....	33,030	70,770	79,304
Texas.....	11,184	30,894	55,404
Total.....	45,506	102,652	138,179
United States.....	652,886	790,737	867,390

SOURCE: United States Department of Agriculture.

## CASH RECEIPTS FROM FARM MARKETINGS

Five Southwestern States

(In thousands of dollars)

Area	February		January—February	
	1955	1954	1955	1954
Arizona.....	\$ 19,271	\$ 20,536	\$ 65,703	\$ 73,067
Louisiana.....	13,072	14,991	44,816	57,852
New Mexico....	9,528	10,062	24,957	26,111
Oklahoma.....	24,052	26,834	58,209	65,161
Texas.....	89,142	91,724	235,070	245,011
Total.....	\$155,065	\$164,147	\$428,755	\$467,202

SOURCE: United States Department of Agriculture.

Under the new legislation adopted recently, the 1955 national rice acreage allotment was increased 68,635 acres to a total of 1,927,734 acres, or 22 percent less than the 1954 planted acreage. Acreage allotments for District states in which rice is grown are: Arizona, 269 acres; Louisiana, 557,434 acres; and Texas, 496,252 acres.

The United States 1955 winter wheat crop is indicated, as of May 1, at 652,886,000 bushels, or 9,000,000 bushels smaller than was forecast a month earlier, reports the Department of Agriculture. Indicated production is 17 percent smaller than the 1954 crop and one-fourth less than the 1944-53 average.

In the four major wheat-producing states of the District, 1955 indicated production of winter wheat is 45,506,000 bushels, reflecting a decline of approximately 6,000,000 bushels from the previous forecast. Indicated production is 56 percent below production in 1954 and only one-third as large as the 10-year average.

The Secretary of Agriculture has proclaimed a national wheat marketing quota for 1956-crop wheat and has set June 25 as the date for the national referendum. A national allotment of 55,000,000 acres has been announced for the 1956 crop—the same as a year earlier.

The Department of Agriculture has announced that 1955-crop peanuts will be supported at a national average minimum level of \$244.80 per ton, which is 90 percent of the April 15, 1955, parity price of \$272 per ton. If the parity price is higher at the beginning of the marketing season on August 1, the price at which peanuts will be supported will be raised accordingly. Earlier, the 1955 national peanut marketing quota had been increased from 740,600 tons to 796,145 tons, or nearly 8 percent.

Cash receipts from marketings of crops and livestock in District states in February were \$155,065,000, or about 6 percent less than in the same month last year, according to the Department of Agriculture. Livestock receipts in February were 7 percent below those a year earlier, while receipts from crops declined 3 percent.



Strong demands on the part of businesses and consumers during the 4 weeks ended May 18 helped to push the gross loans and discounts of the District's weekly reporting

member banks to an all-time peak of \$2,248,809,000. Business and agricultural loans — which rose \$25,259,000, compared with a \$13,362,000 decline in the corresponding weeks in 1954 — were bolstered particularly by credit demands of grain and milling manufacturers, sales finance companies, and construction firms.

In addition, real estate loans increased \$6,494,000, as contrasted with a rise of only \$207,000 in the same period last year; and "all other" loans — mainly consumer credits — advanced \$5,354,000, or more than twice the gain in the comparable 1954 period. Other changes in the banks' loan portfolios included increases of \$6,675,000 in loans to banks and \$5,843,000 in loans for financing security transactions.

The loan expansion during the 4 weeks ended May 18 brought the total gain since the beginning of the year to \$76,178,000, or approximately four times the growth in the same period of 1954.

The sharp loan increase, coupled with a deposit drain of \$38,123,000, forced the weekly reporting member banks to liquidate \$20,934,000 of securities and to reduce substantially their cash assets. Holdings of United States Government securities declined \$14,415,000, reflecting reductions in bills, certificates, and bonds. However, a sizable increase occurred in holdings of notes as a result of bank purchases of the recently issued 2-percent Treasury notes of August 1956.

The \$38,123,000 reduction in deposits stemmed almost wholly from a \$37,535,000 decline in demand deposits during the 4 weeks. Principal changes within the total of demand deposits included declines of \$99,180,000 in domestic inter-bank funds and \$27,834,000 in demand deposits of individuals and businesses. These decreases were offset partially by gains of \$53,313,000 in United States Government funds and \$30,474,000 in deposits of state and local governments.

During the 4 weeks ended May 18, member bank reserve balances at the Federal Reserve Bank of Dallas decreased

CONDITION STATISTICS OF WEEKLY REPORTING  
MEMBER BANKS IN LEADING CITIES

Eleventh Federal Reserve District

(In thousands of dollars)

Item	May 18, 1955	May 19, 1954	April 20, 1955
<b>ASSETS</b>			
Commercial, industrial, and agricultural loans...	\$1,439,476	\$1,292,648	\$1,414,217
Loans to brokers and dealers in securities.....	13,753	13,737	15,910
Other loans for purchasing or carrying securities.	117,227	86,256	109,227r
Real estate loans.....	186,370	137,076	179,876r
Loans to banks.....	13,530	9,903	6,855
All other loans.....	478,453	400,766	473,099
Gross loans.....	2,248,809	1,940,386	2,199,184
Less reserves and unallocated charge-offs.	23,377	17,396	23,022
Net loans.....	2,225,432	1,922,990	2,176,162
U. S. Treasury bills.....	67,333	138,414	83,494
U. S. Treasury certificates of indebtedness.....	41,364	138,147	78,127
U. S. Treasury notes.....	322,237	195,989	272,987
U. S. Government bonds (inc. gtd. obligations)...	867,050	775,972	877,791
Other securities.....	249,907	219,852	256,426
Total investments.....	1,547,891	1,468,374	1,568,825
Cash items in process of collection.....	368,102	283,892	388,086
Balances with banks in the United States.....	442,004	436,050	445,781
Balances with banks in foreign countries.....	1,558	985	1,809
Currency and coin.....	46,948	44,847	46,583
Reserves with Federal Reserve Bank.....	583,383	608,357	623,259
Other assets.....	117,107	91,897	123,438
<b>TOTAL ASSETS.....</b>	<b>5,332,425</b>	<b>4,857,392</b>	<b>5,373,943</b>
<b>LIABILITIES AND CAPITAL</b>			
Demand deposits			
Individuals, partnerships, and corporations...	2,805,572	2,577,923	2,833,406
United States Government.....	151,213	122,514	97,900
States and political subdivisions.....	195,904	178,236	165,430
Banks in the United States.....	848,061	823,943	947,241
Banks in foreign countries.....	18,125	10,833	18,320
Certified and officers' checks, etc.....	72,161	45,051	66,274
Total demand deposits.....	4,091,036	3,758,500	4,128,571
Time deposits			
Individuals, partnerships, and corporations...	655,919	563,480	658,550
United States Government.....	13,662	9,805	13,662
Postal savings.....	452	450	452
States and political subdivisions.....	130,276	128,323	128,233
Banks in the U. S. and foreign countries.....	1,210	1,883	1,210
Total time deposits.....	801,519	703,941	802,107
Total deposits.....	4,892,555	4,462,441	4,930,678
Bills payable, rediscounts, etc.....	14,400	16,500	20,000
All other liabilities.....	48,509	42,994	53,359r
Total capital accounts.....	376,961	335,457	369,906r
<b>TOTAL LIABILITIES AND CAPITAL.....</b>	<b>5,332,425</b>	<b>4,857,392</b>	<b>5,373,943</b>

r—Revised.

CONDITION STATISTICS OF ALL MEMBER BANKS

Eleventh Federal Reserve District

(In millions of dollars)

Item	April 27, 1955	April 28, 1954	March 30, 1955
<b>ASSETS</b>			
Loans and discounts.....	\$3,486	\$3,122	\$3,495
United States Government obligations.....	2,509	2,329	2,421
Other securities.....	552	456	550
Reserves with Federal Reserve Bank.....	1,004	979	951
Cash in vault <sup>e</sup> .....	136	135	135
Balances with banks in the United States.....	999	1,005	1,031
Balances with banks in foreign countries <sup>e</sup> .....	2	2	2
Cash items in process of collection.....	370	290	333
Other assets <sup>e</sup> .....	176	146	176
<b>TOTAL ASSETS<sup>e</sup>.....</b>	<b>9,234</b>	<b>8,464</b>	<b>9,094</b>
<b>LIABILITIES AND CAPITAL</b>			
Demand deposits of banks.....	1,036	959	1,045
Other demand deposits.....	6,248	5,800	6,134
Time deposits.....	1,227	1,060	1,210
Total deposits.....	8,511	7,819	8,389
Borrowings <sup>e</sup> .....	21	4	6
Other liabilities <sup>e</sup> .....	61	54	67
Total capital accounts <sup>e</sup> .....	641	587	632
<b>TOTAL LIABILITIES AND CAPITAL<sup>e</sup>.....</b>	<b>9,234</b>	<b>8,464</b>	<b>9,094</b>

e—Estimated.

\$31,968,000 to a total of \$989,235,000. Interdistrict commercial and financial transactions and Treasury operations subtracted \$17,471,000 and \$10,062,000, respectively, from reserves, and a decline in local Federal Reserve credit absorbed another \$8,014,000. These contractive factors were offset partially by gains of \$1,300,000 from currency transactions and \$2,279,000 from changes in other deposits and accounts at the Federal Reserve Bank of Dallas.

Reflecting the advanced level of economic activity in 1955, debits to demand deposit accounts at banks in 24 District cities totaled \$6,632,363,000 in April, or 12 percent more than a year earlier. All the centers reported year-to-year increases, with the gains varying from 7 to 28 percent. Nevertheless, total debits receded 8 percent from the high March level, with all but three cities experiencing declines. The annual rate of deposit turnover was 18.4 in April, compared with 19.8 in March and 17.8 in April 1954.

Gross demand deposits of District member banks averaged \$7,388,996,000 in April, or slightly more than the \$7,237,908,000 average of the previous month but substantially

## CHANGES IN FACTORS AFFECTING MEMBER BANK RESERVE BALANCES

Eleventh Federal Reserve District

(In thousands of dollars)

	CHANGE <sup>1</sup>	
	4 weeks ended May 18, 1955	Dec. 29, 1954— May 18, 1955
<b>FACTORS</b>		
Federal Reserve credit—local.....	—\$ 8,014	—\$ 27,746
Interdistrict commercial and financial transactions..	— 17,471	— 222,535
Treasury operations.....	— 10,062	+ 185,182
Currency transactions.....	+ 1,300	+ 42,934
Other deposits at Federal Reserve Bank.....	+ 252	+ 724
Other Federal Reserve accounts.....	+ 2,027	+ 5,613
<b>RESERVE BALANCES</b>	—\$31,968	—\$ 17,276
April 20, 1955.....	\$1,021,203	
May 18, 1955.....	\$ 989,235	

<sup>1</sup> Sign of change indicates effect on reserve balances.

higher than the \$6,802,386,000 figure for April 1954. Reserve city banks accounted for approximately nine-tenths of the month-to-month increase and about one-half of the gain over the preceding year. Time deposits rose for the eighth consecutive month to a new peak of \$1,219,764,000, representing gains of 1.5 percent for the month and 15.4 percent for the year.

Between April 15 and May 15, total earning assets of the Federal Reserve Bank of Dallas declined \$5,000 as a result of almost equal divergent movements in discounts and advances and holdings of United States Government securities. Discounts for member banks decreased \$3,280,000, and other discounts and advances declined \$627,000; these reductions were offset almost wholly by a \$3,902,000 increase in hold-

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

(Amounts in thousands of dollars)

Area	DEBITS <sup>1</sup>			DEPOSITS <sup>2</sup>		
	April 1955	Percentage change from		April 30, 1955	Annual rate of turnover	
		April 1954	Mar. 1955		April 1955	April 1954
<b>ARIZONA</b>						
Tucson.....	\$ 133,066	25	—2	\$ 94,521	16.9	15.0
<b>LOUISIANA</b>						
Monroe.....	55,421	13	—2	44,702	15.4	13.8
Shreveport.....	233,776	16	—7	180,341	15.5	14.5
<b>NEW MEXICO</b>						
Roswell.....	27,985	9	—6	28,291	11.6	10.8
<b>TEXAS</b>						
Abilene.....	63,375	17	—4	58,650	13.0	12.8
Amarillo.....	150,647	23	—5	106,724	16.7	15.0
Austin.....	135,206	11	—1	116,756	14.0	14.4
Beaumont.....	119,048	9	—5	102,997	14.0	13.7
Corpus Christi.....	165,802	13	—1	106,518	18.6	16.9
Corsicana.....	13,963	14	—4	21,782	7.7	7.0
Dallas.....	1,883,870	12	—8	985,660	23.3	22.6
El Paso.....	216,986	18	—13	129,037	20.3	18.4
Fort Worth.....	564,505	9	—11	354,310	19.2	19.2
Galveston.....	78,141	7	—4	69,608	13.3	12.7
Houston.....	1,828,151	7	—9	1,165,590	19.0	18.6
Laredo.....	23,606	16	16	18,987	15.0	13.2
Lubbock.....	123,400	24	—11	99,690	15.0	14.6
Port Arthur.....	50,422	13	—6	42,592	14.5	13.7
San Angelo.....	44,002	10	—5	46,561	11.4	11.2
San Antonio.....	448,814	13	—6	335,777	16.1	15.5
Texarkana <sup>3</sup> .....	18,580	7	5	17,701	12.7	11.6
Tyler.....	72,242	28	—3	59,125	14.9	12.1
Waco.....	89,595	20	2	66,661	15.8	14.4
Wichita Falls.....	91,760	13	—5	105,755	10.6	10.0
<b>Total—24 cities.....</b>	<b>\$6,632,363</b>	<b>12</b>	<b>—8</b>	<b>\$4,358,336</b>	<b>18.4</b>	<b>17.8</b>

<sup>1</sup> Debits to demand deposit accounts of individuals, partnerships, and corporations and of states and political subdivisions.<sup>2</sup> Demand deposit accounts of individuals, partnerships, and corporations and of states and political subdivisions.<sup>3</sup> These figures include 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 \$37,268,000 for the month of April 1955.

## GROSS DEMAND AND TIME DEPOSITS OF MEMBER BANKS

Eleventh Federal Reserve District

(Averages of daily figures. In thousands of dollars)

Date	COMBINED TOTAL		RESERVE CITY BANKS		COUNTRY BANKS	
	Gross demand	Time	Gross demand	Time	Gross demand	Time
April 1953....	\$6,700,806	\$ 855,308	\$3,180,189	\$465,370	\$3,520,617	\$389,938
April 1954....	6,802,386	1,057,137	3,295,363	594,744	3,507,023	462,393
Dec. 1954....	7,551,892	1,131,996	3,687,178	629,548	3,864,714	502,448
Jan. 1955....	7,594,952	1,155,178	3,679,808	644,814	3,915,144	510,364
Feb. 1955....	7,329,237	1,170,172	3,504,599	652,808	3,824,638	517,364
March 1955....	7,237,908	1,202,162	3,485,392	682,916	3,752,516	519,246
April 1955....	7,388,996	1,219,764	3,626,058	697,441	3,762,938	522,323

ings of Government securities, reflecting this bank's allocation of purchases for the System Open Market Account. Other changes in the bank's statement included decreases of \$17,471,000 in gold certificate reserves, \$15,459,000 in member bank reserve deposits, and \$2,254,000 in Federal Reserve notes in actual circulation.

## CONDITION OF THE FEDERAL RESERVE BANK OF DALLAS

(In thousands of dollars)

Item	May 15, 1955	May 15, 1954	April 15, 1955
Total gold certificate reserves.....	\$ 816,160	\$ 825,273	\$ 833,631
Discounts for member banks.....	2,800	5,569	6,080
Other discounts and advances.....	3,760	1,081	4,387
U. S. Government securities.....	950,399	967,903	946,497
Total earning assets.....	956,959	974,553	956,964
Member bank reserve deposits.....	1,023,655	1,014,598	1,039,114
Federal Reserve notes in actual circulation.....	708,977	713,558	711,231

Effective April 25, the Board of Governors of the Federal Reserve System amended Regulations T and U, the effect of which was to increase the cash payment required for purchases of registered stocks from 60 percent to 70 percent of their market value. Margin requirements had been increased from 50 percent to 60 percent on January 4.

## NEW MEMBER BANK

*The Katy National Bank of Katy, Katy, Texas, a newly organized institution located in the territory served by the Houston Branch of the Federal Reserve Bank of Dallas, opened for business May 2, 1955, as a member of the Federal Reserve System. The new bank has capital of \$100,000, surplus of \$100,000, and undivided profits of \$50,000. The officers are: F. B. Cornelius, President; Dr. L. W. Bing, Vice President; W. J. Dube, Jr., Vice President; E. Ray Warren, Cashier; and Mrs. Alice Haskett, Assistant Cashier.*

## NEW PAR BANK

*The Commercial Bank and Trust Company, Midland, Texas, an insured, nonmember bank located in the territory served by the El Paso Branch of the Federal Reserve Bank of Dallas, was added to the Par List on its opening date, May 2, 1955. The officers are James P. Simmons, President, and A. L. Pharr, Cashier.*

On May 17 the Treasury issued \$5,709,000,000 of 2-percent notes maturing August 15, 1956, of which \$2,532,000,000 was sold for cash and \$3,177,000,000 was in exchange for the 1 $\frac{1}{8}$ -percent certificates that matured on May 17. The cash offering was primarily for the purpose of obtaining funds to retire tax savings notes maturing in May and June. Holders of the 1 $\frac{1}{8}$ -percent certificates, which were outstanding in the amount of \$3,886,000,000, turned in 18 percent of the securities for cash. Investors in the Eleventh Federal Reserve District obtained \$118,000,000 of the notes through cash purchase and \$23,321,000 through exchange.



The outstanding development in the petroleum picture during the past several weeks has been the extremely heavy demand for gasoline. Gasoline demand at primary levels during the 5 weeks ended May 13 was at an all-time high for this period, exceeding a year earlier by 10 percent. While other major products also posted year-to-year increases in demand, the gains were more moderate.

The vigorous demand for gasoline has given a firmer tone to the Nation's gasoline markets; price increases have occurred at both retail and wholesale levels in the Middle West and Rocky Mountains. The strongest product price-wise, however, has been residual fuel oil. Prices for this product rose in the mid-continent area during April and the early part of May, in contrast with the declining trend which frequently prevails at this time of the year. The tight supply situation existing for residual fuel oil is the result of active demand of steel and other industrial users, coupled with the fact that many refineries have installed equipment to reduce the yield of this less valuable product. On the other hand, distillate fuel oil and kerosene prices have eased.

The gasoline stock position, which has been very high, has improved considerably during the past 6 weeks under the influence of record gasoline demand and reductions in refinery runs. Primary stocks of gasoline on May 13 totaled 171,100,000 barrels, which is 14,100,000 barrels lower than at the end of March and 4,600,000 barrels less than a year earlier. On the other hand, crude oil stocks in the Nation rose 11,600,000 barrels during the 6 weeks ended May 14 and on that date totaled 278,200,000 barrels, or 4,300,000 barrels above a year ago.

With crude stocks rising and demand seasonally lower, crude production in the District was cut back appreciably during May. Daily average crude oil production for the first half of the month was 3,153,000 barrels per day, which is 128,000 barrels lower than in April although 100,000 barrels higher than in May a year ago. In the Nation, daily average crude oil production totaled 6,684,000 barrels, or down 138,000 barrels from April but 213,000 barrels higher than in May 1954.

Further moderate reductions in District crude production may be anticipated during the next 2 months in view of the oil allowables announced by the Texas Railroad Commission

## CRUDE OIL: DAILY AVERAGE PRODUCTION

(In thousands of barrels)

Area	April 1955 <sup>1</sup>	April 1954 <sup>2</sup>	March 1955 <sup>1</sup>	Change from	
				April 1954	March 1955
ELEVENTH DISTRICT.....	3,280.9	3,168.0	3,305.7	112.9	-24.8
Texas.....	2,940.6	2,850.0	2,969.8	90.6	-29.2
Gulf Coast.....	626.1	627.0	637.2	-9	-11.1
West Texas.....	1,166.8	1,088.2	1,172.7	78.6	-5.9
East Texas (proper).....	230.8	250.6	237.4	-19.8	-6.6
Panhandle.....	87.1	84.5	87.5	2.6	-4
Rest of State.....	829.8	799.7	835.0	30.1	-5.2
Southeastern New Mexico.....	226.3	199.4	223.9	26.9	2.4
Northern Louisiana.....	114.0	118.6	112.0	-4.6	2.0
OUTSIDE ELEVENTH DISTRICT.....	3,540.7	3,446.7	3,534.1	94.0	6.6
UNITED STATES.....	6,821.6	6,614.7	6,839.8	206.9	-18.2

SOURCES: <sup>1</sup> Estimated from American Petroleum Institute weekly reports.  
<sup>2</sup> United States Bureau of Mines.

for this period. The number of state-wide producing days was set at 15 for both June and July, compared with 16 days in May. Under this schedule, the daily allowable for the 30-day month of June is about 65,000 barrels less than that of mid-May, while the allowable for the 31-day month of July is about 132,000 barrels lower. Because of production from newly completed wells, however, the actual decrease in production may be somewhat less than these figures indicate. Louisiana, also, has cut back allowables for June by about 45,000 barrels.

Refinery crude runs in both the District and the Nation declined moderately during the first part of May, following a substantial reduction in April. Crude runs at District refineries averaged 2,123,000 barrels per day, or 25,000 barrels below April but 100,000 barrels higher than in May 1954. In the Nation, daily average refinery crude runs, at 7,046,000 barrels, were 51,000 barrels lower than in the previous month but 8,000 barrels higher than a year earlier.

The National Petroleum Council recently issued a report showing that, as of July 1954, the Southwest's productive capacity of crude oil and natural gas liquids totaled 5,745,000 barrels per day, comprising about 63 percent of the Nation's total productive capacity. At that time, the region was utilizing only 72 percent of its total capacity. This was a smaller proportion than in any other section of the country.



The first-quarter employment picture in the District reflected a sharp improvement in business conditions. The usual seasonal decline did not materialize in February, and employment in March showed a more than seasonal gain.

This upward trend in the first quarter apparently continued during April, as estimates place total nonagricultural employment in District states at 3,849,800, or 33,600 above March and 80,100 above a year earlier. Increases were experienced in almost all industrial classifications.

Manufacturing employment during April rose slightly to 705,400, resulting from strengthening demand for construc-

### NONAGRICULTURAL EMPLOYMENT Five Southwestern States<sup>1</sup>

Type of employment	Number of persons			Percent change April 1955 from	
	April 1955e	April 1954r	March 1955	April 1954	Mar. 1955
	Total nonagricultural				
wage and salary workers..	3,849,800	3,769,700	3,816,200	2.1	.9
Manufacturing.....	705,400	695,600	701,000	1.4	.6
Nonmanufacturing.....	3,144,400	3,074,100	3,115,200	2.3	.9
Mining.....	235,800	233,300	235,200	1.1	.3
Construction.....	271,200	254,500	267,700	6.6	1.3
Transportation and public utilities.....	383,100	388,900	385,500	-1.5	-.6
Trade.....	991,000	971,000	973,900	2.1	1.8
Finance.....	160,300	154,200	159,100	4.0	.8
Service.....	447,100	442,900	439,700	.9	1.7
Government.....	655,900	629,300	654,100	4.2	.3

<sup>1</sup> Arizona, Louisiana, New Mexico, Oklahoma, and Texas.

e—Estimated.

r—Revised.

SOURCES: State employment agencies.  
Federal Reserve Bank of Dallas.

tion materials, furniture and fixtures, primary metals, non-electrical machinery, chemicals, and apparel. However, mounting labor unrest exerted a dampening influence on manufacturing employment; a chemical plant strike during the month idled several thousand workers.

The value of construction contracts awarded in the District during April totaled \$158,201,000. This represents a seasonal 6-percent increase from the March level, with all of the gain being accounted for by construction other than residential. Residential contract awards declined 5 percent, while all other awards rose 15 percent. Total awards exceeded their year-earlier level by 26 percent; residential, by 22 percent; and all other, by 28 percent. During the first 4 months of 1955, total awards in the District were 33 percent more than those during the same period in 1954; residential awards were up 31 percent; and all other awards were 34 percent higher.

In the Nation during April, all categories of construction contract awards exceeded their March levels by 8 to 9 percent. Total awards for the first 4 months were 35 percent above those during the same period of 1954, while residential awards rose 43 percent and all other awards increased 28 percent.

### DOMESTIC CONSUMPTION AND STOCKS OF COTTON

Area	(Bales)				
	March 1955 <sup>1</sup>	March 1954	February 1955 <sup>2</sup>	August—March	
				This season	Last season
<b>CONSUMPTION</b>					
Total					
Texas mills.....	12,662	13,788	10,632	91,477	98,869
U. S. mills.....	892,892	844,092	720,815	6,019,799	5,951,073
<b>Daily average</b>					
Texas mills.....	506	551	541	527	575
U. S. mills.....	35,716	33,764	34,544	34,713	34,618
<b>STOCKS, U. S.—End of period</b>					
Consuming establishments.	1,868,696	1,806,966	1,877,945	—	—
Public storage and compresses.....	11,857,635	10,537,191	12,741,826	—	—

<sup>1</sup> Five weeks ended April 2.

<sup>2</sup> Four weeks ended February 26.

SOURCE: United States Bureau of the Census.

### VALUE OF CONSTRUCTION CONTRACTS AWARDED

(In thousands of dollars)

Area and type	April 1955p	April 1954	March 1955	January—April	
				1955p	1954
ELEVENTH DISTRICT....	\$ 158,201	\$ 126,031	\$ 149,738	\$ 565,447	\$ 426,493
Residential.....	67,596	55,292	70,988	269,266	205,499
All other.....	90,605	70,739	78,750	296,181	220,994
UNITED STATES <sup>1</sup> .....	2,322,085	1,691,868	2,134,819	7,542,497	5,592,692
Residential.....	1,070,129	796,133	989,730	3,494,316	2,435,125
All other.....	1,251,956	895,735	1,145,089	4,048,181	3,157,567

<sup>1</sup> 37 states east of the Rocky Mountains.

p—Preliminary.

SOURCE: F. W. Dodge Corporation.

A tight supply situation is spurring District production of both copper and aluminum. A recent report by the United States Bureau of Mines indicates that copper mined in Arizona during the first quarter of 1955 totaled 118,869 short tons, or 46 percent of all copper mined in the Nation and 36 percent more than a year earlier. The increased production was accounted for by greater activity due to the world shortage of copper and by the opening of three new pit mines in Arizona during the second and third quarters of 1954.

Aluminum plants in Texas are producing at near capacity in response to a short supply situation occasioned by increases in demand for both current use and inventory accumulation. Two large aluminum plants are currently under construction in the Nation—one in Texas with a 65,000-ton capacity—but they are not expected to produce enough to alleviate the tightness during 1955. Intensifying the shortage further is a reduction in Canadian imports, which are being sold in more profitable European markets. The United States Government, in an effort to ease the situation, recently has diverted 75,000 tons from its aluminum stockpiling operation and limited scrap exports during the second quarter of the year to 9,000 tons.

### BUILDING PERMITS

Area	4 months 1955							
	April 1955		Percentage change in valuation from		Number		Percentage change in valuation from 4 months 1954	
	Number	Valuation	April 1954	Mar. 1955	Number	Valuation		
<b>LOUISIANA</b>								
Shreveport....	569	\$ 8,469,006	429	229	1,981	\$ 14,450,184		112
<b>TEXAS</b>								
Abilene.....	158	1,784,265	60	4	624	6,707,197		70
Amarillo.....	285	1,840,645	-22	-48	1,097	9,249,876		53
Austin.....	299	3,684,763	-20	-21	1,208	14,142,948		6
Beaumont....	316	1,233,438	32	77	1,213	3,358,282		-4
Corpus Christi.	482	3,947,555	91	26	1,994	12,177,705		33
Dallas.....	2,533	13,829,722	9	-22	9,483	64,158,905		44
El Paso.....	583	3,788,045	137	6	2,073	13,343,819		107
Fort Worth....	1,014	6,011,083	74	-7	3,399	21,016,195		55
Galveston....	117	334,750	-65	32	439	939,319		-66
Houston.....	1,244	16,074,989	41	4	4,549	52,700,167		7
Lubbock.....	284	1,971,434	13	-41	1,141	9,681,060		15
Port Arthur..	162	208,683	-26	-66	607	1,861,235		60
San Antonio..	1,830	5,048,681	13	-4	7,430	21,595,414		45
Waco.....	276	1,122,145	8	-23	1,059	5,525,319		26
Wichita Falls..	190	1,344,364	56	18	623	4,397,740		48
Total—16 cities..	10,342	\$70,693,568	38	-1	38,920	\$255,305,365		33