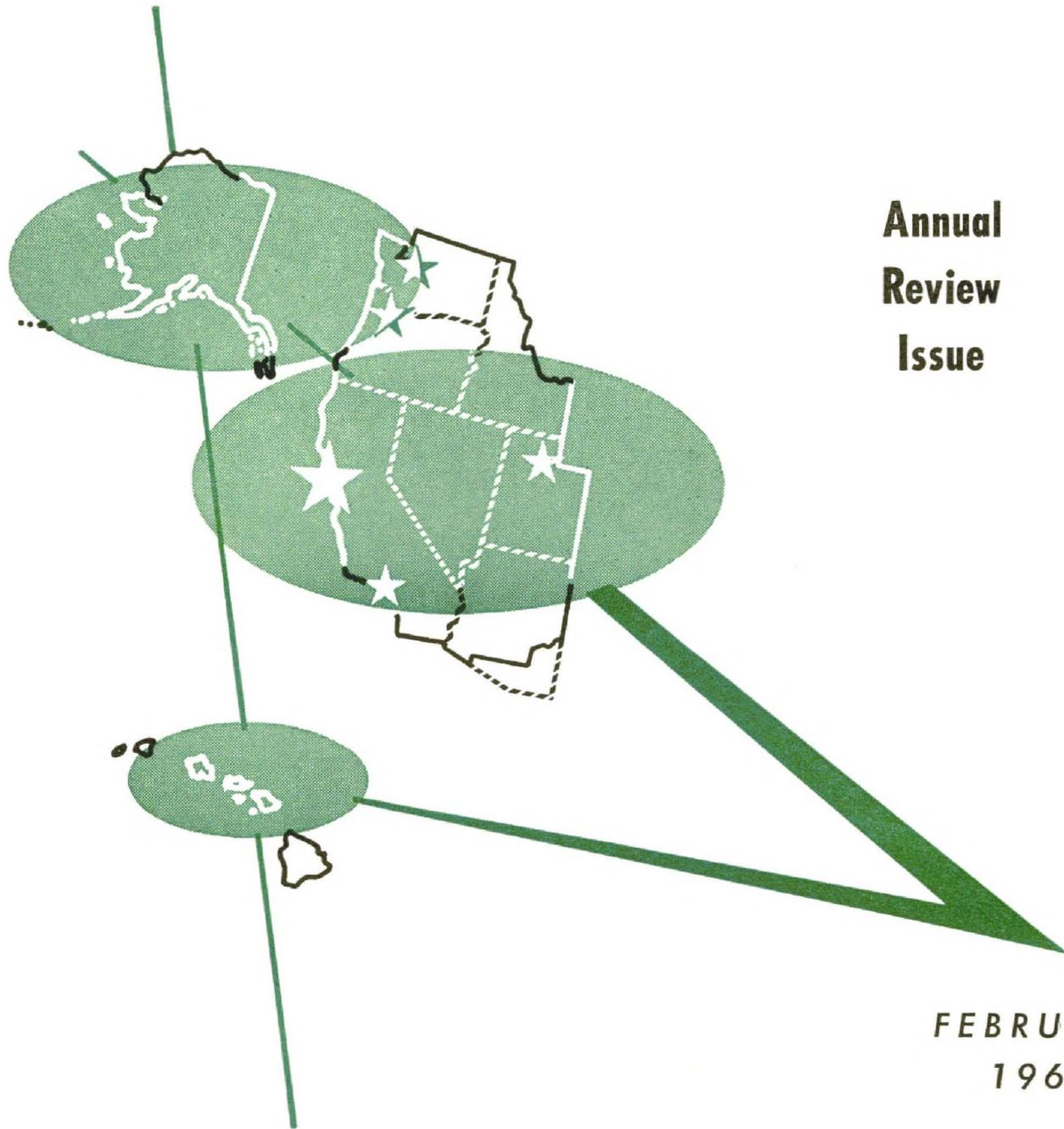


FEDERAL RESERVE BANK OF SAN FRANCISCO

MONTHLY REVIEW

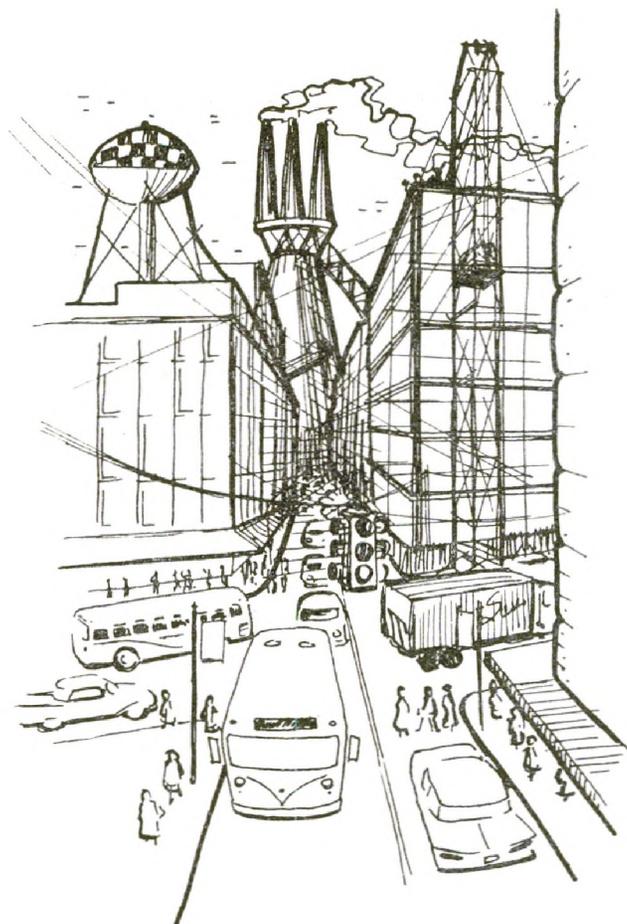


**Annual
Review
Issue**

**FEBRUARY
1967**

Annual Review1966

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The Boom: '66 Style

THE curtain rang down on the second third of the twentieth century as 1966 came to a close, and at this juncture the nation's total output reached almost three-quarters of a trillion dollars. GNP rose sharply to \$740 billion during the year, and although part of that 8½-percent increase was eroded by rising prices, what was left was a solid 5½-percent increase in real output of goods and services. The expansion in real terms thus was almost as great as in the preceding year, a year of vigorous prosperity. The boom, without a doubt, remained very much alive through most of 1966.

Worth an A grade?

Professor Paul Samuelson, assessing the year's performance for the readers of *News-*

week, gave 1966 an "A" grade in terms of real growth. ("Who would have expected a rise of 4 percent or more in the sixth year of economic expansion?") He also gave the year a good solid "A" for its employment performance as the unemployment rate dropped below 4 percent for the first time in a decade, although he was forced to withhold an "A+" grade because of the persistence of structural unemployment among teenagers and non-whites.

But where price stability was concerned, Professor Samuelson—and everyone else—could give 1966 no better than a "C" grade, since wholesale prices surged upward until late in the year and since the consumer index in particular jumped by 3-percent over the

1965 level. Early in the year the economy suffered from the demand-pull pressures typical of wartime and business-investment booms, as the military and civilian sectors each scrambled for resources; late in the year the economy was threatened by a cost-push type of inflation as the labor and management sectors each struggled to maintain its share of income.

The 3-percent increase in consumer prices, although it represented by no means a raging inflation and although it was in line with what the prosperous countries of Western Europe are normally accustomed to, nonetheless changed the entire psychological climate of the boom. It helped erode the wage-price guideposts, especially after an airline mechanics' strike was settled in midsummer with a 5-percent annual wage increase, and it underlay a sharp upsurge in interest rates and a sharp downturn in confidence among the inhabitants of Wall Street.

Grinding of gears

In policy terms, 1966 was marked by a harsh grinding of gears. Fiscal policy played a part in combating the price upsurge, as the Treasury withdrew scheduled excise-tax reductions, introduced graduated withholding taxes, speeded up corporate tax payments, and suspended temporarily the tax credit for business investment. Even so, most of the burden of suppressing the price upsurge fell upon monetary policy. As practically all policy weapons were called into play to reverse an over-rapid increase in the money supply and in bank credit, interest rates surged upward to the highest levels since the 1920s. In the autumn months, however, fiscal policy began to play a stronger role and monetary policy began to ease in response to easing pressures throughout the economy.

At this point, industrial production stabilized—it had grown at a 13-percent annual rate during early 1966—as businessmen began to re-schedule production in order to deal

with their rapidly growing inventories. By late year, then, the awesome uncertainties of midsummer were replaced by a more familiar problem of maintaining rapid growth and price stability in a context of full employment. In this more familiar environment, the stock and bond markets showed signs of life again after their severe earlier buffeting.

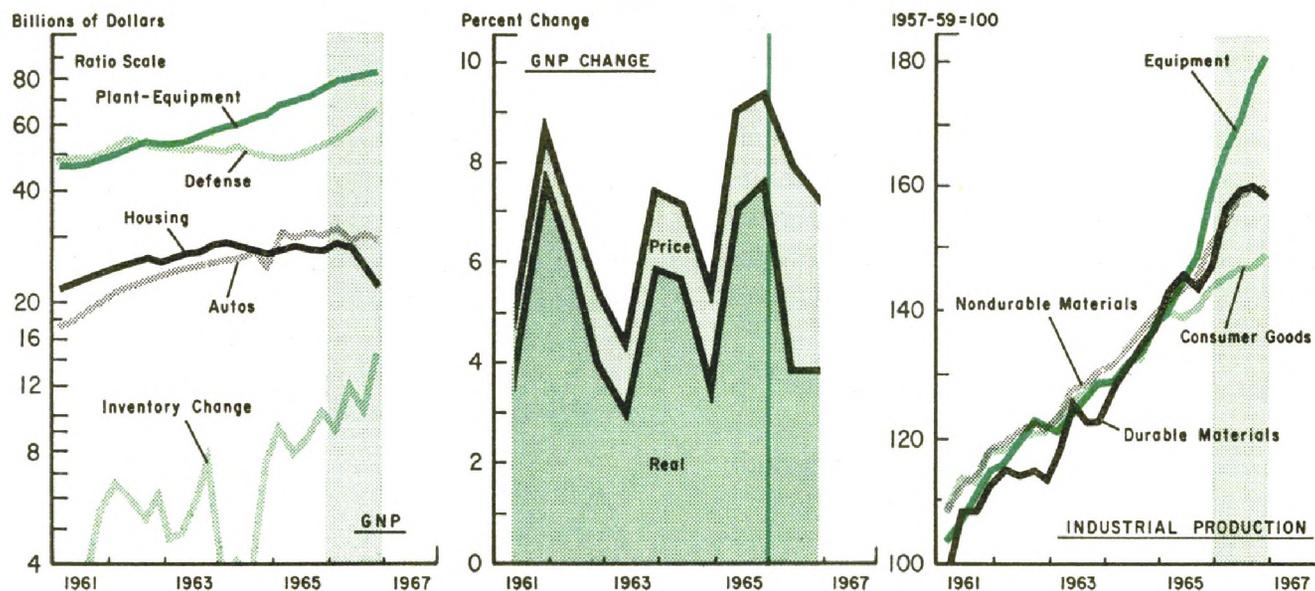
Wall Street, until early February, was dominated by the boom psychology which had underlain the prolonged bull market of 1963-65. But then, when the fiscal implications of Vietnam and the financial implications of tight money were realized, the bulls disappeared from the scene. Stock price indexes dropped sharply from early February to mid-March, slid again in late April and May, and then dropped almost uninterruptedly through the summer and early fall months amid the crunching sounds of monetary screws and splintering guideposts. In the fourth quarter, however, stock prices began to turn upward as monetary fears abated, and after a pause for tax-loss selling in December, the market rose sharply in early 1967.

Economic psychology thus was a key reality on the 1966 scene. Yet, behind all the shifts in psychology and all the shifting of policy gears was a more basic shifting of resources from one sector of the economy to another. Between the first and fourth quarters of the year, defense spending increased by fully one-fifth and business fixed investment also rose sharply. On the other hand, the consumer sector, beset by rising prices of food and other essentials and by decreased availability of credit, reduced its spending for major postponable budget items; spending for autos was in a declining trend after the winter quarter and spending for new housing was off fully one-fourth.

Stimulus of war

The most expansionary element in the 1966 picture was the war in Vietnam. Defense

Defense and plant-equipment spending spur economy to record heights, despite lag in consumer sectors . . . rising prices cut into real gains



spending for the year rose to \$60 billion, and in the fourth quarter it was at a \$66½-billion rate—one-third above the early-1965 level. New obligations for defense equipment rose even more sharply, and these increases were perhaps even more important than increases in expenditures, since the greatest strain on the economy occurs not when military payments are made but in the earlier period when orders are placed and defense goods are produced.

The rapid growth of the U. S. economy and the still limited nature of the conflict in Vietnam seemed to mean that the war had less impact than earlier wars. In late 1966, defense spending amounted to about 8 percent of GNP, as against 13½ percent during Korea and 42 percent during World War II. The difference was, however, that spending for Vietnam came on top of sharply increased spending for everything else, so that skilled labor and manufacturing plant capacity were under heavy pressure from mid-1965 onwards. Escalation in Vietnam came at a time when productive resources were almost fully utilized—unlike World War II or Korea—so

the *marginal* effect of the conflict may have been greater than in those earlier periods.

However, the bulk of the growth in spending and order placement may have been reached by late 1966; thus, although defense order backlogs equaled almost one year's production at that time, Defense Secretary McNamara predicted that a period of stability in both manpower needs and defense production was near at hand.

Enough capacity?

Business plant-equipment spending, the second major support of the 1966 boom, presented a somewhat similar pattern of growth. Spending for structures and producers' durable equipment, at \$79 billion in 1966, reflected the business sector's scrambling for new capacity to meet burgeoning demand. But the pace eventually began to tell. Spending in the second half of the year grew only about half as rapidly as during the first half, and the gain projected for the first half of 1967 was only about one-third the size of the early-1966 increase.

The slower growth of business spending was partly attributable to the late-1966 stability of physical production and of industrial-capacity usage. Thus, after a five-year expansion that outdistanced all previous capital-goods booms, the business sector apparently caught up with its immediate overall requirements, as evidenced by the growing percentage of firms which judged their existing capacity to be adequate to their current production scheduling.

Moreover, the business sector by late 1966 found its investment plans restricted by the increasing financial squeeze. Its near-term investment incentives were weakened by a slackening in its internally generated cash flow and in the credit flows available from commercial banks and the money market—and these incentives were further weakened by the suspension of the investment-tax credit on equipment and the accelerated-depreciation procedures on new building.

Too much inventory?

Business investment for inventories also showed a pattern of over-rapid growth. The change in business inventories, at about \$11 billion for the year, was the highest since the early Korean War period, and the fourth-quarter rate of \$16½ billion was clearly unsustainable.

Inventory-sales ratios even in late year were not overly high by historical standards, but the composition of business stocks at this time created grounds for worry. The rise in the manufacturing stock-sales ratio, from 1.58 in early spring to 1.70 in late fall, was hard to analyze, since this could have been considered simply a return to normal after the massive depletion of stocks during the past year or so. Besides, the ratio failed to show any upsurge in stocks of finished goods—as usually happens when over-stocking occurs—in large part because one-fourth of the total inventory increase was in defense products,

which are usually shipped when completed and thus do not show in finished-goods inventories.

Yet, by yearend, an obvious pile-up occurred in finished goods of consumer durables, both at the manufacturing and retail levels. With auto dealer supplies up about one-tenth over year-ago levels and with other consumer durables accumulating at the same time, sharp reductions in production were then required to overcome the pile-up of stocks.

Problems of Detroit

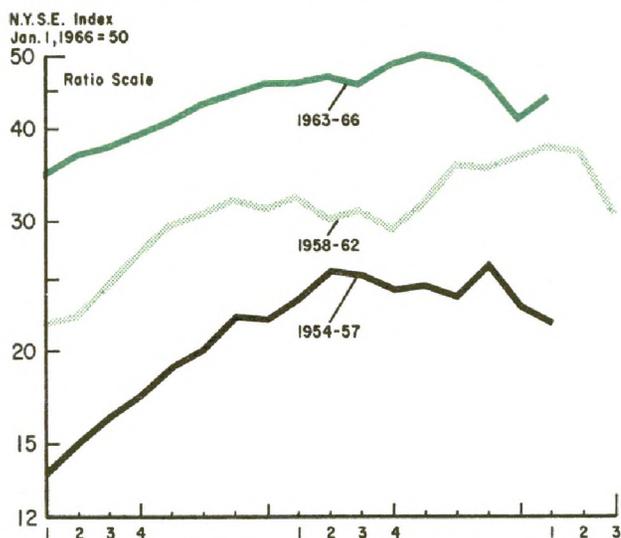
Business' inventory problems were simply a reflection of the problems of family buyers, especially buyers of automobiles. Actually, total spending for autos and parts just about matched the \$30-billion figure reached in 1965, but the total figure masked the sales decline which began in early 1966 and lasted, except for a belated flurry at model clean-up time, throughout the rest of the year.

The list of Detroit's problems was rather long. Aside from one always crucial factor—a slower rate of growth of real disposable consumer income—the list included the publicity given to the auto safety issue, the re-imposition of the 7-percent excise tax on new cars, and the rise in draft calls, which added 400,000 men to the armed services and thereby subtracted many potential customers from auto salesmen's order books.

But even in the face of these depressive factors, and in the face also of an import upsurge which increased the foreign penetration of the American market from 5 percent to 7 percent, Detroit still managed to record its fifth successive production record during the 1966 model year. Output for that period reached about 8.5 million units, as against 8.3 million and 7.8 million, respectively, for the two preceding model years.

The spring combination of sales slowdown and continued output expansion led to a sharp rise in dealers' stock ratios—up from 1:8

Wall St.: like all good things, bull markets must come to an end



months' sales in March to 2.5 months' sales at the end of June. So, from April on, producers cut their output to achieve a better balance with sales and inventories. Factory shut-downs for model changes occurred earlier and lasted longer than heretofore, and sales incentives through factory rebates increased sharply. These incentives may have had some impact not only in the sales flurry which occurred at model clean-up time but also in a continuation of the trading-up phenomenon. Salesmen sold hard tops to more than half of their 1966 customers, as against less than one-third in 1963. And they also managed to sell more and more higher-cost options; almost one-third of the 1966 models were air-conditioned and about two-thirds included power steering.

Problems of builders

Consumer spending for new housing, like consumer spending for autos, also weakened during the year—in fact, weakened spectacularly. Expenditures for residential construction, at almost \$26 billion, actually were exceeded only during the 1963-65 boom period, but between the record high achieved in the first quarter of 1966 and the fourth-quarter low,

spending fell off by almost one-fourth. Moreover, private housing starts, at 1.2 million units, were one-fifth below the 1965 level, and the late-1966 rate was actually the lowest of the post-war period. Starts had been trending downward since early 1964, largely as a reflection of the prolonged slump in Western housing activity, but the slump spread to the rest of the nation in 1966.

The housing recession, which took place in the face of such favorable market factors as a decline in the housing vacancy rate and an increase in the marriage rate, could be attributed mainly to the short-circuiting of the financial flows normally available to the housing industry. As one of the consequences of the declining availability and the rising cost of money, funds were persistently diverted from the types of institutions which are the heaviest participants in the mortgage market. As their inflow began to dry up, these institutions sharply reduced their new commitments, and expenditures soon dropped precipitously.

Productivity and prices

Yet, with the exceptions noted, the overall pattern of the year was one of sustained pressures on production and on prices. As marginal resources were drawn into production, and as facilities became more fully utilized, the growth rate of labor productivity dropped from an average of about 3½ percent in the 1961-65 period to less than 3 percent in 1966. Standby equipment was forced into use as manufacturing capacity utilization rose from 89 percent in 1965 to 91 percent in 1966, and inexperienced workers (mostly women and teenagers) were added to the labor force because of the shortage of skilled workers.

Consequently, as productivity gains decelerated, unit-labor costs—which had remained almost stable during the preceding five-year

period—jumped 2½ percent between July and November. Thus, management was forcefully reminded of the need to bring costs under control at a time when labor was forcefully reminded of the erosion of its own position by the 3-percent rise in consumer prices. As the gain in labor productivity fell behind the rise in consumer prices, the productivity-based guideposts which had governed labor-management negotiations during the several preceding years came under increasing fire and in many cases were completely ignored.

The pressures of prosperity showed up in rising prices, which sharply affected both the nation's growth record and individual household budgets. Wholesale price trends showed some improvement as industrial prices stabilized after midyear and as farm prices returned to their late-1965 level after a substantial early-1966 increase. But the consumer index showed, in addition to minor increases for rent and non-food commodity prices, a 4-percent rise in food prices (for the second straight year) and an even sharper rise in service prices (including a 9-percent rise in medical costs).

The behavior of wholesale industrial prices was somewhat encouraging in view of the sharp pressures on output generated by the massive tax cuts of several years ago and by the more recent acceleration of defense spending. At the same time, the behavior of consumer prices for food and services was somewhat discouraging, since rising prices cut into workers' real take-home pay and thereby created a sticky atmosphere for upcoming labor contract negotiations, which would have been difficult enough anyway in view of management's problems with rising costs and reduced profit rates.

Labor's gains and losses

Labor's position was strengthened during 1966, however, by sharp increases in employment. The civilian labor force grew by 1.3

million during the year, but the economy absorbed all of this labor force increase plus about ⅓ million displaced farm workers and ½ million unemployed workers. The 2.1-million gain in nonfarm employment, which was almost one-third greater than the average increase recorded during the earlier years of this business expansion, thus helped reduce the unemployment rate from 4.6 percent in 1965 to 3.9 percent in 1966.

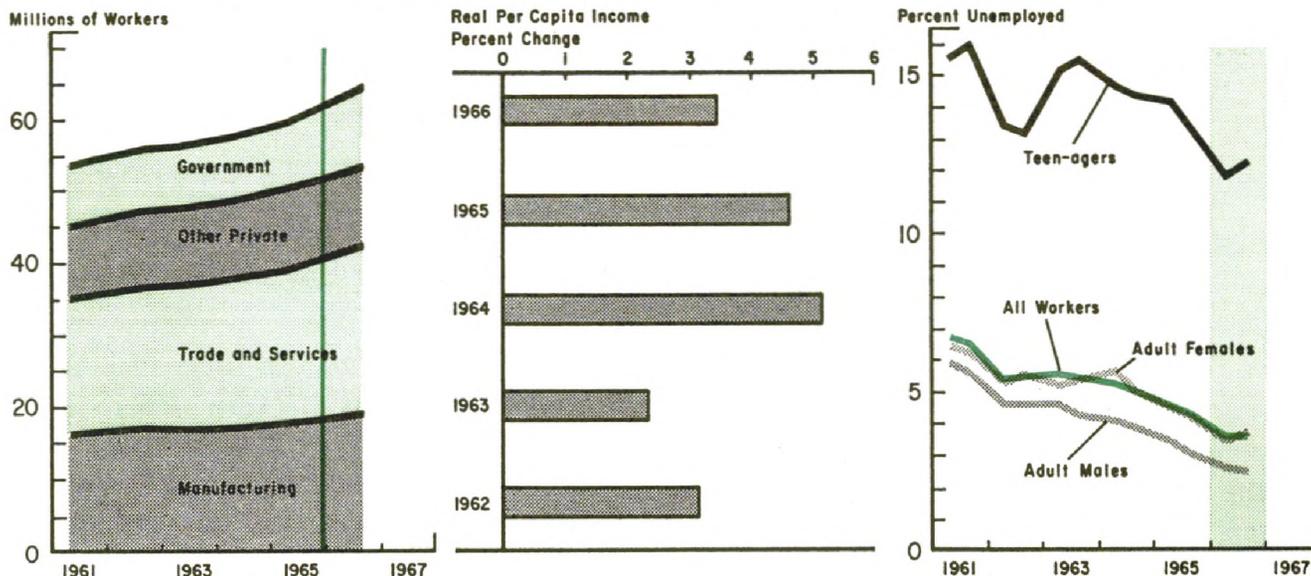
The adult male working population actually declined, because of such factors as the reduced growth of the adult population, a lower labor-participation rate, and the increase in draft calls, so women and teenagers thus accounted for 90 percent of the 1966 rise in total employment. Incidentally, 1967 will be somewhat different; the increase in the teenage population will be only one-sixth as great as the 1966 increase, and the maturing of the crop of early postwar babies will add one million adult males to the population.

The unemployment rate held at or below the 4-percent level during the entire year, for the first time in a decade, but while the jobless rate among adult males dropped to a practical minimum of 2½ percent, the jobless rate among certain other groups remained far above the national average. For non-whites, the jobless rate was twice the average; for teenagers, it was three times as high.

At the same time, consumers as a group recorded a much smaller increase in individual incomes than in the several preceding years. Per capita income, after adjustment for rising prices and rising taxes, increased about 3½ percent over the year as against increases of 4½ to 5 percent in the tax-cut period of 1964-65. So consumers in 1966 were forced to content themselves with a somewhat smaller improvement than in those happier years when the ravages of taxes and of inflation were reduced.

On balance, individual consumers, like individual sectors of the economy, showed a

Consumer sector bolstered by sharp employment gain and by improvement in jobless rate, but rising taxes and rising prices limit increase in real income



widely varying range of performance as well as a widely varying range of psychology. As always, these differences came out during the Christmas shopping period. At that time, one department store catering to luxury lovers offered for \$119 a split-level solid-cherry Per-

sian-lamb-lined doghouse, while another department store catering to a different clientele offered for \$1 a "depression survival kit," consisting of an NRA sticker, a list of New York soup kitchens, and a set of instructions for building an apple stand.

Foreign Investment

Copies are again available of the article "Can We Afford to Invest Abroad?," which appeared in the September 1964 *Monthly Review*.

The article provides a background analysis of the role of private capital flows in the U. S. payments picture. The discussion includes definitions of different types of private capital investments, the location of our investments abroad, the short- and long-run impact of private capital outflows on the balance of payments deficit, and the implications of private capital exports.

Copies of the article are available on request from the Administrative Service Department, Federal Reserve Bank of San Francisco, 400 Sansome Street, San Francisco, California 94120.

The String Pulls Taut

THE U. S. economy in 1966 enjoyed its sixth consecutive year of expansion and the first complete year of full employment in the past decade. This otherwise welcome condition of high employment proved to be a rather mixed blessing, however, as the strong demand for goods and for credit generated inflationary pressures that were reflected in price increases well above those recorded earlier in this expansion.

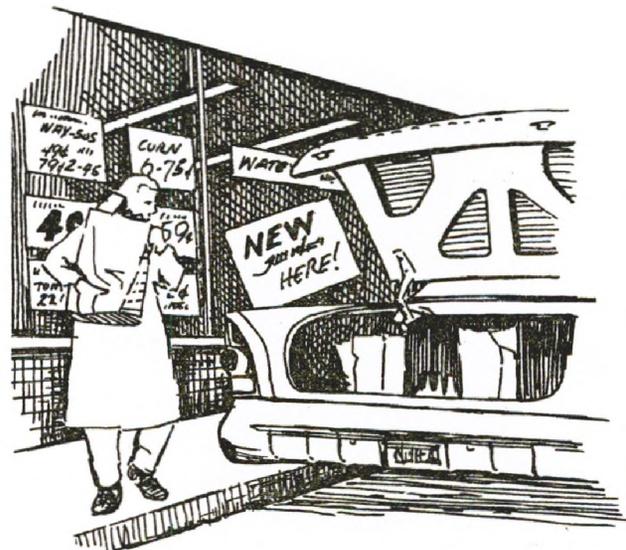
Public policy was on the side of restraint, but the distribution of the burden was quite uneven, as monetary policy was forced to carry most of the load. In spite of increases in Federal taxes, through rescission of earlier reductions in excise taxes and a speed-up in payment schedules, the net effect of the Federal cash budget was expansionary. The lack of balance between monetary and fiscal policy led to severely stringent conditions in the money and capital markets in the third quarter of the year, and interest rates thus jumped to the highest levels in more than 40 years. Yet by yearend, as the demand for credit slackened and the likelihood of tax actions increased, the Federal Reserve eased its pressure upon bank reserves and bank lending policies.

In addition to the sharp differences in the incidence of monetary and fiscal policy, significant shifts in policy also developed between the two halves of the year. In the first half of the year, Treasury policy was relatively restrictive, with a surplus of about \$3.1 billion at a seasonally adjusted annual rate (national-income accounts basis). However, in this same period, reserves of the member banks increased at an annual rate of 4.4 percent and the money supply rose at an annual rate of 4.7 percent. In the second half of the year the roles were reversed. The Federal budget was in deficit at a \$2.7-billion annual rate, with the largest part of the deficit occur-

ring in the fourth quarter. At the same time, total reserves of the member banking system contracted at a 2.1-percent annual rate and the money supply declined at a rate of almost 1 percent.

Higher revenues but higher spending

Several different steps were taken to increase Federal revenues in 1966. In January, the social-security system boosted its revenues, not by increasing the tax rate but by lifting the coverage on wages and salaries from \$4,800 to \$6,600. Congress later rescinded a scheduled reduction in excises on automobiles and a number of other items, and it also speeded up the collection of corporate-income taxes and placed the Federal personal-income tax on a graduated withholding basis, to reflect more closely actual tax liabilities. Then, in October, in an attempt to take some of the steam out of the boom in business spending for plant and equipment, Congress suspended until next January the investment tax credit on new capital and the accelerated depreciation allowance for commercial and industrial building.



On the expenditure side of the ledger, national security outlays rose by more than \$9 billion, reflecting the intensification of military operations in Vietnam. Also, Federal pay increases and the advent of the Medicare program boosted nondefense spending in the third quarter of the year.

The cash budget for 1966 showed a deficit of around \$7.5 billion. On a national-income accounts basis, however, there was a very small surplus, amounting perhaps to about \$0.2 billion. This budget concept, which focuses on the net Federal contribution to the income stream of the economy, thus indicated a very modest degree of restraint, wholly insufficient to contain the expansionary forces in the private sector of the economy. (Some observers argue that even this restraint was illusionary because of the rapid upsurge in new defense obligations, which rose more sharply than expenditures during the year.) In order to have acted as a brake upon the inflationary pressures which a sharply rising level of total demand for goods and services had created, the budget surplus on an NIA basis would have had to have been much larger than it actually was.

Monetary policy takes hold

Federal Reserve policy measures took a number of forms in 1966. The discount rate remained at the 4½-percent level set in December 1965. But in its effort to make policy more restrictive, the Federal Reserve relied not only on open-market operations but also on its controls over reserve requirements and its ceilings on member-bank time-deposit interest rates.

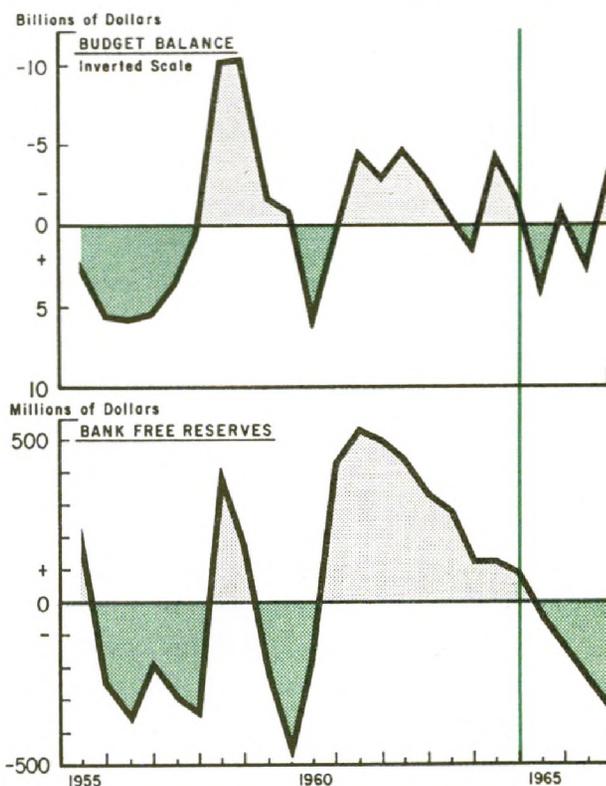
In July and again in September, the Board of Governors increased by one percent the reserve requirements against time deposits in excess of \$5 million. Promissory notes and other forms of indebtedness of banks were defined as deposits and made subject to reserve requirements under the provisions of Regula-

tions D and Q. The maximum rate payable on time deposits of multiple maturities and time posits of less than \$100,000 was reduced to 5 percent.

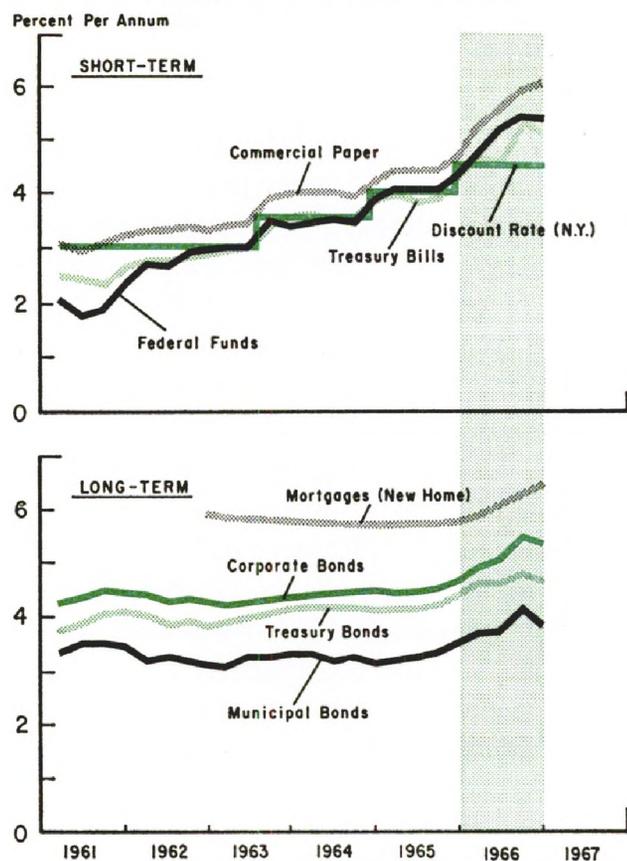
Perhaps as important as this reduction in ceiling rates was the staunch retention of other ceilings in the face of heavy pressures to raise them. The maximum rate on negotiable time certificates of \$100,000 and over—a major source of commercial bank funds over the past five years—was held unchanged at 5½ percent, and the ceiling rate on passbook savings deposits remained at 4 percent despite massive shifts of funds from such deposits to special savings certificates.

On September 1, Reserve Banks circulated a letter to the member banks which stated that a further increase in loans—especially business loans—at the rate that had taken place earlier in the year was not in the public interest. Member banks were urged not to liqui-

Monetary policy sharply restrictive, but fiscal policy eases in second half



Interest rates respond to strain of credit markets' summer crunch



date securities to meet the demand for loans, since this would simply place pressure on interest rates in other financial markets. The letter indicated that the Reserve Banks would accommodate member banks for longer periods than usual at the discount window to help banks readjust their business-loan portfolios without selling off securities. This letter was withdrawn late in December when it appeared that the hitherto intense demand for credit had begun to taper off.

Most of the monetary measures taken throughout the year—aside from open-market operations—were directed towards either interest rates or reserve requirements upon time and savings deposits. This is quite unusual in a period of monetary restraint, for the more usual approach to monetary restraint in this area is through increases in reserve require-

ments against demand deposits. These, however, have been at their current levels since 1960.

Credit markets: the summer "crunch"

In July and August, as the money and capital markets came under considerable strain, interest rates rose to their highest levels in over a generation. The market yield on 91-day U. S. Treasury bills climbed above the 5½-percent mark, and for a time in late August, the yield on certain intermediate-maturity Treasury bonds reached the neighborhood of 6¼ percent. The upward trend in interest rates extended to corporate and municipal securities as well as Treasury issues. While the demands upon the credits markets were increasing, the supply of funds entering the markets declined. Savings and loan associations were hard pressed and the influx of funds to commercial banks dipped well below the year-earlier pace.

The sources of demand for credit were readily identifiable. There was a heavy demand for funds on the part of corporations, both from banks and in the capital markets, since a high rate of business spending and higher tax liabilities came at a time when corporate liquidity was declining. The Treasury, meanwhile, after repaying about \$5.4 billion of debt in the first half of the year, borrowed \$10 billion of new money in the second half to offset the usual seasonal decline in the flow of receipts.

Federal agencies were yet another source of demand for funds. Sales of agency securities mounted to \$2.6 billion in the second quarter of the year and remained high in the following quarter. Ancillary to the Federal agency securities were the offerings of participation certificates in pools of loans held by various Federal agencies. These issues were not new to the market, but their large volume was both new and somewhat unsettling. In

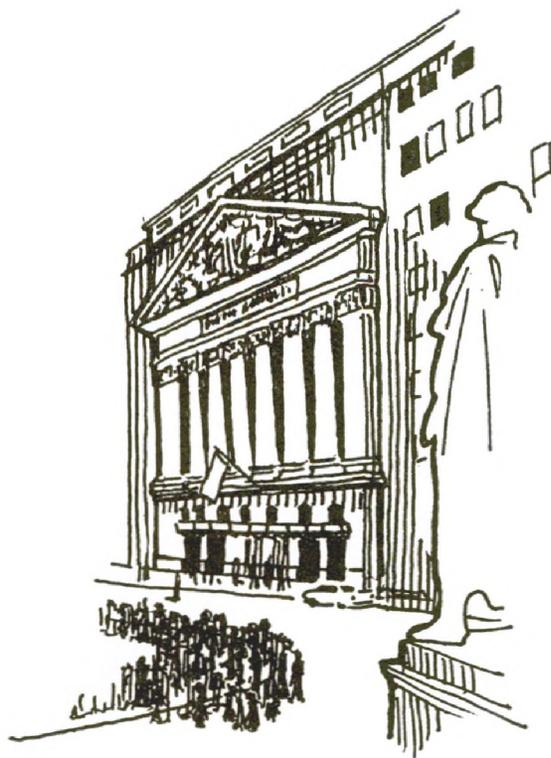
order to take some of the pressure off the credit markets, President Johnson ordered a suspension of the sales of participation certificates in early September.

The heights to which market yields on securities rose during the summer added to the banks' problems. Yields were well above what individual investors might earn on their funds at savings-type institutions. This brought about a process of "disintermediation", where individuals invested directly in securities rather than placing their funds with banks and other financial intermediaries.

In early September interest rates started to

decline from their highs, and they receded further during the remainder of the year. Corporate offerings in the capital market were well below the September figure, as were the offerings of municipal issues. In addition, the pace of business lending at commercial banks slackened perceptibly after July.

The money and capital markets thus ended 1966 on an easier note, but it could hardly be said that any real slack developed in these markets. Interest rates continued to remain at high levels by all historical standards. Still, there was a return to a better balance between the demand for and the supply of funds.



Towards Balance?

THE international transactions of the U. S. in 1966 were significantly influenced by developments in the domestic economy as well as by developments abroad. Attainment of a high-employment level of output, while bringing internal and external policy goals within the same target area, also brought with it mixed balance of payments effects. As cyclical forces accelerated the long sustained domestic expansion and propelled the economy beyond the rate of resource utilization compatible with general price stability, demand pressures spilled over into the external sector, causing expenditures for foreign goods and services to rise. Both the trade surplus and the overall goods-and-services surplus declined.

Tighter credit conditions in the U. S., especially during the summer months, reinforced the voluntary programs designed to restrain U. S. capital outflows. These conditions were also reflected in a rising volume of U. S. liquid liabilities to foreign banks, primarily branches of U. S. banks abroad, especially during the third quarter.

Rising defense expenditures at home and abroad reflected our military presence in Vietnam. These outlays contributed to both direct and indirect balance of payments drains. Domestically, Vietnam expenditures during the year were quite small in relation to our national output, but their marginal impact on an economy already operating at a very high level was probably much greater than this relationship would suggest. This increment of demand contributed indirectly to our total payments abroad, as did direct foreign outlays associated with our operations in Vietnam.

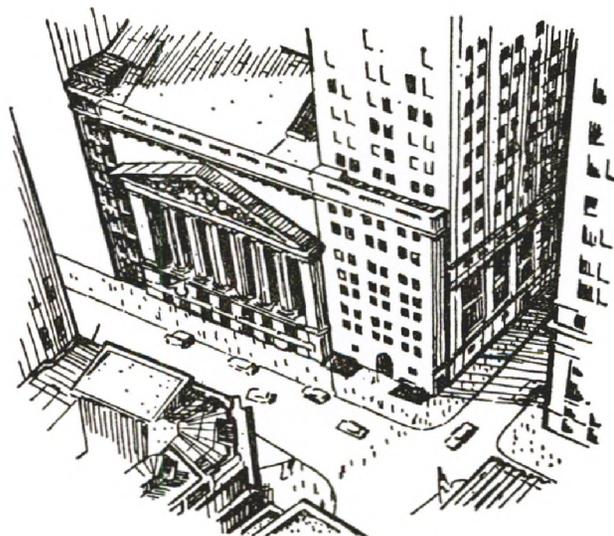
Deficit or surplus?

The net result of all these transactions is open to differing interpretations, partly because of different results shown by alterna-

tive measures of the balance of payments. The principal measures are calculated either on the basis of changes in U. S. monetary assets and liquid liabilities or on the basis of changes in U. S. official-reserve transactions.

On the basis of official-reserve transactions—which measures changes in U. S. reserve assets and in liquid and certain nonliquid liabilities to foreign official institutions—the first three quarters of the year actually showed a \$0.7-billion surplus (seasonally adjusted annual rate) because of a sharp improvement in the accounts during the summer months. This third-quarter improvement reflected the British exchange crisis of last summer and the vigorous efforts of U. S. banks to ease the effects of tight-credit conditions at home by gaining foreign deposits through their branches abroad.

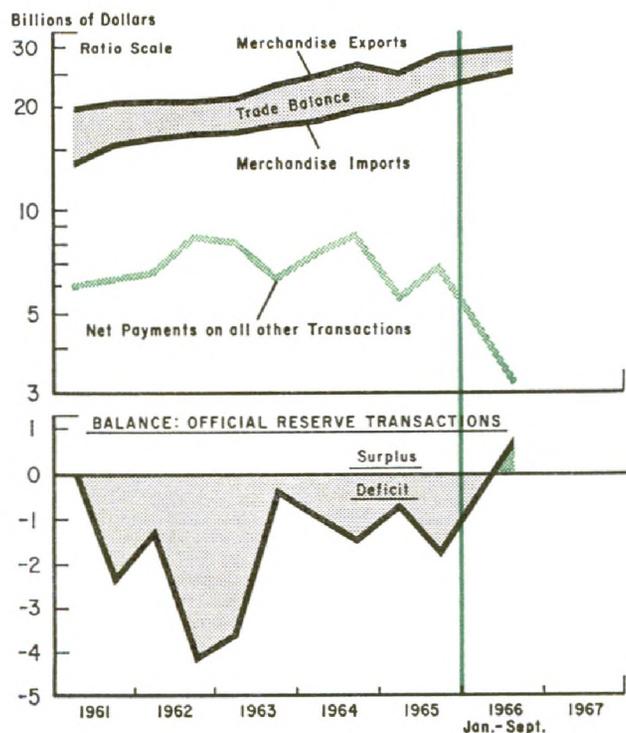
However, on the liquidity basis—which includes changes in private foreign holdings of liquid claims against the U. S. as well as changes in claims of foreign official institutions and in U. S. reserve assets—the January-September period showed a prospective annual deficit approximating the previous year's



\$1.3-billion liquidity deficit. But unlike 1965, when virtually the entire deficit was “financed” by a \$1.2-billion decline in monetary reserve assets, it appeared as 1966 drew to a close that a major part of the deficit would show up as a rise in liquid liabilities. However, our gold holdings and IMF gold-tranche position together declined by over a billion dollars, but this decline was partially compensated by a rise of about half that amount in foreign currency holdings, principally British pounds.

Despite differences regarding the actual size of the deficit—or surplus—there was little doubt about the principal factors influencing the U. S. payments situation last year. Compared with 1965, the 1966 record revealed a smaller trade surplus; a reduction of the surplus on services account because of mounting military expenditures; and some reduction in the rate of outflow of U. S. direct investment and other private U. S. long-term

Overall payments situation improves, though import boom reduces trade balance



capital. Among the most important developments in our payments situation through the third quarter was a substantial rise in U. S. liquid liabilities to foreign private entities. Nonmilitary Government grants and capital outflows, excluding nonscheduled repayments, appeared likely to exceed those of the previous year.

Goods and services

As the year progressed, our international transactions continued to reflect the war in Vietnam and the very high level of economic activity at home. Payments for goods and services rose as military expenditures abroad increased and as merchandise imports mounted in response to the pressure of domestic demand on available productive capacity. Receipts also rose, but as the year came to a close it appeared that the goods-and-services surplus would amount to some \$5.1 billion, considerably short of the \$6.9 billion surplus experienced in 1965. This decline reflected a drop of more than a billion dollars in the trade surplus as exports rose by 11 percent while imports increased by nearly 20 percent. Military expenditures abroad are believed to have risen by over \$700 million in 1966. Income on U. S. investments abroad, projected from seasonally adjusted data for nine months, seemed likely to exceed last year's receipts by \$400 million, but after netting out increased payments to foreigners on their investments in the U. S., the year-to-year balance-of-payments gain from investment income probably was on the order of \$200 million.

Substantial official payments to the U. S. Government eased the U. S. payments position in the third and fourth quarters. Significant contributions of this type were \$220 million in advance debt repayments by France and Italy in the third quarter, which improved both the liquidity and official-reserve transactions balances. There had been only

minor nonscheduled debt repayments during the preceding three quarters.

As the end of the year approached, the Federal Republic of Germany announced the payment of \$450 million to offset U. S. military expenditures in Germany. Of this amount, \$200 million represented early repayment of German postwar debts to the U. S., while the balance was for military goods to be supplied by the U. S.

Our balance of payments was further aided by a year-end \$148-million payment covering interest and part of the principal on U. S. postwar loans to the United Kingdom. This is the first payment on this debt since 1963.

Private capital flows

Total U. S. private capital—including redemptions and other transactions in foreign securities, and before adjustment for corporate funds acquired abroad—continued to flow abroad during January-September 1966 at about the same seasonally adjusted annual rate as in 1965, although at a slower rate than in 1963 and 1964.

After about midyear, however, the growth in claims slackened; in the third quarter the outflow declined to \$713 million from \$928 million and \$1,094 million in the first and second quarters, respectively. Of the total of these amounts, \$529 million represented re-invested funds raised abroad through borrowings and new security issues of U. S. corporations. After adjustment for such foreign financing, the dollar outflow on U. S. private capital account in 1966 probably represented an improvement of some \$0.5 billion compared with the previous year.

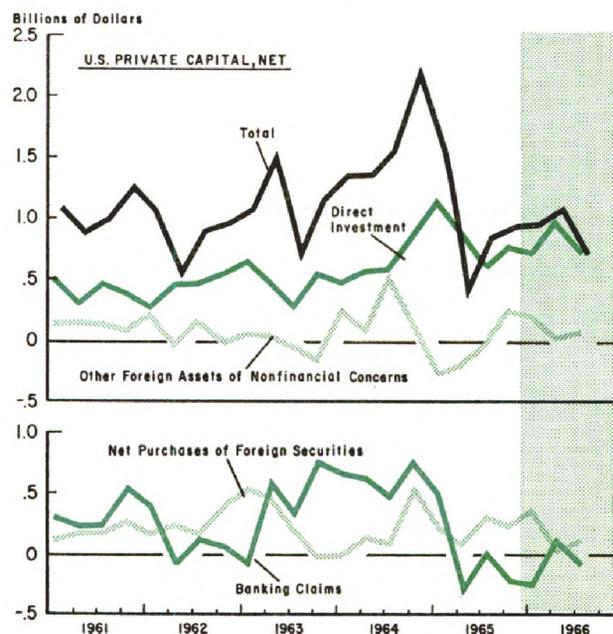
Direct investment, which accounted for most of the outflow, totaled nearly \$2.4 billion on a seasonally adjusted basis through the third quarter. Of this amount, \$313 million represented funds raised abroad by U. S. corporations. For the year as a whole, direct investment (after adjustment for funds raised

abroad) probably did not exceed \$3 billion, compared with \$3.3 billion in 1965. Based on incomplete data, the bulk of the direct investment flow in 1966 was to Canada and continental Western Europe.

Capital outflows arising from U. S. transactions in foreign securities were probably somewhat less than in the previous year. This improvement occurred despite a rather large first-quarter outflow, over \$450 million, in the form of purchases of securities newly issued in the U. S. In the second quarter, such purchases fell sharply, but subsequently rose to \$274 million on a seasonally adjusted basis in the third quarter.

Short- and long-term claims of U. S. banks on foreigners declined again in the third quarter as they had in the first quarter. Taking into account a rise of \$124 million in the second quarter, the balance of such claims through September registered a decline of \$253 million, \$174 million being in long-term and \$79 million in short-term claims. The reduction in short-term claims in the main reflected

Private capital outflows reduced under influence of guidelines



reflows from Japan, while the decline in long-term claims to a large extent involved transactions with continental Western European countries.

While the overall reduction in bank claims of course is not attributable solely to the voluntary credit-restraint program, the program has undoubtedly played a major role in switching the movement in bank claims from a \$2.5-billion capital outflow in 1964 just prior to the beginning of the program, to inflows of \$94 million in 1965 and \$253 million through September 1966.

However, strong domestic demands for credit, in a period of credit restraint such as prevailed during much of 1966, certainly were more important than the program in restraining banks' foreign lending. At the end of the year, U. S. commercial banks were still somewhat below the December 1964 base—and nearly \$900 million below the 109-percent ceiling suggested by the Federal Reserve guidelines for 1966.

During the first three quarters of 1966, non bank financial institutions participating in the program reduced their holdings of foreign assets by \$72 million.

Compared with a total outflow of \$730 million in 1965, this represents a substantial contribution to the improvement of our balance of payments.

As the year drew to a close the Board of Governors issued new guidelines for financial institutions cooperating in the President's voluntary program to improve the nation's balance of payments. The new guidelines for banks retain the 1964 base and the previous ceiling of 109 percent of that base. However, banks are requested to limit the use of their leeway as of September 30, 1966, to a rate not exceeding 20 percent thereof per quarter beginning with the fourth quarter of 1966. In addition, in order to give added stimulus to priority credits, banks are requested to limit the increase in credits other than those that

finance exports or which meet credit needs of developing countries, over the amount outstanding on September 30, 1966, to 10 percent of the total possible expansion, or about \$120 million.

The program for nonbank financial institutions has been greatly simplified. The three guidelines used in the 1966 program are replaced by a single guideline which permits an increase of 5 percent during the 15 months ending December 31, 1967, in assets covered by that guideline. In addition, certain assets such as bonds of the International Bank for Reconstruction and Development and the Inter-American Development Bank are now excluded from the definition of "covered" assets.

A revised program for nonfinancial corporations, administered by the Department of Commerce, has also been adopted. This calls upon participating corporations to increase their contributions to improving the balance of payments in 1967 on major selected transactions by at least \$2 billion above the 1966 level. The specific target for direct-investment capital transactions calls for corporations to limit the average annual rate of these transactions in programmed countries in 1966 and 1967 to no more than 120 percent of the annual average level during the years 1962-64.

Movements of foreign capital

Foreign direct investment declined by \$135 million in the third quarter after registering nominal increases totaling about \$50 million through midyear, and \$71 million for all of 1965. Foreign investment in U. S. securities (other than Treasury issues) fell considerably more during the summer period, declining from \$504 million in the second quarter to some \$145 million in the third. Over two-thirds of this decline occurred in U. S. corporate securities issued to finance foreign investments. However, during the first three quarters of the year, foreign investment in U. S.

securities rose by \$828 million compared with a reduction of \$456 million in the same period of 1965.

During the third quarter, liquid liabilities to all foreigners rose \$630 million. Included in this inflow was a \$1,170-million increase in liquid liabilities to foreign banks, mainly foreign branches of U. S. banks, attributable in part to the credit stringency in the U. S. which caused banks here to seek dollar funds abroad, and to the weakness of the British pound during the summer months. Smaller, but still substantial increases in such liabilities had occurred in the first two quarters. These movements reflected the ability of foreign branches of U. S. banks to pay higher interest rates on deposits than their home offices in the U. S. can pay. In response to this, some transfer of private and official deposits from U. S. banks to U. S. branches abroad evidently occurred. In addition, foreign private entities evidently sought to acquire or hold additional dollar claims, thus diverting such assets from foreign official entities.

Equilibrium—still ahead

Most observers anticipated at year-end that the 1966 deficit measured on the liquidity basis would be greater than 1965's \$1.3-billion deficit. Although deficits of this size are still far beyond the officially defined equilibrium range of \pm \$250 million, they are at most only half as large as those of the preceding two years and substantially below that of any year since 1957. However, the emergence of another fairly substantial deficit in 1966, even if it were to be somewhat less when finally tallied than that of the preceding year, is disappointing particularly in view of the various efforts we have made to reduce it.

Even so, it is significant that the 1966 deficit was held to a comparatively low level in the face of increasingly active warfare in Vietnam and some overheating of the economy at home.

In the absence of these developments the deficit almost certainly would have been smaller—perhaps considerably smaller—than it was.

The large third - quarter official - reserve transactions surplus is impressive, but not yet sufficiently reassuring as an indicator of progress toward achieving a sustainable equilibrium in our external accounts. The surplus was accompanied by a very substantial inflow of highly volatile foreign liquid capital which can easily cease or be reversed. An easing of domestic inflationary pressures, accompanied by easier credit conditions such as were developing here toward the end of the year, would at least reduce pressures on U. S. bank reserves and lessen the inducement for banks to draw in deposits through their branches abroad.

Similarly, the contribution of the British pound crisis to the third-quarter inflow was a unique occurrence, and an improvement in the British reserve position could be expected to lead to a transfer of liquid dollar assets from foreign private to foreign official holders. Although such a shift would have little effect on the liquidity measure of the deficit, it would of course worsen the deficit on the reserve transactions basis.

The reduction in our trade balance in 1966 may not have run its course and may not be



easily reversed if domestic demand remains at high levels even though inflationary forces are contained. If a wage-price spiral ensues—and major labor contract negotiations are close at hand—our competitive position in world markets may be jeopardized. In these circumstances our trade surplus could easily decline further.

As the year ended, a satisfactory equilibrium in our international accounts on a long-term sustainable basis remained a goal to be achieved. If further progress is to be made and

ultimate success attained, appropriate domestic policies will be an essential prerequisite. Beyond this lies the potential of further development of our financial relations with other countries. Through this means the policies, practices and mechanisms needed to facilitate balance-of-payments adjustments may gradually be developed. Progress in this field as in other areas of international economic cooperation may, and almost certainly will, be slow, but its importance to the development and expansion of the world economy can hardly be overemphasized.

Knowledge, Science, and Aerospace

This collection of *Monthly Review* articles describes the key role of “knowledge investment”—education plus research and development—in the growth of the national and regional economies, and it emphasizes the advantage held by the West in the economic-growth competition because of the region’s heavy concentration of scientific talent. As a case in point, the report describes the important part that the Western knowledge sector played in the past in attracting a major share of Federal aerospace contracts—and the equally important part it played in cushioning the decline when the aerospace boom subsided.

Copies of “Knowledge, Science, and Aerospace” and other *Monthly Review* publications are available free upon request from the Administrative Service Department, Federal Reserve Bank of San Francisco, 400 Sansome Street, San Francisco, California 94120.

The Markets

AT FIRST glance, the credit markets behaved much the same in 1966 as in 1965, since a very large volume of funds was again raised to finance the expenditures which pushed GNP to another new peak. But net funds borrowed, at \$70 billion in 1966, actually fell below the 1965 total, and the channeling of these flows also shifted strongly during the year.

As in the preceding year, business borrowing dominated the scene; in fact, business firms absorbed an even larger percentage of the total funds raised. With the exception of the Federal government, none of the other major sectors increased its share, although each increased its total indebtedness.

The most striking developments occurred on the supply side rather than the demand side. Here there were major shifts in the sources of finance. The most important change was the sharp decline in the commercial-bank position; the banks supplied only 20 percent of total credit in 1966 as against 40 percent of the total in the preceding year. At the same time, nonbank financial institutions also suffered a declining share, while households increased their share and in fact

supplied almost as much funds as the commercial banks. New developments also occurred in the pattern of market instruments used by borrowers to obtain funds.

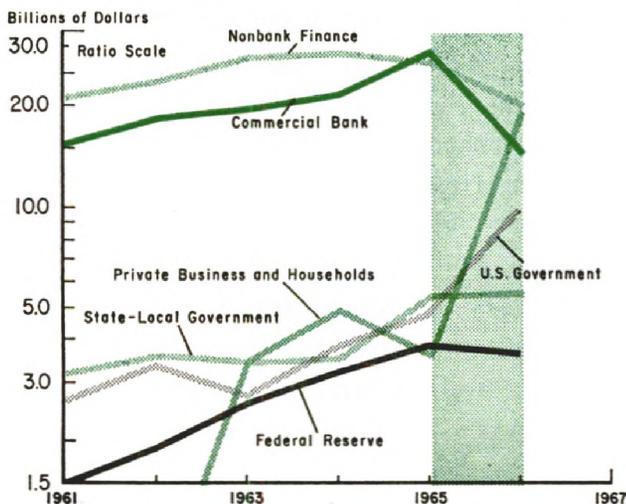
Behind many of these changes stood monetary policy, which aimed at restraining the growth of credit and therefore introduced new pressures on the capital markets. The most obvious reaction to 1966's monetary policy was the rise of interest rates to levels not seen for almost forty years. Yet interest rates, no matter how much they attracted attention, merely reflected the interaction of market forces which must be explained individually.

Supply: restricted sectors

The commercial banks, which had supplied \$30 billion in funds to the capital markets in 1965, were only able to provide \$17 billion of 1966's total supply of \$70 billion. This reversal of the trend toward an expanded bank role was of course due to monetary policy. Monetary policy bears initially upon the banking system, from where it spreads its impact throughout the capital markets. The shift toward greater tightness consequently was felt very strongly by the banks, which had already moved toward the limits of their lending capacity at the beginning of the year and were therefore vulnerable to restrictions on their lending capacity.

Other financial institutions, which felt the greater restrictiveness through changes in the supply of funds and the relative structure of yields, were affected even more than the commercial banks. These institutions reduced their supply of funds from \$27 billion in 1965 to \$20 billion in 1966—and their share of total flows was the lowest of the postwar period. Within this sector, savings-and-loan associations suffered the biggest drop; their lending fell to \$4 billion for the year, or half what it had been in the year before.

Financial institutions supply less funds, but households act to fill gap



Supply: growth sectors

The pressures on the usual institutional lenders forced borrowers to search out alternative sources of funds. One major result was a sharp increase in direct lending by households, which supplied \$12 billion to the capital markets in 1966, vs. \$3 billion in 1965. With higher yields available on credit market instruments than on bank deposits, a strong incentive was provided for households to shift to direct lending and away from indirect lending through financial institutions.

Households built up time and savings deposits at a slower rate than they had the previous year—\$19 billion against \$26 billion. Their shift to other financial assets was concentrated in Treasury securities and state-local government securities, as higher yields in each case induced a significant shift in funds. Substantial though smaller amounts went into the purchase of corporate stock and bond issues—in contrast to the earlier years of the current expansion, when households steadily reduced their direct holdings of stocks and bonds.

The other important new source of lending was the Federal government, which supplied \$7.5 billion in 1966, or half again as much as in 1965. In particular, Federal agencies such as the Federal National Mortgage Association acted to provide secondary-market support when the usual credit sources found it difficult to meet the demand for loans. Meanwhile, the non-financial business sector also stepped up its direct lending to take advantage of the higher yields of market instruments and, in the case of trade credit, to supply needed finance to its customers. The total volume of this business lending was \$4 billion.

The scope of the major change in financing which occurred during 1966 shows up in the shifting pattern of financial assets acquired by lenders. Total demand and savings accounts increased by only about \$23 billion in 1966, as against \$40 billion in 1965. On the other

hand, publicly-held Federal securities increased by practically \$6 billion. More important still, the public acquired \$14 billion in credit market instruments—twice as much as in any earlier year—as businesses found that financial institutions could not supply needed funds and thereupon turned to the direct sale of credit instruments.

Demand: business and households

The non-financial business sector, one of the strongest driving forces behind the 1966 expansion, raised more than \$33 billion in the credit markets during the year (as against \$30 billion in 1965) and thus pushed its share of total financing to 45 percent. This greater reliance upon external sources of funds was not due to any lack in the growth of internal funds, for gross savings increased by \$4 billion during the year to a record total of \$74 billion. But the even greater (\$10 billion) rise of expenditures, to a total of \$92 billion, forced business to turn to external lenders.

Households, like business, had more income in 1966. Personal income reached \$506 billion, with a \$35-billion increment, and permitted consumer spending to rise to \$478 billion. Nonetheless, consumer financial behavior was influenced by 1966's stringent credit conditions. While households increased their role as lenders in response to higher market yields, they borrowed less than in either of the two preceding years to finance their record level of expenditures. The increase in household indebtedness, \$23 billion, was still substantial, but reduced gains were recorded in each of the major categories of household borrowing, especially mortgages.

Demand: governments

The Federal government was the only sector (besides business) that raised more funds during the year. Its total debt rose \$9 billion to a total of \$280 billion at the end of 1966. This increase was not, as might be expected,

directly caused by greater Federal spending programs, for the budget was practically balanced on a national-income accounts basis. Rather, the increase in debt was due to the expanded lending activities of Federal agencies.

The Federal government last year acted as a giant financial intermediary, borrowing from one part of the public to lend to another part of the public, and thereby took over the role which other institutions were unable to play because of disturbed credit conditions. Federal agencies floated almost \$7 billion in long-term issues in the securities markets, or almost twice as much as in the two previous years combined. But overall, Federal debt increased more slowly than Federal revenues, and the Federal share of total debt declined.

State and local governments, with net borrowing of under \$7 billion, expanded their borrowing more slowly in 1966 than in 1965. This slower growth is attributable in part to monetary restraint, which caused the postponement or reduction of various borrowings, and in part to increased state-local revenues.

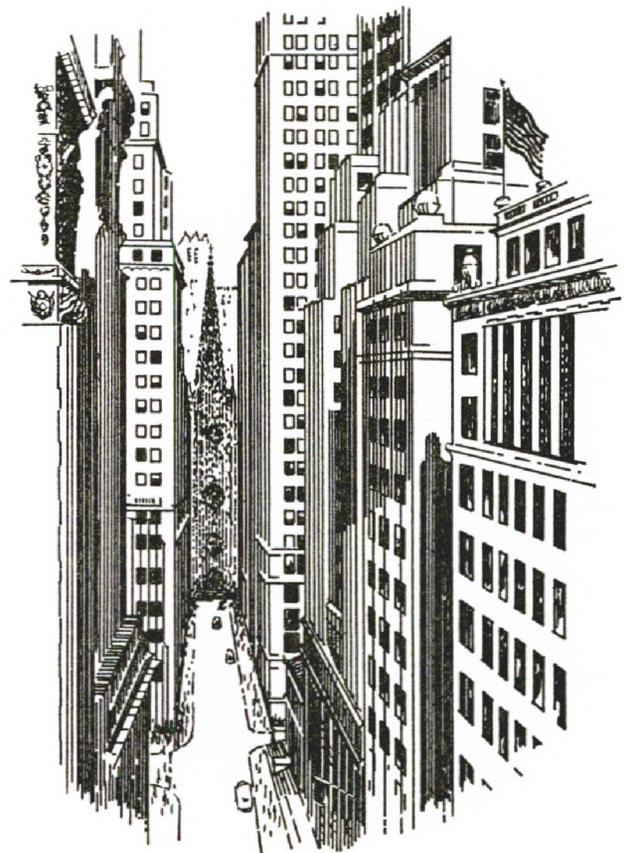
New municipal security issues raised \$11 billion in gross receipts. Approximately one-third of these issues went for educational purposes—somewhat less than the year before—and another one-third was split between water and sewage projects and highway and other transportation projects. There was also a shift in the composition of purchases. Higher yields made municipals more attractive to individual buyers and so households bought \$4 billion of these securities, while restrictive monetary policy limited the commercial banks to abnormally low purchases of only \$2 billion.

Tumult and flexibility

The first impression of 1966 is one of change and tumult in the capital markets. But the year also exhibited something else—the marvelous flexibility of the nation's financial system. Here were markets which faced simul-

taneously a record demand for finance and a restrictive monetary policy which bore most heavily upon the prime sources of funds, the banks and the nonbank financial institutions. Yet the markets permitted, albeit with some grinding of gears, a successful shift to alternative channels which had not been so fully utilized before.

With a combination of more direct issues and suitable price adjustments in the form of different relative yields, a record volume of financing was accomplished. This does not mean that all borrowers or lenders were happy with developments during the year; this cannot be expected, since some adjustment of plans is inherent in the adjustment process. But the record for 1966 confirmed that the financial markets can respond to changes in relative prices of borrowed funds by rearranging patterns of financial flows around the bottlenecks that inevitably arise.



Disintermediation

NINETEEN SIXTY-SIX is not likely to be remembered by the nation's bankers as just another year. True, developments in a number of respects suggested a retelling of 1965's banking story—most notably a further vigorous demand for credit on the part of businesses, and additional changes in the ground-rules designed to affect the ability of banks and other financial institutions to compete for the supply of loanable funds. But there were some new twists as well.

In 1965, the combined effect of market forces and regulatory changes enabled commercial banks to sharply expand their share of funds raised in and supplied to the credit markets. In 1966, however, these factors tended to reduce the banks' role quite substantially. The process involved, known as "disintermediation," meant in effect that businesses, households and governments reduced both their deposit flows into the banking system and their borrowings from the banking system.

As suppliers of credit, commercial banks accounted for only one-fifth (about \$17 billion) of the total funds supplied to the credit markets in 1966—a little more than half the proportion realized during the previous year. And, in marked contrast to each preceding year of the 1961-66 business expansion, bank credit growth, at a 6-percent annual rate, was slower than the pace of either total debt or of GNP.

Business boom

The business sector, in 1966 as in 1965, accounted for most of the rise in bank credit, notwithstanding the absence of the special factors, such as the dock strike and threat of a steel strike, which contributed to 1965's exceptionally large rise in borrowings. At \$10 billion, the net gain in business loans fell somewhat short of 1965's increase, but as a

proportion of total bank lending, businesses' share was much greater—over two-thirds, compared with two-fifths the year before. Less than half of the major industrial sectors increased their borrowings more rapidly during 1966—most notably primary metals, machinery, transportation equipment, chemicals, and food processors. But with the exception of commodity dealers and the construction industry, borrowings by other industry groups were still very substantial by historical standards.

The continuing strength of business loan demand reflected the continued sharp rise in plant-equipment outlays, the need to finance higher levels of inventory, and stepped-up tax payments—all of which widened the gap between outlays and internally generated funds and increased the need for external financing. Nevertheless, banks accounted for a smaller proportion of business' expanded credit needs in 1966, due in part to a progressive stiffening in both price and non-price terms of lending. (The prime rate rose from 4½ percent in January to 6.0 percent in August.) Reflecting these changes, the average rate on short-term business loans made by banks in major financial centers increased by somewhat more than a percentage point (to 6.31 percent) from December to December, and the proportion of loans made at less than 6 percent dropped from 84 percent to 3 percent over that same period.

Boom curbed

During the first seven months of the year, however, business loans expanded at an annual rate of 22 percent (30 percent in June and July) and gave little evidence of moderating in the face of higher borrowing costs. This upsurge may have been due to a strong expectational element in loan demand, as corporate treasurers correctly anticipated higher costs

of raising funds not only from banks but in the bond markets as well—a consideration underscored by the late-summer rise in bond yields to 40-year highs. In fact, to meet the heavy business demands for funds, banks greatly accelerated the liquidation of their security portfolios—particularly U. S. Governments—and this factor itself contributed to the runup in yields.

Concerned over the implications of these trends for orderly conditions in the security markets, as well as for the banks' own liquidity, and concerned that the rapid rise in business loans was contributing to inflationary pressures, the Federal Reserve System moved in midsummer to curb the growth of business lending. One important measure was the letter of September 1, which strongly urged banks to curb their business loans while at the same time assuring them that the discount window would stand ready to assist in adjusting their positions if necessary to forestall a further liquidation of securities.

The restraining action taken by the banks and the easing of market pressures generally quickly reduced the growth in business loans, to a 5½-percent annual rate in the final quarter of the year, and made possible the with-



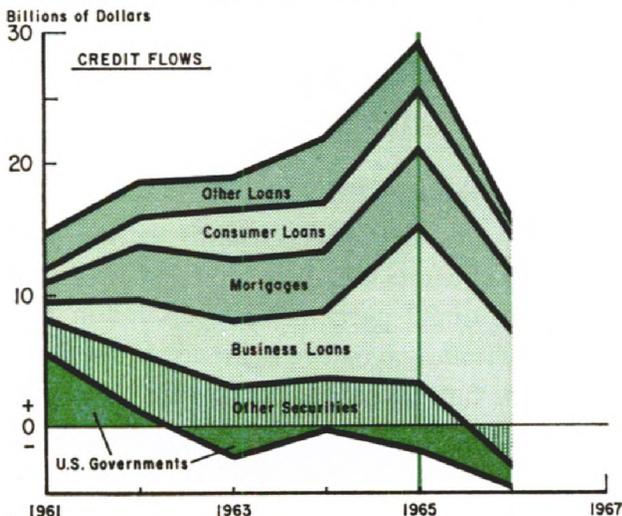
drawal of the Federal Reserve letter on December 28.

Other demands on banks

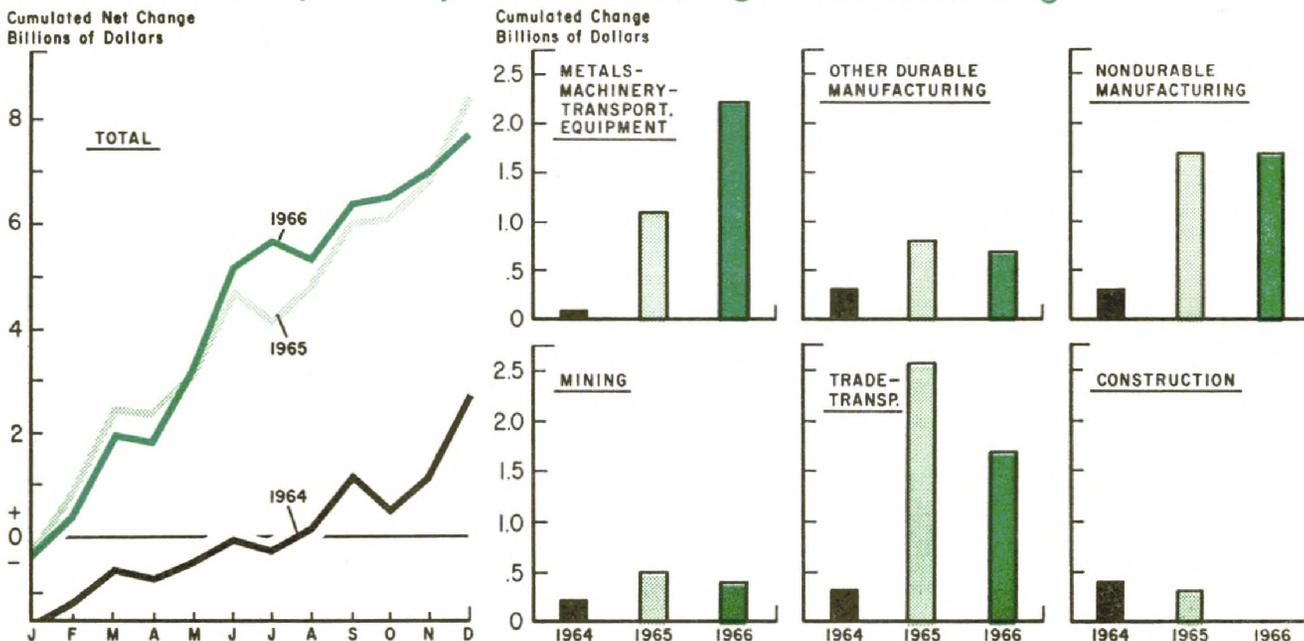
While business again obtained the lion's share of bank credit in 1966, consumers and mortgage borrowers also found accommodation, but, like their business counterparts, at a higher cost and reduced volume. Consumer loans rose by a little over \$3 billion (8 percent), with two-thirds of the increase representing auto financing. On balance, however, banks financed only about two-fifths of consumer credit, down from the one-half share maintained in the earlier years of this business expansion.

Mortgage portfolios rose by less than \$5 billion (9 percent), as the banks just about maintained their one-fifth proportion of a sharply reduced total of real-estate loans. While banks were holding their own, non-bank financial institutions found their combined share declining sharply; savings-and-loan associations alone suffered a one-half reduction in net mortgage lending, and thereby saw their share decline from one-third to less than one-fifth of the total.

Banks supply only half as much credit as in '65, despite business-loan boom



Business-loan growth slows sharply in late '66 after first-half upsurge
 . . . loan demand sparked by boom in durable-goods manufacturing



Banks also sharply moderated their acquisition of state-local government obligations during 1966. As holdings of tax-exempt securities rose by only about \$3 billion, banks garnered less than a third of the net increase in municipal debt obligations—substantially less than the average share of two-thirds realized by banks in the earlier years of the current expansion.

But more significant was the accelerated liquidation of U. S. Government security portfolios, as banks found their growth of reserves and deposits insufficient to meet the credit demands of businesses, consumers and local governments. Most of the \$3½-billion net decline in holdings of U. S. Governments centered in short-term issues, and this decline thus pushed one traditional measure of bank liquidity, the ratio of short-term governments to deposits, to a postwar low. (Another measure, the loan-deposit ratio, reached a year-end record of 67 percent for all member banks and 84 percent for New York City member banks.) But in the face of a slowdown in loan growth, a generally improving reserve

position, and a rallying bond market, banks exerted considerable effort to improve their liquidity positions during the closing months of the year.

Pressure on deposit side

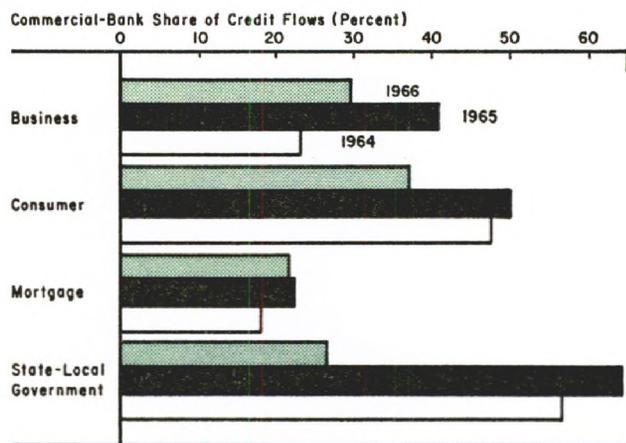
“Liquidity” depends, of course, upon sources of funds as well as their uses, and it was on the sources or deposit side of the ledger that some of the more interesting chapters in 1966’s banking story were written. Demand deposits rose by only \$½ billion, just a fraction of the 1965 increase, as households and other sectors held working balances to a minimum while shifting funds into high-yielding time deposits and other debt instruments. (In fact, households and governments actually reduced their holdings of demand balances and currency.)

On the other hand, time and savings deposits again showed a substantial increase, but at \$11 billion, the gain was little more than half that of 1965. The slower growth in bank reserves, the growing squeeze on business funds, and the rise in market interest rates all contributed to this slowdown in time-de-

posit flows. In addition, advancing rates on money-market instruments reduced the competitive attractiveness of deposits subject to the ceilings of Regulation Q—4 percent on passbook savings and, until late July, 5½ percent on other time deposits.

In July, however, the ceiling was rolled back to 5 percent on multiple-maturity time deposits (other than savings) of 90 days or more, and to 4 percent on such deposits of less than 90 days maturity. In August, a further rollback, from 5½ percent to 5 percent, was effected on single-maturity time deposits (other than passbook savings) of less than \$100,000. These moves, which were accompanied by the imposition of interest-rate ceilings on savings-and-loan associations and mutual savings banks, were specifically designed to maintain “a viable competitive balance” between banks and other depository type institutions and, hopefully, to assure a greater flow of funds to housing.

Disintermediation: banks account for smaller share of credit flows



(In 1966, the gross inflow of deposits into S&L’s increased by 15 percent, but withdrawals were up by over 34 percent.)

In a series of related moves, reserves on bank time deposits in excess of \$5 million (other than passbook savings) were raised twice, from 4 to 5 percent in July, and to 6 percent the next month. By raising the cost of funds to banks, the moves also were designed to serve as an added inducement to curtail business lending.

More significantly, no action was taken to relieve the pressure on large-denomination time certificates when the mid-summer rise in market yields reduced the competitive attractiveness of these instruments. The result, in line with the intention of the monetary authorities, was additional pressure on banks, from the supply side, to moderate the pace of business lending. As a result, large-denomination CD’s declined by about \$3½ billion between mid-August and mid-December, to a level below that which prevailed at the beginning of the year. But some recovery was evident in the closing weeks of 1966, as the competitive attractiveness of CD’s was enhanced by a fall in market yields from their summer highs.

On balance, commercial banks again ended the year with the lion’s share of the funds (over 60 percent) accruing to depository-type institutions. However, the principal message of the attrition of deposits in late summer and fall was clear: banks could no longer count with certainty on their ability to “buy liquidity,” through such instruments as CD’s, at whatever price dictated by market forces.

The West: Boom

THE Western economy surged upwards in 1966, as personal income in the region rose about 9 percent to almost \$95 billion. Measured by the yardstick of personal income, the Twelfth District's 1966 performance was somewhat better than that of other areas, and it was half again as good as the region's very respectable 1965 performance. Nonetheless, the West like the rest of the country showed scattered signs of sluggishness towards year-end.

Retail sales were generally buoyant in Twelfth District States during the year, the 8-percent increase being roughly in line with the national rate of gain. Auto sales were somewhat stronger in the West than elsewhere, despite a decline in new-car registrations, but sales at other durable-goods stores lagged the national pace.

The upsurge in income and sales was based on the strong trend of employment in practically every industry except construction. As total employment rose 5 percent—almost equal to the total gain of the two preceding years—substantial increases in activity were recorded by the manufacturing, services, and government sectors. Farm employment was off, however, and construction jobs declined by 4 percent over the year.

Some slackening in the pace of the business expansion showed up in the employment figures as the year progressed. Total employment in District States jumped by 1½ percent during the first quarter but grew somewhat more slowly in succeeding quarters of the year. Thus, with the usual growth in the number of job-seekers, the unemployment rate rose gradually from a second-quarter figure of 4½ percent to a fourth-quarter rate of 5 percent, which was no better than the rate prevailing in late 1965.

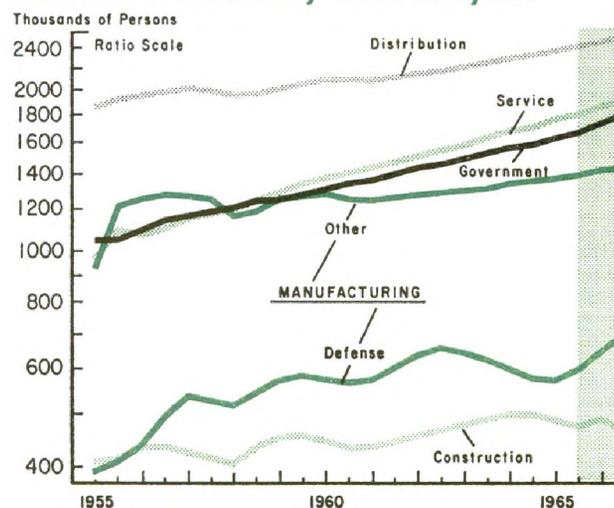
Again in the stratosphere

Aerospace manufacturing, the locus of Western troubles in 1963-64, was the locus of Western prosperity in 1965-66. Employment in this crucial industry rose by 138,000 between its early-1965 low point and late-1966 peak, and it rose by 90,000 in 1966 alone. The aerospace boom was the key element in California's growth, where it accounted for one-half of all new manufacturing jobs, and even more so in Washington's upsurge, where it accounted for nine out of ten new factory jobs.

This improvement was partly traceable to the upturn in new defense business garnered by District firms, which increased by 8½ percent in fiscal 1966 after two years of decline. (In the rest of the country, however, new Defense Department orders jumped 42 percent in fiscal 1966.) This gain, which was offset only to a small extent by a decline in space awards, signalled an end to the problems which had beset the industry from late 1962 until early 1965.

The aerospace improvement was also supported by a continued influx of new orders for commercial aircraft. This order inflow was so

Employment surges in first half but rises more slowly after midyear



FEDERAL RESERVE BANK OF SAN FRANCISCO

strong that it boosted backlogs at two major District firms by three-fourths (to \$6½ billion) within a year's time—and it was in fact so strong that it caused severe scheduling and financial problems for these manufacturers.

The order upsurge accentuated the problem of securing adequately trained workers, and it thus necessitated intensive training programs and extensive recruiting efforts. Moreover, as orders continued to mount during the year, the difficulties of securing jet engines and equipment from subcontractors increased. Aircraft deliveries thus fell progressively behind schedule, and by late December these delays prompted adjustments in production scheduling at several firms.

Still in the depths

The sagging fortunes of the construction industry stood in sharp contrast to the growth record of other regional industries. On the heels of a slight 1965 decline, the industry suffered an even sharper decline in 1966 as new contract awards dropped from \$9.0 bil-

lion to \$8.2 billion over the year. Nonresidential and heavy construction expanded, but not as rapidly as elsewhere, and the growth in these sectors was far offset by the decline in the moribund housing industry.

Residential construction contracts fell from \$3.8 billion in 1965 to about \$2.7 billion in 1966. This slump reflected both the nationwide difficulties of financing mortgages in a tight money market and the continued region-wide softness in housing markets. Even after several years of declining construction activity, demand factors remained relatively weak in the Western market—witness the third-quarter rental-vacancy rate of 10.2 percent (vs. a 6.8 percent rate elsewhere) and the homeowner-vacancy rate of 2.3 percent (vs. 1.3 percent elsewhere). The drop in activity was especially large in Southern California, with a 40-percent decline for the year—which was not surprising, since this region had built up the largest surplus of housing in the boom of the early 1960's.

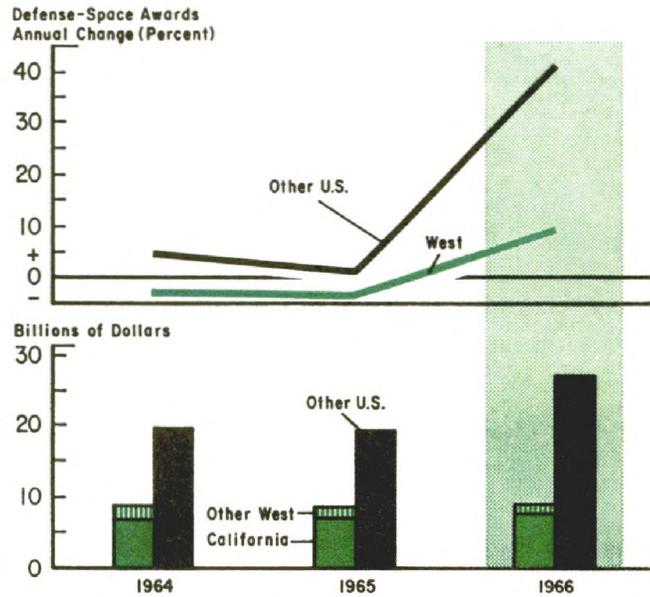
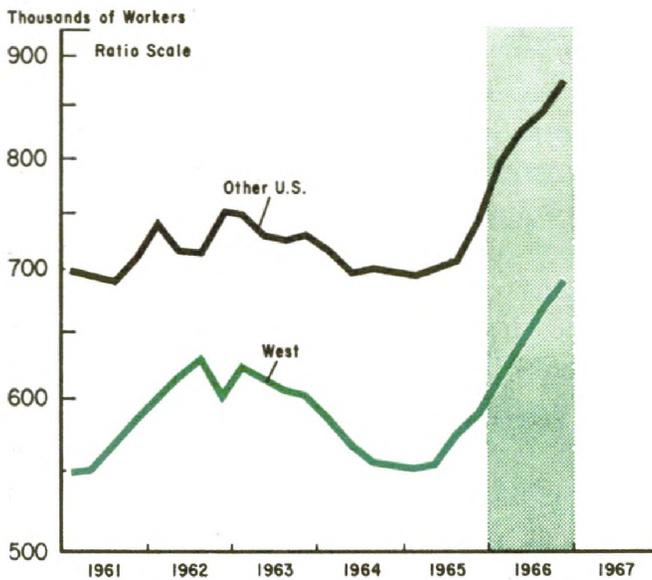
INDEXES OF INDUSTRIAL PRODUCTION — TWELFTH DISTRICT

(1957-59 = 100)

INDUSTRIAL PRODUCTION	1959	1960	1961	1962	1963	1964	1965	1966p
Copper	86	112	119	127	128	129	140	145
Lead	93	76	99	105	103	96	93r	110
Zinc	96	86	97	101	98	93	89r	95
Silver	94	91	105	105	105	102	114	128
Gold	90	99	92	86	86	85	116	130
Steel Ingots	92	102	111	100	117	132	138	140
Aluminum	101	101	97	107	118	135	150	165
Crude Petroleum	96	95	96	96	97	97	102r	111
Refined Petroleum	101	104	108	111	112	115	120	122
Natural Gas	104	112	121	127r	144r	148r	147r	148
Lumber	109	98	95	98	98r	108r	107r	104
Douglas Fir Plywood	118	120	132	142	160	177	180	180
Canned Fruit	112	111	116r	121r	108r	141	109r	133
Canned Vegetables	95	101	89	106	96	100	97r	110
Meat	101	107	111	112	115	126	126r	130
Sugar	108	105	107	113	120	138	137r	132
Flour	102	102	99	101	94	96	92	91
Creamery Butter	102	112	120	119	103	103	96	84

p—Preliminary. r—Revised.
Source: Federal Reserve Bank of San Francisco.

Aerospace boom sparks regional recovery as defense employment jumps, but inflow of defense orders lags behind inflow into other regions



Nonresidential building activity rose 4 percent above the 1965 level, to \$3 billion in new contract awards. Sharp gains in factory and hospital building, and the continued boom in office building, offset declines in scattered sectors elsewhere. The high level of industrial building, a nationwide phenomenon, was characterized in the region by a building boom in aerospace factories, oil refineries, and aluminum reduction plants.

Heavy construction added a 9-percent gain in 1966 to its even stronger 1965 performance as new contracts rose to \$2½ billion over the year. Fewer highway and bridge contracts were recorded during the year, but big construction gains occurred at dams, water-supply systems, and electric-power systems.

Tied to construction

The Western lumber industry, tied as it is to the national construction industry, suffered declines in output and prices during 1966. Lumber activity spurted briefly during the spring months because of temporary strength in residential construction, strike hedge-buying, and heavy military and industrial de-

mand. But from then until fall, orders plummeted in the industry as housing activity declined nationwide and as customer inventories were liquidated following the industry's mid-year labor-contract settlement.

In the fall months, the prices of key grades of Douglas fir (which had been 25 percent above year-before levels in April) were somewhat below year-before marks, and plywood prices showed even greater gyrations. Caught in the squeeze between declining prices and rising labor and stumpage costs, some smaller Northwest mills closed down during this period. The price situation improved somewhat in the last two months of the year in line with a slight improvement in orders and further cutbacks in supply, but price quotations still remained below year-earlier levels.

The Western steel industry, responding to heavy demand from the nonresidential and heavy construction sectors as well as from the ordnance and other defense sectors, raised output by 2 percent to 6.8 million tons for the year. But Western output was supplemented by a heavy influx of imports, as foreign producers increased their share of the Western

steel market from 22 to 25 percent over the year.

Despite the growing tide of imports, domestic steel producers boosted the price of heavy plate to \$2.95 a ton in March, and the price of hot- and cold-rolled steel and strip to \$3.00 a ton in August. These price boosts pushed the steel price index up about 2 percent during the course of the year.

Busy farmers and canners

Another major regional industry, agriculture, recorded a 7-percent rise in marketing receipts, to \$6.5 billion, because of a good gain in crops and an even stronger rise in livestock receipts. But this gain was smaller than the national increase, and for that matter all regional states did not share in the boom; receipts of Arizona farmers were hurt by a decline in cotton acreage and receipts of Idaho farmers were hurt by reductions in wheat output and potato prices.

The volume of livestock marketings rose during 1966 as an increased volume of beef and poultry offset fewer marketings of hogs, calves, and sheep. The upsurge in meat prices also induced a sharp gain in imports as, for example, beef imports rose by 12 percent and canned meat imports by 40 percent. Crop output meanwhile declined by 5 percent from the 1965 level, as crop yields fell off somewhat and as harvested acreage dropped slightly to 19.4 million acres despite an acreage increase in Northwest states.

The number of workers on Western farms continued to drop during 1966 as average monthly employment fell 6 percent to 590,000. Most of this decline occurred because of a drop in the number of farm operators and unpaid family workers, but some of the decline was also due to the use of fewer foreign contract workers in California. Wage rates of hired workers rose in step with the national 8-percent gain. Although some Western states recorded below-average increases in wage

rates, the level of rates in all of these states remained slightly or (in some cases) substantially above the U. S. level.

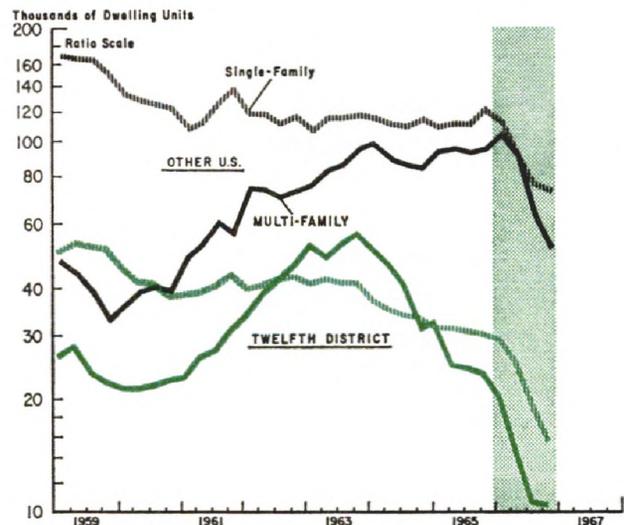
Western canners spent a busy year—in contrast to their poor 1965 performance—processing a record volume of fruits and vegetables. Suppliers of raw materials, especially processing tomatoes, were far more abundant. The output of tomatoes rose 28 percent to 3.2 million tons, with two-thirds of the crop being harvested by machine, and the output of peaches also rose sharply as Washington rebounded from its 1965 crop failure and as California eased controls over output.

In view of this more abundant supply, prices paid by canners were generally lower than in 1965. Contract prices for tomatoes were lower than the unusually high prices which were offered to growers in 1965 because of the supply uncertainty created then by the termination of the bracero program. Contract prices for most California deciduous fruits were also lower than in 1965—except for cling-stone peaches, which advanced in price despite the heavier crop.

Strength in extraction

The region's nonferrous-metals producers expanded their production during the year,

Housing activity slumps disastrously as demand slows and money tightens



but not fast enough to keep up with the record-breaking pace of military and civilian demand. Producer prices remained under heavy pressure, but prices were maintained by the release of considerable quantities of copper and aluminum from government stockpiles and by the establishment of export controls over copper. More than 400,000 tons of copper and half that amount of aluminum were sold from government stockpiles to meet civilian and defense "hardship" needs.

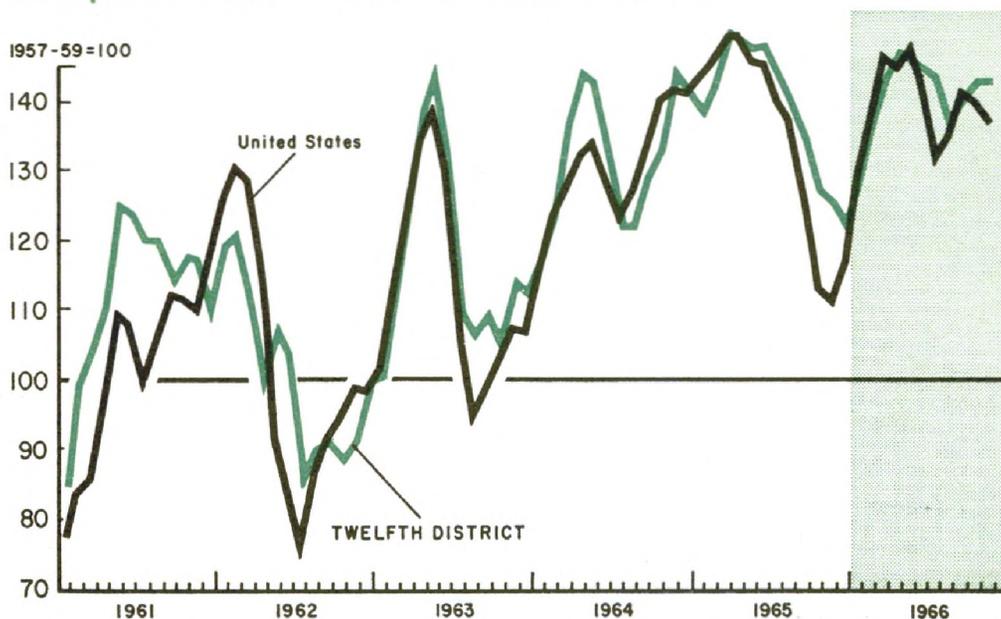
Shortly after the year ended, however, copper and aluminum producers finally pushed through price increases. Refined copper prices rose from 36 to 38 cents a pound, despite the release of another 150,000 tons of stockpile copper, and aluminum ingot prices rose from 24½ to 25 cents a pound.

Western crude-oil producers increased their output by 10 percent during the year; California producers provided most of this increase, but Alaskan producers showed an even sharper percentage gain. The increase in

Western supplies of crude supplied a modest 2-percent rise in refinery output and obviated the need to increase crude imports. However, Arabian and Canadian producers increased their shares of the import market. The region's industrial boom meanwhile supported a 6-percent increase in demand for refined products, and Western refineries also boosted their shipments of assorted oil products to other states and their shipments of jet fuel to the Pacific war zone.

On balance, then, the West posted a very respectable record in 1966, considering the deep and prolonged recession in its important residential-construction sector. The strong improvement in the aerospace and extractive industries, the other major foundations of the regional economy, brought about rapid gains in employment and income and at least a stand-off in the never-ending struggle against unemployment. The continued recent strength of these industries presaged brisk gains for 1967 as well—assuming at least a modicum of recovery in the still-moribund housing sector.

Western steel industry raises output in response to construction and defense demand



The West: Money

IN 1966, as in 1965, major Twelfth District banks trailed behind the fast lending pace set by large banks in the rest of the nation. Even so, they posted a respectable 6-percent gain for the year, despite a somewhat erratic lending pattern: a small first-quarter increase, followed successively by a sharp gain, a net reduction, and finally another sharp gain in the final quarter of the year. District banks meanwhile made a small net addition to their security holdings, whereas leading banks nationally reduced their investments to meet loan demand. Due to this diverse movement, therefore, Western banks expanded their total bank credit (loans plus investments) at a somewhat higher rate than did their counterparts elsewhere. (These data refer to the weekly reporting bank series unless otherwise noted.)

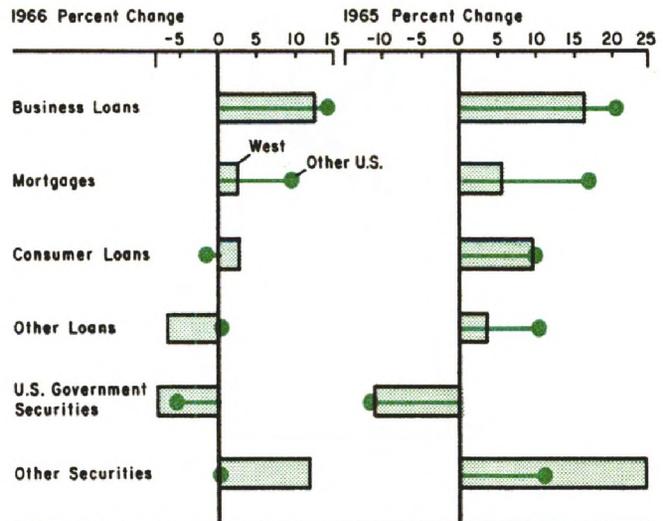
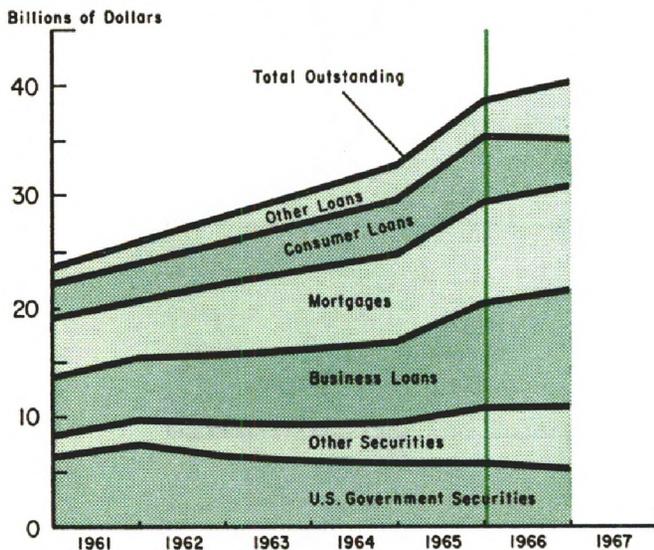
Western banks, in common with other banks, faced intense competition last year for time-and-savings deposits—for consumer-type time deposits the competition probably was more severe in the West than anywhere else in the country. Yet, major District banks

ended 1966 with a 7-percent increase in total time-and-savings deposits, almost double the rate of gain experienced by major banks elsewhere. This stronger performance was partly due to their success in posting a small second-half increase in large-denomination certificates of deposit, in contrast to the very large attrition in CD's which occurred nationally. On the other hand, Western banks fared less well in demand-deposit growth than other leading banks, and in fact they ended the year with a small net decline in demand deposits.

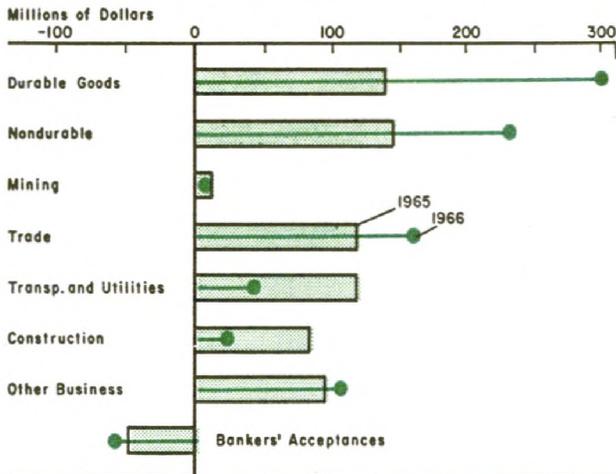
From an earnings standpoint, 1966 was a good year for Western banking. The upward movement in interest rates on loans and investments more than offset the higher average interest costs which banks had to pay on their time deposits. Preliminary 1966 data indicate that most District banks substantially increased their net operating earnings over the previous year's depressed net-earnings level, despite 1966's massive shift in deposits from lower-interest bearing savings accounts to higher-interest bearing time certificates.

From another standpoint—growth in bank

Total bank credit rises, but more slowly than in previous year, as District weekly reporting banks lag in all loan categories



Durable-goods manufacturers spark strong gain in business loans



numbers—the record was somewhat different. Only 3 new banks were opened (as against 28 in 1965 and 65 in 1964) and even that growth was offset by a certain number of mergers and consolidations, so that the District ended the year with 10 fewer banks than it had when the year began. New-branch activity also fell off—170 branch openings (and 5 closings) in 1966 as against 237 openings in 1965. This hesitancy to expand banking offices probably reflected management's increasing cost consciousness and intensified deposit competition, as well as some reaction to the very rapid expansion pace of the earlier years of this decade.

Limited reserve pressure

Recourse to the discount window by Twelfth District member banks was relatively limited in light of the stringent monetary policy prevailing throughout most of 1966. Despite a third-quarter peak of \$57 million, discounting averaged only \$35 million for the year as a whole. Excess reserves meanwhile averaged \$31 million for the year. Thus, District banks recorded net borrowed reserves of only \$4 million in 1966—a mere fraction of the \$278-million total for all member banks—and they actually posted net *free* reserves

in both the second and fourth quarters of the year. (All data are on a daily average basis.)

Some reserve pressure was reflected in District Federal-funds transactions—purchases and sales of uncommitted bank balances on deposit with Federal Reserve Banks. The twelve major District banks in the reporting sample borrowed about \$9 million from banks in 1966 through net Fed-funds purchases (daily average basis). A number of these District banks resold to Government securities dealers some of the Fed funds they purchased from banks, but others purchased Fed funds primarily to adjust their own reserve positions.

West Coast banks continued to rank second—next to New York City banks—as a money-market center for Fed-funds transactions. Seven leading Western banks accounted for 19 percent of the rising volume of gross inter-bank Fed-funds transactions in 1966, and an even higher proportion (23 percent) of two-way transactions. (The latter is the amount of offsetting sales and purchases of funds made by an individual bank and indicates the degree of “trading” in funds—as opposed to purchases or sales to adjust a bank's own reserve position.) Moreover, through frequent Fed-funds sales to U. S. Government securities dealers, Western banks broadened their participation in this sector of the money market as well.

Last year, major District banks were generally successful in halting the accelerated deterioration in liquidity which occurred the previous year. In 1966, their loan expansion of \$1.6 billion was approximately the same as their increase in daily average deposits. Therefore, their loan-deposit ratio moved during the year within a very narrow range—from 71 to 72 percent—while loan-deposit ratios elsewhere continued to edge upward. But according to another yardstick, the ratio of bank holdings of short-term U. S. Government securities to total deposits, District banks suffered some loss of liquidity. This

ratio moved from 4.7 percent at year-end 1965 to a low of 2.0 percent in May, and then up to 4.5 percent at the close of 1966—slightly below the ratio of other leading banks.

Business loans predominate

Business demands for credit accounted for the vast bulk of the District loan expansion, as commercial-industrial loan portfolios of weekly reporting banks rose by more than \$1 billion over the year. Even so, this 12-percent gain fell short of 1965's business loan increase—and fell short of the increase recorded by leading banks elsewhere—largely because of the West's sharp third-quarter decline in business borrowing. On the other hand, the West bounced back with a sizable fourth-quarter gain in commercial-industrial loans, in contrast to a continued lag in business loan expansion nationally.

Notwithstanding the lower over-all increase in the volume of business borrowing, durable and non-durable goods manufacturers relied more heavily on bank credit than in the preceding year—reflecting the strength of these sectors in the District's economy and the failure of internally generated funds to keep pace with their expanding financial needs. These factors were particularly evident in the substantial increase in bank loans to manufacturers of transportation equipment and other fabricated-metal products. (Increased financing needs in this sector also reflected the large inventory build-ups created by delays in deliveries of parts by subcontractors.) On the other hand, the public utilities and construction sectors added less to their bank debt than they did in 1965.

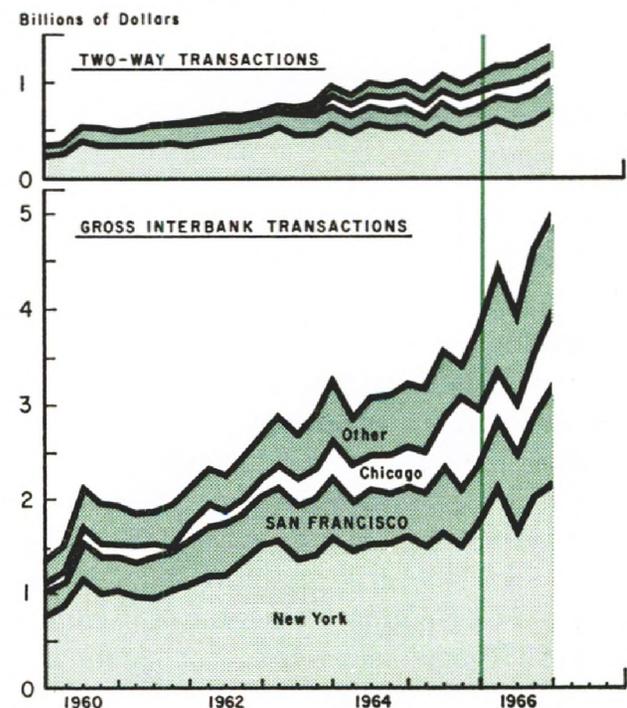
Business borrowing in the West (and everywhere else) became progressively more costly in 1966 as the rate charged prime borrowers was increased and as rates charged other borrowers were realigned with the higher prime rate. The average interest rate on short-term

business loans made by banks in major District cities rose from 5.27 percent in December 1965 to 6.35 percent in December 1966. But the average rate leveled off in the fourth quarter, and non-price terms of lending also tended to firm less than they did in earlier quarters of the year.

Mortgages remain unpopular

District weekly reporting banks expanded their mortgage portfolios last year at only half the 1965 rate of increase, and for the second successive year, these banks had a substantially lower rate of expansion in this category than leading banks nationally. The decline in banks' mortgage lending activity partly reflected the strong demand for credit from the business sector, which, combined with a high loan-deposit ratio, made banks reluctant to channel their limited funds into long-term mortgage commitments. The drop in savings-and-loan mortgage activity, on the other hand, was related more closely to the sharp decline in savings inflows. For both banks and S&L's,

Leading Western banks account for one-fifth of Fed-funds dealings



SELECTED ASSET AND LIABILITY ITEMS OF WEEKLY REPORTING LARGE BANKS IN THE TWELFTH FEDERAL RESERVE DISTRICT

(dollar amount in millions)

	Twelfth District Outstanding Dec. 28, 1966	Twelfth District Net Change			Other U.S. Net Change Dec. 29, 1965 to Dec. 28, 1966
		Dec. 29, 1965 to Dec. 28, 1966		Dec. 30, 1964 to Dec. 29, 1965	
		Dollars	Percent	Percent	
Total loans and investments	\$40,849	+1,767	+ 4.5	+ 7.6	+ 4.1
Loans adjusted and investments	40,229	+1,746	+ 4.5	+ 7.5	+ 4.0
Loans adjusted	29,297	+1,617	+ 5.8	+ 9.5	+ 7.3
Commercial and industrial loans	10,700	+1,179	+ 12.4	+16.5	+14.8
Real estate loans	9,228	+ 207	+ 2.3	+ 5.1	+ 9.9
Agricultural loans	1,154	+ 19	+ 1.7	+ 4.3	+ 3.9
Loans to nonbank financial institutions	1,615	- 176	- 9.8	+10.8	+ 2.3
Loans for purchasing or carrying securities					
To brokers and dealers:	509	+ 279	+121.3	-31.6	- 1.5
To others:	169	- 1	- 0.6	+14.0	- 7.6
Loans to foreign banks	297	+ 1	+ 0.3	- 5.6	- 3.6
Other loans (mainly consumer)	6,106	+ 157	+ 2.6	+ 9.3	- 3.0
Total investments	10,932	+ 129	+ 1.2	+ 2.9	- 3.6
U. S. Government securities	5,247	- 457	- 8.0	-11.2	- 6.8
Treasury bills	1,055	+ 30	+ 2.9	-15.6	-10.0
Treasury certificates of indebtedness	99	+ 99		0	
Treasury notes and bonds maturing:					
Within 1 year	637	- 138	- 17.8	- 8.0	-19.1
1 to 5 years	2,018	+ 52	+ 2.6	-22.7	+ 1.8
After 5 years	1,438	- 500	- 25.8	+ 6.3	-13.5
Other securities	5,685	+ 586	+ 11.5	+24.4	- 0.5
Total deposits (less cash items)	40,118	+1,376	+ 3.6	+ 6.8	+ 2.3
Total demand deposits (less cash items)	15,476	- 262	- 1.7	- 0.7	+ 0.8
Demand deposits adjusted	14,197	- 332	- 2.3	+ 0.6	- 1.0
Time and savings deposits	24,642	+1,638	+ 7.1	+12.6	+ 4.1
Savings deposits	15,115	-1,399	- 8.5	+ 8.3	- 6.4
Other time deposits IPC	6,062	+2,904	+ 92.0	+34.2	+20.9
Capital accounts	3,434	+ 68	+ 2.0	+ 6.1	+ 4.6
Total assets/liabilities and capital accounts	50,003	+2,247	+ 6.1	+ 7.0	+ 6.3

however, sluggish mortgage demand in South-west areas contributed to the slump.

Western banks made fewer mortgage loans as the year progressed; their net increase in outstandings dropped from \$168 million in the first half of 1966 to \$39 million in the second half of the year. Data on outstandings, however, understate actual *participation* in mortgage markets, for many District banks sold a very substantial volume of both newly-made and seasoned mortgages out of their portfolios to institutional investors.

As banks and S&L's curtailed their lending, mortgage recordings in major metropolitan

areas dropped about one-third below the 1965 level — and probably would have dropped even more if home-owners and builders had not accepted more first and second mortgages themselves in order to sell their properties. In this situation, mortgage interest rates rose sharply; by fall, conventional rates on single-family homes were almost one full percentage point above year-ago levels.

Consumers borrow less

The slackened pace of consumer instalment lending which prevailed in 1965 continued into 1966. Fewer new-car sales meant less

demand for automobile financing, and auto paper thus accounted for only 50 percent of the total increase in consumer instalment loans, as against 56 percent in 1965. But this shift was partly offset by a very rapid rise in loans on other consumer goods paper, which accounted for one-half of the 1966 increase as against one-fourth in 1965.

The growth in loans on other consumer-goods paper reflected the rapid spread of credit-card programs, as an increasing number of Western banks committed themselves to participate in such programs. One major California-based system, which already boasts two million card-holders, during the year signed up co-operating banks in a number of District cities as well as in Boston, Philadelphia and Dallas; a Washington bank initiated its own plan; and a four-bank California system meanwhile prepared to start another plan in mid-1967.

Further shift from Treasuries

District weekly reporting banks ended 1966 with a small net increase in their total security holdings, but with a continued shift in the composition of their portfolios. U. S. Government security holdings declined 8 percent, somewhat less than in 1965, with the reductions taking

place in long-term issues and in notes and bonds maturing within one year. Total short-term holdings of Treasuries, however, were approximately the same magnitude as at year-end 1965.

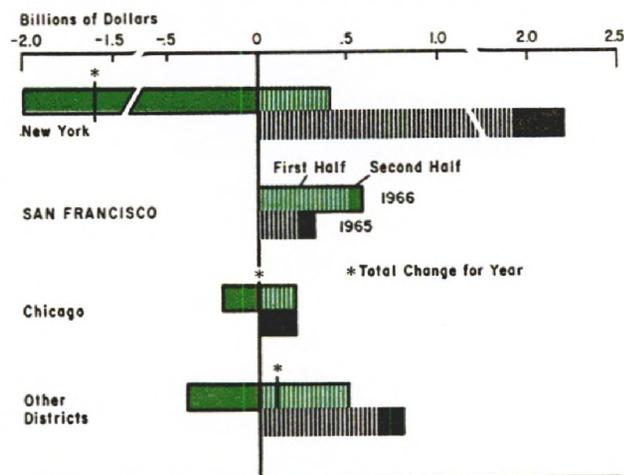
In 1966, as in the previous year, District banks increased their net purchases of other securities. Banks added to their obligations of states and political subdivisions in the first half of the year, but reduced their holdings in the last six months. Moreover, they followed a similar pattern in acquiring Federal Agency participation certificates—additions in the first part of the year and liquidations in the last half. As a result of these diverse movements between U. S. direct-guaranteed securities and all other securities, District banks ended the year with approximately the same volume of total investments, but with a heavier weighting in securities other than Treasury issues.

Mixed deposit experience

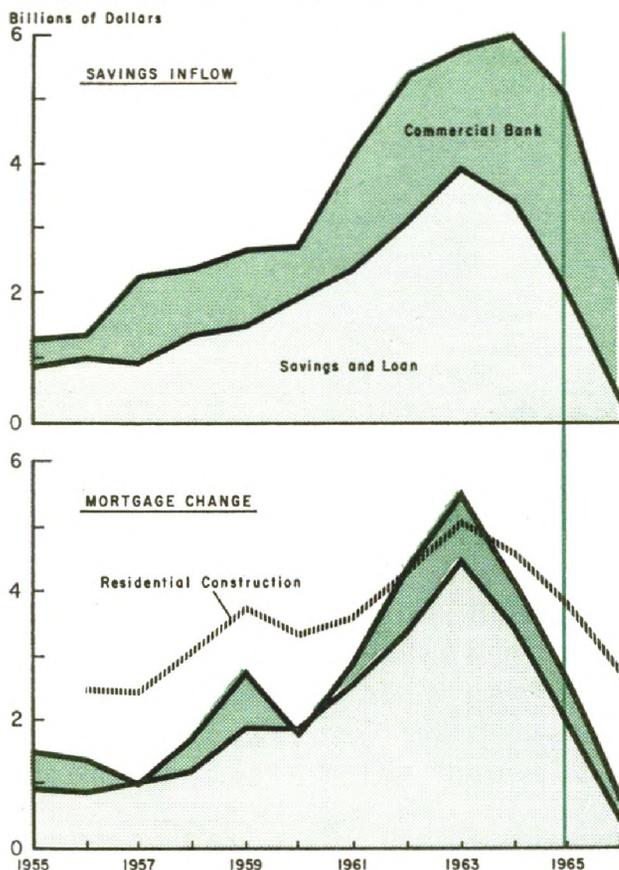
Western bankers, like their counterparts elsewhere, focused their major attention last year on the competition for deposits. The expanding loan portfolios of District banks did not bring about a commensurate increase in demand deposits. Although demand deposits rose by an average \$77 million during 1966 on a daily average basis, the volume of both total demand deposits (less cash items in the process of collection) and demand deposits adjusted (less U. S. Government and inter-bank deposits) was lower at year-end than at the end of the previous year. In general, then, District banks did little more than hold their own as far as checking-account deposits were concerned.

But District banks were far more successful in attracting time-and-savings deposits, despite the intense competition for savings funds that prevailed throughout 1966—both from other depositary-type institutions and other

Western banks add to CD's in contrast to attrition elsewhere



Drop in mortgage activity mirrors deep slump in savings inflows



forms of investments. The gain in total time-and-savings deposits was over \$1.6 billion from December to December, and even higher (\$2 billion) on a daily average basis. Although this was well below the record 1965 increase, District banks' performance in this area was far better than that of their competitors in the savings-and-loan field.

There were widely divergent rates of growth among time-deposit categories, due partly to differences in permissible rates under Regulation Q, and partly to rate differentials between Regulation Q ceilings and other money market rates. Early in 1966, a large number of District banks offered various forms of time certificates, tailored to attract individuals' savings, at rates substantially higher than the 4-percent maximum rate on regular savings deposits. As a result, large

shifts ensued throughout the year between these two deposit categories: savings deposits decreased \$1.4 billion at District banks and other time deposits IPC increased by \$2.9 billion, with about one-fifth of this increase being in large-denomination time certificates.

In complete reversal of the 1965 pattern, when New York City banks dominated the issuance of large-denomination negotiable CD's, Western banks in 1966 posted a larger dollar increase in CD's than their Eastern colleagues. Moreover, they added to these deposits even in the second half of the year, at a time when New York City banks had an attrition of over \$1.5 billion. District banks did lose some CD's at certain times during the July-December period when interest rate differentials were strongly adverse, but they managed to maintain far more stability in these deposits than did other major banks.

In one important category—deposits of states and political subdivisions—District banks barely held the level reached in 1965, when they experienced a 20-percent increase in such deposits. Despite greater-than-seasonal gains in April, public deposits thereafter declined rapidly, dipping below the year-ago level before rising seasonally in December. A lower volume of treasurers' unused funds, due to delayed bond issues, and the unfavorable rate differential against CD's in the last half of the year accounted for this failure to attract public deposits. Nevertheless, District banks still held a far higher proportion of public time deposits than did their counterparts elsewhere.

Dismal S&L experience

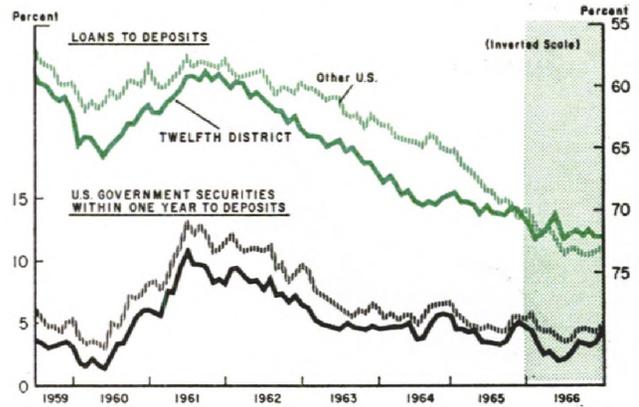
Western savings-and-loan associations came upon hard times during 1966. Their net gain in savings over the entire year was a meager \$1/3 billion—in contrast to a \$2-billion increase in 1965 and gains of almost \$4 billion in each of the several preceding years—as savers shifted their funds to greener

pastures in bank time accounts and government and corporate securities.

The squeeze on District associations was strongest during the spring months; in fact, a net outflow of over \$½ billion actually occurred during April. Associations thereupon raised their savings dividend rates sharply in an effort to retain funds, and by midsummer this effort began to pay off, as District associations held their own in the face of heavy losses by their counterparts elsewhere throughout the country. But despite this turnaround and a late-year improvement in savings inflows, the year as a whole was dismal indeed.

S&L lending activity was squeezed not only by the decline of new savings but also by the shriveling of other sources of mortgage money. Mortgage repayments declined as new mortgage financing became more expensive and less available, and mortgage sales in the Eastern market — normally an important source of funds to Western associations — all but disappeared. Thus, throughout 1966, new-loan volume ran from one-third to one-half below year-ago levels, and loan portfolios

District banks manage to halt deteriorating liquidity situation



showed a net gain of only \$425 million for the entire year.

On balance, the Western financial scene presented in sharp focus the nationwide phenomenon of a stringent competition for funds taking place within a restrictive policy environment. In the West as elsewhere, money flows generally shifted away from bank and (especially) S&L deposits and into credit-market channels — and the lion's share of the funds made available through these shifting channels was absorbed by business borrowers, at the expense of mortgage and other borrowers.

Monthly Review is edited by William Burke. Principal contributors to this issue included: William Burke (U. S. business); Herbert Runyon (fiscal-monetary policy); Ernest Olson (balance of payments); Robert Johnston (credit markets); Verle Johnston (U. S. banking); George Dimmler, Donald Snodgrass, John Booth, Joan Walsh, Yvonne Levy, and Adelle Foley (District business); Ruth Wilson (District banking); Paul Ma (District highlights); R. Mansfield (artwork); and Phoebe Fisher (editorial). *Monthly Review* is published by the Bank's Research Department: J. Howard Craven, Vice-president; Gault W. Lynn, Director of Research.

Signs of Growth

FROM mid-Pacific beaches to mid-Continent mountain ranges, abundant signs of growth were evident throughout Twelfth District states during 1966. Growth showed up in the tangible form of new schools, dams, factories, mine facilities, and airplane designs. First of all, however, growth showed up in the basic statistics.

The West, as already indicated, far outpaced the rest of the U. S. in terms of employment growth. The rest of the country recorded a gain of over 2 percent in total employment—roughly in line with the gains in each of the two preceding years—but every Western region sharply raised its growth rate during the year. The Northwest, with a whopping 7.3-percent gain, far outdistanced every other region. But other Western areas also showed quite respectable increases—5.8 percent for Northern California, 4.7 percent for Southern California, and 3.8 percent for other District states.

Increases in bank lending were not quite so strong as elsewhere. Outside the District, member banks increased their net loans by 9.0 percent; inside the District, the Northwest

led the way with a 7.7-percent gain, while California recorded a 6.3-percent gain and other District states a 3.5-percent increase. In all areas, the 1966 monetary squeeze held the growth in bank loans to at least one-third below the 1965 pace.

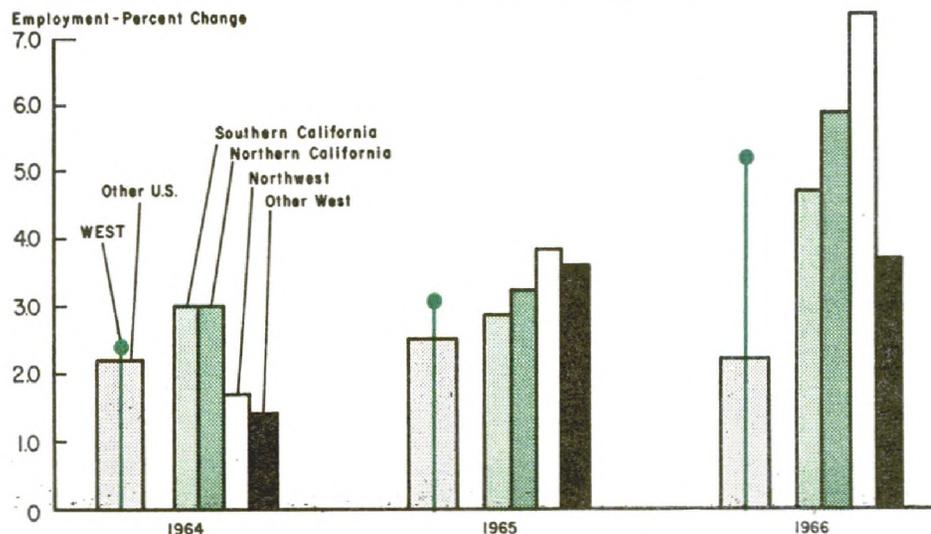
Price pressures were evident in all Western cities last year, but less so than elsewhere—in large part because of smaller increases in food prices. The consumer price index rose about 3 percent nationally, but the index rose at a slightly slower pace in San Francisco and Seattle and went up by only 2 percent in Los Angeles.

In addition to the statistical evidence of Western prosperity, other evidence can be found in the industrial and financial performance of Western businessmen. Some of the year's highlights are given below.

California

Steel. Each of the West's three major steel producers made further progress in expanding its facilities in California in 1966. One company completed another phase in the construction of its new 6-million-ton fully integrated steel complex underway at Richmond, when it placed a 160,000-ton-per-year continuous hot-dip galvanizing line into operation alongside the structural-steel fabricating works opened the previous year. This same company also received a \$20-million contract for construction of the ventilation caisson and trans-bay underwater steel-tube sections for the Bay Area Rapid Transit District, and a \$2.7 million contract from the Bonneville Power Administration for

Every Western region—especially Pacific Northwest—outpaces rest of nation in employment growth



11,000 tons of tower steel to be used in the 138-mile transmission line linking Federal projects with Columbia River power plants.

Another major producer concluded a three-year \$119-million expansion program at its plant at Fontana by adding a new galvanized-sheet mill. The third major producer placed a new high-speed electrolytic tinning line into operation at its Pittsburg works, thereby increasing its capacity for serving the Western canning industry. This company also plans to install a continuous casting facility at its plant in Torrance, at a cost of \$5 to \$10 million.

Aerospace. One major California-based firm completed its major \$75-million expansion program at the Space System Center in Huntington Beach. Most of the facilities of the center are for the design, development, and production of advanced space systems and large vehicles, particularly for the \$1.5-billion Manned Orbiting Laboratory and \$1-billion Saturn programs. The same firm also expanded the number of aircraft production lines from two to three at its Long Beach plant, as a result of a tremendous increase in orders for commercial-jet aircraft. The company has expanded total employment engaged in aircraft production from 20,000 to 47,000 over the past two years.

Another major California-based firm led the list in defense prime-contract awards for the fifth consecutive year, with 4.6 percent (\$1.5 billion) of total awards. The company is producing the \$2-billion Poseidon missile (an advanced new nuclear missile for Polaris submarines), and is involved in the proposed \$20-billion Nike-X anti-missile system. It was a losing finalist, however, in the design competition for the 1,800-mile-per-hour supersonic transport (SST-2000), though it spent about \$20-million on project planning during the past several years.

Petroleum. A huge oil field with a reserve of about 100 million barrels was recently discovered in a 1,600-acre field southeast of

Beverly Hills, a community not usually associated with roughnecking. This field, with a potential value of \$300 million in oil and gas income, is one of the biggest discoveries made in California in 15 years.

Refinery expansion was substantial during the year. One major firm completed its new \$80-million refinery at Richmond—a hydrocracking complex capable of converting heavy petroleum oils to light stock by combination with hydrogen. The 62,000-barrel-a-day facility will enable the plant to increase its output of high-octane gasoline by 40 percent, and at the same time sharply increase hydrogen and asphalt production. Major construction and expansion of refinery facilities also took place at Torrance (100,000-barrels-a-day crude oil processing capacity), Benicia (70,000-barrels-a-day) and Martinez (85,000-barrels-a-day).

Construction. Skyscraper office buildings, hotels, theaters, apartment houses and shopping centers continued to rise in California cities during the year. In the major metropolitan areas alone, construction took place on such projects as the following: the \$650-million Foster City near San Francisco, the \$500-million Century City in West Los Angeles, the \$500-million "Multifamily Community" in Ventura County; the \$350-million Civic Center in Los Angeles, the \$200-million Huntington Harbor Marina in Los Angeles; the \$200-million Mariners' Island in San Mateo, the \$200-million Redevelopment in Sacramento, the \$100-million Golden Gateway Redevelopment in San Francisco, and the \$100-million "Rockefeller Center West" in San Francisco. San Francisco alone could point to construction work on six skyscrapers ranging between 22 and 58 stories in height—and three of these were bank buildings.

Public Works. California continued to lead all other states in its public-works activity. A sampling of these projects included: the \$1-

billion 75-mile Bay Area Rapid Transit System to be completed by 1971 to serve San Francisco, Alameda and Contra Costa counties, the \$205-million rebuilding and expansion of the Port of Los Angeles to be completed in 1975, the \$150-million expansion of the Port of Long Beach (the largest man-made berthing facilities in the world) to be completed in 1980, the \$70-million 7-mile San Mateo-Hayward bridge to be completed in 1967, and the \$12.7 million expansion program for the Port of Oakland (including a 42-acre terminal for containerized operations) to be completed in 1968. In addition to current highway work, highway engineers have on their drawing boards a \$5-billion plan for about 1,600 miles of freeway to be built in the Los Angeles area by 1980.

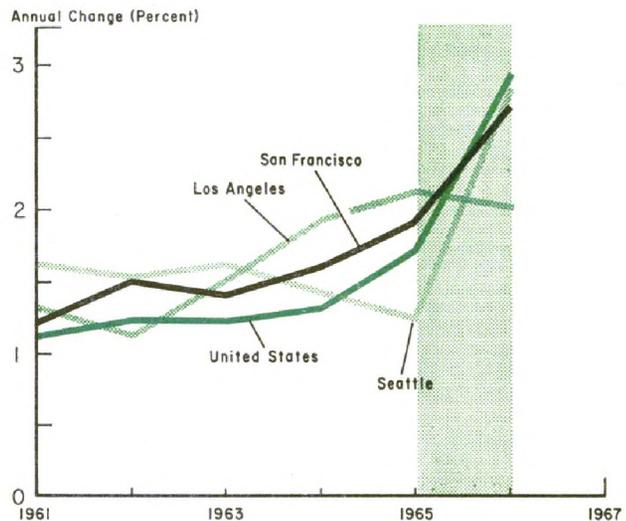
Engineering work continued on the \$2.5-billion California Water Plan, which is scheduled to deliver Northern California water to most Southern California counties by 1972. Meanwhile, Congress considered a proposal to construct a \$445-million nuclear-fueled desalinization plant off the Southern California coast. The 1.8-million kilowatt plant would be designed to convert 150 million gallons of sea water a day; production and transportation costs are estimated at about 27 cents per thousand gallons, as against 20 cents per thousand gallons for water delivered under the California Water Plan.

Pacific Northwest

Aluminum. A new entrant into the industry began producing last year at a Bellingham (Washington) plant which will eventually rank as one of the largest aluminum plants in the world and *the* largest in the Pacific Northwest. The 228,000-ton plant is scheduled for completion in 1968 at a cost of \$150 million.

Three other major aluminum producers, responding to the recent vigorous growth in demand and to the availability of low-cost hydroelectric power, announced plans for adding a total of 210,000 tons of new capac-

Price pressures felt in West, but less so than elsewhere



ity to their existing plants at Wenatchee, Tacoma, and Longview, Washington. In addition, a new company announced its intention to build a new 130,000-ton-per-year plant near Anacortes. Altogether, the 500,000 tons of new capacity scheduled to come on stream in Washington by 1970, plus the 40,000 tons which will be added at Troutdale, Oregon, represent 40 percent of the entire nation's total increase in aluminum capacity.

Plywood. A \$2.5-million plywood plant, which will have an annual capacity of 80-million square feet, is under construction at Kettle Falls, Washington, while a \$2-million specialty plywood-products plant with an initial capacity of 35 million square feet will be built at Longview. Meanwhile, a new \$4-million particleboard plant, designed to produce 50 million square feet a year, went into production in July at La Grande, Oregon.

Aircraft. A major Seattle firm plans to double its commercial plane production to 40 a month by 1968 from the present rate of 20, and has already begun to spend \$250 million for expansion of plants and equipment in or near Seattle. It also hopes to complete this September a new plant in Everett for the production of the 747 subsonic commercial transport. These "jumbo" jets are scheduled

to carry 350 to 490 passengers at speeds of more than 600 miles an hour.

This expansion program has pushed Seattle-area aircraft employment to an all-time high of about 90,000—up one-half in the past year, and one-fifth above the 1962 peak. Although the employment pace began to slow down around year-end—in part because of shortages of skilled labor and delays of engine supply—another upsurge in jobs will occur if the Administration provides funds for building the variable-sweep-wing supersonic transport (SST).

Electric Power. Two Northwest power companies completed plans for a \$118-million, one-million-kilowatt, steam electric-power plant at Centralia, Washington. This huge coal-fueled power complex will be supported by a \$21-million development of adjoining coal fields and power transmission lines. Construction will begin in 1969, and is scheduled for completion in 1973. Nearby deposits of coal are estimated at 500 million tons, sufficient to operate at twice the planned capacity for more than 40 years.

Construction. New commercial buildings include a 50-story bank office building in Seattle, a 25-story bank office building in Tacoma, a 25-story hotel-shop complex in Seattle, and Portland's \$56-million "Cascade Village"—an urban renewal project consisting of high-rise apartments, town houses, shopping center and office building.

Public works. Major projects underway last year included: on the Columbia River, the \$448-million John Day Dam (a multipurpose project with 1.4-million-kilowatt capacity), Wells Dam, and the Wanapum Dam; on the Snake River, the Lower Granite Dam, the Lower Monumental Dam, and the Little Goose Dam; and on the Cowlitz River, the Mossyrock Dam. Construction work meanwhile was completed on the \$165-million dual-purpose nuclear reactor at Hanford, Washington; the two generators, each with

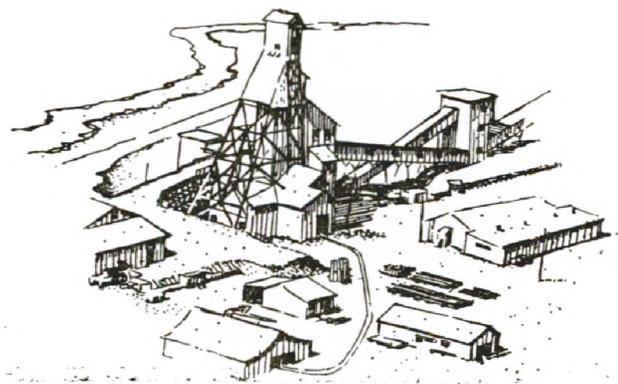
400,000 kilowatts, combine to form the largest nuclear-power plant in the world.

Mountain States

Copper. With copper in short supply, Western producers concentrated their efforts on increasing the capacity of their mines, mills and smelters. Work continued on the four-year \$100-million expansion program underway at the Bingham Canyon property in Utah. Upon completion in mid-1967, the project will raise mining and milling capacity at the site from 90,000 to 108,000 tons per day.

In Arizona, a \$60-million stripping project in progress to develop copper deposits in the Twin Buttes area is expected to yield about 25,000 tons of ore per day by 1969, while a \$16.6-million project at Pima, scheduled for completion by the middle of this year, will raise mine and mill capacity from 18,000 to 30,000 tons per day. In Nevada, a \$22-million copper project at Battle Mountain reached initial production in October, and a \$4.5-million copper sulfide milling facility was nearing completion at Weed Heights.

Iron ore. A deposit which could contain as much as a billion tons of iron ore, and thereby rank as the largest deposit of its kind in the West, was recently discovered on the Walker Indian Reservation, about 60 miles southeast of Reno, Nevada. Preliminary drilling indicates presence of 46-percent iron ore, convertible into 68-percent pellets by conventional methods, as well as ores with a copper content



ranging from 0.8 to 1.5 percent, considered commercial grade.

Silver. Silver producers in Idaho continued to invest large sums of money to enlarge and develop their mines in the Coeur d'Alene region, in an effort to meet the rapidly increasing demand for the metal. Shafts were sunk at the Rainbow property to explore that deposit at depth, while deeper veins were worked for the first time at the Sunshine, Galena, and Crescent mines.

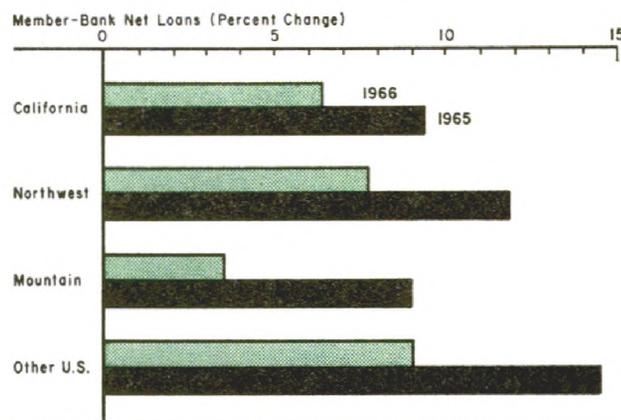
Paper. A major Idaho firm continued its \$80-million capital-improvement program last year in an attempt to diversify into plywood, pulp and paper. In Arizona, a \$32-million pulp and paper mill was built near Snowflake with a daily capacity of 210 tons of newsprint and 180 tons of kraft linerboard.

Chemicals. Recent expansion at a Pocatello, Idaho plant has boosted output of sulphuric acid from 400 to 1,100 tons a day, and has also increased production of ammonium phosphate and anhydrous ammonia. Again, a new fertilizer plant at Kellogg, Idaho, has boosted ammonium phosphate capacity to 60,000 tons a year.

Construction. Financing problems have plagued the construction industry, but construction or planning continued apace on a number of major projects. In Arizona, these included the \$15-million Arizona Interstate Industrial Center in Phoenix, a \$15-million 41-acre shopping center in Scottsdale, and a \$35-million residential resort community at Rogersdale, east of Flagstaff, including about 5,000 home sites, a hotel-motel complex, a golf course and swimming pool.

Public works. The \$210-million Dworshak Dam on the Clear Water River was started in 1966, and it will add 300,000 kilowatts of electric power when completed in 1972. The \$70-million Hells Canyon Dam on the Snake River between Idaho and Oregon, meanwhile, continued under construction, and in Nevada, two 750,000-kilowatt steam generators were

Monetary squeeze holds growth in bank loans below '65 pace



scheduled for installation at the Mohave Power Project in Clark County.

The bitterly contested plan to build two power dams in the Grand Canyon was abandoned by the Administration in early 1967. In the place of this \$1.2-billion plan, Interior Secretary Udall proposed a \$719-million plan involving the construction of a steam power plant which would pump water out of the lower Colorado River to supply Arizona cities. But the revised plan was immediately attacked by California and Colorado legislators on the grounds that it ignored a basin-wide approach to the problems of the Colorado River basin.

Alaska and Hawaii

Petroleum. Alaska's Swanson oil field increased its average daily production last year to about 535 barrels from each of its 55 wells. But the Cook Inlet area, regarded as one of the most important offshore sites in the nation, produced over 1,000 barrels a day from each of its four wells. This field claims a recoverable oil reserve of about 150 million barrels.

Natural gas. In a joint Japanese-American venture, a \$50-million plant near Anchorage was begun for converting natural gas into ammonia and urea fertilizer for sale in Japan and other export markets. Initial output from this joint venture is expected in mid-1968. Another project, a \$100-million natural-gas

liquefaction facility, is now being planned by five U. S. oil companies, with the goal of shipping about 140 million cubic feet of gas a year to the Japanese market.

Fisheries. Japanese investors showed increased interest last year in Alaska's fishing industry—the state's largest private industry—by participating in two joint projects with American firms. One was a \$2-million cannery organized by a Seattle company and two Japanese firms; the other was a \$3-million Seattle-Tokyo combine involving the operation of two salmon canneries.

Tourism. Hawaii's tourist industry continued to prosper last year despite the sharp setback caused by a 43-day-long airline strike. In view of recent decreases in airline fares as well as increases in family incomes and lei-

sure time, the industry hopes to greet a million tourists in 1970—almost twice the 1965 total of visitor arrivals, which in its turn was double the 1960 figure. Total hotel accommodations are expected to rise to 25,000 rooms in 1970, up from 15,000 in 1965—as resort facilities are opened on Maui, Kauai, and Hawaii, as well as on Oahu.

Construction. Honolulu continued to rank among the top half-dozen cities in construction volume, although it is only fifty-fifth among U. S. metropolitan areas in terms of population. Large hotels and apartment complexes continued to rise in Waikiki, with three scheduled for completion in 1966, four in 1967, and still three more under planning. In other construction, the area recently featured the \$22-million Financial Plaza of the Pacific, the \$67-million Ala Moana Shopping Center (with 155 stores at Waikiki Beach) and the \$17-million State Capitol and Plaza—not to mention the \$350-million Hawaii Kai residential subdivision being developed near Pearl Harbor.

Foreign trade. In order to expand Hawaii's role as a display, convention, sales and service center for the Pacific area, a foreign trade zone was opened at Honolulu's Rainbow Island last June. The zone includes 41,700 square feet of duty-free storage space for foreign products, and it includes a 36,000-square-foot exhibition hall and offices. Customs duties will be paid only when goods leave the zone for consumption within the U. S. Future expansion plans call for providing a 50-acre area for processing, assembling, repackaging, and relabeling a variety of products.

