

Monthly Review



TWELFTH FEDERAL RESERVE DISTRICT

FEDERAL RESERVE BANK OF SAN FRANCISCO

June 1956

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THE BOOMING ALUMINUM MARKET

THE huge increase in aluminum capacity concentrated in the Pacific Northwest during World War II aroused fears that aluminum would go begging for a market with the end of hostilities. Although production dropped sharply when the war ended, it soon became evident that the war-built facilities were inadequate to satisfy the ever-growing civilian and military needs. Tightness has persisted in the United States aluminum market, particularly during the last four years, notwithstanding four consecutive years of record-breaking production. Facilities in the Pacific Northwest as elsewhere have been strained to capacity. In spite of this supply-demand imbalance, primary aluminum prices have not risen as sharply as prices of some other metals. The premium prices commanded by aluminum scrap and the common complaints of shortage by fabricators indicate that primary aluminum prices could have risen higher.

Imports have been relied on to supplement domestic supplies, but with rapidly increasing world demand foreign sources are becoming less dependable. Compensation for a sharp drop in imports in 1955 was provided partly by a release of aluminum from the Government stockpile; none of the current production, furthermore, went into stockpiles during the first half of 1956. Some relief can be expected in 1956 because of increased production, although demand will still be running at high levels.

The United States supply picture

The United States and world production records established in 1955 will undoubtedly be broken again in 1956. Since the high world demand for aluminum is likely to continue throughout 1956, any significant increase in United States supplies will be based on domestic production.

Primary production in the United States for 1956 is expected to exceed 1,600,000 tons, setting a new production record for the fifth consecutive year. Production in the first quarter of 1956 is already running 11 percent higher than in the first quarter of 1955. This increased production rate is made possible largely by the new

60,000 ton annual capacity plant completed in August of 1955 in Montana and the addition of new potlines in established plants. The capacity of United States plants will be increased another 9 percent in 1956.

World production would have been still higher in 1955 except for unfavorable hydroelectric power conditions in Canada and Scotland. Canada had expected an 89,000 ton increase in production in 1955 but drought conditions in Quebec and the severance of the transmission line to the reduction plant by a snowslide at Kitimat, British Columbia, cut Canada's anticipated increase in half. The Aluminum Company of Canada was not able to resume full production until May 1956.

This drop in anticipated production prevented the United States from importing as much aluminum as the domestic demand warranted. Throughout 1955, the United States market could have easily absorbed much more foreign aluminum than was made available to supplement domestic supplies. In fact, net primary imports dropped from 216,000 tons in 1954 to 197,000 tons in 1955. Strong foreign demand along with output falling short of anticipations prevented a greater flow to the United States in contrast to 1954 when imports declined because of an abundance of domestic production. The importance of foreign demand on United States imports is reflected in the breakdown of shipments made by Canada, the principal world exporter. Total export shipments of primary aluminum from Canada rose from 475,200 tons in 1954 to 520,800 tons in 1955. About 92 percent of that increase went to Great Britain which has a contractual first call on a large block of the Canadian production. The United States managed to receive only 1½ percent of the Canadian increase in exports. Canadian producers must also hurdle a 1½ cent per pound tariff barrier on primary aluminum imports into the United States.

On balance, it appears that aluminum supplies for 1956 will depend mostly on domestic production as was the case in 1955. The supply-demand relationship, therefore, will depend more on what happens to demand in 1956.

Although the United States is a substantial net importer of primary aluminum, it still remains a net exporter of scrap aluminum. Since this country is the leading producer and consumer of scrap, it naturally is the main source of the world scrap supply. Nevertheless, the tightness of supply last year caused net scrap exports to decline from 26,000 tons in 1954 to 5,000 tons in 1955. Some groups in the industry are now asking for Government controls over the export of scrap.

Changing demand forces

One of the surprising developments in the aluminum field has been the rapid shift to civilian uses. High demand today is based primarily on continued growth of regular peacetime markets, not by any heavy military or defense consumption of aluminum. Although it was the Korean War mobilization requirements which triggered the doubling of primary capacity since 1950, current defense uses account for approximately 10 percent of total consumption in contrast to 30 percent during 1952 at the peak of the Korean emergency.

Rapid diversification, more staple uses, and continued new technological developments increasing the area of substitution stand out in the consumption pattern evolving for aluminum. In recent years aluminum has been competing in a wide range of fields from heavy forging and structural components to foil for wrapping cigarettes. Its workability, ductility, lightness, corrosion resistance, and strength make it one of the most versatile metals. Building uses of aluminum have been leading the field every year since 1946 closely followed by transportation, durable goods, electrical components, industrial and commercial uses, and finally packaging and containers.

Since 1950, aluminum consumed in building and construction applications has doubled. Aluminum windows and combination storm and screen windows have fostered markets for aluminum, along with the already rapidly developing use of aluminum for roofing and siding. Builders' hardware, architectural shapes, and accessories are also fast growing branches of this market. In fact, aluminum may take over the No. 1 spot in

builders' hardware within the next few years; it is now rated second only to brass in residential applications and second to bronze in commercial applications.

Although transportation has dropped to second place, it is a field still showing tremendous promise. Increasing use is being made of aluminum in ships, autos, trucks, and trains. The auto industry shows the most impressive trend. It has been estimated that 1955 autos contain 22 pounds of aluminum in comparison with 11.4 pounds for 1954 models. One large manufacturer reportedly used an average of 65 pounds in its 1954 cars, while another luxury car contains 197 pounds of aluminum in 1956.

The most extensive uses are found in commercial vehicles for both freight and passengers. Any weight saved means additional payload for the same gross weight, or reduced operating expenses, or both. A number of railroads have purchased all-aluminum streamlined trains as well as lightweight streamlined coach-baggage cars. Practically the entire bodies of many trucks and busses are composed of aluminum along with components of their engines.

At the consumer level, aluminum is finding progressively greater favor in home appliances and furniture as well as wrapping and packaging. These uses now exceed in importance the electrical conduction field which was formerly a leading aluminum outlet. At the present time, aluminum is the most economical electrical conductor material available. Although aluminum has a conductivity of only about 60 percent that of copper on a volume basis, it has better than twice the conductivity of copper on a weight basis. The stability and cheapness of aluminum relative to copper in recent years has undoubtedly strengthened aluminum in the electrical conductor field. Now that copper prices are dropping and copper capacity expanding aluminum will face greater competition.

One of the striking features of aluminum prices in the past 15 months has been the relative stability of aluminum prices in the face of such pressing demand. The price of primary aluminum has been raised three times within the past year—from 23.2 cents in March 1955 to 24.4 cents in March 1956. At the end of March

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an additional rise of 1½ cents per pound brought the price up to its current price of 25.9 cents per pound of ingot. There is reason to believe that the maintenance of relatively stable aluminum prices has had a beneficial effect on the demand for aluminum.

Expansion response to market conditions

The supply response to the strong demand for aluminum has been phenomenal in the past two years. Completion of expansion plans already underway or announced will culminate in 1958 United States capacity 45 percent greater than that of 1955. Canadian capacity will have increased even more by the end of 1958 with an expansion of 47 percent. In addition, a number of European firms have been planning joint ventures in Africa and Yugoslavia designed to relieve dependence on imports from Canada.

An interesting feature of the new expansion plans in the United States is the move to a new location in the Ohio River Valley region. These new plants will be fully integrated from the

generation of electric power to the fabrication of finished products. By the end of 1958 Pacific Northwest capacity will have dropped from 37 percent to 29 percent of the national capacity while the Ohio Valley region will have jumped from zero to 18 percent. Only one new plant is currently scheduled for construction in the Pacific Northwest.

Along with the geographic shift in location is a shift in the source of electric energy in the United States. By 1958 hydro power will have dropped from 72 percent to 65 percent, gas from 24 percent to 18 percent, while coal and lignite will have jumped from 4 to 7 percent. Canadian expansion, however, is based exclusively on hydroelectric power.

Although aluminum still seems in tight supply, completion of these new facilities should greatly relieve the situation. The slight softening of scrap prices recently may be a forerunner to a more general easing of the aluminum market.

Business Loans at Twelfth District Member Banks

DURING the past decade, loans outstanding for commercial and industrial purposes, including those secured by real estate, have doubled in volume at Twelfth District member banks. On October 5, 1955 these loans amounted to \$3.5 billion compared with \$1.7 billion on November 20, 1946. Information useful in appraising this growth was obtained last fall in a broad but intensive nationwide survey in which this Bank participated with the entire Federal Reserve System. In this District, seventy-nine member banks, chosen by a stratified random sampling process, completed forms for 247 of their offices with detailed information concerning their commercial and industrial loans outstanding on October 5, 1955. A general description of the survey form and accompanying instructions to the banks can be found in the *Federal Reserve Bulletin* for April 1956. On the basis of this sample, which accounted for approximately 65 percent of the total outstanding business loans in the District, estimates of the char-

acteristics of loans at all Twelfth District member banks have been made. A similar survey was conducted on November 20, 1946, and some comparisons will be made with the results of that survey.

While only major characteristics of these business loans will be presented in this article, more data are available and still more are in the process of tabulation. Subsequent articles will contain a detailed analysis of interest rates, maturities, collateral, repayment methods, and location of borrowers.

Loans to manufacturing, mining, and trade declined in relative importance while the share of other businesses rose

Table 1 shows that the proportion of total business loans outstanding to manufacturing and mining concerns, the business group with the largest dollar volume of borrowing, decreased from 42 percent in 1946 to 32 percent in 1956. The general decline in the share of this group

TABLE 1
BUSINESS LOANS OF MEMBER BANKS IN THE TWELFTH
DISTRICT BY BUSINESS OF BORROWER
OCTOBER 5, 1955 AND NOVEMBER 20, 1946
(Estimates of amounts outstanding)

	Amount of loans		Percent distribution	
	1955	1946	1955	1946
	(in thousands of dollars)			
All businesses	3,482,043	1,710,840	100.0	100.0
Manufacturing and mining	1,126,501	711,070	32.4	41.6
Food, liquor, and tobacco	281,594	296,110	8.1	17.3
Textiles, apparel, and leather	45,755	21,480	1.3	1.3
Metals and metal products	354,010	167,330	10.2	9.8
Petroleum, coal, chemicals, and rubber ..	149,424	30,280	4.3	1.8
Other	295,718	195,870	8.5	11.4
Trade	1,042,903	623,870	29.9	36.5
Wholesale (including commodity dealers)	512,256	377,980	14.7	22.1
Retail	530,647	245,890	15.2	14.4
Other	1,312,639	417,700	37.7	21.9
Sales finance companies	196,424	41,800	5.6	2.4
Transportation, communication, public utilities	236,012	84,650	6.8	4.9
Construction	182,175	112,290	5.2	6.6
Services	249,838	80,230	7.2	4.7
Other nonfinancial ..	448,190	98,730	12.9	3.3

Note: Details may not add to totals because of rounding.

indicates the increased importance, as compared with 1946, of consumer spending on durables, housing, and services, all of which are reflected in the "Other" sector. A similar, but less sharp, decline occurred in the nation. Seasonal influences also appear to have been important in this shift in proportions since borrowing in the food, liquor, and tobacco industry, the lumber industry, and trade tends to be higher in late November, when the 1946 survey was taken, than in early October, when the most recent survey was conducted. Other changes within each of the three major business sectors shown in Table 1 reflect changes in financing methods and in the structure of industry in the District.

Within the manufacturing and mining group, the only loan category to show a decline in the dollar amount of borrowing since 1946 is the food, liquor, and tobacco industry. This may be partly seasonal, as indicated above, and may also reflect the lower level of agricultural prices. On the other hand, manufacturers of metals and metal products, whose share of the loan total increased from 9.8 to 10.2 percent, became the largest single borrowing sector in the manufacturing group. In part, this shift reflects the grow-

ing industrialization of this District and a decrease in the relative importance of processing of agricultural products. Included in the metals group are iron, steel, and nonferrous metals and their products; electrical and other machinery; and automobiles and other transportation equipment and parts. The decline in the proportion of loans to the "other" manufacturing and mining group, which includes lumber, paper, furniture, printing and publishing, and stone, clay and glass, is similarly affected both by the seasonal pattern in lumber borrowing and the increasing importance of the metal and metal products producers. Petroleum, coal, chemical, and rubber firms in this District more than doubled their share of total loans and in October 1955 had almost five times as much in outstanding loans as they had in November 1946.

Both in the Twelfth District and in the nation, loans to wholesale trade establishments decreased as a proportion of the loan total. In 1946 loans to wholesalers accounted for one-fifth of total loans, while in 1955, including loans to commodity dealers for which there was no separate breakout in 1946, these firms accounted for only 14.7 percent of the total. Retail trade firms, on the other hand, increased their borrowings share slightly. Seasonal influences may have played some part in the decline in the share of trade businesses in total borrowings, particularly for commodity dealers who may also have been affected by the decline in agricultural prices.

Sales finance companies increased their dollar borrowings more than twice as much as business borrowers as a whole. Their share of the loan total increased from 2.4 percent in November 1946 to 5.6 percent in October 1955. This growth by firms primarily engaged in financing retail sales made on the instalment plan reflects the very large increase in the use of instalment credit by consumers in the postwar period. The share of District construction firms in the loan total, on the other hand, declined in contrast to an increase in the nation as a whole. However, loans to real estate companies, which are included in the "other nonfinancial" sector of Table 1, were not broken out separately in the November 1946 survey and probably account for

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this difference. This category includes subdividers and developers of real property, who are probably more important in the District than in the nation. Loans to these firms accounted for 8.4 percent of the 1955 total business loans. Thus, if this group is added to the construction group, an increase in the share of business loans to finance the real estate business, including construction, would be evident.

Loans to service firms, including hotels, repair services, amusements, personal and domestic services, and medical, legal, and other professional services, increased their borrowings by almost twice those of all borrowers. This increase is probably a result of the increased availability of services as compared with 1946, coupled with the increase in disposable income, a high proportion of which is spent for services.

Increased concentration of loans to larger sized borrowers

Three-fourths of the dollar volume of loans in the Twelfth District, as shown in Table 2, was made to borrowers with total assets between \$50 thousand and \$25 million. Only 10 percent of the dollar volume was to \$100 million-and-over firms, as compared with 18 percent in the nation. This may be due in part to the smaller pro-

portion of very large firms in this District than in the nation and to the fact that many of the larger national firms doing business in the District obtain their loans elsewhere. As might be expected, firms with over \$5 million in total assets are either in the financial category or in industries where relatively large fixed assets are required. Thus, borrowers with over \$5 million in total assets generally were predominant in the manufacturing group, particularly the metals and metal products group, and the petroleum, coal, chemicals, and rubber group; among the sales finance companies; and among the transportation, communication, and public utility firms. At the other extreme are businesses which deal with the consumer on a personal contact basis, or which require relatively small amounts of fixed assets, and hence, are likely to be relatively small. Borrowers with less than \$1 million in assets accounted for nearly two-thirds of all borrowing in the retail trade and construction fields and 70 percent of the borrowing in the service trades. Food and textile manufacturing, wholesale trade, commodity dealers, and the two miscellaneous categories tended to concentrate in the middle range between \$250 thousand and \$25 million. Most borrowing by real estate firms was by those with assets between

TABLE 2
BUSINESS LOANS OF MEMBER BANKS IN THE TWELFTH DISTRICT
BY BUSINESS AND SIZE OF BORROWER, OCTOBER 5, 1955
(Estimates of amounts outstanding in thousands of dollars)

Business of borrower	All borrowers	100,000 and over	Size of borrower (total assets, in thousands of dollars)					Less than 50
			25,000-100,000	5,000-25,000	1,000-5,000	250-1,000	50-250	
All businesses	3,482,043	365,488	236,489	593,652	730,580	714,304	631,149	210,382
Manufacturing and mining	1,126,501	125,504	146,709	188,597	296,678	205,515	133,724	29,772
Food, liquor, and tobacco	281,594	21,667	22,678	55,448	93,368	61,829	22,023	4,580
Textiles, apparel, and leather	45,755	2,200	2,389	1,791	16,082	13,110	7,840	2,343
Metals and metal products	354,010	37,580	83,732	69,562	64,578	51,673	39,528	7,357
Petroleum, coal, chemicals, and rubber	149,424	50,383	16,427	23,324	27,288	12,463	18,425	1,113
Other	295,718	13,674	21,483	38,472	95,362	66,440	45,908	14,379
Trade	980,919	64,235	24,621	212,008	144,937	229,615	236,536	68,967
Wholesale	450,272	7,745	6,936	165,138	72,961	118,719	62,039	16,735
Retail	530,647	56,490	17,685	46,870	71,976	110,896	174,497	52,232
Other	1,374,623	175,747	65,159	193,046	288,966	279,176	260,888	111,643
Commodity dealers	61,983	3,200	4,855	23,673	12,121	10,943	6,731	461
Sales finance companies	196,425	79,060	12,749	29,028	38,895	17,998	17,604	1,091
Transportation, communication, public utilities	236,012	82,807	13,171	26,404	35,200	52,236	19,395	6,799
Construction	182,175	2,344	7,657	19,147	36,428	51,909	52,613	12,077
Real estate	291,986	1,428	18,617	44,947	86,993	63,440	67,737	8,825
Services	249,838	5,904	5,809	18,418	41,129	46,432	62,645	69,511
All other nonfinancial	156,204	1,004	2,301	31,429	38,200	36,228	34,163	12,879

Note: Details may not add to totals because of rounding.

\$50 thousand and \$5 million. Many of these latter firms represent eastern investors, or otherwise perform what is basically a temporary investing function only.

In October 1955 firms with assets over \$250 thousand had generally increased their total indebtedness at Twelfth District member banks compared with November 1946,¹ while smaller borrowers had a larger dollar amount of loans outstanding at the earlier date. Borrowing within business groups followed the pattern of increased concentration of the volume of loans to larger sized borrowers, with a few variations. In the metal manufacturing group, the increased concentration was only in the over-\$5 million group; the share of the \$250 thousand to \$5 million group decreased. Petroleum, coal, chemical, and rubber manufacturers with \$50 thousand to \$250 thousand in total assets increased their borrowings, while those with \$250 thousand to \$5 million borrowed less at the 1955 survey date. In the "other" manufacturing group, the share of the largest borrowers, those over \$5 million, decreased. The share of the largest sales finance companies also declined slightly. Over-all, however, firms with over \$5 million in assets accounted for more than one-third of all business loans outstanding as compared with one-quarter a decade ago; and firms between \$250 thousand and \$5 million in assets increased their share by about 10 percent. The share of loans held by firms below \$250 thou-

sand fell from over one-third of all outstanding loans to less than one-quarter. The fall was particularly sharp in the under \$50 thousand group. This pattern would appear to reflect the larger average size of business assets today both because of growth since 1946, which was a year when many small firms were getting established in the West, and because of the increase in the price level. The one-third increase in the share of total loans of firms with over \$5 million in assets in this District is in contrast with the very small change in the same direction shown nationally. This may possibly be accounted for by the more rapid economic growth experienced in this District than in the nation generally. Because of the increased concentration of loans to large-sized borrowers, there has been a concomitant increase in the average size of the loan.

Larger banks¹ lend more to larger businesses than small banks do, whether this is measured absolutely or as a percentage to total business loans (Table 3). A special survey was hardly necessary to find this out, for obviously large-scale business operations ordinarily need larger loans than can be supplied by a bank with small deposits and capital. However, in the District, small businesses did not borrow mostly from small banks. Banks with total deposits of over \$500 million held nearly half of the dollar amount of loans to businesses in the smallest size group and over 60 percent of the loans to businesses in

¹ For purposes of comparison with the 1946 survey, borrowers are classified by amount of total assets in the following four size classes: (1) Over \$5 million, (2) \$250 thousand to \$5 million, (3) \$50 to \$250 thousand, and (4) Under \$50 thousand.

¹ Size of bank was determined by total deposits as of October 5, 1955. Branch offices were considered the same size as the system to which they belonged. In a future article, comparisons will be made by the size of the particular office.

TABLE 3
BUSINESS LOANS OF TWELFTH DISTRICT MEMBER BANKS
BY SIZE OF BORROWER AND SIZE OF BANK, OCTOBER 5, 1955
(Estimates of amounts outstanding in thousands of dollars)

Size of borrower (total assets, in thousands of dollars)	Size of bank (total deposits, in millions of dollars)									
	All banks	1000 and over	500-1000	250-500	100-250	50-100	20-50	10-20	2-10	Less than 2
All borrowers	3,482,043	1,666,483	769,077	503,261	267,822	77,993	81,364	62,157	51,887	2,000
100,000 and over	365,488	229,690	71,195	51,671	12,172	250	509	0	0	0
25,000-100,000	236,489	165,081	20,504	32,000	16,358	550	539	1,430	27	0
5,000-25,000	593,652	382,368	95,278	89,262	22,182	1,822	1,186	1,084	471	0
1,000-5,000	730,580	317,326	203,972	116,334	51,148	23,586	7,361	6,450	4,288	115
250-1,000	714,304	283,892	170,343	104,599	69,617	30,293	31,410	12,030	12,037	84
50-250	631,149	228,982	165,122	57,668	73,648	17,088	32,045	30,182	25,136	1,278
Less than 50	210,382	59,144	42,663	51,728	22,699	4,404	8,314	10,980	9,928	523

Note: Details may not add to totals because of rounding.

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each of the next two size groups. Nationally, small businesses got a far smaller portion of their total credit accommodation from banks in the largest size groups. Large banks had a greater proportion of total loans in the District than in the nation, and the difference was primarily in the larger percentage of loans to smaller businesses held by the bigger banks. The share of loans to larger businesses held by larger banks were similar in the District and in the nation. This difference appears attributable to the prevalence of branch banking in this District and its relative unimportance elsewhere in the nation.

Interest rates on business loans in the District

The differential between the over-all interest rate on business loans in the Twelfth District and in the nation narrowed—from 0.9 percentage points in 1946 (3.8 percent in the District and 2.9 percent in the nation) to 0.5 percentage points in 1955 (4.7 percent in the District and 4.2 percent in the nation). To give some perspective, at the time of the 1955 survey in October the rate charged on prime commercial loans was 3¼ percent. This rate had been in effect only since early August, so that some loans had been made earlier at the previous rate of 3 percent. On the other hand, the demand for bank credit was pressing hard on the available supply at the time of the survey, and the prime rate was increased to 3½ percent in mid-October. Some of the more recent loans reported in the survey probably reflected this growing tightness in the money markets.

TABLE 4
AVERAGE INTEREST RATES ON TWELFTH DISTRICT MEMBER BANK BUSINESS LOANS BY BUSINESS OF BORROWER, OCTOBER 5, 1955

	All loans	Short-term (One year or less)	Long-term (Over one year)
All businesses	4.74	4.64	4.89
Manufacturing and mining			
Food, liquor, and tobacco....	4.43	4.38	4.58
Textiles, apparel, and leather.	5.29	5.38	4.91
Metals and metal products....	4.82	4.80	4.85
Petroleum, coal, chemicals, and rubber	3.99	4.19	3.90
All other	4.80	4.70	4.90
Trade			
Wholesale	4.89	4.91	4.82
Retail	4.89	4.73	5.30
Other			
Commodity dealers	4.34	4.35	4.30
Sales finance companies	3.78	3.70	4.45
Transportation, communication, and public utilities	4.24	3.79	4.34
Construction	5.44	5.14	5.93
Real estate	4.70	4.58	4.98
Service	5.58	5.18	5.87
All other nonfinancial	4.84	4.61	5.33

As shown in Table 4, the lowest average rate, 3.78 percent, was paid by sales finance companies, where large-size borrowers and short-term borrowing predominate. The next lowest rate, 3.99 percent, was paid by petroleum, coal, chemical, and rubber manufacturers where long-term borrowings are made by large firms. On the other hand, where firms are smaller, they pay higher average rates. Thus, the highest rate for all maturities was 5.58 percent in the service industries.

The average long-term rate generally was higher than the average short-term rate by less than one percentage point. The long-term rate for businesses with assets under \$50,000, however, was 7.57 percent, 1½ points higher than

TABLE 5
AVERAGE INTEREST RATES ON TWELFTH DISTRICT MEMBER BANK BUSINESS LOANS BY SIZE OF BUSINESS AND SIZE OF BANK, OCTOBER 5, 1955

Size of bank ¹ (total deposits)	Size of business (total assets, in thousands of dollars)							Less than 50
	All businesses	100,000 and over	25,000-100,000	5,000-25,000	1000-5,000	250-1,000	50-250	
All banks	4.74	3.05	3.95	4.24	4.61	5.11	5.58	6.84
\$1 billion and over	4.65	3.03	4.11	4.40	4.77	5.26	5.65	7.29
\$500 million-\$1 billion	4.81	3.19	3.74	3.85	4.46	5.05	5.61	7.24
\$250-\$500 million	4.46	3.08	3.57	4.09	4.38	4.81	5.41	6.27
\$100-\$250 million	4.79	2.77	3.26	3.65	4.36	4.92	5.36	6.31
\$50-\$100 million	5.13	3.00	3.32	4.21	4.98	5.13	5.42	5.35
\$20-\$50 million	5.45	3.17	3.39	4.62	4.80	5.36	5.59	6.06
\$10-\$20 million	5.73	...	4.19	5.27	5.56	5.27	5.68	6.64
\$2-\$10 million	5.68	...	6.11	4.42	4.67	5.28	5.72	6.34
Under \$2 million	6.53	...	...	...	5.00	11.12	6.24	6.65

¹ Size of bank was determined by total deposits as of October 5, 1955. Branch offices were considered the same size as the system to which they belonged.

their short-term rate of 6.10 percent. Large firms with total assets over \$100 million paid less for long- than for short-term loans. The petroleum, coal, chemical, and rubber manufacturers, along with manufacturers of textiles, apparel, and leather, wholesale trade, and commodity dealers, were all able to borrow at long-term rates which were lower than the short-term rates charged these groups. Evidently this is due to the fact that the larger firms in these industries did the long-term borrowing. Both short- and long-term rates increase as the size of business decreases, but in no industry group was the difference between long- and short-term rates greater than 0.8 percentage points. In other words, there is a larger difference in the interest rate charged firms because of their size than because of the type of business they are engaged in or the maturity of the loan. Forthcoming tabulations concerning the collateral offered for the loan may qualify this finding.

Rates did not vary consistently with the size of the bank. Primarily because the larger loans to larger firms were concentrated in the larger banks, interest rates were lower at these banks. For most business size groups, the lowest rates were found at banks in the \$50-\$100 million or \$100-\$250 million deposit size groups. For businesses with total assets under \$50 thousand, rates at the smallest banks were lower than at the largest banks, although the rates at banks of \$50-\$100 million in deposits were lowest of all.

Term loans at Twelfth District member banks increase

Term lending has increased in this District during the past decade but not in the nation as a whole. Of total loans in member banks' business loan portfolios, one-third consisted of loans maturing in more than one year, compared with 28 percent in November 1946. The heaviest term borrowers, transportation, communication, and public utility firms, increased their term loans from 70 to 74 percent of their total borrowing. Wholesale firms, including commodity dealers, more than doubled their ratio of term to total borrowing, and construction firms increased their ratio from 14 to 31 percent. The ratio declined in the case of retail trade and service firms.

The largest and smallest firms—those with total assets over \$25 million and under \$50 thousand—had the highest ratios of term to total borrowing. Transportation, communication, and public utility firms, miners, manufacturers of metals and metal products, and petroleum, coal, chemical, and rubber firms accounted for nearly two-thirds of term borrowing by the largest firms. Among the smallest borrowers, retail trade and service firms had over half of the total term loans outstanding.

Almost three-fourths of the total term loans of about \$1.2 billion were made by banks with total deposits over \$500 million. Term loans accounted for about one-third of the total loans at these same banks. While term loans at the smallest banks, those with deposits under \$2 million, amounted to only one-tenth of one percent of the total term loans, these loans made up over 50 percent of the banks' business loan portfolios. In general, with the exception of the largest banks, the ratio of term loans to total loans increased as the size of the bank decreased.

TABLE 6

TERM LOANS AT TWELFTH DISTRICT MEMBER BANKS, OCTOBER 5, 1955

By business of borrower		Percent of total business loans	
All businesses	33.3	
Manufacturing and mining		
Food, liquor, and tobacco	18.1	
Textiles, apparel, and leather	14.8	
Metals and metal products	38.0	
Petroleum, coal, chemicals, and rubber	63.0	
Other	42.1	
Trade		
Wholesale	19.5	
Retail	28.9	
Other		
Commodity dealers	22.5	
Sales finance companies	9.7	
Transportation, communication, public utilities	74.0	
Construction	31.4	
Real estate	28.6	
Services	46.1	
All other nonfinancial	28.1	
Size of bank (total deposits)	By size of bank	Percent of total business loans	Percent of total term loans
All banks	33.3	100.0
\$1 billion and over	38.9	55.9
\$500 million-\$1 billion	26.4	17.5
\$250 million-\$500 million	24.0	10.4
\$100 million-\$250 million	29.3	6.8
\$50 million-\$100 million	32.7	2.2
\$20 million-\$50 million	40.6	2.8
\$10 million-\$20 million	43.7	2.3
\$2 million-\$10 million	44.2	2.0
Under \$2 million	51.3	0.1

FEDERAL RESERVE BANK OF SAN FRANCISCO

THE number of banking offices in the Twelfth District increased sharply during 1955. At the year-end there were 2,207 offices, including 55 banking facilities at Government establishments, 113 more than a year ago. This was a continuation of the expansionary trend evident since 1946 and was the largest increase recorded in the postwar period.

Consolidations or mergers of existing banks, which were an outstanding feature of 1954, continued in 1955 although at a somewhat slower rate. Of the 52 banks discontinued, 49 were consolidations or mergers with existing banks; 45 of these banks were converted into branches and the business activities of 4 were combined with banks or branches located in the same building or at nearby locations. Three banks suspended operations.

Nineteen new banks were organized in 1955, compared with 9 in 1954; 8 of these were in California, 5 in Oregon, and 6 in Washington. In addition, 15 new branch systems were formed, with 8 of these systems established in California, 1 in Nevada, 2 in Oregon, 3 in Utah, and 1 in Washington. During the same period, 14 branch systems with 28 branches were absorbed or merged with existing branch systems. Three state banks were admitted to membership in the Federal Reserve System and 1 withdrew from membership.

TABLE 1
BRANCH BANKING SYSTEMS¹—TWELFTH DISTRICT
DECEMBER 31, 1954 AND 1955

	1955			1954		
	Branch banking systems	Branches	Facilities	Branch banking systems	Branches	Facilities
Arizona	6	84 ²	3	7	73 ²	3
California ³	53	1,174	38	53	1,085	36
Idaho	8	66	1	8	64	1
Nevada	4	27	2	4	22	2
Oregon	11	145	..	10	138	..
Utah	12	40	5	10	33	5
Washington	23	207	6	24	185	5
Twelfth District	117	1,743 ²	55	116	1,600 ²	52

¹ Includes banks operating branches and/or banking facilities at Government establishments.

² Includes 17 branches of Twelfth District banks located in the Eleventh District.

³ One national bank in California has two branches in Washington and one in Oregon. These branches are shown according to their geographical location rather than by the location of the parent bank.

There were 150 branches and 4 new banking facilities at Government establishments opened during the year; 11 of these were in Arizona, 96 in California, 2 in Idaho, 7 in Oregon, 5 in Nevada, 7 in Utah, and 22 in Washington. In addition to the 45 discontinued banks that were converted into branches, there were 105 *de novo* branches. Seven branches and 1 banking facility were discontinued.

Assets of all banks in the District rose by 5.7 percent from the end of 1954 to the end of 1955. Assets of branch banks as a percentage of total bank assets in the District increased from 88.6 percent in 1954 to 91.4 percent in 1955, an all-time high.

TABLE 2
TOTAL ASSETS OF MEMBER AND NONMEMBER BRANCH BANKING SYSTEMS
DECEMBER 31, 1954 AND 1955
(in thousands)

	All		Member branch banks		Nonmember branch banks		Branch bank as percent of all bank assets	
	1955	1954	1955	1954	1955	1954	1955	1954
Arizona ¹	\$ 697,072	\$ 639,170	\$ 572,296	\$ 528,927	\$ 124,776	\$ 110,243	96.5	96.2
California ²	19,238,516	17,613,119	17,900,861	16,354,858	1,337,655	1,258,261	92.4	89.7
Idaho	484,856	474,349	445,573	434,960	39,283	39,389	83.9	83.4
Nevada	295,796	268,092	265,123	237,108	30,673	30,984	94.4	89.7
Oregon	1,846,722	1,758,384	1,775,142	1,697,575	71,580	60,809	91.4	91.5
Utah	693,876	485,605	537,084	461,257	156,792	24,348	78.7	57.4
Washington	2,601,091	2,466,961	2,271,969	2,153,372	329,122	313,589	88.4	87.2
Twelfth District	\$25,857,929	\$23,705,680	\$23,768,048	\$21,868,057	\$2,089,881	\$1,837,623	91.4	88.6

¹ Asset figures not available for one branch system. Asset figures for Arizona include figures for 17 Eleventh District branches of Twelfth District banks.

² Asset figures include 3 out-of-state branches.

TABLE 3
 NUMBER AND TOTAL ASSETS OF ALL BANKS—TWELFTH DISTRICT
 DECEMBER 31, 1954 AND 1955
 (assets in thousands)

	All banks		Assets		Member banks		Assets		Member bank as percent of all bank assets	
	1955	1954	1955	1954	1955	1954	1955	1954	1955	1954
Arizona ¹	9	11	\$ 722,536	\$ 664,222	3	3	\$ 581,550	\$ 535,941	80.5	80.7
California ²	149	171	20,829,248	19,625,475	92	108	19,168,200	18,040,602	92.0	91.9
Idaho	36	38	577,740	568,917	20	20	496,832	487,491	86.0	85.7
Nevada	6	8	313,370	298,783	5	7	282,698	267,799	90.2	89.6
Oregon	50	48	2,020,797	1,922,162	20	20	1,858,297	1,775,231	92.0	92.4
Utah	51	54	881,209	846,697	26	29	752,237	721,508	85.4	85.2
Washington	107	111	2,942,763	2,827,816	42	47	2,434,432	2,335,750	82.7	82.6
Alaska	1	1	5,335	4,360	1	1	5,335	4,360	...	...
Twelfth District ³	409	442	\$28,292,998	\$26,758,432	209	235	\$25,579,581	\$24,168,682	90.4	90.3

¹ Asset figures include 17 Eleventh District branches of Twelfth District banks.

² Asset items include 3 out-of-state branches.

³ Twelfth District totals include one member bank in Alaska.

FEDERAL RESERVE BANK OF SAN FRANCISCO

BUSINESS INDEXES—TWELFTH DISTRICT¹
(1947-49 average=100)

Year and month	Industrial production (physical volume) ²							Total nonagricultural employment	Total mfg employment	Car-loadings (number) ³	Dep't store sales (value) ⁴	Retail food prices ^{5, 6}	Waterborne foreign trade ⁷		
	Lumber	Petroleum ⁸		Cement	Lead ⁹	Copper ¹⁰	Electric power						Exports	Imports	
		Crude	Refined												
1929	95	87	78	54	165	105	29	....	....	102	30	64	190	124
1933	40	52	50	27	72	17	28	....	....	52	18	42	110	72
1939	71	67	63	56	93	80	40	....	55	77	31	47	163	95
1947	97	100	98	96	94	106	90	99	100	106	99	96	129	81	
1948	104	101	100	104	105	101	101	102	102	100	104	103	86	98	
1949	100	99	103	100	101	93	108	99	97	94	98	100	85	121	
1950	113	98	103	112	109	113	119	103	105	97	105	100	91	137	
1951	113	106	112	128	89	115	136	112	120	100	109	113	186	171	
1952	116	107	116	124	86	112	144	118	130	101	114	115	171	200	
1953	118	109	122	130	74	111	161	121	137	100	115	113	140	308	
1954	112	106	119	133	70	101	172	120	134	96	113	113	131	260	
1955	122	106	122	145	73	117	192	125	141	104	122	112	164	307	
1955															
April	121	106	118	149	77	127	191	124	140	105	120	113	149	290	
May	120	106	115	155	78	131	189	125	140	110	118	113	162	280	
June	122	106	120	153	75	130	200	125	142	111	118	112	152	299	
July	119	106	128	157	71	40	191	125	141	99	123	113	171	368	
August	123	106	127	160	67	91	196	126	142	106	122	111	189	349	
September	118	106	132	159	70	128	196	126	141	107	126	112	174	363	
October	116	105	129	155	72	131	197	126	142	104	126	112	152	343	
November	110	106	123	128	67	128	206	128	145	98	125	112	143	325	
December	123	106	120	130	63	119	198	128	146	98	123	112	164	328	
1956															
January	129	106	130	135	70	134	199	129	146	107	130	112	136	354	
February	125	106	128	145	77	129	204	130	146	99	124	111	126	323	
March	117	105	128	149	77	131	219	130	146	103	128	112	....	....
April	119	105	122	....	83	140	203	130	146	105	131	113	....	....

BANKING AND CREDIT STATISTICS—TWELFTH DISTRICT
(amounts in millions of dollars)

Year and month	Condition items of all member banks ¹				Bank rates on short-term business loans ²	Member bank reserves and related items					Bank debits index 31 cities ^{11, 12} (1947-49=100) ¹³	
	Loans and discounts	U.S. Gov't securities	Demand deposits adjusted ³	Total time deposits		Factors affecting reserves:						Reserves ¹⁴
						Reserve bank credit ⁵	Commercial ⁶	Treas-ury ⁷	Money in circula-tion ⁸	Reserves ¹⁴		
1929	2,239	495	1,234	1,790	....	- 34	0	+ 23	- 6	175	42
1933	1,486	720	951	1,609	....	+ 2	- 110	+ 150	- 18	185	18
1939	1,967	1,450	1,983	2,267	....	+ 2	- 192	+ 245	+ 31	584	30
1947	5,358	7,247	8,922	6,006	....	- 302	- 510	+ 698	- 206	2,202	95
1948	6,032	6,366	8,655	6,087	....	+ 17	+ 472	- 482	- 209	2,420	103
1949	5,925	7,016	8,536	6,255	3.20	+ 13	- 930	+ 378	- 65	1,924	102	
1950	7,093	6,415	9,254	6,302	3.35	+ 39	- 1,141	+ 1,198	- 14	2,026	115	
1951	7,866	6,463	9,937	6,777	3.66	- 21	- 1,582	+ 1,983	+ 189	2,269	132	
1952	8,839	6,619	10,520	7,502	3.95	+ 7	- 1,912	+ 2,265	+ 132	2,514	140	
1953	9,220	6,639	10,515	7,997	4.14	- 14	- 3,073	+ 3,158	+ 39	2,551	150	
1954	9,418	7,942	11,196	8,699	4.09	+ 2	- 2,448	+ 2,328	- 30	2,505	168	
1955	11,124	7,239	11,864	9,120	4.10	+ 38	- 2,685	+ 2,757	+ 100	2,530	172	
1955												
May	9,810	7,690	10,951	8,885	....	- 55	- 51	+ 195	+ 50	2,476	170
June	10,102	7,446	11,023	9,026	3.99	+ 27	- 449	+ 429	+ 35	2,439	178	
July	10,191	7,557	11,212	8,995	....	+ 10	- 193	+ 217	- 9	2,495	166
August	10,392	7,407	11,163	9,021	....	- 23	- 253	+ 200	+ 8	2,415	177
September	10,559	7,375	11,312	9,054	4.17	+ 17	- 148	+ 276	+ 18	2,541	173	
October	10,665	7,487	11,465	9,067	....	- 43	- 245	+ 174	+ 15	2,417	171
November	10,931	7,238	11,665	9,005	....	+ 46	- 81	+ 205	+ 18	2,575	181
December	11,115	7,298	11,876	9,084	4.25	+ 8	- 434	+ 417	+ 17	2,530	183	
1956												
January	11,193	7,143	11,794	9,070	....	+ 84	- 322	+ 136	- 99	2,554	188
February	11,323	6,819	11,233	9,095	....	- 87	- 76	+ 95	- 7	2,488	179
March	11,476	6,731	11,112	9,103	4.34	+ 71	- 178	+ 188	+ 35	2,516	183	
April	11,669	6,730	11,530	9,099	....	+ 82	- 270	+ 371	- 7	2,578	190
May	11,837	6,566	11,144	9,139	....	- 22	- 233	+ 217	+ 47	2,498	182

¹ Adjusted for seasonal variation, except where indicated. Except for department store statistics, all indexes are based upon data from outside sources, as follows: lumber, National Lumber Manufacturers Association and U.S. Bureau of the Census; petroleum, cement, copper, and lead, U.S. Bureau of Mines; electric power, Federal Power Commission; nonagricultural and manufacturing employment, U.S. Bureau of Labor Statistics and cooperating state agencies; retail food prices, U.S. Bureau of Labor Statistics; carloadings, various railroads and railroad associations; and foreign trade, U.S. Bureau of the Census.
² Daily average. ³ Not adjusted for seasonal variation. ⁴ Los Angeles, San Francisco, and Seattle indexes combined. ⁵ Commercial cargo only, in physical volume, for Los Angeles, San Francisco, San Diego, Oregon, and Washington customs districts; starting with July 1950, "special category" exports are excluded because of security reasons. ⁶ Annual figures are as of end of year, monthly figures as of last Wednesday in month. ⁷ Demand deposits, excluding interbank and U.S. Gov't deposits, less cash items in process of collection. Monthly data partly estimated. ⁸ Average rates on loans made in five major cities. ⁹ Changes from end of previous month or year. ¹⁰ Minus sign indicates flow of funds out of the District in the case of commercial operations, and excess of receipts over disbursements in the case of Treasury operations. ¹¹ End of year and end of month figures. ¹² Debits to total deposits except interbank prior to 1942. Debits to demand deposits except U.S. Government and interbank deposits from 1942. ¹³ Preliminary. ¹⁴ Revised.