

**MONTHLY**

**REVIEW**

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**FEDERAL RESERVE BANK OF MINNEAPOLIS**

**MARCH 1965**

# Postwar business cycles and business stability: 1

In the 20 years following World War II, the United States has experienced economic prosperity interrupted by only moderate business recessions. This was partly the result of a temporary set of conditions growing out of the war period and also of an effective government program. The possibility of maintaining a stable economy has, thus, been demonstrated and portends well for the future.<sup>1</sup>

## NATURE OF POST-WORLD WAR II CYCLES

For two decades the United States has experienced only relatively minor cyclical swings in general economic activity — more moderate than those classified as minor in pre-1945 business fluctuations such as the recessions of 1920-21 and 1937-38. Even though prices rose sharply for the entire period from 1945 through 1957, apart from the Korean War period the general economic atmosphere in which business is conducted has been subject to few abrupt changes of the type that had been recurrent prior to World War II. The nature of this relatively high degree of stability is clearly revealed in an examination of some of the components of post-World War II cycles.

The economy of the United States since colonial times has been subject to two types of business cycles: those linked with major depressions and those associated with minor recessions. The major

type of cycle, which has included catastrophic depressions such as those that occurred during the periods of 1873-79, 1882-85, and 1929-33, has been avoided since World War II, but the minor business cycle has continued to be a part of the economy. Both types of cycles are superimposed upon a long-term rate of economic growth which has historically extended up to ten years in length. This rate of growth was strong in the early postwar years; slowed down in the mid-1950s; and now in the 1960s again may have started on an upward phase.

## The minor cycle

This cycle characteristically has been associated with changes in short-term business expectations and with minor adjustments in production. In the postwar period, as with earlier minor cycles, it has been linked (although not exclusively) in succeeding phases with accumulations and liquidations of business inventories. Inventory fluctuations, in turn, have affected total short-term private business investments (see Chart 1).

To illustrate: during periods of prosperity, a sizable proportion of the nation's total industrial output has been used to increase the capacity to produce and distribute products and services. This expansion has been reflected in the increased investment made first in business inventories and then in plant and equipment. When over-all or final demand has risen rapidly enough to justify adding capacity, incentives for further growth of capital have been maintained and the general expansion of economic activity has continued. But when the growth of over-all demand has not kept

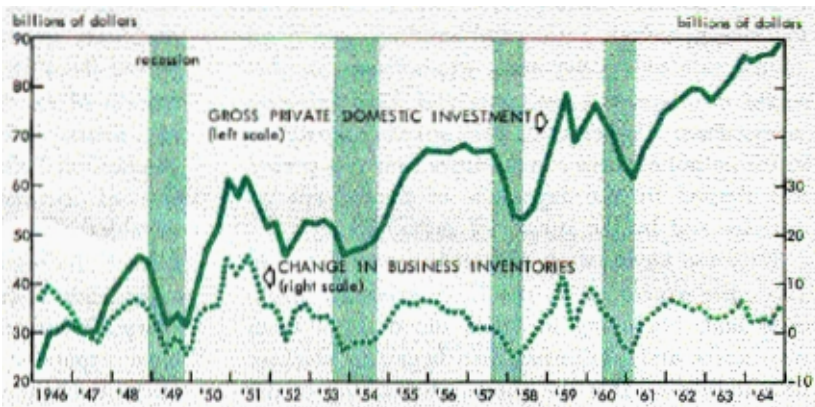
<sup>1</sup> An interesting phenomenon of the postwar period has been the changing relationship between Ninth district and national business cycles. This relationship will be discussed in Part II.

pace, business management has reduced the rate of inventory investment and, subsequently, has not only cut back on further expansions to capacity but also has reduced fixed capital outlays. The reduction in these investment expenditures has reduced the rate of increase in over-all employment and income. It is evident that such a sequence of events has played a key role in precipitating an actual decline in general economic activity — a recession.

Since late 1945, the minor cycles, including both the expansion and contraction phases, have extended over periods ranging from about three to nearly five years. The expansions themselves have ranged from 25 to 45 months; the recessions, from 9 to 13 months. As may be observed from Chart 2, the end result of post-World War II economic conditions has been a steady, over-all growth during these years giving the series of cycles an upward tilt. The average expansions have been longer and the contractions have been shorter than in the pre-World War II period. The 1960 recession of the minor business cycle was less severe than earlier ones, and the current expansion is now in the fifth year.<sup>2</sup> If this period of uninterrupted expansion continues beyond April, it will constitute the longest in the peacetime history of the United States — longer, even, than the slow recovery from the trough of the Great Depression which extended over a period slightly more than four years in length, from March 1933 to May 1937.

<sup>2</sup> There was an additional short recession, caused by a transitional slowdown from war to peacetime production, which extended from February 1945 to October 1945.

Chart 1 — Changes in business inventories and gross private domestic investment



### ECONOMIC EXPANSION

Variations in the rate of growth which result in long-term fluctuations have been an integral part of the expanding American economy for more than 200 years. They are the consequence of developments which continue over a long period as contrasted to those which activate the pronounced expansion and contraction of the business cycle. The rate of long-term growth, recently as in earlier periods, has been associated with such fluctuations as those in residential building; in expenditures for consumer durables, in part stimulated by new products such as television sets coming onto the market; and in fixed business investment. In addition to these fluctuations traditionally associated with periods of rapid growth, there also has been an exceptionally steady rise in consumer expenditures for nondurable goods and services and in the outlays made by state and local governments.

The strong rate of economic growth in the late 1940s and early 1950s (apart from the demands created by the Korean War between 1950-53) is traced to the buildup in the demand for housing, consumer durables, and business facilities during World War II years and also from the Great Depression of the 1930s. Rising incomes during

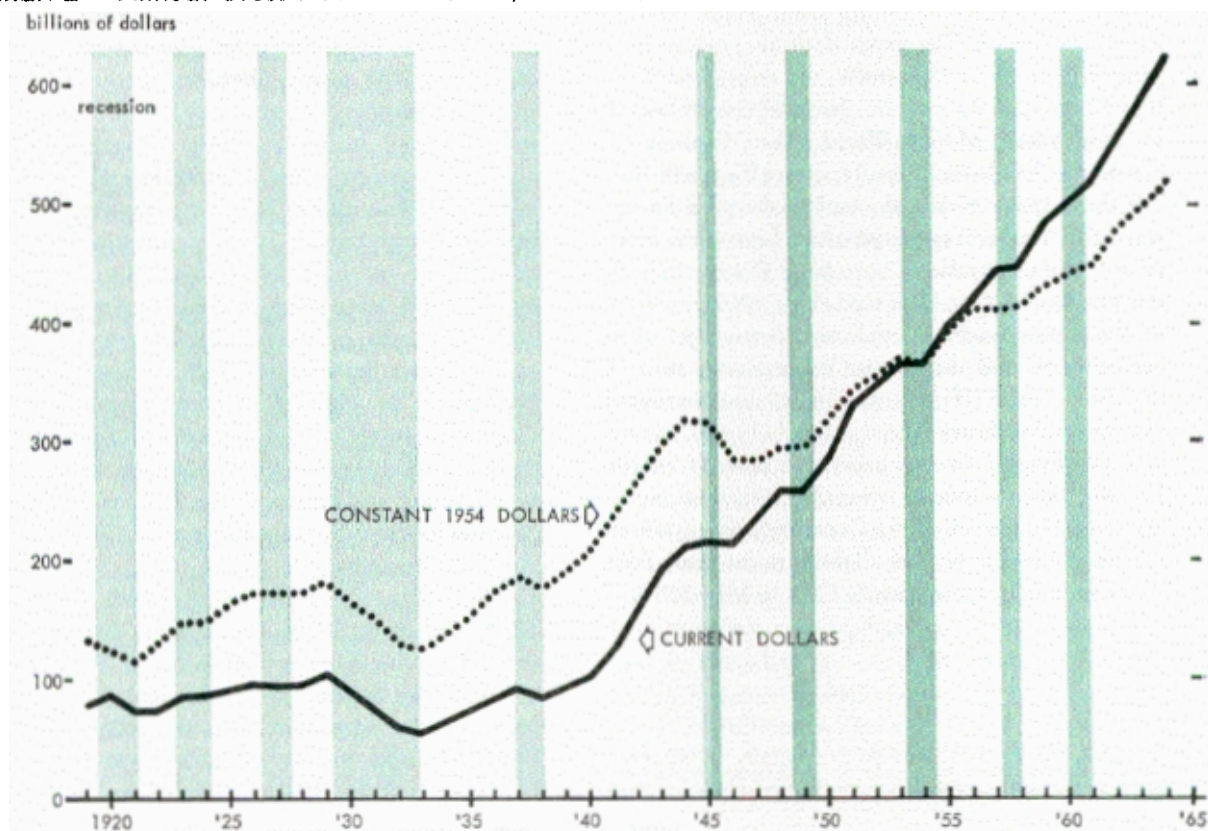
and after the war and the accumulation of savings enabled the American people to satisfy many of their wants. In constant 1954 prices, from 1946 to 1955 inclusively residential building rose by an annual rate of 7.4 per cent; expenditure on consumer durables, 6.2 per cent; and fixed business investments, 2.0 per cent. Still greater expansion in the output of these commodities over this period was limited by the capacities of the related industries and by the supply of skilled labor.

With the termination of hostilities in Korea in 1953, the expansion in the U. S. economy slackened and, beginning in 1956, the demand from consumers and businesses also began to slacken, thus indicating that the enormous backlog of demand was being liquidated. Furthermore, the demand for American merchandise in the war-

devastated countries began to ease and the large export-over-import surplus declined. These developments led to a much slower rate of peacetime economic growth in the United States. In the period from 1956 through 1960, a period of slow growth of exceptionally short duration, the average annual increase in residential construction, in constant 1954 prices, was only 4 per cent. The rate of increase in expenditures on consumer durables slowed down to 2.7 per cent, and the former increase in fixed business investment turned into a decrease of 2.3 per cent. Since February 1961 expenditures in these three areas again have expanded at a greater rate than can be attributed to the minor cycle expansion that began in that year.

The rate of economic expansion can be identified

Chart 2 -- Annual Gross National Product, 1919-1964





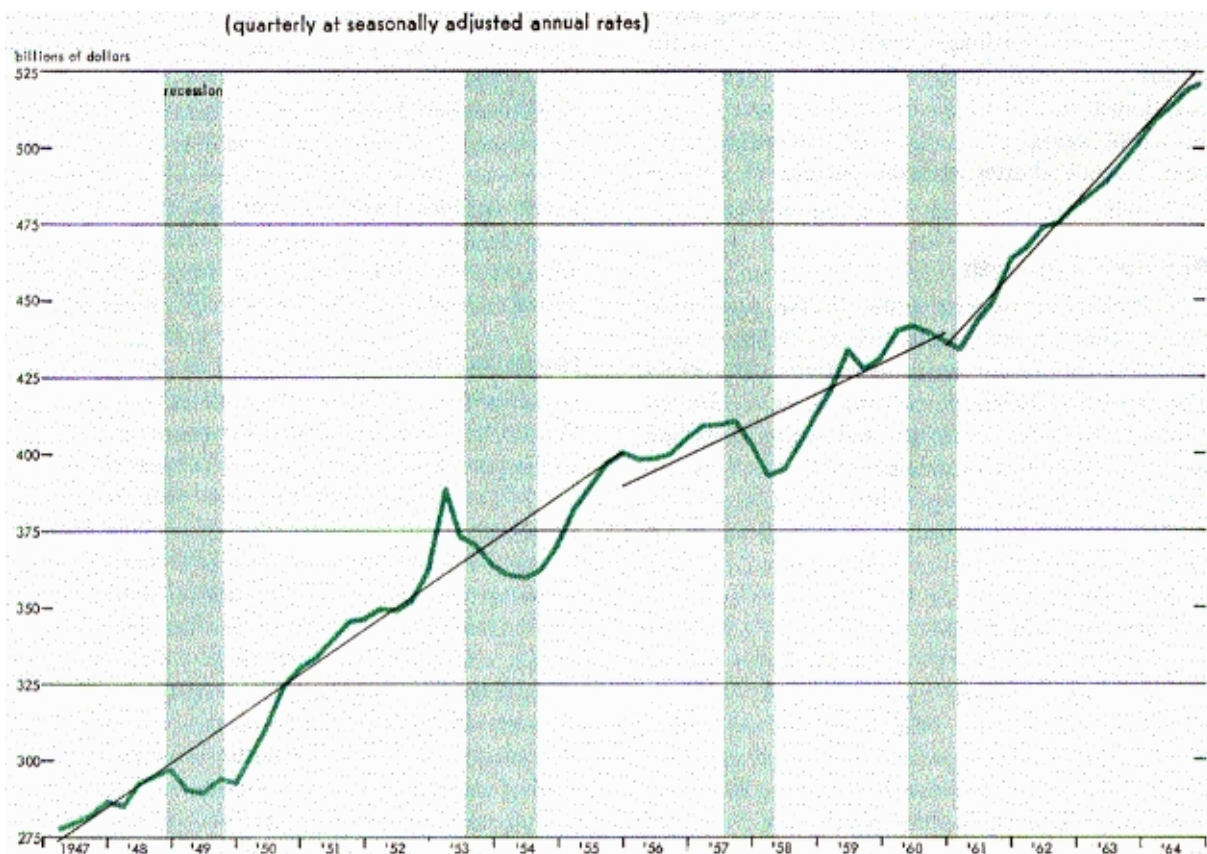
by trend lines fitted to the quarterly estimates of the gross national product in terms of 1954 prices (see Chart 3). In the immediate postwar period, from 1947 through 1955, the average annual rate of growth was 4.3 per cent in terms of such a trend line. In the following period, from 1956 through 1960, the annual rate slowed down to 2.4 per cent, only a little more than one-half the former rate. From 1961 through 1964, the annual rate again was high, 4.7 per cent. Although it is still premature to date 1961 as an upward turning point in the rate of economic growth, the expansion rate in the past three years has been remarkable.<sup>3</sup>

## ELEMENTS OF POSTWAR STABILITY

An attempt has been made in the foregoing discussion to present a general description of business cycle behavior and the rate of economic growth in the post-World War II period. The discussion now turns to a more detailed analysis of those forces which grew out of conditions created by

<sup>3</sup> Observers differ on the specific years that a change in the rate of growth occurred. Another common division of growth periods is: 1947-53 with a rate of increase of 5 per cent, 1953-60 with an increase of 2.5 per cent, and 1960-64 with an increase of more than 4 per cent. For further discussion on the long-term rate of growth, see Edward M. Bernstein, "The High Phase of a New Trend Cycle," *Quarterly Review and Investment Survey*, Second Quarter, 1964, Model, Roland, and Company, New York.

Chart 3 — Growth trend lines fitted to Gross National Product



the war which have had a temporary stabilizing influence on the business cycle.

### **Large backlog of demand**

Immediately upon conversion from a war to a peacetime economy, the level of aggregate demand created shortages of civilian goods and services. The pressure on supplies caused a sharp rise in prices. From 1945 through 1955, wholesale prices rose by 61 per cent and consumer prices by 49 per cent. Wholesale prices rose at a decreasing rate through 1957 and did not level off until 1958; consumer prices have continued to rise slightly over 1 per cent annually.

The enormous backlog of demand led to a rapid rate of expansion which utilized all available resources and gave the minor business cycles a marked upward tilt. Now, with the backlog liquidated, demand no longer exerts this effect on the cycles and, unless replaced by some strong demand such as that which has held for automobiles in recent years, the periods of expansion again may become shorter and the periods of contraction longer.

### **Population growth**

The changing age structure in the population could contain some contractive as well as expansive implications for business activity. The rapid rise in births, thereby in consumers, in the United States during the late 1940s and early 1950s had a stimulative effect on business activity. Now this large mass is at the age when they are seeking employment. Between 1955 and 1960, the increase in the number of persons under 25 years of age seeking employment for the first time averaged slightly less than 250,000 annually. The increase currently is about 775,000 annually. In the present decade, young people under 25 will constitute almost one-half of the total increase in the labor force. If sufficient opportunities for employment cannot be found to absorb this rapidly rising number of newcomers, the purchasing power of these potential customers as a group will be low

and will not give the boost to consumer expenditures and housing outlays that is anticipated.

The birth rate has been declining steadily since 1958. History reveals that birth rates have fallen into a series of long-term cycles of their own. There was, for example, a decline in the birth rate from the early 1900s to the mid-1930s, followed by a rise reaching a high in 1957. The aggregate number of births began to decline in 1962 and may continue to decline for some time even though the number of marriages is rising. Taking cognizance of this, the United States Public Health Service has revised its population projections downward, the estimate of 209-214 million by 1970 made in 1962 has been reduced to 206-211 million.

These population trends have some contractive overtones for economic activity. Fewer births have changed the market outlook for many business firms. Those serving the needs of young children, such as infant foods, baby clothes, toys, etc., are projecting a slower growing market and in some years possible contractions. Married couples and small families have different requirements than large families. For example, the movement to the suburbs may slacken while the demand for apartments instead of single houses may remain strong.

### **Home building**

Up to the late 1950s, exceptionally high residential building contributed to economic stability in the post-World War II period because the activity had a strong contra-cyclical pattern. Home building tended to revive during periods of economic recession and rise to a peak early in the recovery period. The contra-cyclical activity was brought about by a strong general demand for credit, which was supplied largely through FHA insured and VA guaranteed mortgage loans. The interest rate ceilings placed on these loans caused the supply of funds for such loans to increase during recessions as other interest rates declined, and to dry up as other rates rose when there was a strong demand for credit in other fields.

Home building financed by conventional loans during the 1950s was relatively stable during both phases of the cycles. An increasing number of houses in the latter years of the decade was financed by conventional mortgage loans with interest rates that moved freely with the market. If this trend continues, the supply of mortgage credit will no longer create a contra-cyclical trend in home building. Of course, other conditions may contribute to a contra-cyclical pattern. For instance, contrary to the general business expansion, apartment construction declined in 1964 due to an over-supply of units.

### **Farm income**

Farm receipts are still an important determinant of general business activity in farm regions such as the Midwest. Although farm income has fluctuated widely as compared with non-farm income in the post-World War II period, there is a marked degree of stability compared with the fluctuations in the prior years of the 1920s and the 1930s. The relatively stable farm income situation since 1945 has been due principally to two developments: (1) a steadily growing demand for food and fiber from American consumers, and (2) the federal government agricultural price support and subsidy programs.

An almost steadily rising disposable personal income in conjunction with the rapid population growth has been a primary factor in the remarkably steady growth in demand for farm products in the United States. In the 18 years following World War II, food expenditures declined in only one year, 1949. Expenditures for clothing and shoes also declined in 1949, remained stable in 1953 and 1954, and rose in the other years. Several factors have contributed to this steady growth in disposable income: transfer payments (e.g., unemployment insurance and old age pensions) have grown sharply; property income (interest, dividends, and rental income) have grown quite steadily; and interruptions in expansion of aggregate wage and salary payments

have not been significant due to the shortness and moderation of the business recessions. These last two factors are closely linked with general stable economic conditions.

The federal government agricultural program has supported and, thus, added to the stability of farm incomes. In years when crop production was high, the program placed a floor under prices of principal farm products. In 1957 and 1958, government payments to farmers aggregated slightly over \$1 billion annually; in 1961, nearly \$1.5 billion; and in 1962 and 1963, \$1.7 billion.

Since 1946 prices of many farm products have moved within a very narrow range compared with the wide swings prior to the war. For example, from 1945 through 1963 the price of northern spring wheat averaged \$2.43 and the annual price varied from this average by only 9 per cent. Between World War I and II, the annual price varied from the average for those years by as much as 39 per cent. A similar degree of stability has held for other price supported crops and this stability, in turn, has helped to moderate fluctuations in prices of cattle and hogs.

If the federal government farm support program should be gradually withdrawn under pressure from an increasing number of congressmen representing urban rather than rural constituencies, market forces again may subject prices of major farm products to wider fluctuations. Farmers' annual incomes might not only continue on a plateau while nonfarm incomes continue to rise but could also be less stable than in the years following World War II.

### **Credit expansion**

The rise in the amount of debt outstanding in all areas in the interim since World War II has caused some alarm. Recently, some observers have expressed particular concern over a deterioration in the quality of mortgage credit outstanding. Aggressive methods adopted in the mortgage field have resulted in some relaxation of terms—reduction of downpayment require-

ments, lengthening of maturities, some escalation of appraisals of the value of the real estate supporting the loans, and a tendency to grant more credit in relation to the amount of annual income of borrowers.

In pre-World War II periods, a high number of mortgage foreclosures was a major cause of a slowdown in home building. Currently, the number of foreclosures, as a rate per 1,000 mortgaged homes, from an historical point of view still is low. Nevertheless, the number of nonfarm real estate foreclosures has risen significantly in recent years.<sup>4</sup> If a substantial number of mortgagors cannot meet their payment obligations in a future recession due to general conditions and not necessarily to developments in the mortgage field, foreclosures again may slow down residential construction thereby intensifying depressed economic conditions.

A possible deterioration in the quality of credit is not limited to nonfarm mortgage loans but extends to other types of loans. Some bank examiners have observed a tendency for lenders to "reach out" for higher-yielding loans by offering more liberal terms and accepting greater risks. This eagerness among lenders has been brought about by stiffer competition, rising overhead costs, and higher interest rates paid on time deposits. The risk has been minimized to a slight extent since commercial banks as well as other financial institutions now have universally adopted the gradual amortization principle on loan repayment and hold federal government guarantees on some loans. However, any real test of possible deterioration in the quality of loans outstanding would rest with the inability of borrowers to meet their obligations during periods of adverse economic conditions.

<sup>4</sup> Nonfarm real estate foreclosures have risen sharply on a percentage basis during the current recovery period. From 1960 through 1964, foreclosures on FHA insured loans have risen by as much as 306 per cent; on VA guaranteed loans, 110 per cent; and on conventional loans, 20 per cent.

## **FORCES MODERATING ECONOMIC FLUCTUATIONS**

The foregoing analysis indicates that developments such as those growing out of World War II have had a temporary stabilizing effect on the magnitude of the cycle swings. There are factors in the international field which have repercussions on our cycles such as the effect of the European Economic Community policies on our export market, but discussion of these is beyond the scope of this article. There also are government programs deliberately designed to control cycle behavior. The role of the federal government has grown in importance and an increasingly effective program has emerged to moderate cycles.

### **Flexible fiscal policy**

Contributing to the exceptional performance of the last four years has been a flexible fiscal policy and a monetary policy tailored to the problems in the domestic economy and in the balance of payments field.

Greater flexibility in fiscal policy has been achieved both on the side of expenditures and of taxation. In a growing economy, the rise and decline in federal government expenditures has a significant bearing on the expanding aggregate demand for products and services. The increases in federal government expenditures undertaken in 1961 and 1962 to bolster the U.S. defense and space programs and to provide for unmet civilian needs were highly stimulating to an economy subject to persistent slack in the utilization of human and physical resources.

Two reductions in federal taxes on business were made in 1962 to stimulate lagging private investment. New depreciation guide lines were announced by the Treasury in July and a bill allowing investment tax credit was enacted by the Congress to become effective in taxable years beginning January 1, 1962. The net effect was to raise the annual cash flow to corporations by \$2.5 billion in 1963 and to increase the net return on new projects undertaken. These measures un-



doubtedly contributed to the rise in plant and equipment expenditures beginning in the second quarter of 1963. The reduction of corporate tax rates in March 1964 has further stimulated private investment. The result has been plant modernization and improvements in products which are leading to productivity gains benefiting industry in general and the export industry in particular. It has improved the U.S. producers' position in foreign markets.

The federal personal income tax reduction which became effective March 5, 1964 proved to be a major stimulant to the economy. The effect of the tax cut on the amount of income which individuals had at their disposal can now be traced in the national income accounts through the third quarter of 1964.<sup>5</sup> Over the first three quarters, total personal income in the nation rose by \$20.0 billion and disposable income, by \$24.5 billion, clearly revealing the larger take-home pay as a result of the lower percentage of withholding for the federal income tax. About one-third of the increase in disposable income is traceable to the tax cut and two-thirds to the continued strong advance in personal income resulting from the general expansion in economic activity.

Consumer expenditures for goods and services in the second quarter advanced at a slower rate than did disposable income and so personal savings rose by \$4.5 billion, approaching an 8 per cent savings rate. In the third quarter, the increase in consumer expenditures almost equalled the rise in disposable income and savings fell back to about a 7 per cent rate. This was the proportion saved in the fourth quarter of 1963, before the tax cut was made, and was slightly lower than the post-Korean War average rate of 7.2 per cent. This is evidence that the initial boost supplied by the tax cut has been absorbed in the economy.

<sup>5</sup> U. S. Department of Commerce, "Changes in Consumer Spending and Saving," *Survey of Current Business*, November 1964, pp. 5 and 6.

## **Monetary policy**

In this expansion period, monetary like fiscal policy, has been oriented towards encouraging growth and increasing rates of utilization of manpower and industrial resources, whereas in former periods the policy was directed toward a restriction in the rate of expansion. While monetary policy has become less "easy" as a result of action taken at various times, credit conditions have generally remained easy throughout this expansion period, notwithstanding a persistent balance of payments deficit.

In monetary policy a variety of new techniques has been used to expand bank credit and hold down long-term interest rates in order to stimulate the domestic economy and, at the same time, exert an upward pressure on short-term interest rates to reduce the flow of U.S. funds to foreign countries — a major item in the U.S. balance of payments deficit. The effectiveness of these techniques is revealed through a description of them and of the objectives achieved.

The "Bills Preferably" doctrine was discontinued in February 1961 and the Open Market Committee of the Federal Reserve System began to supply bank reserves through the purchases of long-term securities to avoid placing a downward pressure on Treasury bill yields. The Treasury cooperated very closely with the Federal Reserve in this objective. New cash issues in the short-term maturity range were designed and timed to raise short-term interest rates as well as to meet the needs for cash. The yield on three-month Treasury bills in 1961 averaged 2.38 per cent and since last November, about 3.85 per cent.

Regulation Q, which sets maximum rates payable on savings and time deposits by commercial banks, was relaxed in three stages: January 1, 1962, July 17, 1963, and November 24, 1964. The result of higher rates of interest paid by banks has been phenomenal. Savings and time deposits grew more than 18 per cent in 1962, 14 per cent in 1963, and 12 per cent in 1964. The large increase in savings held by commercial banks cre-

ated a pressure on the managements of these institutions to find suitable outlets for these funds. Banks became competitive in mortgage lending, many for the first time. They also purchased record amounts of state and local government securities. These developments have proven to be an important factor in holding down long-term interest rates. The yield on long-term U.S. Government bonds averaged 3.90 per cent in 1961 and last December, about 4.14 per cent, an increase of only 0.24 percentage points.

The Federal Reserve Board reduced reserve requirements on demand deposits in 1960 and on time deposits in 1962. The latter was an alternative to providing reserves through the purchase of short-term securities which would have created a downward pressure on short-term interest rates.

Directors of the 12 banks and the Board of Governors raised the Federal Reserve bank discount rate from 3 to 3½ per cent in July 1963 and to 4 per cent in November 1964. Each increase was part of a move designed to raise the rate of interest on short-term securities and, at the same time, avoid reducing the availability of credit. The latter increase was made after the Bank of England raised their bank rate from 5 per cent to 7 per cent.

In addition to these techniques, other measures were adopted to defend the dollar against speculative attacks in foreign financial markets and to implement methods of financing the U.S. deficit with a minimum drain on U.S. gold reserves. Some of the measures used by the Treasury with the cooperation of the Federal Reserve include: operations in foreign currencies, arrangements of currency "swaps" with foreign central banks, encouragement of foreign nations to make early repayment of debts, advancements to offset military purchases, and issuance of U.S. bonds in foreign currency denominations.

Although economists differ on the adequacy of the money supply in the current recovery period, the supply (private demand deposits and currency) has risen at an average annual rate of

2.8 per cent compared with an increase of 1.3 per cent in the 1958-60 expansion period and 1.4 per cent in the 1954-57 period. When time deposits are included, the contrast is more marked. The increase in the money supply including time deposits has averaged 7.5 per cent annually compared with 2.0 and 2.3 per cent in the previous two recovery periods. Thus, monetary policy since the end of 1960 has provided credit for the domestic economic expansion and, at the same time, has minimized the drain on the U.S. gold stock and defended the U.S. dollar in foreign markets.

### **Stability of key demand sectors**

The current period of expansion, which began in March 1961, contains some remarkable features apart from its duration of four years. There has been a relatively stable advance in the key demand sectors of the economy (see table). Consumer expenditures have advanced steadily, even those for durable goods which often are subject to wide fluctuations. Business expenditures have grown at a very stable rate; in only the first year of the current recovery have expenditures for producers' durable equipment fallen below those for the preceding year. Business management has pursued a cautious policy on inventories; with stable prices and the application of computer systems to inventory control, the ratio to sales has been kept low. Although federal government expenditures have risen more slowly since the beginning of 1963 as a result of the leveling off in defense expenditures, state and local government expenditures have continued to grow at a rapid rate.

An enviable record of price and cost stability has been maintained during this period of expansion. The index of wholesale prices (1957-59=100) for February 1961, the cycle trough, stood at 101.0 per cent and for December 1964, after nearly four years of expansion, at 100.7 per cent. The index of consumer prices, over the same period, rose from 103.9 per cent to 108.8 per cent, an increase of slightly over 4 per cent. The cost

*(continued on page 16)*

# Current conditions . . .

**E**conomic and statistical data most recently available indicate continued growth and expansion in the Ninth district — advancements which approximate those of the nation in important areas. December district personal incomes increased 5.1 per cent from a year earlier; for the nation, the increase was 6 per cent. Total district nonagricultural employment increased about 2.5 per cent, just slightly below that of the nation. District indexes of the industrial use of electric power in December and January were at record highs — about 7 per cent above year earlier levels. This latter index figure compares with the Board's roughly similar over-all index of industrial production which increased almost 8 per cent during the same period.

Perhaps the most significant new statistic released since the first of the year relates to estimated nonagricultural employment in Minnesota where two-thirds of the district's nonagricultural labor force is located. Employment in this state and sector in mid-January was up 3.7 per cent from year earlier levels and preliminary February estimates show about the same rate of improvement. Employment increases in durable manufacturing were particularly strong — up 5 per cent or more in January; preliminary data for February show an even better performance. In the mining industry, the estimates of employment increases were even higher — up to 10 per cent.

Still another significant measurement is the January jobless estimate of the Minnesota Depart-

ment of Employment Security: their unemployment rate estimate of 5.6 per cent was their lowest since 1952.

In our latest opinion survey of business conditions, a general evaluation of prospects for the last half of February and for March was requested. About one-half the respondents indicated "probable" or "fairly certain" improvement — not too different from the opinions expressed in other recent surveys. Respondents from the predominantly agricultural areas of the district tended to be less optimistic, reflecting, of course, reduced farm incomes which have prevailed in some of the regions served by them.

The agricultural economy of the district appears to have weakened in recent months as a combination of last summer's drouth and a lower level of prices received by farmers has registered an impact on farmers' purchasing power. The drouth also seems to have stimulated some livestock liquidation as evidenced by the recently released January 1 livestock inventory figures for the district. These data show a moderate decline in total livestock units and in over-all livestock asset values as compared with year earlier data. Hog numbers declined about 10 per cent, with small inventory declines listed for milk cows, sheep and lambs, and chickens. Cattle and calf numbers showed a 4 per cent increase during the 1964 calendar year, but this was not enough to offset the decline in numbers of other livestock.

The combination of lower farm product prices

and reduced livestock and feed grain inventories will be important factors bearing on farm incomes at least until the new 1965 crop levels are established.

In banking, slightly more than the usual seasonal decline in deposits occurred during the first six weeks of 1965. Bank credit, on the other hand, was somewhat stronger than usual, with commercial and industrial loans at the city banks providing the most strength. The decline in deposits, coupled with a strong demand for loans, reduced bank reserves. As a result, member banks borrowed more at the Federal Reserve Bank; they expanded their purchases of Federal funds; and they reduced their balance-due accounts from other banks. Loan-to-deposit ratios increased slightly at both city and country banks, but in mid-February these were still below the ratios for the country as a whole.

*The following selected topics describe particular aspects of the district's current economic scene:*

### Personal income rises

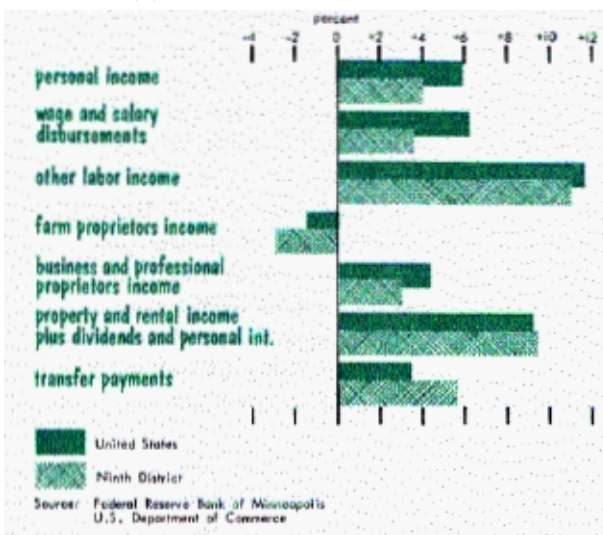
Personal income in the Ninth district advanced briskly during 1964. Preliminary data for the year indicate an over-all growth of 4 per cent. With the exception of farm proprietors' income, advances in all components of personal income are evident. Three of the four states in the Ninth district<sup>1</sup> contributed to the advance; North Dakota registered a net loss.

A comparison of growth of personal income and its sources during 1964 for the Ninth district and the nation is shown in the chart. The district, with a personal income level of \$13.1 billion, accounted for about 2.7 per cent of the national total. Although substantial gains were registered over 1963, the district lagged behind the nation's income growth rate of 5.9 per cent. The drop in farm proprietors' income was one reason for the over-all

lag, but a more important reason was the relatively smaller growth in the largest component of personal income, wages and salaries.

An interesting aspect of personal income, which may be observed from the chart, is the rapid growth of the "other labor income" component. This component is composed largely of compensation for injuries and employer contributions to private pension, health and welfare funds, and thus reflects the growth of "fringe benefits" in compensation to employees.

Personal income growth by components for 1964.



### Record of the states

Minnesota, with personal income reaching \$8.6 billion, accounted for about two-thirds of the district's income. This growth of 5.5 per cent over 1963 thus gave a solid boost to the over-all district growth. The gain was achieved through uniform gains in all components; Minnesota was the only state in the district to show a gain (8 per cent) in farm proprietors' income. Wage and salary disbursements registered a solid gain of 4.6 per cent, and "other labor income" was up by 8.5 per cent. The smallest growth rate registered in Minnesota

<sup>1</sup> All Ninth district data in this article are for the four full states of Minnesota, Montana, North Dakota, and South Dakota.

was in the business and professional proprietors' income component at 3 per cent.

Personal income in North Dakota dropped 1.6 per cent during 1964 to a level of \$1.3 billion. This decline is due entirely to a drop of 20.5 per cent in farm proprietors' income as all other components registered positive gains. The largest positive gain was 10 per cent in the property, rental, dividends, and interest income component; the smallest, 2 per cent in wages and salaries.

Personal income in South Dakota advanced 2.8 per cent to a level of \$1.5 billion. None of the components declined, but farm proprietors' income was essentially the same as in 1963. Wages and salaries were up by only 1.1 per cent, but a solid advance of 11.8 per cent was registered in the property, rental, dividends, and interest income component.

Montana, which accounts for better than 12 per cent of the district's income, registered a gain of 1.8 per cent to a level of \$1.6 billion. Gains were registered by all components except farm proprietors' income. The all-important wage and salary component advanced 1.5 per cent.

### District credit shows strength

Credit at both weekly reporting member banks (city banks) and non-weekly reporting banks (country banks) was somewhat stronger than usual during January. The strength in credit was particularly evident at city banks where total loans and investments declined only \$15 million in contrast to last January's decline of \$79 million and an average drop during the past five Januarys of \$27 million. Commercial and industrial loans at city banks, a category that includes inventory and equipment loans, accounted for virtually all of this better than average performance: they declined \$2 million, a relatively small amount compared with the average fall of \$29 million during the past five Januarys.

At district country banks during January, credit was down \$5 million; loans were off \$3 million and investment holdings, \$2 million. These moder-

ate changes were somewhat milder than the changes which have occurred in recent years.

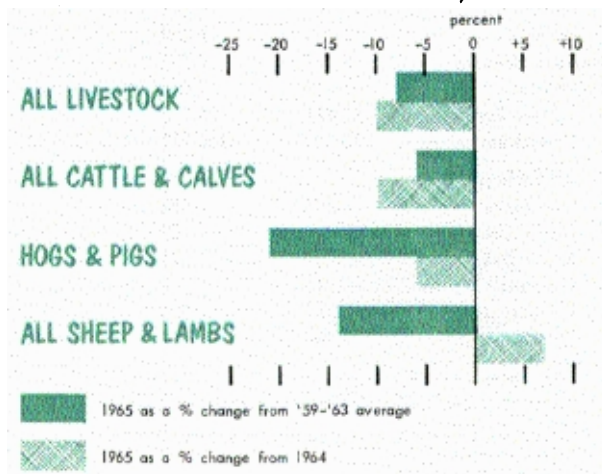
Total deposits at district member banks declined \$104 million between the final week in December to the last week of January. This drop, which was somewhat larger than the average January decline of \$85 million, was the result of a substantial fall of \$175 million in demand deposits and an offsetting increase of \$71 million in time deposits. The gain in time deposits, one of the largest on record, in part reflected the change in Regulation Q and the upward adjustment at member banks of interest rates paid on time deposits.

### Marked changes noted in livestock sector

Recently released inventory figures point up marked changes in the district's livestock sector. The animal head count taken on January 1 of this year depicts an over-all retrenchment by livestock producers as well as a rather sharp decline in the total value of this important agricultural asset.

According to annual inventory figures released by the U. S. Department of Agriculture, the total number of cattle and calves in the district amounted to about 14 million head, a gain of 4 per cent

Chart 1 — District livestock inventory, Jan 1.





**TABLE 1 — LIVESTOCK AND POULTRY  
INVENTORY, JANUARY 1, 1965**

	(thousands of head)		
	1959-63	1964	1965
<b>All Cattle and Calves</b>			
Minnesota	4,114	4,561	4,652
North Dakota	1,869	2,232	2,299
South Dakota	3,423	4,074	4,278
Montana	2,212	2,627	2,758
4 States	11,618	13,494	13,987
United States <sup>1</sup>	98,034	106,515	106,915
<b>Milk Cows</b>			
Minnesota	1,421	1,421	1,407
North Dakota	302	276	262
South Dakota	275	256	256
Montana	84	74	73
4 States	2,082	2,027	1,998
United States <sup>1</sup>	19,362	18,070	17,575
<b>Hogs and Pigs</b>			
Minnesota	3,615	3,437	2,990
North Dakota	292	304	274
South Dakota	1,449	1,610	1,546
Montana	150	171	145
4 States	5,506	5,522	4,955
United States <sup>1</sup>	57,656	58,060	52,990
<b>All Sheep and Lambs</b>			
Minnesota	990	796	687
North Dakota	699	606	559
South Dakota	1,746	1,658	1,535
Montana	1,724	1,553	1,488
4 States	5,159	4,613	4,269
United States <sup>1</sup>	31,965	28,003	26,648
<b>All Chickens</b>			
Minnesota	18,863	14,679	13,788
North Dakota	2,795	2,247	2,143
South Dakota	8,557	7,731	7,454
Montana	1,212	1,056	1,061
4 State Total	31,427	25,713	24,446
United States <sup>1</sup>	370,009	368,722	375,441
<b>All Turkeys</b>			
Minnesota	688	688	753
North Dakota	47	39	66
South Dakota	37	19	16
Montana <sup>2</sup>	15	9	7
4 States	787	755	842
United States <sup>1</sup>	6,294	6,243	6,471

<sup>1</sup> 48 states

<sup>2</sup> Montana and Idaho figures combined.

Source: Livestock and Poultry Inventory, January 1, U.S. Dept. of Agriculture.

over the figure recorded on January 1, 1964 and up 20 per cent over the 1959-63 average inventory count. While the district gain for the year was not nearly as large as that indicated by two previous inventories, the gain did mark the seventh straight year of build-up in total number (see Chart 1). Advances in the district outpaced national figures which showed that the total number of cows and calves in the U.S. was virtually unchanged from a year earlier and up only 9 per cent from the 1959-63 average.

All of the district increase in cattle numbers was attributable to the expansion of the beef herd. Cattle in the beef category numbered about 11 million head at the first of the year, up 5 per cent from a year ago. There was little difference among the district states in terms of the relative increase in beef numbers as both Dakotas and Montana experienced 5 per cent gains and Minnesota a 4 per cent increase. Among the classes of beef animals the largest relative increase occurred in cows two years old and older. Gains in that category ranged from a high of 13 per cent in South Dakota to a low of 8 per cent in Montana. Little change occurred in the number of beef heifers in the district, and the calf inventory showed a 5 per cent increase over last year.

Dairy cow numbers in the district slumped to just under the 2 million mark after holding at just over that level for six years. The January 1 inventory reflected a 1 per cent drop from a year earlier, a lesser cutback than the 3 per cent fall in total U.S. figures. In Minnesota, the district's dominant dairy state, milk cow numbers were also down 1 per cent from year-ago levels.

Hog numbers continued to decline although the 10 per cent drop in the district between January 1, 1964 and January 1, 1965 was much sharper than that of the past few periods. The district swine total of just under 5 million head represented the lowest inventory count since 1958. All of the district states shared in the decline with the largest relative decrease occurring in Montana where numbers were off 15 per cent. Respective declines of

TABLE 2 — VALUE OF LIVESTOCK AND POULTRY

	Jan. 1 1964	Jan. 1 1965
	(thousands of dollars)	
Minnesota	\$ 708,306	\$ 651,824
North Dakota	331,019	286,931
South Dakota	632,541	585,400
Montana	414,302	364,617
4 States	2,086,168	1,888,772
United States	15,743,840	14,383,353

TABLE 3 — VALUE PER HEAD OF LIVESTOCK,  
JANUARY 1

	Average 1959-63	1964	1965
<b>Cattle</b>			
Minnesota	\$148.00	\$131.00	\$118.00
North Dakota	154.00	140.00	117.00
South Dakota	154.00	137.00	119.00
Montana	157.00	146.00	120.00
<b>Hogs</b>			
Minnesota	28.60	23.80	24.90
North Dakota	30.40	25.60	26.20
South Dakota	30.80	26.40	27.80
Montana	26.10	24.00	25.20
<b>Stock sheep</b>			
Minnesota	15.40	13.50	14.60
North Dakota	15.60	13.70	14.80
South Dakota	16.50	14.50	16.50
Montana	17.40	16.40	19.40

13 per cent and 4 per cent occurred in Minnesota and South Dakota, the district's leading hog producing states. The January 1, 1964 to January 1, 1965 change for the entire country reflected a 9 per cent drop in hog numbers.

The decline in district sheep and lambs moved into its fifth consecutive year as the total number fell to about 4.3 million head. That figure is 7 per cent below that of January 1, 1964 and the smallest count of the last 10 years. Cutbacks from a year ago in the major sheep producing states of Montana and South Dakota amounted to 7 per cent and 4 per cent respectively.

The January 1 inventory evidenced a district wide increase of 12 per cent in the total number of turkeys over last year. The largest relative increase

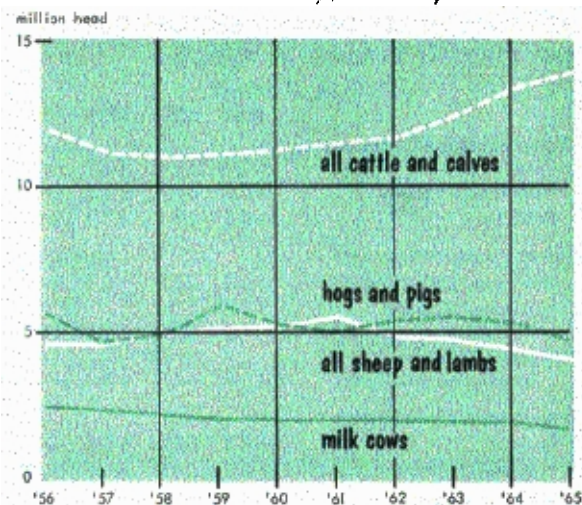
among the district states occurred in North Dakota where the turkey flock was expanded by 87 per cent. In Minnesota, where about 90 per cent of district turkeys are concentrated, numbers were up by 9 per cent from last year.

District chicken numbers declined by 5 per cent from the 1964 inventory figure. Except for Montana, where no change was recorded in the inventory figure, all district states experienced roughly 5 per cent drops in the number of chickens on farms.

### Value decreases

Changes in the numbers and physical composition of this year's livestock base plus a changed price level resulted in a substantial decrease in the value of district livestock. The total dollar figure on January 1 came to about \$1.9 billion for all district livestock and poultry, a \$200 million decrease from January 1, 1964 (see Table 2). Valuation declines among the states ranged from 13 per cent in North Dakota to 7 per cent in South Dakota.

Changes in the inventory values of the various livestock classifications are shown in Chart 2. As may be observed, the category all sheep and lambs

Chart 2 — Per cent change in total value,  
district livestock inventory, January 1.

experienced a rise in total valuation over that of a year ago. This was the only increase; all other comparisons of January 1, 1965 figures with those of January 1, 1964 and with the 1958-63 average indicate a decided drop in district inventory values.

One final measure of the value of the district livestock industry may be observed from Table 3. Particularly apparent is the decided drop in the

per-head value of cattle, a factor that has considerable influence on the over-all figures. Average hog values, while well below the average during the 1959-63 period, show some improvement over the January 1, 1964 figure. The average value of stock sheep depicts a similar pattern to that of hogs with the exception that this year's figure compares much more favorably to the 1958-63 figure.

## (Postwar business cycles and business stability: 1)

(continued from page 10)

of services rose by 8 per cent and the prices of commodities by 3 per cent.

Stable prices are the result of the rise in productivity and of moderateness of labor cost increases. The rise in output per manhour in manufacturing has averaged nearly 4 per cent a year during the current recovery while gross hourly earnings have increased about 3 per cent a year as contrasted to earlier periods of more rapid advance. As a result, even though fringe benefits have increased faster than hourly earnings, the

index of total labor cost per unit of output in manufacturing (1957-59=100) has declined slightly, from about 100 per cent in mid-1961 to 98.1 per cent in December 1964.

The vigorous growth in the domestic economy at stable prices has prevented widespread or pronounced depressing effects resulting from the cutbacks made in federal government defense spending. While reductions in output by firms in certain geographic sections have caused unemployment, the over-all growth of the economy generally has countered these effects. Expanding production at stable prices also has enhanced the United States' competitive position in world trade.

### ADVANCE IN KEY DEMAND SECTORS DURING THE CURRENT EXPANSION PERIOD

(billions of dollars)

	1961	1962	1963	1964
<b>Consumer expenditures for:</b>				
Durable goods	-1.2	+4.7	+3.7	+4.9
Nondurable goods	+3.6	+6.6	+5.5	+9.6
Services	+6.8	+8.1	+8.9	+9.8
<b>Business expenditures for:</b>				
New construction (nonfarm)	+0.2	+0.8	+0.8	+1.6
Producers' durable equipment (nonfarm)	-1.8	+3.0	+1.6	+3.6
Change in business inventories (nonfarm)	+1.5	+5.3	+3.9	+3.6
<b>Government expenditures:</b>				
Federal	+4.3	+5.5	+1.8	+0.9
National defense	+3.3	+4.6	+1.6	+0.1
State and local	+4.1	+2.9	+4.4	+5.1

### Summary

As the private economy returned to a more competitive climate after the Korean War, the recessions of minor business cycles did not grow in severity as might have been expected but continued to moderate. Some of the factors in the private sector of the economy that contributed to economic stability may have diminished in effectiveness and so the burden may now fall increasingly upon the effective use of governmental policies, some of which are fiscal and monetary, to maintain a stable economy in the future.

— OSCAR F. LITTERER