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PACIFIC COAST OIL INDUSTRY IN TRANSITION

THE arrival in San Francisco harbor on May 20, 1953 of the world's largest tanker, bringing 273,000 barrels of Arabian crude oil to a California refinery, symbolizes the end of an era in the history of the California petroleum industry.¹ Together with the approaching completion of a 718-mile pipe line, designed with a capacity to permit the ultimate shipment of 300,000 barrels a day of Alberta crude oil to the Pacific Coast, the large-scale import of Eastern Hemisphere petroleum into what was until quite recently a surplus oil-producing area raises the curtain on a new chapter in Western oil history. The California petroleum industry appears in fact to have reached a major turning point in its career. This is, in a word, the long-predicted transition of the region from the position of a large surplus producer and exporter of petroleum products to a status of mere self-sufficiency in oil production and use. This shift has been a gradual one and is not yet complete, but it has gone far enough to permit an appraisal of its main features, with some indication of probable future trends.²

Relative isolation of the California petroleum industry

Historically, California oil producers have operated pretty much in isolation from the main body of the American petroleum industry. Separated by long distances from other producing areas and also from important consuming centers outside its immediate territory, the Western industry has in the main pursued an independent course, producing primarily for its local market but normally having a substantial surplus for outside shipment. For a considerable period of time, notably from about 1923 to 1940, following the discovery and rapid exploitation of the great oil fields in the Los Angeles Basin in the early 1920's, very large quantities of both crude oil and finished products, chiefly gasoline, were shipped to the Atlantic Coast and to various offshore markets. Much

of the oil shipped in those years was practically dumped on the world's markets for whatever price it would bring.¹

In the absence of a compulsory conservation policy, many California crude oil producers at that time displayed the typical pioneer attitude in their exploitation of a cheap and relatively abundant, though limited, natural resource. Most of the larger firms, concerned with maintaining permanent sources of supply, followed relatively conservative practices, so far as the competitive situation allowed. However, with literally hundreds of independent producers actively competing for the limited quantity of crude oil obtainable from a given oil field, little heed was paid in far too many cases to long-run policies of conservation. In the light of hindsight, there can be little doubt that the development of the great California oil fields discovered in the 20's was over-hasty and unduly wasteful. Field after field repeated the familiar story of highly competitive drilling and rapid development with flush production for a few years, often resulting in glutted markets and unremunerative prices. Then followed, in many cases, a long drawn-out period of declining output frequently involving rising costs of production and the periodic shut-in of unprofitable wells.

It was a period during which oil consumers both at home and abroad got a real price bonus. Cheap fuel oil in the Pacific Coast markets played an important part in stimulating the development of Western industry, being in fact in many cases the only fuel to be had. Public utilities and private industries designed their power plants to use fuel oil while railroads and steamship lines were quick to convert from coal to oil-burning equipment.

¹ For a more detailed discussion of the petroleum supply and demand situation in California during the period before 1950, see "Western Power and Fuel Outlook," pp. 23-34, published as a supplement to the *Monthly Review* for November 1950.

¹ The tanker *Petroking*, of 38,000 dead-weight tons capacity, is one of three identical vessels recently built in Japanese shipyards. The Standard Oil Company of California has chartered this vessel for a five-year term and will take delivery this summer of a sistership, the *Petroqueen*. The two vessels are to be operated regularly between Sumatra and Arabia and the refineries of the Pacific Coast. (See page 63 below.)

² The possibility of substantial oil recovery from the coastal "tidelands" of the Pacific Coast is not considered in this paper. Statements contained herein with respect to the petroleum outlook of the region take no account of such potentialities. By an Act of Congress approved May 22, 1953, (Public Law Number 31) title to certain offshore tidelands was transferred from the Federal Government to the respective coastal states.

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Cheap ocean transport by tanker made California fuel oil and gasoline available as a basic energy and heating resource for the Pacific Northwest, British Columbia, and Alaska, and also for Hawaii and trans-Pacific markets. The Japanese military and naval program of the 30's was undoubtedly aided by the availability of abundant supplies of California crude and fuel oils and incidentally provided an outlet which the industry eagerly grasped as a support to depressed markets and burdensome inventories.

A 20-year struggle with inventories—1923 to 1942

In spite of rapidly growing local and regional markets for all kinds of petroleum products and notwithstanding the large volume of outside shipments just indicated, the California oil industry was plagued for nearly 20 years (from 1923 to about 1942) with heavy and often unmanageable stocks, particularly of crude petroleum and of residual fuel oil—the “low end” of the refining process. Total stocks held by refiners in District Five¹ early in 1930 reached the extraordinary level of nearly 190 million barrels, a figure greater than the annual crude oil production of California in each of the years from 1931 to 1934. Although production was sharply curtailed during most of the decade of the 30's, inventories remained high in relation to annual production and consumption right up to the eve of World War II and were in fact an important safety factor in helping to meet the abnormal demands of the war period.

During the war, production of crude was stepped up to maximum attainable rates in practically every California oil field, including the partial utilization of the Elk Hills naval reserve which had been largely shut in during the 30's. The war itself not only used up much of the existing stocks above ground but also took a huge bite out of the industry's basic raw material in underground reserves. Crude production was boosted from an average annual level in 1939-41 of 226 million barrels, a rate equivalent to about 619,000 barrels a day, to an average level of 307 million barrels in 1943-45 (842,000 b/d), a rate exceeding even the flush production of 1929 when output stood at 293 million barrels, a daily average of 802,000 barrels.

While an intensive drilling campaign during the five years 1941-45 brought in nearly 6,000 new wells for a net increase of nearly 50 percent in the number of active producing wells, including the reopening of those shut in during the curtailment of the 30's, the results of the effort to discover significant new fields were largely disappointing. In fact, few large new oil fields have been discovered in California since 1936 when the great Wilmington field was brought in.² From 1938 to date, Wilmington has consistently been California's leading oil producer, with a cumulative output to the end of 1952 exceeding 600 million barrels and with an estimated remaining reserve of 394 million barrels. Even the large

wartime production from the Wilmington field, however, failed to offset the dwindling output of the older fields in the Los Angeles Basin where the excessive production rates of the 20's had taken their toll.

High postwar demand and impending local shortage

In the peak months of war production, in mid-1945, California crude oil output was running at a rate above 940,000 barrels a day and, for the year as a whole, averaged about 894,000 daily. Following the letdown in demand at the end of the war, production fell off somewhat in 1946, but the rapidly continuing influx of population into the Pacific Coast region and the extraordinary industrial expansion which marked the postwar years put renewed pressure on the oil industry to provide more motor and industrial fuels. Except for a brief turndown in 1949-50, California crude oil output has continued to increase and during March of this year passed the million-barrel-a-day rate for the first time.

The increasing postwar demand gave renewed impetus to the search for new oil in California. More than 10,000 new oil wells were completed in the State in the six years 1947 to 1952. The number of active producing wells has steadily risen (except in 1949) from less than 15,000 at the beginning of 1940 to more than 31,000 today. The average output per well, however, has fallen from about 40 barrels per day in 1940 to less than 33 in 1952, as more of the older fields approach exhaustion. This means production at higher cost per barrel of output. Not only are the older fields less productive than during their heyday, but some of them have required expensive repressuring in order to maintain production. Much of the output of the newer fields and of the newer wells comes from deeper levels, which involves heavier drilling outlays.

Supplementing crude oil production, California oil fields also yield appreciable quantities of natural gasoline and liquefied petroleum gases such as butane and propane. This additional output has averaged close to 80,000 b/d during the past three years, making the total supply of liquid hydrocarbons of California production well over a million barrels daily. Even the current high production rate is inadequate to supply the rising demand for petroleum products in the West Coast market, tem-

² Major California oil fields, i. e., those having an estimated ultimate recovery of 100 million barrels or more, discovered since 1936 are as follows:

Field	Year of discovery	(millions of barrels)			Estimated remaining reserves
		Estimated ultimate recovery	Cumulative production to end of 1952	Production in 1952	
Rio Bravo	1937	115	63.8	4.3	51.2
Coalinga Nose	1938	380	200.8	16.8	179.2
Coles Levee, North..	1938	150	67.4	5.9	82.6
San Ardo	1947	100	11.8	8.3	88.2
Cuyama, South	1949	160	37.7	14.0	122.3

Source: *Oil and Gas Journal*, January 26, 1953, p. 289.

All of these fields are in central California; not a single “major” discovery has been made in the Los Angeles Basin since Wilmington. The gross increase of California's underground petroleum reserves in the years 1946 to 1952 inclusive has come almost 90 percent from the extension of known fields and the revision of previous estimates of their recoverable oil content rather than from the discovery of new fields or new pools. The total of new oil added through both procedures during those seven years was 2.9 billion barrels; total removal through concurrent production was nearly 2.4 billion barrels, making a total net gain in reserves of about 535 million barrels.

¹ This refers to District Five of the U. S. Bureau of Mines grouping, which consists of California, Oregon, Washington, Arizona, and Nevada.

PETROLEUM SUPPLY AND DEMAND SITUATION IN
DISTRICT FIVE—1946-53¹

(data in thousands of barrels per day)

	Production within District Five	Receipts from outside District Five	Total current supply	Shipments outside District Five	Increase or decrease in stocks	Apparent con- sump- tion in Dist. Five
1946	923	17	940	92	+42	806
1947	982	14	996	116	+ 8	874
1948	1,001	15	1,016	110	+44	862
1949	986	23	1,009	111	+50	848
1950	975	16	991	173	-76	894
1951	1,052	37	1,089	152	-37	974
1952	1,064	79	1,143	130	+37	976
1953 ²	1,080	95	1,175	142	+25	1,008

¹ Total petroleum, including natural gasoline, condensate, etc., and petroleum products.

² First quarter.

Source: U. S. Bureau of Mines, *Petroleum Situation in District Five*.

porarily at an abnormally high level because of the heavy concentration of military demand on California refineries occasioned by the war in Korea. Military purchases of petroleum products in District Five exceeded 112,000 b/d in 1951. This figure was reduced to about 78,000 b/d in 1952 by diverting a larger fraction of military purchases to Gulf refineries; military demands on West Coast producers have been running at approximately that rate during the current year. However, the opinion is prevalent in the trade that a permanent reduction of military purchases in District Five much below an annual rate of 100,000 barrels a day is not to be expected. This means close to 10 percent of the total petroleum produced within the area.

**Badly balanced output of California refineries;
the problem of heavy fuel oil**

The supply situation is further complicated for the Pacific Coast refineries because so many California crudes yield a very high proportion of the less desirable low-end or "residual" heavy fuel oil as contrasted with the higher yields of gasoline and other light distillates obtained from the general run of Texas and Mid-Continent crudes. Thus, to take a typical recent month, the average yield of residual obtained in February 1953 by all California refineries was 36 percent of total refinery input as compared with an average of 18.3 percent for all the refineries in the United States, average yields in Texas of around 14 percent, and in the Oklahoma-Kansas-Missouri district an average of only 10 percent. Stated in another way, California refineries were able to get only 52 barrels of gasoline and other light distillates (diesel oil, kerosene, etc.) out of each 100 barrels (or equivalent) of total refined products, while the general average for the United States industry as a whole was 71.5 barrels, for Texas refiners around 74 barrels, and for the Oklahoma-Kansas-Missouri group about 78 barrels.

Some California refiners have made very heavy investments in recent years in supplementary refining facilities designed to obtain higher yields of the light distillates so much in demand, since some of their traditional markets for the low-end products have tended to dry up. In certain cases they have almost disappeared, as exemplified by the replacement of oil-burning locomotives by

Diesel-driven power. Natural gas has also made severe inroads on industrial uses of fuel oil, notably in the electric utility industry and also in the general heating field. Another way to help meet this problem of badly balanced production resulting from the intractable nature of their local raw material is to supplement refinery runs of California crudes by blending natural gasoline with the refinery product, or by using other types of crudes which produce a higher proportion of the lighter distillates. There are obvious limits of supply to both procedures. No great quantity of natural gasoline is to be had, and the desirable high gravity crudes are far away and costly to obtain.¹

The current demand-supply position on the West Coast

A summary statement of the demand-supply situation within District Five appears in the accompanying table covering the seven-year period 1946 to date. While all the items except inventory changes have increased greatly since 1946, it will be noted that by far the greatest rate of growth is shown by receipts of petroleum and petroleum products from points outside the District. Such receipts averaged about 15,000 b/d in 1946-48, a rate equivalent to the crude oil output of the old Santa Fe Springs oil field in those years. Receipts from outside the District had jumped by 1952 to a daily rate of nearly 80,000 barrels, a figure exceeding the output in that year of any California oil field. Stated in another way, oil from outside points supplied less than 3 percent of the District's apparent total consumption up to 1950, but in 1952 it represented 8 percent of such consumption and during the first quarter of this year has been approaching 10 percent.

Imports of oil from the Eastern Hemisphere

As indicated at the beginning of this article, a substantial part of District Five's current receipts of oil is coming from foreign sources. Experimental cargoes of crude petroleum from Venezuela and Arabia were brought in by California refineries in the first half of 1949, aggregating somewhat over a million barrels. No very large volume of foreign oil, however, entered this area until 1951. Beginning in that year, California refiners, chiefly the larger firms, have imported considerable quantities of high gravity crude, partly from Venezuela and partly from sources as distant as Borneo and Sumatra and even Saudi Arabia. These imports averaged about 11,400 barrels daily in 1951 and 34,700 b/d in 1952. During the first quarter of 1953 they have continued at a rate which is expected to average between 50,000 and 60,000 barrels daily for the whole year. Already in the first five months of this year a leading California oil company which has extensive commitments in Sumatra and Arabia has brought in not less than 47 tanker cargoes of high gravity crude oil from those areas, aggregating about 6 million barrels.

¹ For a discussion of the special problems for California crude oil producers and refiners posed by low gravity crudes and residual fuel oil, see "Western Power and Fuel Outlook," pp. 28-30, 33.

The basic freight rate established by the United States Maritime Commission for tanker shipments of crude oil from the Borneo-Sumatra range to California ports is approximately \$1.50 per barrel. Single voyage spot rates are currently quoted at about 40 percent off this basic figure, yielding a net charge of around 90 cents per barrel; rates for long-term charters would be less. Costs from the Persian Gulf are correspondingly higher. Even from Venezuela, transportation to California refineries involves a distance of at least 3,900 miles and the payment of Panama Canal tolls. There is also a current tariff duty of 10.5 cents per barrel on imports of light crude oil, which is defined as oil of 25 degree gravity or higher. It is reasonably apparent, therefore, that importing foreign crudes from such distant points is a relatively costly business and would probably not be resorted to if adequate supplies could be had from nearer sources.

Oil from the Rocky Mountain area

Foreign imports are not the only source of supplementary oil supplies for the area served by Pacific Coast petroleum refiners. In addition to the 13 million barrels of crude oil which came into District Five in 1952 from foreign sources, another 15 million barrels of petroleum came from other parts of the United States, chiefly the Rocky Mountain states. This consisted largely of refined products from Utah and Wyoming, with some tanker shipments of crude from Texas. The markets for petroleum products in the Intermountain region, formerly supplied predominantly by shipments from California refineries, have for a number of years been served by refineries at Salt Lake City and at such points as Billings, Montana, and Casper and Sinclair in Wyoming. These refineries operate on crude oil produced in the Rocky Mountain states.

A thriving oil refining industry has developed in recent years in the Salt Lake City area which now has a capacity for handling about 66,000 barrels of crude oil per day, most of which comes by pipe line from Colorado and Wyoming. Up to 1945 high gravity crudes from relatively nearby Wyoming oil fields supplied the major requirements of the Salt Lake City refineries, but more recently the chief source of supply has been the rapidly growing Rangely field in northwestern Colorado. Smaller quantities of crude are also obtained from Utah oil fields, partly by pipe line and partly by rail and truck.

Salt Lake City has recently become an important distributing center of refined oil products not only in its local territory but also to parts of the Pacific Northwest. A 560-mile pipe line for transporting refined products was opened in 1950 extending to Pasco, Washington, located on the Columbia River near the Hanford atomic energy project. Contracts have recently been let for the extension of this line to Spokane. Growing demand for petroleum products in the Intermountain area led to the installation in 1952 of a parallel pipe line from Salt Lake City to Boise, Idaho. These two lines will make possible the shipment of 12 million barrels a year of refined petro-

leum products, or about 33,000 barrels a day. Another new project, a 310-mile line extending from Sinclair, a refining center in Wyoming, to Salt Lake City was also put in operation in 1952. This is the Pioneer Pipe Line, having a daily capacity of 12,000 barrels a day and designed for the shipment of refined products. Its operation is planned to tie in with the lines from Salt Lake City to the Pacific Northwest. Still another new project is the proposed Yellowstone Pipe Line, a 593-mile line capable of moving 14,000 barrels per day of refined products from Billings, Montana, to Spokane. Already the refining of Colorado and Wyoming crudes in Utah and their distribution in the Intermountain area has relieved the pressure on California refineries to a marked degree. This line of development promises to continue as additional sources of supply are brought into production in the Rocky Mountain area.

Oil from Canada

Much more significant is the approaching completion of the Trans Mountain Pipe Line extending from Edmonton, Alberta, to Vancouver, British Columbia. This line will carry crude petroleum from the newly developed Alberta oil fields across the Canadian Rockies to the Pacific Coast where it will be available both for refining for the local market and for export, either as crude or in refined form.

The exploration and development of oil resources in the Canadian Prairie Provinces, particularly in Alberta, has been one of the outstanding events of recent years in the world's petroleum industry. The discovery of the important Leduc oil field near Edmonton in February 1947 gave a tremendous impetus to further exploration in the area. Upwards of \$1 billion is said to have been spent since that time by Canadian and American oil companies in exploration and development work, especially in Alberta, and the point has now been reached when large-scale exploitation and shipment can begin.

Up to 1950 actual production in Alberta had been restricted to supplying the requirements of the Prairie Provinces because long distance transportation facilities were lacking. Late in that year the Interprovincial Pipe Line was placed in operation between Edmonton and Superior, Wisconsin. This line has not only permitted the export of Canadian oil to the United States but has also appreciably relieved the economy of eastern Canada from its heavy dependence upon imported oil, which had come predominantly from the United States. Crude production in Alberta in 1952 was at a rate of about 162,000 barrels per day and the current "allowable" production is at a rate of about 201,000 b/d. The spectacular development of new oil reserves in Alberta is currently reported to have reached a total at the end of 1952 exceeding 1.7 billion barrels, roughly equal to one-half the estimated remaining California reserves. Resources of this magnitude will permit the efficient production of crude oil at a rate approaching 300,000 barrels a day. With the continuance of new oil discoveries in Alberta at the rate

of the past few years, it is estimated that the efficient production rate could rise by 1955 to a daily output of 400,000 barrels.

Plans for a long distance pipe line from Alberta to the Pacific Coast have been under more or less active discussion since 1939. Even at that time it was foreseen that a large surplus of crude oil would be developed in the Canadian Prairie Provinces which must seek an outlet on the world's markets. The increasing difficulty of finding new crude oil reserves in California, together with the rapid development of substantial supplies in western Canada, has created the basic condition requisite to the success of pipe line transportation of petroleum over the Rocky Mountains to the Pacific Coast.

The Trans Mountain Pipe Line was originally financed through the backing of a group of important American and Canadian oil companies, including several California producers.¹ The total cost of the 718-mile line, extending from Edmonton to Vancouver, with a southward extension of 30 miles to a point near Bellingham, Washington, will not be far short of \$100 million. This figure includes the cost of pumping stations, storage facilities, tidewater docks, and other facilities. Construction of the line by a San Francisco engineering company began early in 1952 and its completion is scheduled for October of this year. Having a diameter of 24 inches, the line is designed for an ultimate capacity approaching 300,000 barrels a day. It has an initial throughput, on the basis of three pumping stations, of 120,000 b/d. A fourth station is already under construction which would permit shipments by 1954 at a daily rate of 150,000 barrels. The initial tariff to be charged for transporting crude oil from Edmonton to Vancouver has been indicated at 45 cents per barrel.

The whole area of the Pacific Northwest, including most of Oregon, Washington, and British Columbia, as well as Alaska, has depended up to the present almost entirely upon California as the source of its oil supply, both for motor and industrial fuels and for heating purposes.² In years marked by severe winters this has sometimes involved a rather tight supply situation for heating oils, especially at the distributor level. The market for petroleum products in western Oregon, Washington, and British Columbia is estimated at about 285,000 barrels per day in 1952.³ Much the greater part of the petroleum requirements of the whole region has been supplied by tanker shipments from the California refineries in finished form, with relatively limited shipment of crude oil to local tidewater refineries. The refining capacity of the entire area has consisted of three small refineries at Vancouver, having a total daily capacity of about 28,000 barrels, together with two small asphalt plants located at

Portland and Seattle, plus a still smaller refinery at Spokane which has operated somewhat intermittently on crude shipped by tank car from Montana. The aggregate refinery consumption of crude oils for the whole area has probably averaged somewhat under 40,000 barrels per day in recent years.

The early availability of abundant supplies of Alberta crudes of relatively high gravity will soon change this picture drastically. Two of the existing refineries at Vancouver are to be enlarged from a total current capacity of about 20,000 b/d to nearly double that figure. More important is the decision of a leading California company,¹ not presently a factor in the Northwest refining situation, to construct a modern 35,000 barrel per day refinery at Ferndale, Washington, on Puget Sound about midway between the Canadian border and Bellingham. This plant will be connected by a 12-mile lateral 16-inch pipe line with the southern terminus of the Trans Mountain Pipe Line. Construction work on the new refinery is to begin during the summer of this year and completion is scheduled for the fall of 1954 by which time the necessary pipe line connections will also be installed.

Designed to produce over 26,000 barrels per day of gasoline and other light distillates, together with some 6,000 b/d of fuel oil, the new Ferndale refinery will mark an important event in the petroleum history both of the Pacific Northwest and of California as well. Together with the concurrent expansion of already existing refinery capacity in Vancouver, it will almost double the crude oil input of the Northwestern refining industry.² Even more significant is the fact that this whole regional development, based on the relatively short haul of crude oil from Alberta made possible by the Trans Mountain Pipe Line as contrasted with the longer distances and narrowing supplies from California, will relieve the pressure on California oil fields which are already being pushed to the practical limit of efficient operation.

The outlook for future supplies

Changes sometimes occur very speedily in the oil industry. Ready examples are provided by the rapid transformation in the Pacific Coast inventory situation between 1948 and 1950 and by the upsets in the whole world supply and demand position occasioned by the closing down of the Iranian oil fields and the Abadan refinery in 1951. Confident prediction as to the probable future course of events in the oil industry is to be avoided unless the prophet is willing to hazard his reputation.

Some things, however, can be said with relative certainty. The "chronic surpluses" which plagued the Cali-

¹ The original sponsors of the Trans Mountain Oil Pipe Line Company, which will operate the pipe line, were: Gulf Oil Corporation, Imperial Oil, Ltd., Shell Oil Company, Standard Oil Company of California, Union Oil Company of California, and Richfield Oil Corporation.

² The refinery of Imperial Oil, Ltd. at Vancouver, B. C., imported small quantities of Borneo crude in the first half of 1952 and since September of that year has brought in some 5,000 barrels per day of crude by tank car from Alberta.

³ Petroleum Administration for Defense, "Transportation of Oil," December 1951, page 39.

¹ General Petroleum Corporation, a subsidiary of Socony-Vacuum Oil Company, Inc.

² Two other leading California oil companies, sponsors of Trans Mountain Pipe Line, have taken preliminary steps to construct modern refineries of substantial size in the Pacific Northwest which would make use of the new Canadian oil supplies. The Shell Oil Company has just announced that it is considering the construction of a 50,000 barrel per day refinery, probably to be located at Anacortes on Puget Sound between Seattle and Bellingham. The Standard Oil Company of California has recently purchased a large tract of land north of Seattle with frontage on Puget Sound suitable for a large refinery location.

ifornia oil industry during most of its history—except during war years—seem to be definitely a thing of the past. The growth in demand for petroleum products in this area definitely exceeds the rate of increase in domestic supply. For a considerable period now California has been “producing” its crude petroleum reserves at a higher rate than most other oil-producing areas of the country. New oil in the quantities needed to satisfy the expanding markets of the Pacific Coast states is proving more difficult to find and more costly to produce. Unless there should be an early development of some new source of energy, such as atomic power for industrial use, or unless large new supplies of high gravity crude are discovered in the submerged offshore tidelands and made available at economic costs, it seems fairly certain that this region will soon have to look to other parts of the world for a substantial part of its petroleum requirements.

Where are these essential energy supplies to come from? The known surplus oil-producing areas of the world are relatively few in number and the distribution lines from these areas to the chief consuming markets are, for the most part, fairly definitely established. The great Texas and Mid-Continent oil fields will probably continue to supply the major requirements of the central and eastern sections of the United States, supplemented increasingly by the large export surplus of Venezuela and other Caribbean countries. The phenomenal increase in petroleum output of the Middle East, great as it is, promises to be absorbed by the growing needs of Western Europe as oil replaces coal as a fuel, and by the requirements of the newly developing industries of Asia itself.

The most promising sources for future supplies of crude oil to supplement the local California resources appear to be Canada, Texas, Venezuela, the Rocky Mountain area, in about that order, and possibly at some more

distant time such presently undeveloped areas as the Williston Basin of North Dakota-Montana-Saskatchewan. In the still more distant future, when we really “run out of oil,” loom the enormous shale deposits of Colorado which yield a usable substitute for crude petroleum. It is significant that one of the large California oil companies has been conducting a long-time experimental project designed to test the relative economy of obtaining liquid fuels from shale, as compared with the cost of refining crude petroleum.¹ The current heavy imports of oil from the Eastern Hemisphere are probably only a temporary stopgap to bridge over the interval until Alberta oil reaches the Coast in substantial quantities. Heavy transportation costs would handicap Middle Eastern oil, and even Sumatra or Borneo oil, in competition with the more economical pipe line transportation from Alberta, not to mention the greater hazards involved by the trans-Pacific voyage in time of war. The proposal to bring in Texas oil by pipe line to southern California refineries is also not entirely dead and might be revived if and when conditions warrant. Meanwhile California oil producing concerns, large and small, are actively engaged in prospecting for petroleum in many outside areas, notably in Utah, where the largely unexplored Uinta Basin contains distinct possibilities of significant oil discoveries. The large San Juan Basin at the junction of the four states Arizona, New Mexico, Colorado, and Utah, which presently is an important producer of natural gas but has not yet been adequately prospected for oil, is also regarded as a favorable possibility for future development of oil for the motors of California.²

¹The Union Oil Company of California. See “Western Power and Fuel Outlook,” pp. 41-48.

²See “Oil Supply and Demand in the West,” a speech by Robert L. Minckler before The National Association of Financial Analysts Societies, San Francisco, May 5, 1952. See also “Oil and Gas in the Rockies,” a report by Dorsey Hager, Consulting Geologist, for J. A. Hogle & Company, Salt Lake City, February 13, 1953.

HOME MORTGAGE LIQUIDITY AND SECONDARY MORTGAGE MARKETS

A VARIETY of proposals to improve secondary mortgage markets have been made during the past five years. These proposals have emanated from mortgage bankers, Federal agencies involved in mortgage financing, and Congress. Some of them visualize essentially a private secondary market, although Government assistance of one kind or another is often involved in the plans, while others propose a sort of Federal Reserve System in the mortgage markets. All proposals evidence dissatisfaction with the existing markets as well as the desire to have mortgages become a more liquid asset than they are at present. This article very briefly describes the secondary market, the nature of liquidity, and the extent of Government operations which affect the mortgage market. It also brings out some aspects of the areas in which further study would be desirable.

The secondary mortgage market is a term generally used to describe transactions in existing mortgages after they have been originated. In this respect this market is

analogous to the stock exchanges which deal primarily with old issues originally marketed by investment houses at an earlier date. In the secondary mortgage market the principal sellers are the commercial banks and mortgage companies who originate mortgages and sell them to longer-term investors such as insurance companies, savings banks, savings and loan associations, and others. A buyer, however, may also be a seller and vice versa. Just as a well-functioning stock exchange adds to the ability of a listed corporation to market a new issue of its stock because purchasers will be able to dispose of it readily should the need arise, so a well-functioning secondary mortgage market enhances the ability of borrowers to obtain funds at lower rates than would prevail if no secondary market existed.

The importance of the secondary mortgage market arises from the enormous dollar volume of home mortgages outstanding, the fact that the holders of such mortgages require liquidity in different degrees, and the

uneven geographical distribution of savings available for investment. The needs of some lenders for ready cash impel them to sell the mortgages they originate to longer-term investors. Similarly, the fact that new savings may exceed the amount of local investment leads to purchases of mortgages in other localities. The volume of mortgage debt outstanding is shown in Table 1, which also exhibits the holdings of different types of lenders and the changes in their holdings since 1939. Although comparable figures are not available for lenders in the Twelfth District, some useful information can be gleaned from mortgage recordings, which are shown in Table 2. The principal sharp distinctions between lenders in this District and the nation are that commercial banks and individuals are relatively more active in the District in originating mortgages, and savings and loan associations, and particularly mutual savings banks, are less important.

The nature of liquidity

The desire for liquidity is satisfied in greater or less degree, depending upon the character of the commodity involved and the nature of the market. The general meaning of liquidity is clear enough: nearness to money. Thus a 90-day Treasury bill is a close substitute for cash, a 30-year Government bond a less close substitute, and a 30-year mortgage is an asset even farther removed from money. It may be useful to distinguish two aspects of liquidity: (1) the ability to convert an asset into money promptly, and (2) the ability to realize a sum upon conversion which is close to the amount paid for the asset or to the value at which it has been carried on the books of the owner.

The first property of liquidity (which is often called shiftability) is best secured by assets which lend themselves to easy classification. Such is the case for common stocks of the larger corporations in this country. These securities are labeled, their nature generally understood, and sufficient information is readily available to permit reasonably accurate grading of the security. These factors contributing to shiftability are strengthened by the existence of organized exchanges for dealing in such securities—such as the New York and American stock exchanges. An organized exchange permits continuous information as to the prices at which persons will buy and sell a particular security. It also requires specific informa-

tion on each security as a prerequisite to listing it on the exchange. The professional trader, who flourishes best on an organized exchange, provides the important service of filling in small gaps in the market as they occur or of making the market less "thin" than it would otherwise be. This is accomplished by "making a market" for the security, that is, overcoming temporary imbalances between supply and demand by assuming a temporary long or short position in the security. An exchange, then, is useful in furnishing a greater degree of liquidity in the sense of shiftability than would be possible in personalized dealings between buyers and sellers.

Activities of the Federal Government affecting mortgage liquidity

The secondary market in real estate mortgages has long suffered from the fact that terms vary considerably from one mortgage to another, thus making this debt instrument difficult to grade and classify. Standardization of mortgage types would therefore do much towards giving mortgages more liquidity in the sense of shiftability. In this connection it is important to examine the activities of the Federal Government in the mortgage field and their influence on liquidity.

Insurance and guarantees: The most important current activities on the part of the Federal Government which influence mortgage liquidity take the form of reducing the risk on certain types of mortgages and of participating directly in the secondary market for mortgages. Mortgages on homes which are made by approved lending institutions and which meet certain standards are eligible for insurance from the Federal Housing Administration to protect the lender against loss of principal caused by default on the part of the borrower and subsequent foreclosure of the mortgage. Under the Servicemen's Readjustment Act of 1944, as amended, the Veterans' Administration is empowered to guarantee home mortgage loans up to 60 percent of the amount of the loan or \$7,500, whichever is less.¹ The extent to which such insurance and guarantees have made themselves felt in a rather

¹The original percentage and amount stipulated in the 1944 legislation were 50 percent and \$2,000. These were changed first to 50 percent and \$4,000, and in the Housing Act of 1950 were changed to the figures shown in the text above.

TABLE 1

MORTGAGE DEBT ON NONFARM 1- TO 4-FAMILY PROPERTIES UNITED STATES, 1952

Type of lender	Preliminary estimates of loans held		
	Amount (thousands of dollars)	Percent of total	Percent increase since 1939
Savings and loan associations...	17,590	30	417
Life insurance companies	11,800	20	808
Mutual savings banks	6,180	11	194
Commercial banks	11,250	19	462
Federal National Mortgage Association	2,210	4	2,110
Individuals and others	9,125	16	194
Total	58,155	100	268

Source: Home Loan Bank Board.

TABLE 2

ESTIMATED AMOUNT OF NONFARM MORTGAGES OF \$20,000 OR LESS RECORDED IN 1952—UNITED STATES AND TWELFTH DISTRICT¹

Type of mortgagee	Amount in millions of dollars		Percent of total		Twelfth District as percent of United States
	United States	Twelfth District	United States	Twelfth District	
Savings and loan associations	6,452	1,071	36	31	17
Commercial banks	3,600	891	20	25	25
Individuals	2,758	724	15	21	26
Insurance companies	1,420	317	8	9	22
Mutual savings banks	1,137	31	6	1	3
Miscellaneous	2,651	464	15	13	18
Total	18,018	3,498	100	100	19

¹Includes all Twelfth Federal Reserve District states except Nevada. Source: Home Loan Bank Board.

short number of years is evident in Table 3. The volume of FHA and VA mortgages which have been issued in Twelfth District states is shown in Table 4. At the end of 1952, over 44 percent of all mortgage debt outstanding on nonfarm 1- to 4-family houses was partly underwritten by the Government either through FHA insurance or VA guarantees. Although conventional mortgages were in the majority, representing 56 percent of all outstanding mortgages, this may be compared with the last prewar year, 1941, when conventional mortgages represented more than four-fifths of all outstanding debt.

Standardization of terms: The increase in Government-underwritten mortgage debt has greatly increased liquidity, in the shiftability sense, of mortgages. This has come about both through the decline in the amount of risk borne by the lender and in the more standard minimum terms upon which the mortgages are made. For example, Section 203 FHA-insured mortgages must be grouped according to risk characteristics. In practice this is done by assigning a numerical rating which indicates the degree of risk. Such risk is gauged by analysis of three groups of risk elements: (a) mortgage credit elements which focus on the borrower, (b) real estate elements which relate to the property, and (c) loan elements which pertain to the mortgage instrument itself. Private lenders in recent years have similarly made use of mortgage risk rating systems. This wider use of risk elements in classifying mortgages has made many mortgage terms more uniform and has thus contributed to shiftability.

Federal National Mortgage Association: In addition to furnishing this direct aid to liquidity by decreasing risk and increasing standardization of terms, the Federal Government also participates directly in the secondary mortgage market through the Federal National Mortgage Association. This agency was established in 1938 to buy and sell FHA-insured mortgages and through such transactions to establish and make a market for such paper and thereby encourage construction and investment by private institutions. Its authority was enlarged on July 1, 1948, to purchase GI mortgages. As of the end of 1952 the Association held \$2,242 million of mortgages of which

86 percent were VA-guaranteed, and currently holdings are around \$2.5 billion.

In practice, the acquisition of a large part of VA-guaranteed mortgages resulted virtually in direct lending by the Government. As the 4 percent rate on VA mortgages became increasingly unattractive to lending institutions, the authority of the Federal National Mortgage Association to purchase from a lender was increased from 25 percent of his eligible mortgages to 50 percent in August 1948, and then to 100 percent in October of 1949. This led to the use of the commitment process whereby lenders would make 100 percent advances to builders with FNMA committed in advance to purchase the resultant mortgages. As a result of this virtually direct lending the Association reached the end of its lending commitment within six months, and over \$2 billion was furnished the housing market directly from the Government. In April 1950 the funds available were increased from \$2.5 billion to \$2.75 billion, but the additional \$250 million could be used only for purchasing mortgages on an over-the-counter basis since the authority to commit funds for future mortgage purchases was eliminated.¹

In addition to adding liquidity to the mortgage market both directly and indirectly, the Federal Government has other important activities in the nonfarm residential mortgage-lending area.

Federal Home Loan Banks: The Federal Home Loan Banks constitute a system of regional banks established in 1932 to provide credit and other facilities for savings and loan associations and similar institutions in connection with their home mortgage lending if they are members of the system. In addition, the Home Loan Bank Board, which supervises the Federal Home Loan Banks, has subsequently been authorized to establish and direct the Federal Savings and Loan Insurance Corporation which presently guarantees shares in associations of the savings and loan type up to \$10,000 per saver. At the end of 1952 membership of the system included 4,028 sav-

¹ The gross authorization of FNMA was increased to \$3,650 million in July 1952, but mortgages other than defense or disaster mortgages are still limited to \$2.75 billion. FNMA's secondary market function is limited in several ways. It can deal only in certain types of mortgages, can buy only limited amounts from any one lender, and can deal only with the originating institution.

TABLE 3
MORTGAGE DEBT OUTSTANDING ON NONFARM 1- TO 4-FAMILY
PROPERTIES—UNITED STATES, 1939-1952

(in millions of dollars)

End of year	Total	Government-underwritten		Con-ventional
		FHA-insured	VA-guaranteed	
1939	16.3	1.8	1.8	14.5
1940	17.3	2.3	2.3	15.0
1941	18.4	3.0	3.0	15.4
1942	18.2	3.7	3.7	14.5
1943	17.8	4.1	4.1	13.7
1944	17.9	4.2	4.2	13.7
1945	18.5	4.6	4.1	13.9
1946	23.1	6.3	3.7	16.8
1947	28.2	9.6	3.8	18.6
1948	33.3	12.5	5.3	20.8
1949	37.5	15.0	6.9	22.5
1950	45.1	18.9	8.6	26.2
1951	51.9	22.9	9.7	29.0
1952 ^p	58.2	25.4	10.8	32.8

^p Preliminary.

Sources: Home Loan Bank Board, Federal Housing Administration, Veterans' Administration, and Federal Reserve System.

TABLE 4
FHA AND VA INSURANCE AND GUARANTEES
TWELFTH DISTRICT

Area	VA home loans, principal amount approved cumulative through		FHA-insured home mortgages	
	December 25, 1952		cumulative 1935-1951	
	Amount (millions of dollars)	Percent of United States ¹	Amount (millions of dollars)	Percent of United States ¹
Arizona	51	0.3	172	1.1
California	2,604	14.2	2,743	16.7
Idaho	40	0.2	84	0.5
Nevada	9	..	45	0.3
Oregon	105	0.6	222	1.4
Utah	57	0.3	159	1.0
Washington	388	2.0	648	4.0
Twelfth District	3,355	17.6	4,074	24.9
United States..	19,040	..	16,388	..

¹ Only the continental United States is included.

Source: Veterans' Administration, Federal Housing Administration.

ings and loan associations, 23 savings banks, and 5 insurance companies. From 1932 through the end of 1952 the eleven district Federal Home Loan Banks had made advances to their member institutions of nearly \$4,626 million and had outstanding advances at the end of 1952 of \$864 million to over 2,000 members. The San Francisco Federal Home Loan Bank (which serves the seven Twelfth Federal Reserve District states plus Alaska, Hawaii, Montana, and Wyoming) had the largest volume of outstanding balances at the end of 1952, such balances representing over 20 percent of all outstanding advances of all Home Loan Banks. By the middle of 1952 the Government's original investment of nearly \$125 million in the capital stock of the Banks had been repaid, and they are thus now completely owned by their member institutions which had an investment of over \$315 million in the stock of the Banks at the end of last year.

Direct Federal activities: In addition to this indirect effect on the mortgage markets, although as shown there has actually been some virtually direct lending, the Government does participate directly in the housing field through direct loans and construction and ownership of housing. The Veterans' Administration was temporarily authorized in 1950 to make direct loans to veterans where VA-guaranteed loans were not available from private sources. These loans are limited to a total of \$150 million. This authority is scheduled to expire on July 1, 1953, although a bill has been introduced to extend it. The Public Housing Administration undertakes to assist local housing authorities in the construction, ownership, and management of low-rent public housing projects by means of capital loans and annual cash contributions to serve as a continuing subsidy. This agency also directly undertakes emergency housing projects.

It is apparent, then, that the activity of the Federal Government in the field of housing and mortgage finance is extensive. For purposes of analysis it may be useful to classify the different ends served by its activities. One class of activities undertaken by the Government serves indirectly to encourage home building by standardizing the terms of mortgages which are insured or partly guaranteed. Another class of activities enters directly into the home construction market by direct loans, subsidies, guarantees, and insurance. The distinction between these activities, although one of degree only, is important. The first activity in standardization of mortgage terms serves to improve the operation of the market without interfering with the allocation of economic resources which takes place in response to prices and costs. The second form of activity, which affects interest rates on mortgages directly or which completely avoids the private market by direct lending, alters the normal forces that operate in the free market in the interests of conforming with certain social policies Congress considers desirable.

Privately organized mortgage exchanges

As contrasted with these Federal Government activities we may note some interesting developments in private

arrangements which will act to give mortgages more ready convertibility than they now possess and which, of course, do not directly affect the allocation of resources. At least two organized mortgage exchanges have been announced within the past year. One is in New York and it plans to find buyers and sellers for mortgages listed with it. The other market, which is now in operation, is in Toronto, Ontario. At present its operations are limited to dealings in second mortgages because of the high yields which are expected to attract investing interest. To accomplish its purpose it is necessary for this exchange to grade mortgages. This is done by rating them on the basis of a twenty-one point system of valuation, including a visual inspection of the property. Mortgages are then grouped into four classes and listed with the ask prices for the mortgages. Bid prices are also advertised for mortgages of different classes. The exchange, in order to provide continuity, guarantees to buy upon its own account, if necessary, any mortgage in a particular class for the bid price published. A brokerage fee is charged the purchaser and the seller, but the latter is also required to pay the necessary valuation and legal costs of classifying his mortgage. The purpose of the exchange was summarized in its announcement:

"The Mortgage Exchange was originally organized to place the sale of mortgages upon an equal basis with the sale of stock and bonds. In the past, while a ready market was found to be available for mortgages, great delays were experienced in having prospective purchasers examine properties, and in arriving at a figure for the final consummation of the sale. Further delays were experienced in completing the transactions, and doing the necessary paper work to transfer the title to the mortgage sold. This method of disposing of mortgage securities was in sharp contrast with the quick, easy and sure method of disposing of stocks and bonds on the various exchanges listing them. The quick and ready market available to stocks and bonds in spite of the fact that prices could fluctuate is a very great attraction to the investor, and while mortgages had very desirable features, the delays and uncertainty of disposing of them depreciated their attractiveness to investors in comparison to the attraction held by stocks and bonds."

This is not only a good summary of the problem represented by mortgage liquidity but also points out clearly the fact that only one aspect of liquidity is considered—the ability to readily dispose of an asset. The price may still fluctuate, however.

Problems of price stability for mortgages

Actions taken by private exchanges and the Government in their attempts to increase the liquidity of mortgages through grading and the assurance of organized trading contribute in no small measure to liquidity in the sense of shiftability. Their influence on price stability, however, is extremely limited at best. The market price for fixed-return debt instruments such as mortgages is determined by the trend of interest rates, the market appraisal of the quality of the obligation at any given time, and many other factors in the general economic situation. This necessarily implies a certain degree of price flexibility in a free economy. These realities cannot be avoided by the holders of mortgages. They have invested in long-

term loans which yield a higher rate of interest than shorter-term fixed-rate securities and in so doing have necessarily sacrificed liquidity in the sense of absolute price stability. Were it possible to remove the risk of price fluctuation from the mortgage market it would be logical to expect a decline in the interest return on mortgages to rates approaching those on very short-term Government bonds. This aspect of mortgages and the mortgage market is sometimes overlooked by those who request liquidity "at all times and in all circumstances."

Price stability in the mortgage market might be achieved, within narrow ranges, by a central agency buying and selling mortgages as temporary imbalances develop—a function analogous to the professional trader in the stock market. If a market could be organized for mortgage trading, such speculators could be expected to develop in response to the profit opportunity available. However, for very large deviations, especially if prolonged, the almost unlimited resources of a central bank of issue would be necessary. An illustration might serve to make the point. The stock market was highly organized in 1929 but it was completely unable to cope with the decline in stock prices which took place subsequently, despite some valiant attempts by certain wealthy individuals. The sums of money involved are so large, and the possible success of an individual or a group in stabilizing the market so uncertain, as to make necessary the intervention of a body which can create the sums of money necessary to give full liquidity. A central savings institution cannot serve this purpose adequately since more than the mobilization of available funds is necessary in a crisis. When most investors simultaneously desire to obtain cash by selling their investments, new money must be created if the price of investments is not to fall precipitously.

There appear to be no positive reasons for insulating the price of mortgages from fluctuations in the economy, although this might be accomplished by the creation of a central bank of issue to deal in mortgages. No one has seriously suggested that the stock market be accorded the kind of price stability in mind for the mortgage market, and the closest approach to it—the stability of Government bond prices—was a policy directly resulting from war financing and has now been rejected. In the absence of very clear reasons for this kind of favored treatment, the mortgage market can increase its liquidity only by increasing shiftability, and this will be a great step forward; but its liquidity arising from price stability can be

derived only from the more general stability imparted to the economy by more general policies affecting money, credit, investment, and the price level.

Some of the problems facing a central mortgage bank in its endeavors to insure liquidity have been outlined briefly. It should also be noted, however, that the more modest present activities of the Federal Government to increase the liquidity of mortgages, which have been described above, are not without problems of their own. Predominantly, the problems arise from the fact that fixing one of the terms of the transaction (the interest rate, for example) regardless of changing economic conditions is likely to result in changes in other terms of the transaction. For example, in recent months the fixed rate on FHA and VA loans was below market rates on comparable investments, and consequently the price of these mortgages dropped below par. Furthermore, the drop in price of the mortgage loans may in turn have resulted in some increase in the price of houses to compensate the builder for the decreased market value of the mortgage. This is only one of many illustrations of this general type of problem.

Examination and coordination of the many activities of the Federal Government which affect the liquidity of mortgages is presently necessary so as to centrally marshal those activities which would prove desirable on a national basis, if some are not to be eliminated. This reconsideration of the role of Government in the mortgage markets, both direct and indirect, should be given some impetus by the facts that the authorization granted the Federal Housing Commissioner to insure mortgage lenders expires July 1, 1955, and the ability of veterans to secure VA-guaranteed loans expires July 25, 1957. The existence of the Federal National Mortgage Association may be terminated by the Housing and Home Finance Administrator, acting upon his own authority or in consultation with Congress, whenever he thinks the need therefor no longer exists. A thorough study of this subject at this time is by no means premature in light of the scope and complexity of the problems in the mortgage area. Institutions created to meet needs at an earlier time require reorientation in a period of full employment and particularly in the midst of inflation. The establishment of a series of local private exchanges, to be succeeded at some time by a national exchange, and the coordination of Federal activities to assist this development would appear to offer a promising avenue of approach.

OWNERSHIP OF DEMAND DEPOSITS—TWELFTH DISTRICT

FOR the third successive year, demand deposits of individuals, partnerships, and corporations increased in the Twelfth District and in the nation, according to the Federal Reserve System's annual survey of demand deposit ownership. In the year ending January 31, 1953, Twelfth District demand deposits rose 4 percent to a new high of \$10.5 billion while the national over-all increase was estimated at 3 percent.

On both the District and national levels, however, these figures show a smaller percentage rise than that of the previous year, and the increase is not as evenly distributed among the ownership categories listed in the survey.

Several factors have been operating in the economy to cause this slowing in the rate of increase of demand deposit balances. General business activity tended to level off in 1952 after large increases in the previous two years

of mobilization activity. Wholesale prices continued the downward drift that had started in 1951. Corporate profits declined and farm net income remained about the same as in 1951, although consumer income increased. Money market stringency may have also had some effect. Cash balances may have been drawn upon to finance business expansion, which continued to be high in the District and the nation. With increased interest yields, money that was previously held in demand deposits may have been shifted to time deposits or invested in other interest-bearing assets.

Manufacturing and mining balances decline

In sharp contrast with the previous year's 14 percent increase, and with a current increase of 3 percent in the nation as a whole, the District's manufacturing and mining concerns show a 1 percent drop in their demand deposits. The decrease was concentrated in accounts of over \$25,000. This drop cannot be said to reflect an absolute decline in mining and manufacturing activity. Although some industries did not gain during the year, manufacturing employment in the District as a whole increased, and at a greater rate than in the nation. Business loans in the District expanded in 1952 but by a smaller percentage than nationally.

Balances in other lines of business activity rise

Marked increases in other sectors were a result of quickening activity, particularly in the fields of construction and public utilities, and of the increase in consumer credit that took place following the suspension of Regulation W. Demand deposits of retail and wholesale traders showed a large dollar increase, mainly in accounts with balances under \$25,000. Department store sales rose in 1952 while stocks and the stock-sales ratio declined, indicating that inventory liquidation may have contributed to the growth in trade balances. The "other nonfinancial" sector, which includes public utilities, construction, and service industries, showed both the largest dollar increment and the greatest percentage rise, thus accounting for the greatest share of the total increase in deposits—approximately 32 percent.

PERCENT CHANGES, JANUARY 1952-JANUARY 1953, IN DEMAND DEPOSITS OF INDIVIDUALS, PARTNERSHIPS, AND CORPORATIONS TWELFTH DISTRICT

Type of holder	Size of account			Total
	Balances under \$10,000	Balances \$10,000-\$25,000	Balances over \$25,000	
Manufacturing and mining	+3	+5	-3	-1
Retail and wholesale trade	+7	+13	+2	+5
Other nonfinancial	+5	+11	+11	+10
Total nonfinancial	+6	+11	+2	+4
Financial	+4	+7	+9	+9
Total domestic business	+6	+10	+3	+5
Personal	+6	-2	-10	+1
Other ¹	+9	-1	+11	+10
Total	+6	+4	+2	+4

¹ Nonprofit associations, foreign deposits, and trust funds of banks.

Insurance companies continued to build up their balances in the District at a high rate; the rate of increase was 17 percent in the year ending January 31, 1952, and 19 percent in the most recent year. By comparison, insurance balances rose only 7 percent on the national level during the last year. This growth of insurance deposits contributed to a 9 percent rise in total District balances of financial establishments. Nationally, there was only a 3 percent increase in such balances.

Total personal balances rise despite decline in farmers' balances

Demand deposits of Twelfth District farmers, which had increased 17 percent in the previous year, decreased 1 percent—a drop slightly larger than that shown on the national level. The effects on the farmers' cash position of lower prices received for their produce in 1952 and continuing high costs were apparently not entirely offset by bumper crops and increases in total farm loans. "Other personal" accounts rose 2 percent in both the District and the nation.

The "Other" sector registered a large percentage increase. This encompassed a 48 percent rise in foreign balances held in the District, which are a small part of the general category, however. Demand deposit balances of bank trust funds increased 8 percent in the District while decreasing slightly in the nation, and nonprofit organizations increased balances in both the District and the nation.

ESTIMATED DISTRIBUTION BY OWNERSHIP OF DEMAND DEPOSITS OF INDIVIDUALS, PARTNERSHIPS, AND CORPORATIONS— TWELFTH DISTRICT AND UNITED STATES, ON SELECTED DATES 1950-53

(in millions)

Type of holder	Twelfth District					United States		
	January 1950	January 1951	January 1952	January 1953	% change Jan. 1952 to Jan. 1953	January 1952	January 1953	% change Jan. 1952 to Jan. 1953
Manufacturing and mining	\$1,180	\$1,480	\$1,680	\$1,660	-1	\$21,300	\$21,900	+3
Retail and wholesale trade	1,560	1,700	1,820	1,910	+5	14,800	15,100	+2
Other nonfinancial	1,100	1,120	1,220	1,340	+10	10,500	11,100	+6
Total nonfinancial	3,840	4,300	4,730	4,910	+4	46,600	48,100	+3
Financial	850	950	1,020	1,110	+9	8,900	9,200	+3
Total domestic business	4,690	5,250	5,750	6,010	+5	55,500	57,400	+3
Farmers	750	750	880	870	-1	7,200	7,200	0
Other personal	2,700	2,890	3,020	3,090	+2	25,800	26,200	+2
Total personal	3,450	3,640	3,900	3,950	+1	33,000	33,400	+1
Other ¹	430	440	490	540	+10	5,500	5,700	+4
Total	\$8,570	\$9,320	\$10,140	\$10,510	+4	\$94,000	\$96,500	+3

¹ Nonprofit associations, foreign deposits, and trust funds of banks.
Note: Figures may not add to totals because of rounding.

