TAKE-HOME PAY of individuals rose substantially during 1968, but the rate of increase was sharply reduced after July by the 10 per cent surtax. Individuals continued to increase their expenditures for goods and services as they observed the purchasing power of their funds being eroded by price increases. They decreased the proportion of disposable income (income after taxes) saved, and the rate of accumulation of deposit-type savings slowed somewhat from the relatively rapid pace of 1967. Nevertheless, the rate of accumulation of deposit-type savings remained well above the pace of the 1966 “credit crunch” period.

Rising Income and Prices

Reflecting the strong growth in total demand and production throughout the year, personal income grew 9.6 per cent from November 1967 to November 1968, faster than in any one of the previous fifteen years. However, higher taxes and rising prices cancelled much of the gain to households. In the first half of 1968 disposable income grew at a 10 per cent rate, about the same as the growth of total personal income. Imposition of the 10 per cent surcharge on personal income taxes in July reduced the growth of disposable income in the third quarter to a 4.4 per cent rate, even though growth in personal income continued at nearly its previous pace.

Rapidly rising consumer prices, a response to strong demands emanating from all sectors of the economy, eroded over half of the gains in disposable income during the past year. Consumer prices rose 4.8 per cent from November 1967 to November 1968, while disposable income increased about 8 per cent during the same period. By comparison, consumer prices rose at less than a 2 per cent average annual rate in the decade from 1957 to 1967, eroding about one-third of the almost 6 per cent average rate of increase of disposable income during that period.

Allocation of Personal Income

Income taxes have been absorbing an increasing portion of total personal income since 1957 because of the progressive nature of our tax system. In 1957 individuals paid an average of about 12 per cent of their income to the Federal Government in the form of personal income taxes. In the subsequent ten years, personal income grew at a 6 per cent annual rate, while personal income taxes grew at a 6.8 per cent rate. Consequently, individuals paid an average of over 13 per cent of their income in Federal personal taxes in 1967. While personal income is estimated to have increased about 9.6 per cent in 1968, income tax liability of individuals is estimated to have increased 10 per cent, partly due to the surtax. As a result, about 14 per cent of income is estimated to have been paid in income taxes in 1968.

Individuals allocated an increasing proportion of their disposable income to personal saving during the decade prior to 1968. Saving increased at almost a 7 per cent annual rate from 1957 to 1967, about 1 percentage point faster than the growth of personal income during the same period.

In the first half of 1968 saving increased at about the same rate as disposable income. In the second half of the year, after the 10 per cent surtax became
effective, individuals reduced their saving rate. By reducing the share of income allocated to savings, households were able to maintain a relatively high rate of expenditures on consumption goods and services, even though the growth in take home pay was cut almost in half by the surtax.

**Continued Growth of Savings Deposits**

The growth of business and individual deposits in financial institutions was somewhat slower in 1968 than the rapid pace of 1967. The growth rates of time deposits at commercial banks and mutual savings banks, and of savings capital at savings and loan associations, continued to be relatively high on balance for 1968, despite the sharp reduction in the proportion of income saved by individuals after mid-year.

Total time deposits at commercial banks consist of several distinct types of accounts, each subject to different interest rate ceilings, minimum amount requirements, and time to maturity restrictions. Therefore, growth of the various types of accounts is sometimes affected differently by changes in such economic conditions as personal and corporate income growth or yields available on competitive instruments.

One of the sharp distinctions among time deposit accounts is between negotiable certificates of deposit in excess of $100,000 and other types of accounts. "Net time deposits" at commercial banks, a series consisting of total time deposits minus large negotiable certificates of deposit, are shown in the accompanying chart. Monthly data for the large certificates of deposit are shown in a separate chart.

Net time deposits are primarily passbook deposits and relatively small savings certificates. Passbook deposits are subject to a 4 per cent maximum interest rate limitation, and are usually payable on demand. Savings certificates are subject to a maximum interest rate limitation of 5 per cent per annum, but have a minimum size (generally $500 or $1,000), and usually are held for three months or longer.

Net time deposits grew at a relatively steady and rapid 12 per cent rate from 1962 to 1967. From December 1967 to July 1968 the growth of these deposits slowed to a 7.4 per cent annual rate; then from July to November growth of these deposits accelerated to a 16 per cent rate. The slowing in the growth of net time deposits in early 1968 may be attributed to the relatively high and rising yields on other financial assets. Most interest rates reached historic highs in May of 1968, before declining during the summer.

When market interest rates were rising in the first half of 1968, the ability of banks to compete for time deposits was constrained by the maximum interest rates they were permitted to offer under Regulation Q of the Federal Reserve System and corresponding regulations of the Federal Deposit Insurance Corporation. As market interest rates declined in the summer, banks' competitive positions were improved and they were able to attract a substantial volume of time deposits.

On at least one previous occasion the ability of banks to compete for deposits had similarly been seriously hampered by regulated interest rate ceilings. This was during the summer and fall of 1966, commonly referred to as the "credit crunch" period. Most market interest rates rose sharply from early 1966 to September of that year, and then declined for the next six months. The maximum rates banks could pay on savings certificates had been raised from 4 per cent on maturities of 30-89 days and 4¼ per cent on others, to 5½ per cent on all savings certificates in December 1965. Thus commercial banks were able to offer competitive yields during the first part of the year. In July 1966 maximum bank rates on savings certificates were reduced to 4 per cent on maturities of 30-89 days and 5 per cent on longer maturities. Net time deposits rose at only an 8 per cent rate during the May-to-November "crunch," compared
with a 12 per cent rate in the preceding six months and a 14 per cent rise in the following year.

Savings deposits at mutual savings banks have grown at a fairly stable 8 per cent annual rate since 1962. In early 1966 the growth of these deposits slowed substantially, while the growth of net time deposits at commercial banks continued to be fairly rapid due to raised Regulation Q ceilings. From January to June of 1966 deposits at mutual savings banks increased at only a 3 per cent annual rate before accelerating to a 6.5 per cent growth rate for the remainder of the year. Then, from the end of 1966 through September of 1967, the growth rate of mutual savings bank deposits accelerated further, reaching over 10 per cent before sliding back to the 8 per cent trend rate.

Growth of savings capital at savings and loan associations showed a less stable trend from 1962 to 1968 than either net time deposits at commercial banks or deposits at mutual savings banks. From 1962 to 1965 savings and loan capital grew at a 12 per cent annual rate, about the same as the growth rate of net time deposits in that period.

In 1966 savings and loan associations were subject to pressures from both the demand for and the supply of funds. Market interest rates on other financial assets, such as three-month Treasury bills and commercial paper, were rising during most of the year, making it difficult to attract funds at relatively fixed dividend rates. Meanwhile, the demand for mortgage credit was falling as the demand for housing sagged. Savings capital at savings and loan associations increased only 3.3 per cent from December 1965 to December 1966, while net time deposits at commercial banks went up 10 per cent in the same period.2 Savings and loan associations were successful in attracting deposits at a rapid 11 per cent rate from January to September of 1967, although growth of net time deposits continued at a somewhat higher 14 per cent rate throughout that year.

From September 1967 to June 1968 savings and loan capital increased at a relatively slow 5 per cent rate. From June to November 1968 the growth of savings and loan capital accelerated somewhat to a 7 per cent annual rate, in spite of the 10 per cent surtax on personal income and the decline in the proportion of take-home pay saved by households.

Certificates of Deposit

Commercial banks first began to issue large negotiable certificates of deposit (denominations of $100,000 or more) in significant volume in 1961. By the beginning of 1962 the outstanding volume of CDs was about $3 billion. Until mid-1963, the Federal Reserve System's Regulation Q permitted member banks to pay only one per cent interest on CDs maturing in 89 days or less, 2½ per cent on maturities of 90 days to 6 months, 3½ per cent on maturities of 6 to 12 months, and 4 per cent on longer maturities. Maximum interest rates payable on CDs were raised in 1963, 1964, 1965, 1966 and 1968.

The new instrument proved to be efficient, and the outstanding volume of large negotiable certificates of deposit increased at about a 50 per cent annual rate from the beginning of 1962 to the end of 1965. However, by the end of 1965 market interest rates had risen to such levels that the prevailing 4½ per cent ceiling rate on CDs3 made it difficult for banks to compete for funds. In December 1965 the Federal Reserve raised the ceilings rates on all maturities and denominations of time deposits to 5½ per cent (ceiling rates on passbook savings deposits were maintained at 4 per cent).

Footnotes:
2In 1965 and through most of 1966, savings and loan associations were subject to de facto interest rate control by an announcement that regional Home Loan Banks would restrict borrowing privileges of associations which declared a dividend rate higher than the rates of other associations in the area. In September 1966 savings and loan associations became subject to explicit interest rate control under the Stevens Act.
3Four per cent on maturities of 30 to 89 days.
The new issue rates on CDs rose rapidly in early 1966, accompanied by generally rising market rates of interest. Since they were no longer effectively constrained by Regulation Q ceiling rates, banks increased their outstanding volume of CDs until July of 1966, but at a much slower rate than in the previous four years.

Soon after the middle of 1966, banks' offering rates on newly issued CDs had reached the 5 1/2 per cent ceiling rates. Since yields on other market instruments continued to rise, banks were no longer able to compete effectively, and the volume of CDs outstanding declined sharply until the end of the year.

By December, most market yields had fallen sufficiently that banks were again able to increase their outstanding CDs. Yields on new issues of CDs fell a full percentage point from the end of 1966 to April 1967 before beginning to rise again. Banks increased their outstanding CD holdings 34 per cent during 1967. However, by December 1967 the yield on newly issued CDs had again risen to the 5 1/2 per cent ceiling rate, accompanying the generally sharp increases in market rates of interest since the spring of that year.

As yields on competitive market instruments continued to rise in early 1968, CD volume outstanding decreased over $2.4 billion from December 1967 to June 1968. In mid-April the ceiling rates imposed under Regulation Q were raised on large negotiable CDs maturing in 60 days or longer. The new ceilings were graduated according to maturity from date of issue: 5 1/2 per cent for 30 to 59 days, 5 1/4 per cent for 60 to 89 days, 6 per cent for 90 to 179 days, and 6 1/4 per cent for 180 days or more.

Banks' offering rates on CDs quickly rose to the new ceilings as most market interest rates were rising sharply last spring. However, in the summer short-term yields declined and banks became competitive under the new ceiling rates. From June to November the outstanding volume of CDs increased about $5 billion, or at a 76 per cent annual rate, recovering the decline of $2.4 billion in the first half of the year and leaving banks' holdings of CDs in November 14 per cent greater than a year earlier.

In November and early December of 1968 most short-term interest rates rose rapidly. By the end of November banks had raised offering rates on most maturities of CDs to the ceiling rates. Since banks were again becoming constrained in their ability to compete for funds, the outstanding volume of CDs increased only $446 million from October to November.

Commercial Paper

Commercial paper4 is a financial instrument through which one business firm borrows short-term funds directly from another. Firms with a large amount of funds to lend for periods of a few months can choose among commercial paper, certificates of deposit, Treasury bills, or other marketable short-term instruments. Commercial paper and CDs are close substitutes from the point of view of the lending institution. Consequently, yields on CDs and commercial paper have generally shown similar patterns, with only a narrow spread between these rates. However, as discussed above, the rates banks can offer on newly issued CDs are at times constrained by Regulation Q ceilings, while sellers of commercial paper are not prevented from offering competitive yields.

The outstanding volume of commercial paper increased from the beginning of 1962 to the end of 1965 at a fairly steady 16 per cent annual rate, much slower than the growth rate of CDs in the same period. In 1966, as banks' competitive abilities to issue CDs were hampered by the interest rate ceil-

4Includes finance company paper as well as other commercial paper placed directly and through dealers.
ment in individual well-being was substantially less than indicated by the growth of personal income. Nevertheless, saving as a proportion of disposable income in the last half of 1968 remained near the trend rate of the 1957 to 1967 period.

Changes in flows of saving into financial intermediaries in recent years have apparently depended more on the ability of these institutions to compete for funds in view of interest rate regulations than on changes in the total volume of saving. Interruption of normal channels of flows from saver to investor has probably reduced the efficiency of the financial system, and probably favors large borrowers who obtain funds in the capital markets relative to consumers, small businesses, and real estate buyers who rely more heavily on local financial institutions.

**Recent Monetary Developments**

In late 1968 market interest rates again reached levels which, in view of interest rate ceilings, may constrain the ability of financial intermediaries to attract additional funds. The upward movement of market interest rates, which began in late summer, became sharper during December, as yields climbed above the high levels of last May. Interest rates on three-month Treasury bills averaged 5.95 per cent for the month, reaching an average weekly high of 6.20 per cent for the week ending December 27 compared with a 5.65 per cent average for May. Yields on highest grade corporate bonds averaged 6.46 per cent in December, compared with a previous high of 6.28 per cent.

Incomes of individuals continued to rise throughout 1968. However, when adjustments are made for higher taxes and rising costs of living, the improve-
Monetary expansion, as measured by the money stock, resumed a rapid pace in the fourth quarter. Money grew at a 7 per cent annual rate from September to December and showed a similar 6 per cent increase for the entire year.

Growth of the monetary base, which largely determines the trend growth of the money stock, did not slow significantly during 1968. The base advanced at a nearly steady 6 per cent annual rate from January to December, much faster than the 3.3 per cent average annual increase from 1957 to 1967. For the most part, the growth of the monetary base followed the rapid pace set by its largest source component, Federal Reserve credit, which increased 8 per cent during 1968.

The growth rates of other monetary aggregates, including the money stock plus time deposits and commercial bank credit, were at relatively high levels during 1968. The rapid monetary expansion, indicated by high growth rates of money, the monetary base, Federal Reserve credit, and bank credit, has not been successful in pushing down or preventing very high interest rates. It might be argued that increasing supplies of credit and money to meet the growing demand should tend to lower interest rates. This may be the case for very short periods. However, excessive monetary expansion may increase inflationary expectations, ultimately adding to upward pressure on interest rates.

Expectations of continued rapid increases in spending and inflation, as well as heavy seasonal demands for credit, fostered the marked rise in interest rates. With growing expectations of continued inflation, interest rates typically go up, since lenders desire a greater nominal return in order to protect the purchasing power of funds, and borrowers expecting to repay their loans in cheaper dollars are willing to pay higher nominal interest rates.
Growth—Metropolitan vs. Nonmetropolitan Areas in the Central Mississippi Valley

In popular literature there is a tendency to emphasize the growth of metropolitan areas and to overlook developments in smaller cities, towns, and unincorporated, urban-type communities. Numerous publications have pointed to the rapid migration to large centers and the adjustment problems which accompany growth.1

Several basic national trends have probably contributed to the emphasis on metropolitan areas. The number of people living in metropolitan areas rose from 94 million in 1950 to 132 million in 1966. In contrast, the population in the farm sector dropped sharply. The number of people living on farms declined from 23 million to 10 million, and the farm portion of total population declined from 15 per cent to 5 per cent. This large flow of people from farm to city has intensified problems of transportation, air pollution, crime, housing, and education. Because of the great interest in these problems and their association with larger cities, it is often assumed that metropolitan areas are growing more rapidly than other sectors.2

In contrast to the above assumption, this article indicates that metropolitan areas in the Central Mississippi Valley (CMV) states (that is, Arkansas, Kentucky, Mississippi, Missouri, and Tennessee) have not been growing faster than nonfarm communities outside metropolitan areas. Smaller cities, towns and urban-type communities in this region (excluding the farm sector) have been growing at substantially faster rates than the large centers, according to such measures of economic activity as population, employment, and wage payments. Furthermore, total bank deposits and per capita personal income have been growing faster in nonmetropolitan areas (including the farm sector) than in the metropolitan centers.

Central Mississippi Valley Trends

Several measures of economic activity are used in this article to compare growth patterns in metropolitan and nonmetropolitan areas of each CMV state. The metropolitan portion of a state is defined here as all counties included in any metropolitan area as of 1967, even though in earlier years some of the counties may have been classified differently. Metropolitan Kentucky, for example, is defined as Jefferson County in the Louisville Standard Metropolitan Statistical Area (SMSA), Boyd County in the Huntington-Ashland SMSA, Boone, Campbell and Kenton Counties in the Cincinnati SMSA, Henderson County in the Evansville SMSA, and Fayette County in the Lexington SMSA. The remainder of the state is designated as nonmetropolitan.3

<table>
<thead>
<tr>
<th>State</th>
<th>Metropolitan Area</th>
<th>Counties Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas</td>
<td>Fort Smith</td>
<td>Crawford, Sebastian, Pulaski, Saline, Crittenden, Jefferson, Miller</td>
</tr>
<tr>
<td></td>
<td>Little Rock</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Memphis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pine Bluff</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Texarkana</td>
<td></td>
</tr>
<tr>
<td>Kentucky</td>
<td>Cincinnati</td>
<td>Boone, Campbell, Kenton, Henderson, Boyd, Fayette, Jefferson</td>
</tr>
<tr>
<td></td>
<td>Evansville</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Huntington-Ashland</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lexington</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Louisville</td>
<td></td>
</tr>
<tr>
<td>Mississippi</td>
<td>Jackson</td>
<td>Hinds, Rankin</td>
</tr>
<tr>
<td>Missouri</td>
<td>Kansas City</td>
<td>Cass, Clay, Jackson, Platte, Buchanan, Franklin, Jefferson, St. Charles, St. Louis, St. Louis (City), Greene</td>
</tr>
<tr>
<td></td>
<td>St. Joseph</td>
<td></td>
</tr>
<tr>
<td></td>
<td>St. Louis</td>
<td></td>
</tr>
<tr>
<td>Tennessee</td>
<td>Chattanooga</td>
<td>Hamilton, Anderson, Blount, Knox, Shelby, Davidson, Sumner, Wilson</td>
</tr>
<tr>
<td></td>
<td>Knoxville</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Memphis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nashville</td>
<td></td>
</tr>
</tbody>
</table>


The time period used for most of the analyses is from the 1957-59 average to the latest year for which data are available. There is some deviation from the base period when data for 1957-59 could not be obtained or when a longer period appeared more appropriate. Economic growth measures considered include population, employment, wages, bank deposits and per capita income.

**Population**

Major relocations of the population occurred in the Central Mississippi Valley from 1950 to 1966. The change reflects a mass movement from the farm to the nonfarm sector (Table I). Population in both metropolitan areas and smaller communities increased faster as a result of this shift. Gains in nonfarm population outside of metropolitan areas, however, were at greater rates than in metropolitan areas.

The farm population in the Central Mississippi Valley declined at a 5.7 per cent annual rate from 1950 to 1966, somewhat faster than in the nation. The decline was most rapid in the southern portion of the region. Lower per capita farm incomes and a relatively high ratio of farm to total population probably contributed to the rapid decline. Only Missouri, with a per capita farm income of $865, exceeded the national average, and this was the only state in which the farm population declined at a lower rate than the national average. The rate of decline in the other four states ranged from 7.1 per cent in Arkansas to 5.3 per cent in Kentucky and Tennessee; the comparable national rate was 4.9 per cent. In 1950 per capita farm income in the four southern states of the region ranged from $364 in Tennessee to $547 in Arkansas.
compared with a national average per capita farm income of $736.

Population living on farms in Mississippi declined from 49 per cent to 14 per cent of the total, while in Arkansas, farm population declined from 37 per cent to 11 per cent of the total population during the 16 year period. In comparison, the number of people living on farms in Missouri declined from 20 per cent to 9 per cent. In the United States the decline was from 15 per cent to 5 per cent.

Despite the sharp decline of the farm population in the Central Mississippi Valley, metropolitan areas in the region grew somewhat more slowly than the national average. The average metropolitan area growth rate for all CMV states was 1.7 per cent, compared with 2.1 per cent in the nation. Metropolitan area population grew fastest in the states with the smallest metropolitan concentration. Mississippi, which has 11 per cent of its population living in metropolitan areas, had an annual metropolitan population growth rate of 2.4 per cent from 1950 to 1966. On the other hand, metropolitan Tennessee, with 48 per cent of the state’s population, had a growth rate of 1.7 per cent, and metropolitan Missouri, with 61 per cent of the population, advanced at a 1.5 per cent rate.

The nonfarm population outside metropolitan areas, the largest sector in all regional states except Missouri and Tennessee, was the most rapidly growing population sector in the Central Mississippi Valley from 1950 to 1966. This sector advanced at a 2.8 per cent rate, equal to the national rate of growth for these communities.

**Employment**

Employment trends in the CMV states paralleled those of population. Based on data for workers covered by state employment security laws (about half of all workers), the employment growth rate in nonmetropolitan areas exceeded that in metropolitan areas in each of the five Valley states from 1957-59 to 1967.

Nonmetropolitan employment growth in the region ranged from 5.3 per cent per year in Kentucky to 3.8 per cent in Mississippi (Table II). Again, a state-by-state analysis of total covered employment indicated generally higher growth rates in the southern portion of the Valley, where the ratio of farm to nonfarm population was highest, and the shift from farm to nonfarm employment was greatest.

In Arkansas total covered employment expanded at a 4.7 per cent rate in nonmetropolitan areas compared with 3.9 per cent in metropolitan centers. The rapid expansion of manufacturing employment in the nonmetropolitan counties largely accounts for this growth differential. Manufacturing employment growth in these areas is probably related to the in-migration of labor-intensive industries to take advantage of lower wage rates. Nonmanufacturing employment increased at about the same rate in the metropolitan and nonmetropolitan sectors.

Manufacturing employment growth in Kentucky nonmetropolitan areas far outpaced that in metropolitan areas. Such employment, which accounts for about one-fourth of the state total, expanded at a 5.3 per cent rate in nonmetropolitan areas compared with a 2.2 per cent rate in metropolitan areas. This is a reversal of the growth pattern prior to about 1960. Since then, however, manufacturing employ-

### Table II

<table>
<thead>
<tr>
<th>State</th>
<th>Total Covered Employment¹</th>
<th>Nonmetropolitan Areas</th>
<th>Total Covered Employment¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas²</td>
<td>140</td>
<td>3.9</td>
<td>230</td>
</tr>
<tr>
<td>Kentucky³</td>
<td>125</td>
<td>2.2</td>
<td>105</td>
</tr>
<tr>
<td>Mississippi</td>
<td>57</td>
<td>3.4</td>
<td>298</td>
</tr>
<tr>
<td>Missouri</td>
<td>880</td>
<td>3.5⁴</td>
<td>193</td>
</tr>
<tr>
<td>Tennessee⁵</td>
<td>435</td>
<td>3.6</td>
<td>424</td>
</tr>
</tbody>
</table>

¹Employment covered by state employment security laws. Included in covered employment are most wage and salary workers except those employed by government and non-profit organizations.

²Based on May data.

³Manufacturing employment only, September estimates.

⁴Rate of change: 1960 to 1967.


Covered employment in Missouri has expanded slightly faster in nonmetropolitan areas than in the large centers. The faster growth of nonmanufacturing employment outside metropolitan areas was not offset by greater growth of manufacturing employment in metropolitan centers.

Covered employment figures for Tennessee indicate that nonmetropolitan employment has expanded considerably faster than metropolitan employment. During the 1950’s employment in metropolitan areas grew more rapidly, but since 1960 the pattern has reversed. Growth rates for the 1958-59 to 1966 period are 5.2 per cent per year for nonmetropolitan areas and 3.6 per cent for metropolitan areas.

**Total Wages Paid**

Wages paid to covered employees have expanded faster in the nonmetropolitan areas of the Valley states than in metropolitan centers. Like the employment data, the wage figures apply to only about half of the employment in each state. They are, however, probably indicative of total wages paid in both sectors, exclusive of farm workers. The pattern of growth in total wages paid is similar to that of employment. Gains in the southern states were slightly faster than in Missouri, and gains in nonmetropolitan areas of each state were greater than in the metropolitan areas. Covered wage data are not available for Kentucky.

Arkansas, with the fastest total wage growth (8.7 per cent), also had the most rapid growth in the nonmetropolitan sector (Table III). Wages in metropolitan and nonmetropolitan Arkansas expanded at about the same rate from 1957-59 to 1965, but since 1965 they have accelerated in nonmetropolitan areas while leveling off in metropolitan centers.

Total wages advanced faster in nonmetropolitan than in metropolitan Mississippi from 1957-59 to 1967, while the annual rates of increase in both sectors, 8.5 and 7.5 per cent, respectively, were very high. In the early part of the period the rate of expansion was about the same in the two sectors, but in recent years nonmetropolitan growth accelerated sharply. Wage growth in metropolitan Missouri approached that in the nonmetropolitan areas. Nonmetropolitan growth was more rapid from 1961 to 1965, but metropolitan growth accelerated during the past two years. This pattern closely parallels the state’s employment trends. Tennessee had a rather wide disparity in growth rates between the two sectors, with nonmetropolitan areas expanding faster. Wages in nonmetropolitan areas rose at an 8.7 per cent rate compared with 7.5 per cent in metropolitan areas. As in the case of employment, wages in metropolitan areas expanded more rapidly during the 1950’s, while nonmetropolitan wages have grown faster since 1960.

**Bank Deposits**

Bank deposits in the CMV states have followed the same pattern as other growth measures, rising faster in nonmetropolitan than in metropolitan areas and faster in the southern states where the population...
shifts have been greatest. Deposits rose at higher rates in each state from 1958 to 1966 than in the nation.

Arkansas had the greatest rate of deposit growth of the CMV states. With gains of 9.3 per cent per year, deposits in this state rose almost 50 per cent faster than the average for all CMV states and about double the national average (Table IV). Nonmetropolitan area deposits in Arkansas rose 10 per cent per year, compared with a 9.2 per cent rate in second place Tennessee, and an 8.2 per cent average for all nonmetropolitan areas in the CMV. The rate of deposit growth in Kentucky, although somewhat less than in the above states, again showed nonmetropolitan gains slightly more rapid than in the large centers.

In Mississippi, total deposits rose a little more rapidly in nonmetropolitan areas than in metropolitan centers. In both sectors, growth was relatively high, above the average for all Valley states, and total deposit growth greatly exceeded that in the nation.

Although bank deposits expanded less rapidly in Missouri than in other regional states, total and demand deposits each expanded faster in nonmetropolitan than in metropolitan areas. Demand deposits per capita expanded sharply in nonmetropolitan areas, whereas in metropolitan areas they declined slightly. This may reflect more intensive competition for savings-type deposits in metropolitan Missouri than in the nonmetropolitan areas. Rates paid on savings-type deposits average somewhat higher in metropolitan St. Louis than in outlying Missouri. Furthermore, opportunities for saving at nonbank financial agencies are more numerous in the St. Louis area than in most nonmetropolitan counties.

Deposit trends in Tennessee were very similar to those in the other Valley states, with total deposit growth more rapid in nonmetropolitan areas, particularly since 1962.

Per Capita Personal Income

Per capita incomes made sharp gains in the nonmetropolitan areas of the CMV states from 1957-59 to 1966. A portion of the increase, especially during 1965 and 1966, reflected rising prices, but the rate after allowance for price increases was sizable. Like other growth factors, the rate of increase in the nonmetropolitan areas of each state was well above that...
in metropolitan areas. Furthermore, per capita income gains in all regional states except Missouri were above the national average (Table V). Average per capita income growth in the Valley metropolitan areas trailed that of the nation's metropolitan areas.

With the rapid nonmetropolitan gains in the Central Mississippi Valley, the per capita income spread between metropolitan and nonmetropolitan areas narrowed substantially from 1957-59 to 1966. At the earlier date, nonmetropolitan income averaged only 56 per cent of the metropolitan average, whereas in 1966 nonmetropolitan income was about two-thirds that in metropolitan areas. The earlier spread between metropolitan and nonmetropolitan incomes in the Valley was much greater than that in the nation. By 1966, however, there was little difference in the spreads between the Valley and the nation.

Arkansas, which made the greatest labor adjustments from farm to nonfarm occupations, likewise had the highest rate of increase in nonmetropolitan per capita income and in the state average. By comparison, Arkansas metropolitan income per person rose only 4.3 per cent per year, slightly below the United States rate of gain, but above the Valley metropolitan average. Per capita income in nonmetropolitan Arkansas rose from 68 to 81 per cent of the metropolitan average during this period.

Kentucky, with a somewhat lower rate of adjustment in farm labor than Arkansas, experienced a slower rate of per capita income growth in the nonmetropolitan areas. Nonmetropolitan per capita income growth in Kentucky was above the national average but below the Valley average, while metropolitan income growth was above the Valley average and almost equal the national average.

Mississippi ranked next to Arkansas in per capita income growth, reflecting growth in metropolitan areas greater than the Valley average, and about average growth in nonmetropolitan areas. Growth in nonmetropolitan Mississippi was still greater than in the large centers. Metropolitan areas grew faster in both income per capita and population than in other Valley states, indicating a strong demand for labor in the large centers. Despite this high growth rate, the state still ranks relatively low in per capita income, having achieved 60 per cent of the national average and 75 per cent of the Valley average. It also has a larger per cent of labor employed in agriculture than the Valley or national average.

Missouri had the lowest rate of per capita income growth of the Valley states, reflecting below average growth in the metropolitan sector. The state's nonmetropolitan per capita income rose somewhat faster than the Valley average, but this sector comprises only one-third of the state's work force. Despite the slower rate of per capita income growth, incomes in Missouri are well above those of any other Valley state and almost equal the national average.

Per capita income growth and growth in each sector in Tennessee was slightly above average for the Valley. Furthermore, growth in nonmetropolitan areas of the state was above that in metropolitan areas. Here again, however, per capita incomes are well below the average in the Valley states and the nation.

<table>
<thead>
<tr>
<th>Per Capita Personal Income Growth</th>
<th>1957-59 to 1966</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Per Cent Increase</strong></td>
<td><strong>Per Cent Increase</strong></td>
</tr>
<tr>
<td><strong>Metropolitan</strong></td>
<td><strong>Nonmetropolitan</strong></td>
</tr>
<tr>
<td>United States</td>
<td>40</td>
</tr>
<tr>
<td>Central Mississippi Valley</td>
<td>50</td>
</tr>
<tr>
<td>Arkansas</td>
<td>60</td>
</tr>
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<td>Kentucky</td>
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Summary

This section concludes that the fastest growing areas in the Central Mississippi Valley are the small cities, towns and urban-type communities outside the metropolitan counties. Measured in terms of population, employment, wages, bank deposits, and per capita personal income, growth rates in these areas exceeded those in metropolitan areas. Furthermore, despite the rapid decline in the farm population and the relatively low incomes in agriculture, bank deposits and per capita personal income grew faster in the entire nonmetropolitan sector of the Central Mississippi Valley than in the metropolitan areas.

Routes to Growth

Like most explanations for growth, an explanation of the rapid growth in nonmetropolitan Central Mississippi Valley is complex. Major programs have focused on growth in metropolitan areas in recent years. Large Federal programs, designed to improve the labor force and increase employment, have been directed toward these centers. Most corporate headquarters are located there. Furthermore, the large centers have well-organized Chambers of Commerce and other resource and development groups designed to lure industry into their respective localities. Despite these efforts, however, growth in covered employment and per capita income has been more rapid outside the large centers.

Some Contemporary Views

W. W. Rostow traces the growth pattern of nations through five stages, beginning with traditional societies that have a high proportion of resources in agriculture and a relatively inflexible social organization. He contends that as a prelude to moving forward, society must recognize that progress is possible and desirable. Also, some enterprising men are necessary. The government must be capable of organizing the nation so that unified commercial markets develop and lead the way in such areas as education, tariffs, and public health. The take-off which follows is characterized by a high rate of saving and capital investment, rapid expansion of new industries, and numerous new techniques for production in agriculture and industry. As the economy approaches maturity, it experiences long intervals of fluctuating progress.

About 60 years following take-off, as the economy demonstrates a capacity to move beyond the original industries which generated the take-off, the developing nation reaches a level of relative maturity. It is now at the age of mass consumption where emphasis shifts to durable goods and services.

Such analyses tell little about how the engine of progress is started. For example, how does a society develop entrepreneurs, and how does one reorient a society from the inflexible, structural type composed of relatively self-sufficient units to a flexible one built around commercial exchange and specialization of labor?

Rostow believes that the original impetus occurs in agriculture. More food must be produced per worker to provide for those moving into urban areas and for the over-all rise in population. In addition, agriculture must supply expanded markets and loanable funds to the modern sector. Important ingredients for take-off are willing entrepreneurs and improved markets for both factors of production and end products.

Theodore W. Schultz has advanced the hypothesis that economic development in regions of the United States occurs in a specific location matrix, primarily urban, and that it works best in those parts of agriculture nearest to the center of the matrix. He traced low incomes in agriculture to inefficient factor markets. An implication of the study is that both farm labor and capital are relatively immobile.

D. Gale Johnson has also suggested that we have had inefficient functioning of the labor market. He indicated that the failure of migration to achieve equality of returns in the farm and nonfarm sectors rests largely on influences indigenous to farm people and their environment.

Improvements in the Labor and Capital Markets

Despite these pessimistic conclusions, labor and capital markets in the Central Mississippi Valley have apparently functioned more efficiently in recent years. The income gap between metropolitan and smaller centers has closed substantially. Furthermore, re-

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5Rostow, p. 22.


source adjustments and per capita income gains have been greatest in Arkansas and Mississippi, where a larger percentage of the resources were farm-oriented and the metropolitan areas were relatively small. The data thus suggest that since 1950 capital and labor markets have been working more efficiently throughout the Valley, and that efficient factor markets are not limited to the periphery of large metropolitan centers. The study indicates sharp movements of capital into nonmetropolitan communities, and of labor out of agriculture. Some incentive apparently remains for labor to move to metropolitan areas, but in the Valley states this incentive, based on per capita personal income, has declined since the early 1950's.

Although per capita income is usually considered one of the best measures of economic well-being in an area, it is far from perfect. In the first place, it is not adjusted for differences in living costs which may be quite substantial among urban areas, between urban and rural areas, or among rural areas. Some expenses, such as parking fees, cost of travel to and from work, and clothing, are inconsequential for most farm workers. Food and housing costs may also be lower. Part of the difference in average per capita incomes between metropolitan and nonmetropolitan areas may be an indication of unequal labor and managerial skills. For example, according to the 1960 Census of Population, the median school years completed by urban residents of the South was 10.7, while the median for rural nonfarm and rural farm residents, respectively, was 8.9 and 8.4 years. The per cent of those residents with college degrees similarly indicates an educational gap between metropolitan and nonmetropolitan areas.

In addition, the personal income data do not measure capital gains, which may be greater relative to income in the nonmetropolitan sector than in metropolitan areas. Many farmers, for example, obtain sizable capital gains because they are landowners. In 1964 more than four-fifths of all farm operators were simultaneously landowners, according to the United States Census of Agriculture. Gains to landowners from rising land prices have been pointed out by numerous studies. William Diehl found that capital gains in agriculture were a significant deterrent to migration. He thus implied that capital gains in farming are associated with the size of the farm labor force, given the current structure of agriculture. D. Gale Johnson estimated that due to sizable nonmone­tary gains in agriculture, farm incomes equal to 68 per cent of nonfarm incomes provide the same real return to labor in the two sectors.

It is apparent from these studies that equality of money incomes in the metropolitan and nonmetropolitan sectors is not essential for equality of real incomes. How close the sectors are to equality is a question that remains unanswered. Nevertheless, the fact that population (excluding farm residents) and covered employment have grown faster outside of metropolitan areas than in large centers indicates that such areas are relatively more desirable places to work and live than in former years when metropolitan centers were growing at more rapid rates relative to smaller communities.

**Conclusion**

From 1950 to 1966 marked population shifts occurred in five states of the CMV, with smaller cities and towns growing rapidly. Farm population declined markedly. Metropolitan counties in the CMV states grew at a 1.7 per cent annual rate, and the nonfarm population outside of metropolitan areas at a 2.8 per cent rate. The number of people remaining on farms is now so small that further mass migration out of agriculture can no longer occur. This situation will tend to reduce the future rate of growth both of metropolitan areas and of nonfarm nonmetropolitan areas in the CMV.

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SINGLE COPIES of the following working papers are available to persons with a special interest in these research areas, and any discussion or comment would be welcomed by each author. For information write: Research Department, Federal Reserve Bank of St. Louis, P. O. Box 442, St. Louis, Missouri 63166.

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<td>2</td>
<td>Chapter on Agribusiness Prepared for American Institute of Banking Textbook Agricultural Credit (50 pages)</td>
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