

Monthly Review

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FEDERAL RESERVE BANK OF SAN FRANCISCO
TWELFTH FEDERAL RESERVE DISTRICT

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Review of Business Conditions

EVEN in the periods between turning points in the business cycle, when movements in the economic indicators presumably should be clearer, periods of uncertainty can and do develop. Recent developments in the economy are a case in point. After rising vigorously from the low reached earlier in the year, the economy suffered a slight setback in September. A number of key measures, including the industrial production index, registered declines, while others, such as retail trade, failed to show improvement for the period. While it is true that the month was not without its bright spots and that the dominant cause of the setback appears to have been a combination of industrial strife and the weather, such a sputtering movement clearly introduced additional elements of uncertainty into the economy. The expansion that had taken place to that point was to a considerable degree the result of a turnabout in inventory investment, which, however, had begun to show some signs of slowing down. Attention was being increasingly focused on final demand as the source of additional expansion. What September events did was to obscure some of the important trends in final demand that might have been developing. More recent data (most of it preliminary) give us some additional insight as to the path the economy is currently traversing. The picture is by no means clear, but there have been several favorable developments. Preliminary data indicate that retail sales in October rose 2 percent, after a period of approximately 5 months in which they showed little change. The United States Department of Commerce estimates that sales rose to nearly \$18.6 billion in October, the highest figure since the record volume of \$18.9 billion in April 1960. The October increase is attributed to larger new car sales coupled with rising sales of apparel and general merchandising stores. October sales of new cars increased substantially over the Sep-

tember level but were still 1 percent below the total for October 1960. It is possible, however, that the uncertainties created by the series of strikes affecting this industry may have been a restraining factor on sales, for example, creating uncertainty as to delivery dates on certain models, so that the sales in the coming months may represent a better test of new car demand.

Industrial production recovered in October to the August level of 113 percent from 112 in September. Auto assemblies increased about one-fourth in October. Although there were work stoppages at some major auto assembly plants and supplying industries during the first two weeks of the month, the effect of these stoppages was less than in September. Both business and defense equipment output rose further in October to a level about 5 percent above the previous record high reached in mid-1960. Iron and steel output showed little rise, but the production of most other materials rose in October from the temporarily reduced levels in September.

Total employment, according to preliminary figures, increased in October to a record 67.8 million (seasonally adjusted). Most of this increase, however, was in the agricultural sector of the economy which was adversely affected by the unusual weather conditions in the prior month. It is possible, therefore, that this month's gain represents a return to more normal conditions. Unemployment (unadjusted) fell below the 4 million mark for the first time this year, but it usually declines during October and the seasonally adjusted unemployment rate remained at 6.8 percent. There were a number of changes in the Bureau of Employment Security's classification of the major labor market areas during October, all in the direction of improvement. Four of these areas (Baltimore, St. Louis, Seattle, and Flint) were reclassified to areas of "moderate unemployment" from

the "substantial unemployment" category. The number of major areas of "substantial unemployment" now stands at 68 compared with the alltime high of 101 during March and April of this year.

The total dollar volume of construction put in place declined slightly in October due to a minor reduction in private construction activity. The estimated \$58.4 billion was 0.3 percent below the record level attained in September.

Developments in the money and capital markets seemed to reflect the seasonal nature of the recent changes in the nonfinancial sectors, although prices in the stock market, after a number of reverses in September and October, advanced sharply in the second week of November. The United States Treasury continued to dominate the money and capital markets, with borrowings conducted in the period from September through November expected to cover all of the large deficit in the calendar year. Demands for both long- and short-term private credit have been moderate, with bank credit developments in recent weeks influenced mainly by Treasury financing. During the four-week period ended November 1, loans adjusted and investments at weekly reporting member banks increased by \$1.3 billion. The business loans of these banks rose by only a modest amount (\$309 million), and most of this increase came in the final week of the period. In October and the early part of November, the average level of required reserves of all member banks was higher than in September, while free reserves declined somewhat. With continued ease in bank reserve positions and only moderate private credit demands, interest rates showed little change in most of this period. Short-term rates did, however, move up appreciably in the second week of November as the pressures of additional Treasury bill issues and a less easy reserve position were felt.

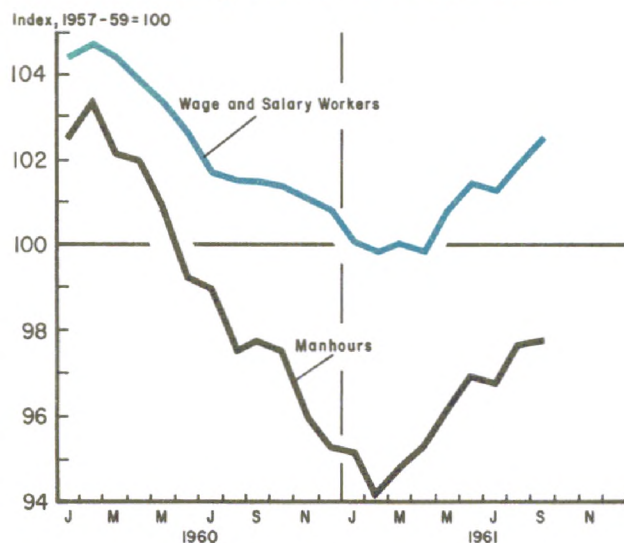
Meanwhile, back in the District

Civilian employment¹ in the Pacific Coast States, which rose 0.2 percent in September from August, increased an additional 0.4 percent in October. Unemployment in these states dropped by almost 3 percent in October, lowering the rate of unemployment to 6.8 percent of the labor force, the same as in the nation. October was the first month since February 1961 that the rate of unemployment on the West Coast had been under 7.0 percent. The number of unemployed, however, was more than 5 percent above February, in contrast to a drop of 1 percent in the nation as a whole. Insured unemployment under the state programs reached a high nationally in February and has been falling steadily since. In the District the comparable peak did not occur until July, and although there was a 4 percent drop in September, insured employment was still 5 percent greater than in February. Preliminary data for October showed that insured unemployment in the District fell considerably and was below the comparable 1960 level for the first time this year.

District nonagricultural employment increased in September by 0.4 percent to an alltime high of 7.2 million workers, which was 2 percent above February 1961. Gains occurred in every industry group except the transportation and public utilities category. Although the largest monthly increase was in contract construction employment, this was chiefly the result of a recovery from the effects of labor disputes in the Pacific Coast States during July and August. Construction employment in the District in September was still below the February level (0.6 percent), and average employment in the industry during the first nine months of 1961 was 9,600 less than the average during the comparable period in 1960. Only construction and trans-

¹ Employment data are seasonally adjusted except as noted.

Number of wage and salary workers and total manhours of production workers in Pacific Coast manufacturing continue to increase



Note: Data are seasonally adjusted.
Source: State departments of employment.

portation employment were below the September 1960 levels; the largest year-to-year increase was in government employment (4.6 percent), particularly state and local.

In October, nonagricultural employment in the Pacific Coast States rose 0.3 percent. All industry groups showed gains except transportation and public utilities, where employment was affected by the West Coast maritime labor dispute, and mining and trade, where employment was unchanged. The largest gain was in contract construction caused in part by a contraseasonal rise in activity in California. Manufacturing wage and salary employment increased 0.5 percent as employment in both durable and nondurable goods manufacturers rose above September.

Manufacturing production workers in the District earned \$2.70 per hour and worked an average of 39.5 hours during September, a drop of 0.2 hours from August and the shortest workweek since March of this year. Fewer hours were worked in lumber and wood products, furniture and fixtures, primary and

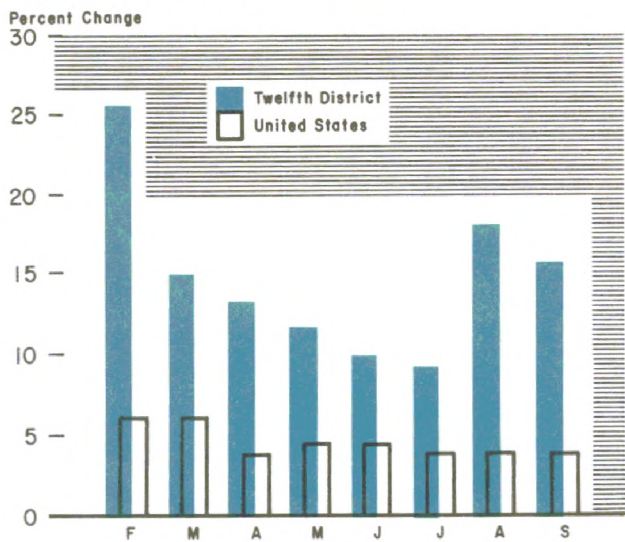
fabricated metals, and all the nondurable goods industries.

The Bureau of Employment Security in October reclassified Seattle, Washington from an area of substantial unemployment (6.0 percent to 8.9 percent) to one of moderate unemployment (3.0 percent to 5.9 percent). A sharp rise in transportation equipment manufacturing employment was one of the principal factors underlying this reclassification. Of the 15 major labor areas in the District, 8 now remain classified as areas of substantial unemployment (6.0 to 8.9 percent); they are Fresno Los Angeles-Long Beach, San Bernardino-Riverside-Ontario, San Diego, Stockton, Portland, Spokane, and Tacoma.

Construction up in September

Construction contracts in the amount of \$591 million were awarded in the District during September, up 5 percent from the corresponding month last year. This is in contrast with the nation as a whole, where contracts let were 4 percent below September 1960. This difference was due to the fact that residential contracts rose a little more in the District (+16 percent compared with +8 percent in the nation), and nonresidential awards fell somewhat less (-6 percent compared with -13 percent), as did contracts let for public works and utilities construction (-5 percent compared with -11 percent). The decline in nonresidential awards in the District occurred principally in the educational and science building category. This may have been in the nature of an erratic movement, however. On a cumulative basis, the level of awards for this type of construction is still above 1960. The lower level of contracts let for public works and utilities construction was due to a decline in utilities contracts. Street and highway contracts awarded were slightly above a year ago. The increase in residential contracts was reflected

Construction improves more in District than in the nation



Note: Data are the value of construction contracts for both the District and the nation. The percent changes are based on a comparison of the cumulative monthly totals for this year with the corresponding periods in 1960.
Source: F. W. Dodge Corporation.

in both single-family and multiple unit dwellings.

On a cumulative basis through September, year-to-year comparisons of contracts awarded still show more vigor in District construction activity than in the nation as a whole (+16 percent vs. +3 percent). This is due to the fact that nonresidential construction has been holding up better in the District (+7 percent vs. -1 percent) and because heavy engineering construction has expanded more in the District (+16 percent vs. +3 percent). The rapid increase in the latter has

COMPARATIVE RATES OF CHANGE IN DISTRICT CONSTRUCTION CONTRACTS LET, FIRST 5 AND 9 MONTHS OF 1961 AND 1960 AND CORRESPONDING PHASES OF 1958 AND 1957

	1961 (Jan.-May)	1961 (Jan.-Sept.)	1958 (March-July)	1958 (March-Nov.)
	1960 (Jan.-May)	1960 (Jan.-Sept.)	1957 (March-July)	1957 (March-Nov.)
Construction				
Total	12.1	16.3	9.0	7.5
Residential	1.6	5.5	28.1	28.0
Nonresidential	6.7	6.8	5.8	8.0
Heavy				
Engineering	48.0	15.9	-12.5	-20.7

Note: Data are not seasonally adjusted.
Source: F. W. Dodge Corporation.

been in large measure responsible for the fact that the trend in overall District construction in the current recovery and expansion has compared favorably with the prior one. Currently, however, this type of construction activity appears to be providing less impetus.

Vacancy rate trends and the multiple dwelling unit construction "boom"

September data recently available on vacancy rates and the unsold inventory of new homes in the Portland area indicate some improvement in the market for single-family homes from March 1961. On the other hand, apartment vacancies in that area increased over the same period. While more recent data on vacancy conditions in most other metropolitan areas in the District are not yet available, there is similarly evident in those areas increasing levels of multiple unit construction and a level of single-family unit construction that is below 1960.

While there is no simple explanation for increasing apartment construction in the face of relatively high vacancy rates, some of it may be due to the mobility of the population and industry. In San Diego, for example, it is reported that the high vacancy rate in apartment buildings is having little effect on multiple dwelling unit construction because vacancies are in buildings that are located in areas where families do not want to live. It is also suggested that some of the impetus may be coming from builders who are finding it difficult to make money by building single-family units on high-priced land. Their solution apparently is to build "up." Finally, there is a hypothesis that much of the stimulus comes from our tax laws which have made investment in multiple dwellings attractive because of an accelerated depreciation provision that was introduced in the mid-1950's.

Whether or not apartment construction in the District (as in the nation) is solidly based

is difficult to judge. There is, however, one long-term factor that augurs well for the future, and that is the likelihood that the substantial increase in household formations expected to begin in the mid-sixties will add households to our population who will be apartment dwellers, initially at least. Further discussion of housing prospects is contained in the companion article in this *Review*.

Lumber production cutback in October; prices up

Preliminary figures indicate a cutback in District lumber production during the month of October. Douglas fir output during the month fell 4 percent below September production and, contrary to previous experience, was below new orders received during October. Western pine mills apparently kept production below new orders also, but, according to these preliminary figures, pine output in October was slightly above the September level.

Lumber prices, which had fallen in the early part of October to a level equal to the winter low of last year, picked up during the latter part of the month. The price of green fir two-by-fours, an important home-building item, rose to \$60 a thousand board feet from a \$57 price in early October. This price increase was apparently due to the better market balance achieved by cutbacks in production rather than to any noticeable improvement in demand according to industry reports. There has been no indication of a change in the \$60 sanded fir plywood price established in early October.

District steel production steady; scrap copper prices fall

After increasing during the first two weeks of October, District steel production leveled off during the next three-week period. Although the Western index fell to 116 during the week ended November 4 from 121 in the

prior week, over the entire three-week period the weekly production data indicate little change from the early part of October. Steel production in the nation declined slightly over the same period. While there has been considerable speculation about the prospects of a pickup in demand from the auto industry and of customer inventory building partly as a hedge against a possible steel strike next year, neither is expected by the industry to have much immediate effect on steel production either in the nation or in the District.

The price of scrap copper has declined in recent weeks. At the end of the first week in November, smelters were reported to be bidding $24\frac{3}{4}$ to 25 cents a pound for scrap copper. The price of refined copper made from scrap at these prices is estimated to be about 30 to $30\frac{1}{4}$ cents a pound. However, the producer price for refined copper remained at 31 cents. The demand for copper during recent weeks is said to be less active than it has been, but producers still hope that November shipments will match the relatively high level of October. This hope seems to be based, in part, on the expectation that demands from the automobile industry will pick up.

October department store sales down from September

District department store sales in September rose 8 percent above the August level to reach a new record high for the seasonally adjusted series. Much of this increase appears to have resulted from substantial gains that occurred in metropolitan areas which had new store openings and from promotional sales which were held generally throughout the District. Preliminary seasonally adjusted estimates for October indicate that sales dropped about 5 percent from the September level, though they were 3 percent above a year ago. The areas with new stores continued to show gains commensurate with those in September, but this was more than offset by de-

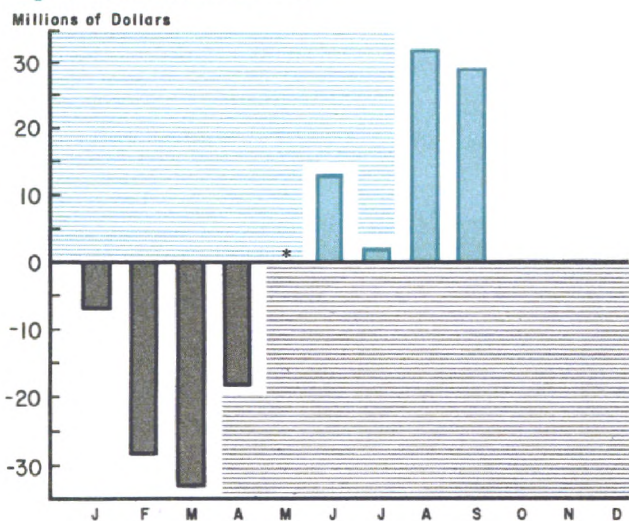
clines in other areas, particularly the Los Angeles-Long Beach area. Nationally, department store sales for October were up about 1 percent from September.

Daily average new car registrations in California during September were at their lowest level for the year, 1,484. In the first half of the month, daily average sales were above the August daily average, but during the second half of the month they dropped substantially, in spite of the introduction of new models toward the end of the month. California consumers, however, evidently began to respond to the new models in the first part of October, because during the first ten days of the month, daily average sales reached 2,116.

Farm income flow continues to rise; use of credit also higher

Returns from District farm marketings during September were up 6 percent from a year earlier. This increase helped raise total receipts for the first three quarters of the year to an amount only slightly below the comparable period of 1960. During the first half of the year, the receipts of District farmers were

Farm income in the District picks up in recent months



Note: Monthly farm income in 1961 compared with corresponding month in 1960.

*The same as in May 1960.

Source: United States Department of Agriculture.

down about 4 percent from a year earlier, but, with gains occurring in returns from both crops and livestock marketings during the third quarter, practically all of the income deficit at midyear has been eliminated.

Responses to a recent inquiry among banks in the District indicate that there has been an increase in the volume of credit extended to farmers by merchants and dealers as well as by commercial banks. Despite the larger volume of credit outstanding that is held by commercial banks, loans are generally considered in good condition with delinquencies and carryovers at a minimum. However, there were some exceptions in localized areas. An increase in the carryover of loans is expected in the wheat-producing areas of eastern Washington and in the dryland farming areas of Utah because of unfavorable growing conditions. Of all the types of major farm enterprises in the District, sheep producers are apparently in the most depressed financial condition, with prices continuing to sag. A further increase in the carryover of loans to such producers is anticipated, as well as an increase in the carryover of loans to farmers in areas of Arizona where shortages of ground water have occurred. Another winter of subnormal moisture may be expected to spread financial difficulties over a broader area of the District.

Loans, investments, and deposits increase at District banks

From mid-September to the first of November, total bank credit outstanding¹ at weekly reporting member banks in the Twelfth District rose nearly \$450 million. The gain was about equally divided between loans and investments. Business borrowing was the most important factor contributing to the loan increase. Seasonal demands of food, liquor and tobacco processors, and of commodity dealers, wholesalers, and retailers augmented a general increase in business loan demand in

¹ Adjusted to exclude valuation reserves and loans to domestic commercial banks.

FEDERAL RESERVE BANK OF SAN FRANCISCO

**CHANGES IN SELECTED BALANCE SHEET ITEMS OF
WEEKLY REPORTING MEMBER BANKS IN LEADING CITIES**

(dollar amounts in millions)

	Twelfth District				United States			
	From Sept. 20, 1961 to Nov. 1, 1961		From Nov. 2, 1960 to Nov. 1, 1961		From Sept. 20, 1961 to Nov. 1, 1961		From Nov. 2, 1960 to Nov. 1, 1961	
	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent
ASSETS:								
Total loans and investments	+ 346	+ 1.37	+ 2,258	+ 9.69	+ 1,647	+ 1.40	+ 8,421	+ 7.62
Loans adjusted and investments ¹	+ 443	+ 1.78	+ 2,299	+ 9.97	+ 1,547	+ 1.33	+ 8,323	+ 7.63
Loans adjusted ¹	+ 192	+ 1.23	+ 568	+ 3.72	+ 818	+ 1.15	+ 2,203	+ 3.16
Commercial and industrial loans	+ 130	+ 2.40	+ 246	+ 4.65	+ 159	+ 0.50	+ 235	+ 0.74
Real estate loans	+ 20	+ 0.37	+ 52	+ 0.97	+ 119	+ 0.91	+ 405	+ 3.15
Agricultural loans	— 7	— 0.93	+ 54	+ 7.79	+ 65	+ 5.68	+ 109	+ 9.90
Loans for purchasing and carrying securities	+ 37	+ 18.88	+ 76	+ 48.41	+ 307	+ 7.26	+ 964	+ 27.00
Loans to non-bank financial institutions	+ 16	+ 1.98	+ 18	+ 2.24	— 16	— 0.30	— 162	— 2.94
Loans to domestic commercial banks	— 97	— 32.33	— 41	— 16.80	+ 100	+ 7.51	+ 98	+ 7.35
Loans to foreign banks	+ 6	+ 2.96	+ 30	+ 16.76	— 27	— 4.89	— 164	— 23.80
Other loans	— 4	— 0.13	+ 114	+ 3.73	+ 211	+ 1.30	+ 929	+ 5.98
U. S. Government securities	+ 268	+ 3.91	+ 1,376	+ 23.96	+ 906	+ 2.73	+ 4,400	+ 14.82
Other securities	— 17	— 0.71	+ 355	+ 17.58	— 177	— 1.51	+ 1,720	+ 17.52
LIABILITIES:								
Demand deposits adjusted	+ 303	+ 2.61	+ 517	+ 4.54	+ 703	+ 1.12	+ 1,633	+ 2.64
Time deposits	+ 149	+ 1.14	+ 1,707	+ 14.80	+ 299	+ 0.73	+ 6,499	+ 18.72
Savings accounts	+ 206	+ 1.97	+ 1,043	+ 10.86	+ 459	+ 1.57	n.a.	n.a.

n.a. Not available.

¹ Exclusive of loans to domestic commercial banks and after deduction of valuation reserves; individual loan items are shown gross.
Sources: Board of Governors of the Federal Reserve System and Federal Reserve Bank of San Francisco.

the last week of October to bring about the largest weekly rise in business loans so far this year. Loans to petroleum and mining firms also rose early in October when a number of District banks participated in a national bank loan syndicate which financed the purchase of a large petroleum company. For this six-week period as a whole, there is some overstatement in the total net change in business loans due to adjustments made to correct for loans previously misclassified in bank reports. In the accompanying table, the "all other loan" classification, which is chiefly consumer loans, shows a small decline. When adjustment is made for previously misclassified loans, however, this category shows an actual upturn in the latter part of October. This would indicate that the usual seasonal increase in consumer borrowing at this time of year is taking place. Real estate loans con-

tinued to rise during the latter half of September and in October but at a somewhat slower pace than in the preceding four-week period. Securities dealers resorted more heavily to bank borrowing as a consequence of Treasury financing operations, and loans to sales finance companies were also up during this period.

The increase in United States Government security holdings at District weekly reporting banks in the latter half of September and in October was concentrated in Treasury bills and in securities in the 1-5 year maturity range. The latter increase was a result of bank acquisitions of the 3¼ percent notes of May 15, 1963 in the Treasury offering of October 11. A sizeable reduction occurred in holdings in the under-one-year range, and, as is usual at this time of year, there were numerous switches by individual banks be-

tween maturity categories, in part for tax purposes.

District banks were generally in a tighter reserve position in the last half of September and in October, as higher reserves were required to cover increases in tax and loan accounts resulting from purchases of Treasury securities in the recent offerings. On balance, however, District banks were net sellers of Federal funds for the period as a whole.

Total deposits of weekly reporting member banks registered a substantial gain in this period. Demand deposits adjusted were up \$300 million. The continued sharp rise in savings deposits more than offset reductions in time deposits of states and political subdivisions and of other time deposits.

As illustrated in the accompanying table, the percentage increase in loans, investments,

	Percent change from March 1, 1961 to September 27, 1961	
	Twelfth District	U. S. less Twelfth District
Loans, net	2.87	2.82
Investments, total	13.56	8.66
U. S. securities	13.79	9.46
Other securities	12.92	1.08
Total deposits	5.27	3.55
Demand deposits adjusted	4.09	2.56
Time deposits	8.41	9.19

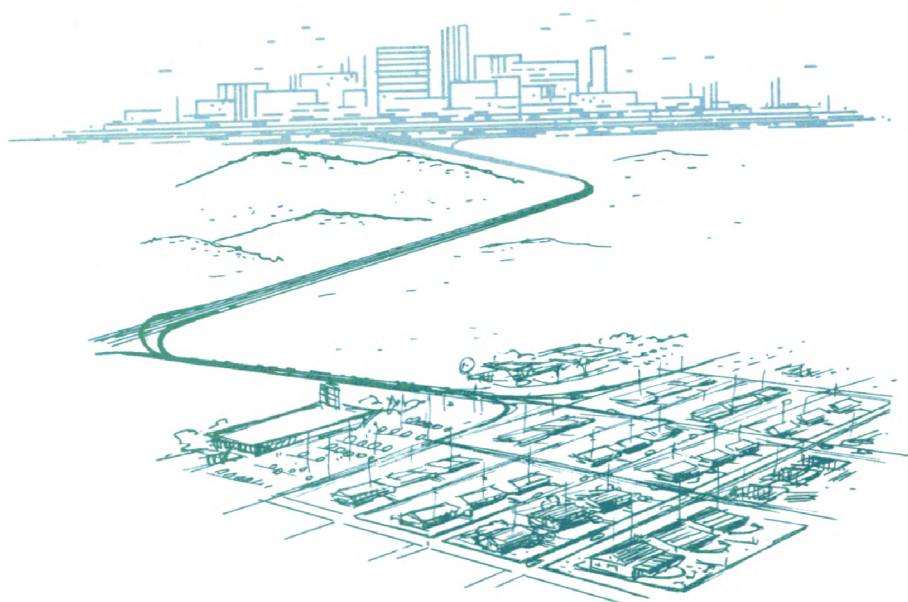
and deposits at all Twelfth District member banks from the business trough in February through September continued to exceed that for all member banks in the rest of the nation. On the basis of weekly reporting member bank data, the District in October continued to outpace other weekly reporting banks in gains in investments and deposits, but dropped behind the rest of the country in the percent increase in net loans.

Revised Indexes of Employment

(1947-1949 = 100)

The index bases for Twelfth District total nonagricultural employment and total manufacturing employment have been adjusted to reflect the revisions necessitated by the changes in the 1957 Standard Industrial Classification codes.

Underlying Demand Factors in the Housing Market



IN AN earlier article in this *Review*,¹ it was suggested that potential housing demand did not appear to be as strong as it was earlier, and that this might be an impediment to a strong upswing in residential construction comparable to those which began during the periods of overall economic decline in the years 1949, 1954, and 1958. The course of events during the past year has supported this view. Residential construction has picked up since the beginning of 1961, but the expansion that has taken place is of modest proportions. The average number of housing starts in the third quarter of this year was only 3 percent above the level which prevailed when business activity turned down in May 1960, whereas in prior cycles, after a similar time interval, home building was substantially above the level which existed at the preceding peak in business activity (30 percent in 1958 and 28 percent in 1954). Certainly there is nothing novel about the point that underlying demand conditions are less

buoyant than they were earlier in the postwar period, nor is it likely that many people have been surprised by the relatively modest expansion in home building that has taken place since the beginning of the year. Numerous statements have been made that housing demand is weaker than it was earlier, but there are relatively few systematic and detailed analyses of why this is so. While it is important to be right in judgments, if the right answer is reached for the wrong reasons, judgments concerning future prospects can easily miss the mark.

The purpose of this article is to consider in some detail the underlying demand conditions in the housing market, with particular emphasis on experience in the decade of the fifties. The concern with recent historical experience is partly a matter of necessity due to the incomplete and imprecise nature of current housing demand measures. It is also a matter of choice, however, because of the relevance of that experience to an evaluation of the current period. In some respects, events in the housing market during the fifties appear

¹ See "The Current Housing Situation in Perspective," Federal Reserve Bank of San Francisco *Monthly Review*, September 1960.

to be unique in terms of our overall historical experience. For example, although population and replacement factors are usually considered the main sources of new housing demand over longer periods of time, the level of home building was well above the expanding physical requirements generated by those two factors. The relevance of this to current discussions of housing demand arises from the fact that the magnitude of the "need" for new housing these two factors are expected to generate during the next three to four years does not differ significantly from that of the fifties. Consequently, if the peak levels of activity that were attained during the past decade are to be reached again in the more immediate future, the level of new construction will have to rise above these requirements. Is this likely to happen? The perspective gained from the analysis in this article is intended to help in evaluating the likelihood of whether it will.

THE UNDERLYING DEMAND FACTORS IN THE FIFTIES

Demographic factors and replacement demand

The overall demand for housing depends, fundamentally, on the size of the population and on how it chooses to organize itself into separate social units. Because of the size of our housing stock, however, most of this demand is satisfied by existing dwelling units. New construction is usually demanded only when there is population growth or when units are removed from the existing stock. That is why demographic factors and the demolition of existing units are emphasized as "underlying" forces in the study of new housing demand. Demographic factors refer to all those things which affect the size of the household population, the most important of which are the changing size and age composition of the population. The focus is on households simply because the household is the social

unit occupying the dwelling unit. Replacement demand arises, of course, when units are removed from the existing stock, either intentionally or unintentionally, with intentional removals growing in importance in recent years due to the expansion of urban redevelopment, slum clearance, and highway construction programs.

How important were demographic and replacement factors in the decade of the fifties? Although our information is incomplete, data from the 1956 National Housing Inventory indicate they were the two primary sources of housing demand from April 1950 through December 1956. During that period the sum of net household formations plus the number of housing units removed from the stock was equal to more than 80 percent of the total number of units added to the stock (Table 1). The most revealing aspect of these figures, however, is that they show the sum of these two to be less than the total. Thus, the 1956 National Housing Inventory indicates there were sources of demand other than the expansion in physical requirements generated by demographic and replacement factors during the first seven years of that period.

The course of events over the remaining three years was undoubtedly much the same. Household formations and replacement demand provided the basis for most of the new construction, but not all of it. When units are added to the stock at a rate which exceeds the expansion in the physical requirements, the result is a rise in the number of vacant units in the existing stock, as clearly happened during the period covered in the 1956 National Housing Inventory (Table 1). The steady rise in the vacancy rate over the last three years of the fifties, therefore, suggests that the level of new construction remained above the level of household formations and replacement demand during that period.

The rate of construction can, and often does, rise above the rate of household for-

TABLE 1
NET CHANGES IN HOUSING INVENTORY
 1950 through 1956
 (thousands of dwelling units)

Total number of dwelling units added to stock		Sources of demand	
New construction	10,920	Net household formations	7,048
Conversions	708	Units removed from stock	3,216
		Demolitions	1,131
		Merger	672
		Other means**	1,413
Other sources*	943	Increase in vacancies	2,307
TOTAL	12,571	TOTAL	12,571

*Units created from nonresidential space, units created from living quarters classified as nondwelling unit quarters in 1950, etc.
 **Units lost by change to quasi-dwelling unit, by change to nonresidential space, etc.
 Source: United States Bureau of the Census.

mations and replacement needs during relatively short periods of time, but this is usually associated with the cyclical movements that characterize the industry. When it continues over an extended period of time, however, as it did in the 1950's, there must be additional sources of demand. Such demand in the fifties accounted for nearly one-fifth of the total. Obviously, during that period a large number of "established" households moved from units in the existing stock into newly constructed ones. It is necessary, therefore, to analyze why these households chose to move. Much has been made of the importance of income and credit factors as determinants of demand through this period, and rightly so. Rising incomes along with the increased availability of mortgage funds at more liberal terms undoubtedly had much to do with bringing families into the housing market, but this statement leaves unanswered the fundamental question that arises in considering the underlying sources of this demand. Why were there so many families ready to take advantage of these favorable income and credit conditions?

Unsatisfactory housing arrangements as a source of potential demand

There are a number of reasons which, when coupled with the evidence that is available, suggest that most of the demand in the

fifties came from families who found their housing arrangements wanting both in terms of size and "quality." These families entered the market to buy bigger and better homes, thereby upgrading their housing standards. Throughout our history there have always been families who were dissatisfied with their housing arrangements; they are with us now and undoubtedly will continue to be with us for some time to come. There were, however, relatively more of them at the beginning of the fifties.

The seeds of much of this dissatisfaction appear to have been sown a number of years before. One factor, for example, that undoubtedly generated some of the dissatisfaction was the relatively low level of homebuilding during the period 1930 through 1945. Average annual housing expenditures during that 15-year period were not quite one-half the average for the twenties and only 13 percent of the average throughout the postwar period, although a considerable part of the difference in the latter is attributable to the postwar rise in prices. It is unlikely that many families did much to improve their housing arrangements given this level of construction, although few probably even considered the possibility during the depression years of the 1930's. As a consequence, however, some "pent up" desire for improved housing was being built up over the period, a

TABLE 2
HOME OWNERSHIP STATUS OF NONFARM FAMILIES¹
 (Percentage Distribution)

Age of head of family	1948			1949			1950			1951			1952		
	Owns	Rents	Neither ²	Owns	Rents	Neither ²	Owns	Rents	Neither ²	Owns	Rents	Neither ²	Owns	Rents	Neither ²
18-24	24	71	5	22	64	14	18	76	6	15	79	4	16	80	6
25-34	37	57	6	35	61	4	33	62	5	37	58	3	41	56	5
35-44	46	50	4	53	43	4	51	45	4	52	45	3	52	45	4
45-54	59	37	4	59	37	4	60	35	5	65	30	2	62	36	5
55-64	58	35	7	61	35	4	65	28	7	68	28	4	67	29	7
65 and over	64	29	7	60	31	9	65	30	5	65	30	7	65	28	5

¹ Includes one-person families.

² Families or spending units who live with relatives, received housing as part of compensation, live temporarily in housing they have sold, etc.

Source: Selected Surveys of Consumer Finances published in the *Federal Reserve Bulletin*.

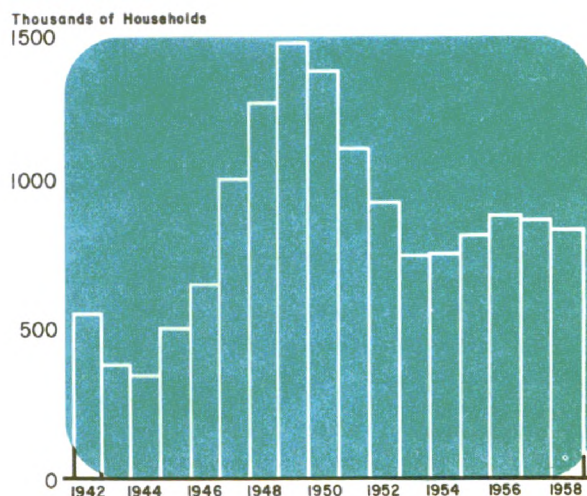
desire that became manifest under the conditions of economic prosperity which prevailed in the post World War II period.

The strong demographic pressures manifested between the years 1946 through 1950 were another factor (Chart 1). These pressures not only had immediate repercussions on demand evidenced by the sharp rise in new construction in this same period, they also turned out to be a reservoir of potential demand that had repercussions on new construction throughout most of the 1950's. Many of this relatively large number of new households formed in the immediate post-war period became a part of market demand in the fifties because they grew dissatisfied with their initial housing arrangement and subsequently re-entered the market. One major factor giving rise to this dissatisfaction was the fact that many of these households lived initially in rental housing but would have preferred to live in their own home. Much of the increase in household formations after the war resulted from a spurt in the number of marriages among younger persons, and studies of postwar family housing behavior have indicated that most young newly married couples lived in a relatively small rented unit. No doubt this was partly a matter of choice due to such things as their apparent desire to acquire other goods in preference to housing (automobiles, household

goods, etc.), their mobility anticipations, and their limited space needs. It was also a matter of necessity since their income and savings were probably not sufficient to permit them to buy the kind of housing they really wanted. Most of them, however, probably did not consider their apartment quarters to be anything more than a temporary living arrangement and looked forward to the day when they could live in their own home. As time passed, many of them undoubtedly became

CHART 1

Net household formations reach peak in late forties; much lower since then



Note: Data plotted are three-year moving averages.
 Source: United States Bureau of the Census.

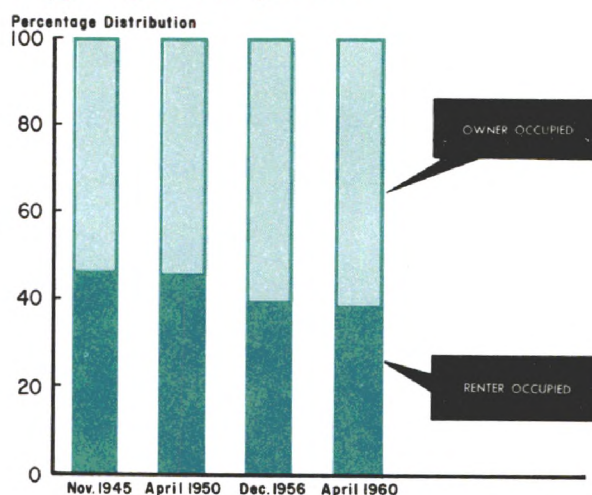
progressively more dissatisfied with their rental quarters.

The pervasiveness of this “desire to own” among renting families has been corroborated in studies made of family attitudes toward their housing during this period. That it provided the basis for a number of the housing adjustments made in the fifties is certainly suggested by the shift into home ownership that took place (Chart 2) and by studies which indicate that the “desire to own home” was an important motive underlying the home purchase plans and actual purchases of renting families during this period (Table 3).

Space pressure that was associated with increased family size was another important reason why many families became dissatisfied with their housing. In fact, the so-called “baby boom” was one of the most significant factors underlying housing demand throughout the entire postwar period. The major impact was on relatively young families who were likely to have been married for a short period and who probably had a housing arrangement that could not accommodate much of an expansion in family size (Table 4). The

CHART 2

Noticeable shift to home ownership in postwar period



Source: United States Bureau of the Census.

“baby boom” also reversed, temporarily at least, the traditional pattern of larger families primarily among the low income, nonwhite families in the population. The increased number of births occurred in white as well as nonwhite families (Table 5) and affected families in all income groups (Table 6). These two aspects of the boom were particularly important because they meant that many of the families whose size was being increased were in a better position to make a subsequent space adjustment than had been the case before. There was less constraint imposed upon their actions by virtue of the color of their skin and they were better able financially to do something about the space problems that increasing size created.

Increasing family size, of course, led to the need for more living space, particularly for bedrooms. The space pressures thereby generated were not easily accommodated by making adjustments within the housing in which they resided at the time. Housing space adjustments, then as now, usually involve a change in residence. That these pressures (in the sense of inadequate space) gave rise to dissatisfaction and thereby brought families

TABLE 3

CONSUMER RESPONSE TO STATED NEED FOR CHANGE IN HOME 1955

(Spending units stating need as a percentage of nonfarm spending units within groups indicated)

Need For Change	Plans to buy a home or to make additions or repairs		
	Owners	Renters ¹	Others ²
Present home too large	5	2	—
Present home too small	29	29	19
Unsatisfactory neighborhood or location	17	10	8
Operating expense too high	2	10	2
Other unfavorable features	14	9	8
Desire to own home		66	54
Expect change in job location	12	4	6

¹ Includes only spending units responsible for rent of entire dwelling unit.

² Spending units that jointly rent home, live with relatives, rent rooms from nonrelatives, receive housing as part of compensation, live temporarily in houses they have sold, etc.

Source: “1955 Survey of Consumer Finances,” *Federal Reserve Bulletin*, August 1955.

TABLE 4
BIRTH RATES BY AGE OF MOTHER
1940-1958

(Birth rate per thousand females)

	Age Groupings							
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49
1940	0.2	45.3	131.4	123.6	83.4	45.3	15.0	1.6
1941	0.2	47.6	141.6	130.1	85.2	45.1	14.3	1.4
1942	0.3	51.8	162.9	145.6	92.3	47.2	14.1	1.3
1943	0.3	52.1	161.1	150.7	100.2	52.2	15.0	1.3
1944	0.3	45.3	147.9	137.7	98.2	54.1	15.5	1.2
1945	0.3	42.1	134.7	133.1	100.5	56.3	16.0	1.4
1946	0.3	50.6	179.8	164.0	110.0	58.4	15.9	1.3
1947	0.4	69.8	207.9	179.1	113.0	58.4	16.1	1.2
1948	0.4	71.1	195.5	163.9	103.6	53.5	15.2	1.1
1949	0.4	72.1	194.6	165.2	101.5	52.2	14.6	1.1
1950	0.4	70.0	190.4	165.1	102.6	51.4	14.5	1.0
1951	0.4	75.5	206.5	173.1	107.0	52.5	14.5	1.0
1952	0.4	74.3	212.9	179.2	111.7	54.7	14.6	1.0
1953	0.4	76.5	218.9	181.8	111.2	55.6	14.7	1.0
1954	0.4	78.5	229.4	186.0	114.2	56.8	15.1	1.0
1955	0.4	78.6	233.7	188.0	113.4	57.2	15.0	1.0
1956	0.4	83.0	244.1	192.1	113.3	57.7	15.2	0.9
1957	0.4	85.3	250.4	197.3	114.6	58.3	15.3	0.9
1958	0.1	81.1	248.3	195.3	112.9	56.0	14.8	0.9

Note: Data are for white females and are adjusted for under registration.
 Source: United States Department of Health, Education, and Welfare.

into the housing market is clearly reflected in all postwar studies of family mobility (see Table 3, for example). There were, however, two aspects to this dissatisfaction. The initial or immediate effects associated with the actual expansion in family size undoubtedly brought a large number of families into the market seeking larger homes during the peak period of the "baby boom." If these families had acquired, at that time, a housing arrangement that would have provided for all of their future space needs, then the major impact of this boom would have occurred during those years. Most of the families, however, probably did not make this kind of adjustment. Not only is it unlikely that they acted with as much foresight as this implies, but they were probably not in a financial position to do so. They were young and their incomes were low in relation to the peak levels likely to be attained as they grew older. In addition, their

expanding size undoubtedly increased the need for expenditures in other directions, such as on food and clothing, thereby reducing the amount of income they had available to spend on housing. Thus, many of these families undoubtedly found that they had another space problem when their size reached its maximum and their children began to mature. The "aging" of the children was particularly important since maturing children usually increase the need for more bedrooms, especially in those families whose children consist of both boys and girls. This incentive, coupled with the fact that many of these families were now in a better financial position to pay for larger and otherwise more satisfactory housing, must have brought many families into the market for another "space" adjustment. These secondary effects probably reached their peak around the middle part of the fifties in view of the fact that the increase in

TABLE 5
BIRTH RATE BY COLOR OF MOTHER
1940 - 1958

(Birth rate per thousand families)

	Color	
	White	Nonwhite
1940	18.6	27.3
1941	19.5	27.7
1942	21.5	28.3
1943	22.1	27.4
1944	20.5	26.5
1945	19.7	27.4
1946	23.6	26.5
1947	26.1	28.4
1948	24.0	31.2
1949	23.6	32.4
1950	23.0	33.0
1951	23.9	33.8
1952	24.1	33.6
1953	24.0	34.1
1954	24.1	34.9
1955	23.8	34.7
1956	24.0	35.4
1957	24.1	35.2
1958	23.4	34.2

Note: Data are adjusted for under registration.
 Source: United States Department of Health, Education, and Welfare.

the number of maturing children (5 through 14 years) in the population reached a maximum at that time (Chart 3). The impact of the "baby boom" on housing demand thus extended well beyond the time at which the boom in babies began to level off.

The preference for the "suburban way of life" was another factor that was ostensibly responsible for bringing many families into the housing market throughout the fifties. Its actual importance is open to question, however, since it reflects in considerable degree the influence of the desire for home ownership and for more space. American families did not merely want to move to the suburbs; rather they wanted to own homes of the kinds which were usually available in the suburbs. Nevertheless, some of the movements to the suburbs may have been for reasons other than these, for example, escape from the congestion of the city, so that this locational preference was undoubtedly in itself a source of some new housing demand throughout that period.

Housing demand and new construction

The presence of a large number of families who were dissatisfied with their housing arrangements may explain why a large number of families would enter the housing market during periods in which income and credit conditions were favorable, but there remains the question of why this demand has such a major impact on new construction. Because of the large size of the existing stock of housing facilities, the majority of the great number of housing adjustments that are made each year involves "used" housing. What takes place in the housing market each year is somewhat analogous to the game of musical chairs. A large number of moves are made that result in residence "exchanges," not literally, but in the sense of A moving into B's residence who in turn moves into C's residence, and so on. Thus, many of the housing adjustments made by "dissatisfied" families throughout the 1950's were undoubtedly accomplished by a series of residence "exchanges." A large number of them, however, involved a move into new housing and did so because of the preference for such housing.

TABLE 6
NUMBER OF CHILDREN BORN PER 1,000
WOMEN CLASSIFIED BY
HUSBAND'S INCOME, MARCH 1957
AND APRIL 1952

Husband's Income in Previous Calendar Year	Standardized for age ¹	
	1957	1952
Total Reporting	2,335	1,966
Under \$1,000	2	2
\$1,000 to 1,999	2,889	2,165
2,000 to 2,999	2,472	2,013
3,000 to 3,999	2,360	1,901
4,000 to 4,999	2,215	1,814
5,000 to 6,999	2,220	1,929
7,000 and over	2,160	2,008

¹ Standardization is the statistical procedure which seeks to reduce the effect of intergroup difference in the distribution by age. This permits comparison of (standardized) fertility rates with assurance that such differences are not simply the result of one group having relatively more or less women than another group at certain ages.

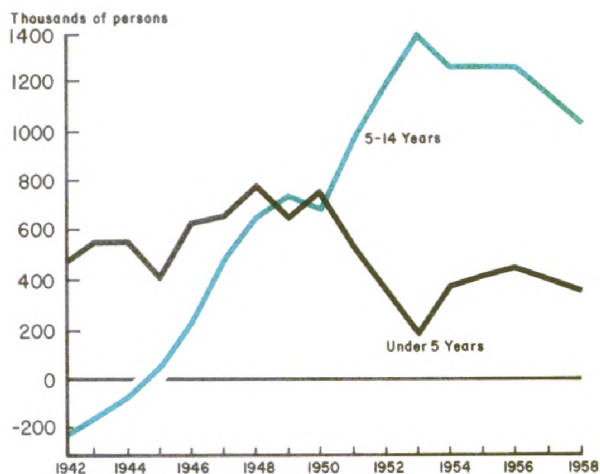
² Standardized rates not shown where several component 5-year age groups contain fewer than 150,000 women.

Note: Data relate to women 15 years old and over, married, and still living with husband.

Source: United States Bureau of the Census.

A part of this preference for new homes arose from the fact that they were easier to buy than “existing” ones. Terms on mortgage credit favored the purchase of new housing. Permissive down payments and the length of the amortization period, for example, were usually less stringent on new houses, thereby making them more accessible to prospective buyers. The seller’s market that prevailed through most of the period may have been a factor since it created prices for used houses that often appeared high relative to the age of the house. Perhaps the most important reason, however, was the fact that the families who made the adjustments could not find in the used housing available to them the kind of housing they wanted. At least this is strongly suggested by the available evidence on the characteristics of new dwelling units constructed since the end of the war (Table 7). Increasingly large and more expensive units were built over the period, which certainly suggests that the units available in existing stock were not well suited to the demands for “bigger and better” housing. In addition, a very large number of single-family homes were built to accommodate the shift into ownership housing that occurred. The fact that many of the families who bought these homes were renting at the time of their purchase is particularly important. Their moves had important repercussions on new construction because the possibilities of residence “exchange” were much less likely. These “exchanges” take place when there is some correspondence between the kind of housing families demand and the kind they make available upon entering the market. While the extent of correspondence depends on a variety of factors, it is clear that when there is a substantial shift in tenure arrangements like that which occurred in the postwar period, there is apt to be little correspondence. Under those circumstances, the families who enter the market are interested in

CHART 3
Number of persons under 14 increased rapidly in postwar period



Note: Data plotted are three-year moving averages.
 Source: United States Bureau of the Census.

buying a home, whereas they are making rental units available.

IMPLICATIONS FOR THE FUTURE

The conclusion suggested by this review of events in the fifties is that the level of new construction during this period appears to have been maintained above the physical requirements generated by demographic and replacement factors because of the demand that came from families who were dissatisfied with their housing and who had the financial capacity to do something about it. In other words, there was a substantial amount of upgrading during this period which had a significant impact on the volume of new construction because of the preference for new housing.

In looking toward the future, it is obviously important to consider the question of whether or not more of the same is to be expected, a question that concerns the *number* of families who might make such housing adjustments. Although precise estimates cannot be made, when the factors discussed in the foregoing analysis are examined in their current

TABLE 7
CHARACTERISTICS OF NEW ONE-FAMILY HOME TRANSACTIONS INSURED BY THE FEDERAL HOUSING ADMINISTRATION UNDER SECTION 203

(selected years)

	FHA estimated value ¹ (Median)	Calculated area square feet (Median)	Number of rooms (Average)
1950	7,693	838	4.6
1952	8,415	923	5.3
1954	8,876	961	4.9
1955	9,477	1,022	5.1
1956	10,203	1,064	5.2
1957	10,820	1,105	5.3
1958	10,682	1,092	5.4
1959	10,429	1,095	5.4
1960	10,456	1,091	5.5

¹ These estimates have been deflated using Boeckh's index of construction cost for residences.
 Source: Federal Housing Administration.

setting, it seems clear that their number is less. As indicated above, the large increase in the number of marriages in the immediate postwar period was a particularly important demand factor throughout the 1950's. These pressures began to subside in the early part of this period, however, and have been relatively weak since then. The average number of marriages throughout the fifties, for example, was close to one-fourth less than the average of the four-year period immediately following the end of the war. In recent years, therefore, there have been relatively small additions to the number of those families who provide the type of potential demand discussed above, that is, the demand arising from those who will re-enter the market, perhaps more than once, to upgrade some aspect of their housing standards. Since a large number of the families who were a part of this reservoir of potential demand earlier did something about it, the total number of these families has to be less now than it was ten years ago.

It is also likely that the problem of inadequate space is of less serious proportions now than it was earlier. Inadequate housing space,

as indicated above, was an important source of discontent throughout the fifties due primarily to a rapid expansion in the size of the pre-teen population. In recent years, this expansion has slowed considerably, which means that, in the aggregate, requirements for housing space are being increased less rapidly than before. Consequently, the overall need for additional space is less of a demand factor than it was at the beginning of the last decade. Another aspect of recent population developments that may have some bearing on future housing demand is the fact that the larger families once again seem to be becoming the domain of the lower income families (Table 6). If this continues and the traditional pattern is restored, population growth can be expected to exert relatively less influence on housing demand through its impact on the housing space demands of individual families than was the case earlier in the post-war period.

Finally there is the matter of that reservoir of demand consisting of families who are currently living in rental units but who would prefer a home ownership arrangement. As indicated above, there were many of these families in the early postwar period whose subsequent shift into home ownership provided a strong stimulus to new construction. Whether or not this shift will continue, therefore, has some bearing on an evaluation of the prospects for the future. Will the pendulum swing beyond the present 60 percent home ownership ratio or has a peak been reached?

This is, of course, a difficult question because of the complexity of the behavior underlying the tenure preference of the American household. Nevertheless, there are certain indications which suggest that, for the present at least, if the peak has not been reached we may be fast approaching it. For one thing, the shift into home ownership in recent years has slowed perceptibly (Chart 2). For another, the proportion of rental

units being constructed has increased in recent years. Beginning in 1956, rental units have become an increasingly larger proportion of new dwelling unit construction, reaching 21 percent of the total in 1960 compared with 9 percent in 1953. If this trend continues, it would strongly suggest that a peak in the home ownership rate has been reached. If so and the home ownership rate stabilizes at its current level, this would mean the loss of another source of new housing demand that was of considerable importance throughout the 1950's.

A smaller demand potential, of course, means that upgrading of the kind which occurred in the fifties is likely to be less important in the future. Since the demand currently being generated by demographic and replacement factors is not too different from that in the fifties, it seems reasonable to conclude that the overall demand situation is weaker than it was ten years ago. New developments, of course, can arise which would alter this conclusion.¹ If, however, there are no "revolutionary" developments that alter the general correctness of this conclusion, it has one interesting implication with respect to movements in residential construction vis-a-vis those in the economy as a whole.

Throughout the entire postwar period, residential construction has tended to lead the cyclical movements in the overall economy. This has been due mainly to the sensitivity of housing demand to changes in the availability of credit, and that availability, in turn, has tended to move inversely to the general business cycle. Thus, in periods preceding the peak of economic expansion, the number of families excluded from the new home market by virtue of the reduced availability of mortgage funds has more than offset the effect on residential construction of fami-

lies who came into the new home market in response to the rising incomes and improved income prospects associated with that period. The converse has been true in the periods preceding the trough of downward movements in the economy.

The apparent sensitivity of housing demand to changes in the availability of mortgage credit was no doubt due to the large number of "marginal buyers" in the market. Such families entered the market to buy a new home primarily when mortgage terms became exceptionally liberal and stayed out of the market when these terms stiffened. For the most part, these were families who were a part of the demand discussed above. They were the families who had been married relatively short periods of time, many of whom were living in rental dwellings and had a problem of inadequate space, but who, because of their income and equity positions, could do very little about their housing situation unless they could obtain mortgage credit on very liberal terms. The smaller number of such families now suggests that this type of "marginal buyer" is currently a less important market factor, and the response of demand to the liberalization of terms that has already occurred offers some support to this view. Therefore, housing demand in the future may be less sensitive to any changes in the availability of mortgage credit that occur. The volume of residential construction may, therefore, tend to move with rather than lead the cyclical movements in the economy because the number of families responding to changes in income and income prospects may well outweigh the number of families who are affected by changes in the availability of credit. In other words, in the more immediate future "income" effects may tend to become more important than "credit" effects.

Looking beyond the immediate future, it is anticipated that the number of marriages and household formations will increase sharp-

¹ Even as recently as 1950, for example, many analysts might have considered it sufficient to focus solely on demographic and replacement factors in studying the underlying demand factors in the housing market.

ly beginning in the mid-1960's when there will be a substantial increase in the number of persons between the ages of 18 to 25. Since the majority of persons within this age group who form a separate household will probably want to rent rather than own, the initial impact of this population pressure is likely to be on the demand for rental units. Subsequently, however, many of them, especially those who are married and whose family size is increasing, can be expected to purchase a house. Their decision as to when to buy is likely to be strongly influenced by conditions prevailing in residential mortgage markets. Credit availability, therefore, may again rise in relative importance as a factor in determining housing demand at that time and perhaps may come to play a role comparable to that in the 1950's.

CONCLUSIONS

The market for housing attracts attention because it represents one of our largest and most widespread industries and because there have been fairly strong fluctuations in home building in the postwar period. Until recently the emphasis among analysts has been on these fluctuations, which were generally timed so that residential construction began to turn down before the peak in overall business activity and began to turn up sooner than did business generally, thereby smoothing the business cycle somewhat. The explanation advanced for this behavior stressed the cost and availability of mortgage credit. In the recent cycle, however, this sequence has failed to materialize for a number of reasons.

The most important of these, discussed at length in this article, is that the level of demand for new houses is not as high as it was earlier in the postwar period, that is, there is not readily available a large margin of unsatisfied housing needs which can be translated into effective demand by a small decline in interest rates or a softening of other terms of payment. The decline in demand, broadly speaking, is a result of the reduction in "upgrading" of housing. Immediately after the end of World War II there was a large increase in the number of marriages and in the birth rate. A large volume of new housing was built as existing housing did not fit the standards of the newly married. Existing housing, and some of the newer housing as well, in turn became less satisfactory as families increased in size. With a backlog of dissatisfaction to work against, changes in mortgage terms and availability of funds coupled with provision of more satisfactory housing brought prompt responses. Marriage rates have actually been declining since the early part of the 1950's, and the birth rate has tended to level off. Demand being generated by population and replacement factors at present differs little from that of the fifties; but, because the backlog for "upgrading" housing has been sharply reduced, overall demand is weaker than it was ten years ago. Until either these basic factors change in the mid-sixties or consumers are otherwise made unhappy with their existing housing, residential construction may be expected to respond more closely to changes in income than to changes in interest rates.



BANKING AND CREDIT STATISTICS AND BUSINESS INDEXES—TWELFTH DISTRICT¹

(Indexes: 1947-1949=100. Dollar amounts in millions of dollars)

Year and Month	Condition items of all member banks ^{2, 7}				Bank debits index 31 cities ^{4, 5}	Bank rates on short-term business loans ^{6, 7}	Total nonagricultural employment	Total mfg employment	Car-loadings (number) ⁵	Dep't store sales (value) ⁵	Retail food prices ^{7, 8}
	Loans and discounts	U.S. Gov't securities	Demand deposits adjusted ³	Total time deposits							
1929	2,239	495	1,234	1,790	42	....	...	...	102	30	64
1933	1,486	720	951	1,609	18	....	...	...	52	18	42
1939	1,967	1,450	1,983	2,267	30	....	60	57	77	31	47
1951	7,866	6,463	9,937	6,777	132	3.66	112	121	101	112	113
1952	8,839	6,619	10,520	7,502	140	3.95	118	130	100	120	115
1953	9,220	6,639	10,515	7,997	150	4.14	121	137	100	122	113
1954	9,418	7,942	11,196	8,699	153	4.09	121	134	96	122	113
1955	11,124	7,239	11,864	9,120	173	4.10	127	144	104	132	112
1956	12,613	6,452	12,169	9,424	190	4.50	134	154	104	141	114
1957	13,178	6,619	11,870	10,679	204	4.97	139	161	96	140	118
1958	13,812	8,003	12,729	12,077	209	4.88	138	153	89	143	123
1959	16,337	6,673	13,375	12,452	237	5.36	146	165	94	157	123
1960	17,139	6,964	13,060	13,034	253	5.62	150	165	88	156	125
1960											
October	16,958	6,626	12,848	12,628	263	....	150	163	85	161r	126
November	16,898	6,697	12,907	12,616	248	....	150	162	85	153r	126
December	17,139	6,964	13,060	13,034	258	5.50	150	162	87	159	127
1961											
January	16,751	6,984	13,010	13,121	254r	....	150	161	84	154	127
February	17,525	6,991	12,750	13,639	273r	....	150	161	83	164	127
March	17,517	6,916	12,860	13,754	273r	5.48	150	161	83	160	127
April	17,637	7,436	13,222	13,999	266r	....	150	160	88	164	127
May	17,632	7,393	12,865	14,289	265r	....	151	162	81	153	127
June	17,578	7,571	12,935	14,371	268r	5.50	152	163	85	162	126
July	17,504	7,935	13,206	14,492	267r	....	152	162	86	167	126
August	17,779r	7,863r	13,212	14,656	262r	....	152	164	84	157	125
September	18,028	7,955	13,317r	14,786	277	5.45	153	165	87	170	126
October	17,901	8,190	13,901	14,867	291	....	153p	165p	99	164	...

Year and month	Industrial production (physical volume) ⁵							Waterborne Foreign Trade Index ^{7, 9, 10}					
	Lumber	Petroleum ⁷		Cement	Steel ⁷	Copper ⁷	Electric power	Exports			Imports		
		Crude	Refined					Total	Dry Cargo	Tanker	Total	Dry Cargo	Tanker
1929	95	87	78	55	...	103	29	190	150	247	124	128	7
1933	40	52	50	27	...	17	26	110	...	...	72	...	...
1939	71	67	63	56	24	80	40	163	107	243	95	97	57
1950	114	98	103	112	125	115	120	92	80	108	144	145	103
1951	113	106	112	128	146	116	136	186	194	175	162	140	733
1952	115	107	116	124	139	115	145	171	201	130	204	141	1,836
1953	116	109	122	131	158	113	162	141	138	145	314	163	4,239
1954	115	106	119	133	128	103	172	133	141	123	268	166	2,912
1955	122	106	124	145	154	120	192	166	178	149	314	187	3,614
1956	120	105	129	156	163	131	209	201	261	117	459	201	7,180
1957	106	101	132	149	172	130	224	231	308	123	582	216	10,109
1958	107	94	124	158	142	116	229	212	212	123	564	221	9,504
1959	116	92	130	174	138	99	252	188	223	138	686	263	11,699
1960	110	91	134	161	154	129	271	241	305	149	808	269	14,209
1960													
October	103	91	131	159	127	144	275	244	347	97	779	238	9,240
November	100	91	135	155	129	141	276	220	306	97	826	254	15,744
December	99	91	137	151	133	137	274	271	338	175	1,046	245	21,919
1961													
January	101	91	134	159	111	139	277	235	318	118	779	218	15,394
February	101	91	134	176	152	134	276	248	362	95	666	233	11,985
March	103	92	131	178	162	137	285	264	363	124	952	252	19,268
April	114r	92	135	168	172	133	283	261	331	163	759	286	13,139
May	111r	92	143	169	191	143	...	265	331	171	865	292	15,856
June	111r	91	142.5p	188	187	143r	...	224	290	128	684	267	11,535
July	110	...	...	157	183	129p	...	333	299	138	1,027	297	20,025
August	...	...	...	160	180	...	...	...	...	...	...	...	...
September	...	...	...	163	174	...	...	...	...	...	...	...	...
October	...	...	...	...	181	...	...	...	...	...	...	...	...

¹ Adjusted for seasonal variation, except where indicated. Except for banking and credit and department store statistics, all indexes are based upon data from outside sources, as follows: lumber, National Lumber Manufacturers' Association, West Coast Lumberman's Association, and Western Pine Association; petroleum, cement, and copper, U.S. Bureau of Mines; steel, U.S. Department of Commerce and American Iron and Steel Institute; 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. Department of Commerce.

² Annual figures are as of end of year, monthly figures as of last Wednesday in month.

³ Demand deposits, excluding interbank and U.S. Government deposits, less cash items in process of collection. Monthly data partly estimated.

⁴ Debits to total deposits except interbank prior to 1942. Debits to demand deposits except U.S. Government and interbank deposits from 1942.

⁵ Daily average.

⁶ Average rates on loans made in five major cities, weighted by loan size category.

⁷ Not adjusted for seasonal variation.

⁸ Los Angeles, San Francisco, and Seattle indexes combined.

⁹ Commercial cargo only, in physical volume, for the Pacific Coast customs districts plus Alaska and Hawaii; starting with July 1950, "special category" exports are excluded because of security reasons.

¹⁰ Alaska and Hawaii are included in indexes beginning in 1950.

p—Preliminary. r—Revised.

