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# FEDERAL RESERVE BANK OF ST. LOUIS

# Review

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FEDERAL RESERVE BANK  
OF ST. LOUIS

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## *Prosperity, Pressures, and Prices*

A VIGOROUS RISE in economic activity in the latter half of 1965 has extended through the first quarter of 1966. A surge in demand has yielded a large increase in output and a further reduction of unemployed resources, but it has also resulted in price increases.

The money supply grew about as rapidly from November to March as last summer and fall. Paradoxically, time deposits at commercial banks have increased at a slower rate since the early December rise in some interest rate ceilings.

Demands for funds, especially by corporations and government, have been very strong, causing many interest rates to rise further in the first quarter of 1966.

### *Production and Resource Use*

Despite a smaller volume of unused resources, industrial production continued to rise in the first three months of 1966. From last October to February industrial output went up at a 13 per cent annual rate. This recent rapid growth rate compares with a 6 per cent rate from December 1964 to October 1965 and a 5 per cent average rate from 1960 to 1964. Preliminary data indicate that production continued to increase in March.

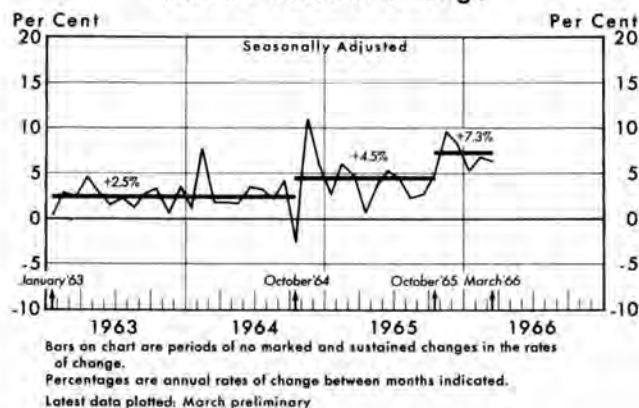
The rise in production in recent months has been paced by surging output of equipment for business and the military. From February 1965 to February 1966 equipment production rose 18

per cent compared with a 5 per cent rise in the production of consumer goods.



Employment increases have been large in recent months. Payroll employment rose at a 7.3 per cent annual rate from October to March. Total employment, which includes the agricultural sector where there has continued to be net declines, has risen at a 2.9 per cent rate since October. By way of comparison, the number of persons of working age (18 to 64 years) is now growing at about a 1.6 per cent rate. Total employment rose at a 2.6 per cent rate from December 1964 to October and at a 1.4 per cent average rate from 1960 to 1964.

### Payroll Employment Annual Rates of Change

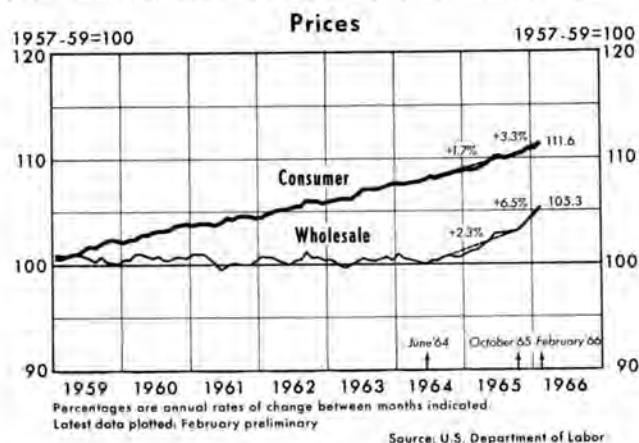


Increasing pressure on labor markets is evidenced by a rising average workweek in manufacturing, a lower unemployment rate, a higher level of job quit-tings, and increased reports of unfilled positions. The average workweek for all manufacturing industries was a post-World War II high of 41.6 hours in March. The unemployment rate declined to 3.8 per cent in March compared with 4.3 per cent in October. The

number of job quittings, which usually rises when the labor market is tight and workers can more readily change jobs, rose from 1.7 per 100 employees in June to 2.0 in September and 2.4 in January.

### Prices

After virtual stability from 1958 to mid-1964 the wholesale price index rose at a 2.3 per cent annual rate from mid-1964 to last October. These prices went up at a rapid 6.5 per cent rate from October to February, but weekly data indicate little further rise in March. Consumer prices rose at a 3.3 per cent rate from October to February compared with a 1.7 per cent rate from mid-1964 to October. The rise since October would have been more pronounced had it not been for excise tax cuts at the beginning of the year.



Rising prices of farm products and processed foods, especially livestock, have accounted for a large part of the rise of wholesale prices. These prices have risen at a 19 per cent rate since last October, and from June 1964 to October they increased at a 5 per cent rate. Some agricultural and food prices have risen rapidly because of limited supplies, yet if supplies had been normal in this field of inelastic demand, demand might have spread into other areas and other prices might have gone up more.

### PRICES

#### Annual Rates of Change

	June 1964 to October 1965	October 1965 to February 1966
Wholesale .....	2.3%	6.5%
Wholesale industrials .....	1.4	3.0
Crude materials .....	4.7	11.3
Intermediate materials .....	1.5	2.1
Finished goods .....	1.1	2.6
Wholesale farm products and processed foods .....	5.0	18.7
Consumer .....	1.7	3.3
Food .....	2.5	9.6
Commodities other than food ..	0.7	0.3
Services .....	2.3	2.6

Wholesale industrial prices have risen at a 3.0 per cent rate since October, after inching up at a 1.4 per cent rate from mid-1964 to October. Prices of crude materials have been the most rapidly rising of industrial prices.

Actual wholesale prices may have risen faster in recent months than the rate indicated by the indexes in view of elimination of discounts and emergence of supplementary payments which may not be fully reflected in the indexes.

### ***The Outlook for Total Demand and Supply***

Price movements in coming months will depend upon both the strength of aggregate demand and the growth of output and imports. Total demand is influenced by monetary and fiscal actions, by exports, and by private propensities to buy consumer and capital goods and services. Production is limited by growth of the labor force, basic resources, plant capacity, and technology. How closely the economy approaches its full capacity to produce depends in large measure on total demand. Growth of demand more rapid than possibilities for real production spells price inflation.

A stimulative fiscal situation, the recent rapid monetary expansion, burgeoning plant and equipment expenditures, and the strong momentum and optimistic expectations all point to continued strong demand in the near future. However, these factors may in some measure be offset by limited credit expansion, increases in interest rates, and shortages of some materials, which could moderate demand by delaying some investment by businesses and state and local governments. Also, the recent interest rate increases and the accompanying declines in prices of bonds, mortgages, and preferred stocks have reduced the money value of wealth and could dampen consumer and business expenditure plans.

The high-employment budget, which is described as a measure of fiscal impact on page 6 of this *Review*, is at its most stimulative condition in years and is expected to become even more expansionary throughout 1966. The economy may now be experiencing even more stimulation from Federal actions than indicated by the high-employment budget. The economic impact of much of the defense build-up is currently being felt, but some of these expenditures do not show up in the budget until later when payments are made. Conversely, any future reduction or leveling in defense procurement may not be mirrored immediately by the budget so that the budget might then appear deceptively stimulative. The stimulative relation between Federal tax rates and Federal expenditures provides a

A release entitled "Rates of Change in Economic Data for Ten Industrial Countries, Annual Data 1948-1965" has been prepared by the Research Department of this bank. It contains tables of compounded annual rates of change for seven time series relating to money supply, prices, employment, and output for Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Switzerland, the United Kingdom, and the United States. To obtain copies of this publication and to be placed on a mailing list to receive similar releases in the future, write the Research Department, Federal Reserve Bank of St. Louis, P. O. Box 442, St. Louis, Missouri 63166.

demand for loan funds, a kind of dissaving, and thereby a major force working for high interest rates.

A higher level of unfilled orders, rising prices, high rates of capacity utilization, and prospects for further expansion of demand have encouraged business plans to invest heavily in modernizing facilities and building new plant and equipment. These expenditures are tentatively expected to increase 16 per cent from 1965 to 1966, after rising 15 per cent from 1964 to 1965. An attempt to carry out such expenditures should provide a major stimulus to total demand.

However, some of the planned investment by businesses may be discouraged by limited saving and credit supplies and higher interest rates. Some proposed corporate and local government issues have been postponed until more favorable terms can be obtained. A reduced inventory accumulation in January may reflect in some measure a limited flow of credit and higher interest rates.

While rising personal income and a generally bright economic outlook are tending to encourage consumer expenditures, reduced prices of many financial assets and higher interest rates on mortgages and consumer loans could dampen consumer decisions to spend, thereby limiting demand. Increased interest rates are a retarding influence on all capital values, including common stocks and real estate, since they are the basis for capitalizing an expected stream of income. Long-term Government, municipal, and corporate bond prices have declined about 5 per cent since last summer.

The prospects for further gains in production are favorable because the labor force is growing and large plant and equipment expenditures in recent years provide added capacity and increase the productivity of labor. However, output can scarcely expand at the rate prevailing since mid-1964, since the growth of the

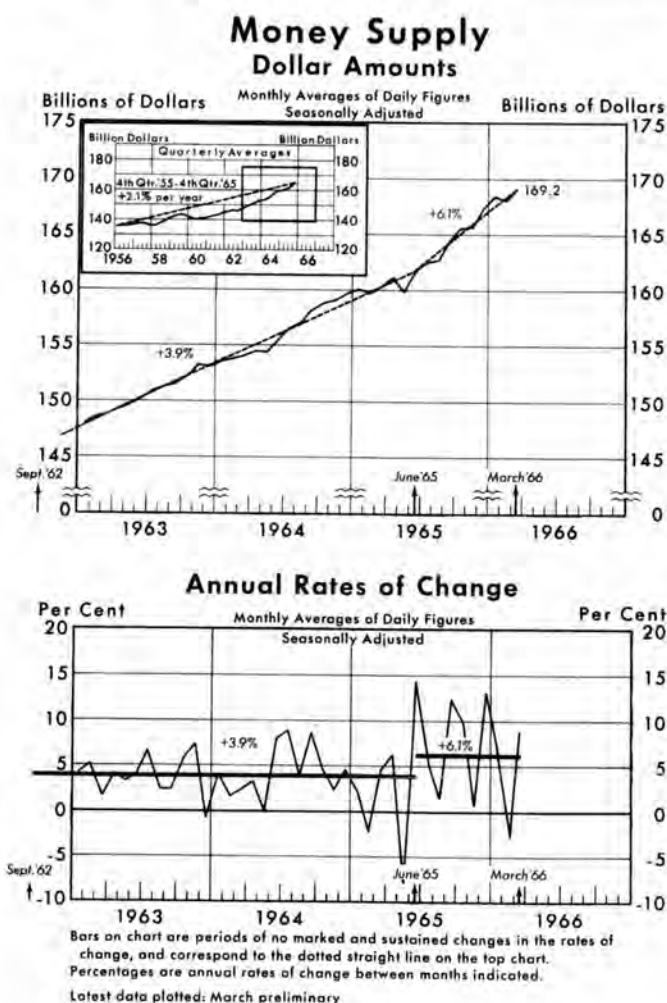


labor force is not expected to accelerate and the pool of unemployed workers has been greatly reduced. If the labor force and total employment were to continue to grow at rates prevailing from October to February, the unemployment rate would fall to nearly 2 per cent by the end of the year. Shortages of skilled labor and of some materials hinder growth of production. If total demand is limited by fiscal policy or by limitations on the flow of credit and higher interest rates, practical potential for real output may be achieved while price inflation is at the same time avoided.

## Monetary Developments

Money supply growth has continued at a rapid rate since November. Bank credit expansion slackened from January to March, which may indicate a diversion of credit flows from bank time deposits into capital markets. Intensified credit demands have resulted in substantial increases in interest rates in the first quarter.

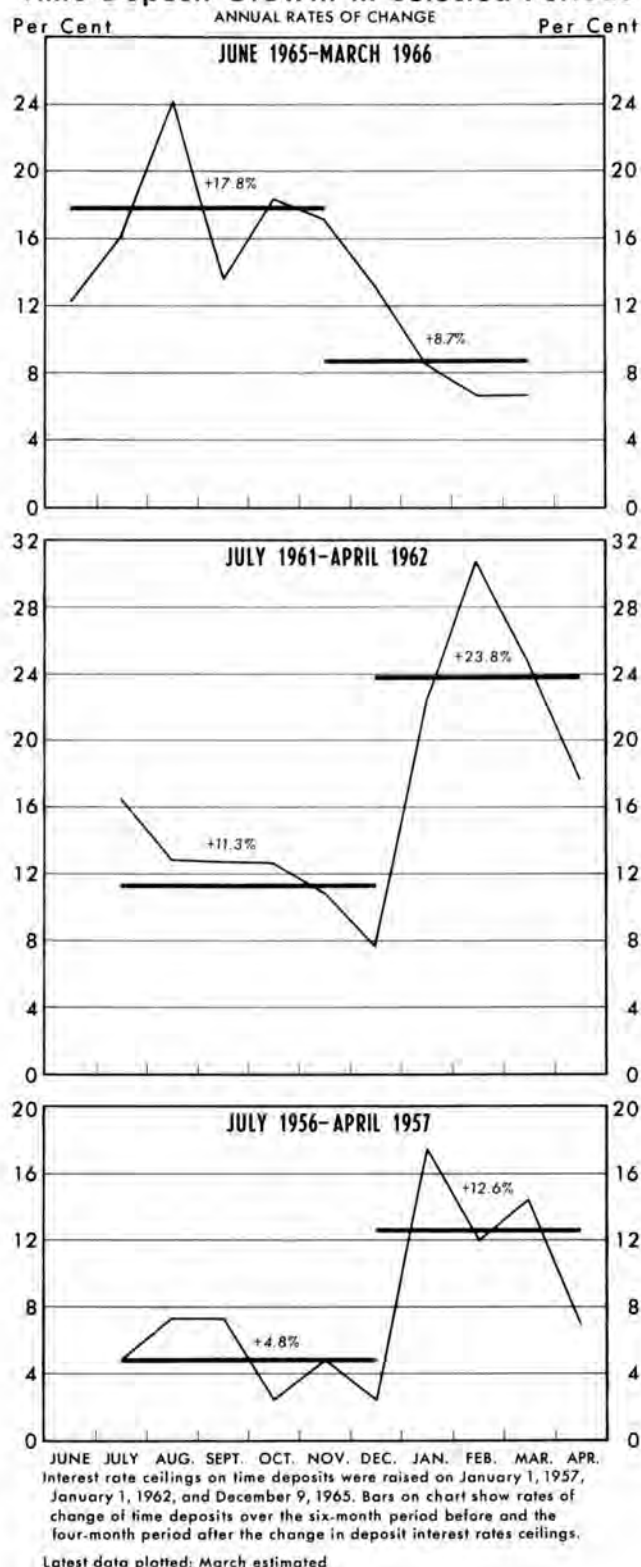
The money supply grew at an estimated 6.5 per cent annual rate from November to March, a little greater than the 5.9 per cent rate from June to November.



From 1960 to mid-1965 the money supply grew at an average 2.8 per cent annual rate.

Time deposit growth at commercial banks has been at a reduced 9 per cent rate in the November-March

## Time Deposit Growth in Selected Periods



period, despite increases in early December in the maximum rates payable on bank time deposits (other than savings deposits). Time deposits grew at an 18 per cent rate from last June to November.

In the four months following a relaxation of Regulation Q in January 1957, time deposits rose at a 13 per cent rate compared with a 4.8 per cent rate in the preceding five months. In the four months following the January 1962 relaxation of Regulation Q, time deposits jumped at a 24 per cent rate compared with an 11 per cent rate of rise in the last five months of 1961. In these earlier periods maximum rates payable on savings deposits as well as on other time deposits were raised.

According to reports from larger banks, the reduced inflow of time deposits in recent months has resulted from slow growth of savings deposits (where the ceiling remained at 4 per cent) and large negotiable certificates of deposit. "Other" time deposits have risen at a 43 per cent annual rate since November. Some of this gain probably reflects a shifting of funds from savings deposits to small certificates of deposit.

Deposit inflows at nonbank financial intermediaries have also been slower in recent months, possibly indicating that the flow of saving has been diverted from financial institutions into other markets or directly into investment goods. Proceeds from the sale of bonds have been unusually large in recent months.

Money supply plus time deposits rose at a 7.7 per cent annual rate from October to February, after rising at a 12 per cent rate from last May to October and at a 7.6 per cent rate in the seven-month period from October 1964 to May 1965. Fluctuations in the flow of time deposits into banks resulting from changes in channels of flows of funds probably do not reflect or constitute monetary action or policy. Accordingly, there is considerable question regarding money plus time deposits as a strategic economic variable.

Bank credit, movements of which correspond roughly to those of money supply plus time deposits, expanded at an estimated 6 per cent rate from January to March and at a 9 per cent rate from October to March. This credit rose at an average 8 per cent rate from 1960 to 1965. In the most recent months banks have responded to strong credit demands by rapidly expanding holdings of loans and "other" securities and by reducing holdings of Government securities.

Business loan growth has accelerated from what was already an advanced rate. These loans rose at an estimated 22 per cent rate from November to March compared with a 20 per cent rise over the previous year and a 7 per cent average rate of gain from 1960 to

## Articles of special interest

The *Monthly Review* of the Federal Reserve Bank of Kansas City for January-February 1966 contains two salient articles. The first article, by Sheldon W. Stahl, is entitled "International Monetary Reform." It "examines the international monetary payments system in an effort to provide the fundamental background necessary for a meaningful understanding of the issues involved in any proposed reform of the system." The second, written by Frederick M. Struble, is "Current Debate on the Term Structure of Interest Rates." It reviews the current state of the controversy over alternative explanations for the variance in rates of return on debt instruments with different maturities. The explanations presented are the segmented markets theory, the expectations theory, and the liquidity preference version of the expectations theory. Copies of this publication can be obtained from the Research Department, Federal Reserve Bank of Kansas City, Kansas City, Missouri 64106.

1964. Consumer and real estate loans have continued to rise at rapid rates in recent months.

## Interest Rates

The strong upward trend in interest rates which started last July has continued in the early months of this year as credit demands have intensified. However, in March there were declines in some rates from peak levels reached early in the month.

### INTEREST RATES

	July	Late February	Late March
<b>Long term</b>			
Corporate Aaa .....	4.48%	4.82%	4.99%
Municipal .....	3.16	3.62	3.44
U. S. Government .....	4.15	4.66	4.54
<b>Short term</b>			
3-month Treasury bills .....	3.83	4.66	4.51
6-month Treasury bills .....	3.89	4.87	4.72
Secondary yields on CD's .....	4.28	5.00	5.30
Commercial paper, 4- to 6-months..	4.38	4.88	5.38
Prime rate .....	4.50	5.00	5.50

The strength of corporate credit demands to finance investment and higher levels of activity is reflected in the unusually rapid expansion of business loans and the very large offerings of securities.

Although the Federal Government has financed some of its added expenditures by drawing down its deposits, the Treasury has been a large net borrower

(Continued on page 16)

# Budget Policy in a High-Employment Economy

THE FEDERAL BUDGET for fiscal 1967,<sup>1</sup> presented to Congress on January 24, provided for substantial increases in both expenditures and revenues during the remainder of fiscal 1966 and for further increases in fiscal 1967. According to the administration's budget plan, the excess of expenditures over revenues (i.e., the deficit) is expected to increase from fiscal 1965 to 1966 and then to decline in fiscal 1967.

This article focuses on the implications of the Federal budget for economic stability in calendar 1966. To assist in the analysis, several alternative measures of budget policy are examined, and some economic principles are reviewed. Prospects for Federal taxes and expenditures may be substantially different now from what they were when the budget was prepared. Nevertheless, it is believed that this article, based on the January budget report, will promote understanding of the budget plan in light of the current economic environment.

## Measures of Budget Policy

The fiscal activities of the Federal Government can be summarized in several ways. Some alternative budget concepts and the relationships between them are discussed in the following sections.<sup>2</sup> Table I provides a reconciliation of these budget concepts, with data for fiscal 1965-67 used for illustration.

### *Administrative Budget*

The administrative budget is the basic planning document of the Federal Government, covering receipts and expenditures of funds that it owns. Its main purpose is to serve as a guide to executive and legislative program planning, review, and enactment. Those agencies for which Congress makes regular appropriations are included in the administrative budget; activities of trust funds (social insurance, highway,

etc.), quasi-public agencies (e.g., Federal Home Loan Banks), and self-financing agencies are excluded.

Expenditures and receipts are generally recorded on a cash basis, i.e., on the date of actual receipt or payment. Interest expense is on an accrual basis.

### *Cash Budget*

The consolidated cash budget is a summary statement of cash flow between the Federal Government and other sectors of the economy. Included are activities of the regular Government agencies found in the administrative budget plus the activities of trust funds and Government-sponsored agencies. Because activities of some agencies (e.g., the post office) are recorded on a net basis, the full magnitude of cash flows between the Federal Government and other sectors of the economy is not measured by the cash budget.

The cash surplus or deficit serves as a measure of the direct impact of Federal Government spending and taxation on the financial assets of the private sector of the economy (including state and local governments). Surpluses or deficits in this budget indicate changes in the public debt and/or changes in the Treasury's cash balance.

### *National Income Accounts Budget*

Federal Government activities in the national income accounts are restricted to receipts and expenditures which reflect the direct impact of Federal spending and tax programs on the flow of current income and output. This measure is obtained by making two major adjustments in the cash budget.

First, capital transactions adjustments exclude expenditures on existing assets and loans (or loan repayments). Second, timing adjustments are made. Expenditures are recorded when delivery is made to the Government (whereas the cash budget records spending at the time of payment). Tax receipts are recorded when the tax liability is incurred (whereas the cash budget records them when collected).

### *High-Employment Budget*

The high-employment budget is an estimate of expenditures and revenues in the Federal sector of the

<sup>1</sup>The Federal Government's fiscal year runs from July 1 to June 30 and is designated by the calendar year in which it ends.

<sup>2</sup>The term "budget" is used loosely here. There is in fact only one Federal "budget" in the sense of a financial plan, and that is the administrative budget. All other "budgets" discussed here are summary statements of receipts and expenditures classified in various ways for purposes other than administrative planning.



Table I  
RECONCILIATION OF VARIOUS MEASURES  
OF FEDERAL RECEIPTS AND EXPENDITURES  
Billions of Dollars

	Fiscal Year		
	1965 actual	1966 estimate	1967 estimate
<b>RECEIPTS</b>			
<b>Administrative budget receipts</b> .....	<b>93.1</b>	<b>100.0</b>	<b>111.0</b>
Plus: Trust fund receipts .....	31.0	33.5	41.6
Less: Intragovernmental transactions .....	4.3	4.5	5.5
Receipts from exercise of monetary authority .....	.1	.9	1.6
<b>Equals: Federal receipts from the public</b> .....	<b>119.7</b>	<b>128.2</b>	<b>145.5</b>
Less: Cash transactions excluded from Federal receipts account (District of Columbia, financial transactions, etc.) .....	1.0	.6	.7
Plus: Items added to Federal sector account but not in cash receipts (netting differences, timing differences, etc.) .....	.9	1.2	-2.6
<b>Equals: Federal receipts, national income accounts</b> .....	<b>119.6</b>	<b>128.8</b>	<b>142.2</b>
Plus: Adjustment for tax receipts because of deviation of economy from high employment .....	5.9	2.0	.5
<b>Equals: High-employment receipts</b> .....	<b>125.5</b>	<b>130.8</b>	<b>142.7</b>
<b>EXPENDITURES</b>			
<b>New obligatory authority</b> .....	<b>106.6</b>	<b>126.0</b>	<b>121.9</b>
Plus: Authorizations enacted in prior year but spent in current year...	—	—	30.7
Less: Expenditures to be made in future years .....	—	—	39.8
<b>Equals: Administrative budget expenditures</b> .....	<b>96.5</b>	<b>106.4</b>	<b>112.8</b>
Plus: Trust fund expenditures .....	29.6	33.8	37.9
Less: Intragovernmental transactions .....	4.3	4.5	5.5
Debt issuance in lieu of checks and other adjustments .....	— .6	.7	.2
<b>Equals: Federal payments to the public</b> .....	<b>122.4</b>	<b>135.0</b>	<b>145.0</b>
Less: Cash transactions excluded from Federal expenditures account (District of Columbia, financial transactions, etc.) .....	5.8	4.0	1.6
Plus: Items added to Federal sector account but not in cash payments (netting differences, timing differences, etc.) .....	1.7	—	— .7
<b>Equals: Federal expenditures, national income accounts</b> .....	<b>118.3</b>	<b>131.0</b>	<b>142.7</b>
Plus: Adjustment for expenditures because of deviation of economy from high employment .....	— .2	— .2	.2
<b>Equals: High-employment expenditures</b> .....	<b>118.1</b>	<b>130.8</b>	<b>142.9</b>
<b>SURPLUS OR DEFICIT</b>			
Administrative budget .....	-3.4	-6.4	-1.8
Cash budget .....	-2.7	-6.9	+ .5
National income accounts budget .....	+1.2	-2.2	— .5
High-employment budget .....	+7.4	0	— .2

Sources: *The Budget of the United States Government for the Fiscal Year Ending June 30, 1967*, pp. 47, 377, and Federal Reserve Bank of St. Louis.

national income accounts for a level of high employment.<sup>3</sup> It is an attempt to correct the distortion introduced by the impact of the economy itself (through the effect of changing levels of economic activity on Government expenditures and tax receipts) on the realized surplus or deficit. The smaller the surplus or

greater the deficit in this budget, the more stimulative is the impact of Federal fiscal activities and the less is the dependence on private demand to maintain high employment.

### *New Obligational Authority*

In evaluating the impact of the Federal Government on the economy, another measure of particular importance is "new obligatory authority." This is legislation by Congress permitting a Government agency or department to commit or obligate the Government to certain expenditures. Congress does not vote on expenditures; it determines new obligatory authority. Before funds can be spent, an agency must submit and

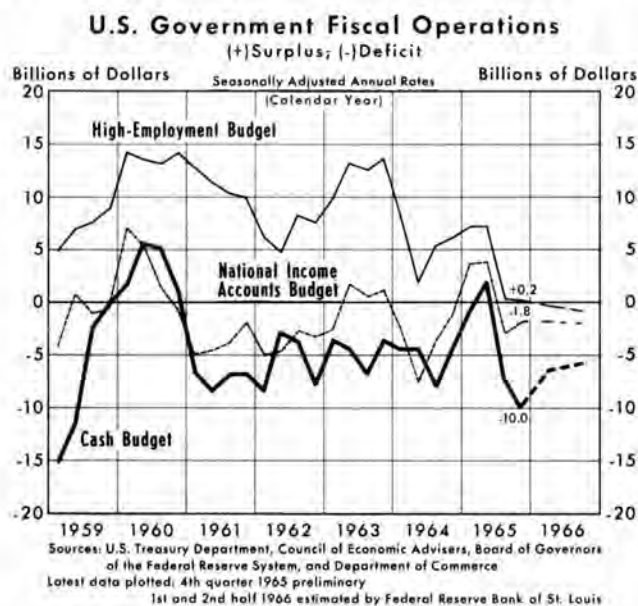
<sup>3</sup>The President's Council of Economic Advisers defines a high-employment level of economic activity as that level associated with a 4 per cent unemployment rate. The high-employment budget could be computed for other budget concepts, but, for an analysis of the economic impact of the budget, the national income accounts basis seems most appropriate. For a description of techniques and procedures for calculating high-employment budget estimates, see Nancy H. Teeters, "Estimates of the Full-Employment Surplus, 1955-1964," *The Review of Economics and Statistics*, XLVII (August 1965), 309-321.

have approved by the Bureau of the Budget an apportionment request. This determines the rate at which obligational authority can be used. An agency usually incurs obligations, i.e., commits itself to pay out money, after apportionment by the Bureau of the Budget.

Incurring obligations does not necessarily mean immediate cash expenditures. When the Government buys goods and services produced by the private sector, the lag of expenditures behind obligations may be substantial. In the case of items not usually kept in inventory, like military hardware, it usually takes time for private producers to draw plans, negotiate subcontracts, produce, and deliver the product.

### Budget Policy in Fiscal 1966-67: Facts and Figures

Budget plans for future months indicate marked increases in both expenditures and receipts. This obtains for any one of the four major budget measures discussed above. Generally, according to the budget plan, deficits will become larger in fiscal 1966 compared with fiscal 1965, then turn toward surplus in fiscal 1967 (Table I).



### Obligational Authority

New obligational authority (Table II) jumps to an estimated \$126.0 billion in fiscal 1966 from \$106.6 billion in fiscal 1965. Included in this \$19.4 billion increase is \$11.4 billion for defense, international, and space and \$4.6 billion for health, education, welfare, and related programs.

Projections for fiscal 1967 are for a decrease in obligational authority to \$121.9 billion, reflecting a decline

Table II  
CHANGES IN FEDERAL SPENDING AND  
OBLIGATIONAL AUTHORITY

(Billions of Dollars)

	Fiscal 1965 to Fiscal 1966	Fiscal 1966 to Fiscal 1967
<b>Cash payments to the public</b>		
Defense, international, and space.....	+ 6.6	+ 4.0
Domestic .....	+ 6.0	+ 6.0
Health, education, welfare, and community development.....	+ 7.7	+ 4.9
Interest on public debt.....	+ .7	+ .9
Other .....	- 2.4	+ .2
<b>Total .....</b>	<b>+12.6</b>	<b>+10.0</b>
<b>New obligational authority</b>		
Defense, international, and space.....	+11.4	- 4.1
Domestic .....	+ 8.0	-
Health, education, welfare, and community development .....	+ 4.6	+ 1.0
Interest on public debt.....	+ .7	+ .8
Other .....	+ 2.7	- 1.8
<b>Total .....</b>	<b>+19.4</b>	<b>- 4.1</b>

Source: *The Budget of the United States Government for the Fiscal Year Ending June 30, 1967*, pp. 41, 439.

of \$4.1 billion for defense, international, and space.<sup>4</sup> Obligational authority for all domestic civilian programs is expected to be unchanged from fiscal 1966 to 1967.

### Expenditures

The pattern of Federal cash payments in fiscal 1966 and 1967 is quite different from that of obligational authority. Payments are estimated at \$135.0 billion in fiscal 1966 and \$145.0 billion in fiscal 1967 compared with \$122.4 billion in fiscal 1965.

Expenditures are projected to increase in fiscal 1967 but by a smaller amount than in fiscal 1966. Defense, international, and space spending is expected to increase \$4.0 billion, while domestic civilian spending is scheduled to rise by \$6.0 billion.

Reflected in the expenditure totals for fiscal 1966 and 1967 is a proposed substitution of private for public credit. The proposal involves asset sales of \$3.3 billion in fiscal 1966 and \$4.7 billion in fiscal 1967 compared with \$1.6 billion in fiscal 1965.<sup>5</sup> These asset sales are to include mainly pooled loans of several Federal

<sup>4</sup>Note that there is a decline because obligational authority is extraordinarily high in fiscal 1966, reflecting large supplemental appropriations for financing the war in Vietnam.

<sup>5</sup>There is some indication that asset sales will fall short of budgeted totals in fiscal 1966. A sale of Export-Import Bank participation certificates in February totaled \$360 million out of \$700 million offered.



agencies (Export-Import Bank, Federal National Mortgage Association, and the Veterans Administration). Because such sales are netted against expenditures in the Government's accounting system, actual outlays stated in the budget are understated by the amount of asset sales.

The discrepancy between changes in new obligational authority and cash payments to the public from fiscal 1966 to fiscal 1967 implies that the pool of authorized but unspent funds will be built up in fiscal 1966, then drawn down in fiscal 1967. This conclusion rests on the assumption that there will be no supplemental appropriations required for Vietnam.

## Receipts

Federal cash receipts are estimated to rise sharply, especially from fiscal 1966 to 1967. Increases in receipts for fiscal 1966 reflect mainly growth in the economy, while collections in fiscal 1967 are expected to reflect changes in tax laws as well as growth.

Cash receipts in fiscal 1966 are expected to be \$128.2 billion, up \$8.5 billion from fiscal 1965. This increase (Table III) reflects the excise tax cut in the summer of calendar 1965, restoration of excise taxes on automobiles and telephone service in the first half of calendar 1966, speed-up of corporate and individual income taxes early in calendar 1966, and the social security tax increase that went into effect on January 1, 1966. The net effect of these and other minor tax changes is expected to be an increase of \$.9 billion in

receipts. The bulk of the remaining \$7.6 billion increase in receipts can be explained by growth in the economy.

The tax program designed for fiscal 1967 is somewhat different from that for fiscal 1966. Receipts are expected to rise by \$17.3 billion. Changes in tax legislation, primarily a speed-up of corporate tax collections and an increase in social security tax rates scheduled for January 1, 1967, are expected to provide over half of the increase. The restoration of auto and telephone excise taxes has the effect of offsetting the decline in collections that would have been experienced in the absence of legislation. Continued growth in the economy is expected to provide the bulk of the remaining \$8.4 billion increase.

## Summary

Federal budget expenditures and receipts are both estimated to rise sharply in the eighteen-month period ending June 30, 1967. The cash budget deficit is expected to increase in fiscal 1966 but turn toward surplus in fiscal 1967. The basis for such a projection lies in an estimate of expected increases in receipts, mainly from increased social security tax collections and growth in the economy. In addition, certain "one-shot" proposals—tax speed-up and sales of financial assets—will have the effect of reducing the deficit, especially in fiscal 1967.

## Budget Policy in Calendar 1966: Economic Effects

The above facts and figures on the Federal budget have important implications for economic stability in coming months. To assist in the understanding of these implications, some basic principles of economic analysis are reviewed. This framework is then used to analyze the administration's fiscal plans within the economic setting expected in calendar 1966.

The following section presents a theoretical framework for analyzing the effects of the Federal budget on the level of economic activity. Also, the terminology used in later sections of this article is introduced here. The reader who is not interested in the analytical framework may proceed directly to the next section, "Economic Setting," on page 11.

## Analytical Framework<sup>6</sup>

The level of economic activity is determined by the saving and spending propensities of households, busi-

Table III  
CHANGES IN FEDERAL RECEIPTS  
(Billions of Dollars)

	Fiscal 1965 to Fiscal 1966	Fiscal 1966 to Fiscal 1967
Changes due to changes in tax law		
Excise tax reduction .....	-1.8	- 1.2
Reimposed excise taxes .....	+ .1	+ 1.2
Individual income tax speed-up .....	+ .1	+ .4
Corporate income tax speed-up .....	+1.0	+ 3.2
Social security tax increase .....	+1.6	+ 5.2
Social security tax speed-up (self-employed) .....	+ .1	+ .1
Other tax changes .....	- .2	—
Total .....	+ .9	+ 8.9
Changes due to growth in economy and other factors <sup>1</sup> .....	+7.6	+ 8.4
Total change in receipts .....	+8.5	+17.3

<sup>1</sup>Includes receipts from estate and gift taxes, customs, other miscellaneous sources (e.g., sales of Government property), trust fund receipts from sources other than social security and excise taxes, and adjustments for intragovernmental transactions.

Source: Estimated by Federal Reserve Bank of St. Louis from the *Budget of the United States Government for the Fiscal Year Ending June 30, 1967*.

<sup>6</sup>This section draws heavily from Robert Solomon, "A Note on the Full Employment Budget Surplus," *The Review of Economics and Statistics*, XLVI (February 1964), 105-108.

nesses, governments, and foreigners.<sup>7</sup> The most comprehensive measure of economic activity is gross national product (GNP)—the total value of final goods and services produced in a given time period. GNP can be measured by summing all expenditures or by summing all incomes. All production can be thought of as being bought; thus, the total product can be measured by gross national expenditure (GNE) on this product. Similarly, all production has income charges against it equal in value to what is produced; thus, the total product can be measured by gross national income (GNY). This definitional relationship between total product, total expenditure, and total income can be expressed as follows (where triple bar,  $\equiv$ , means “identically equals”):

$$(1) \text{GNP} \equiv \text{GNE} \equiv \text{GNY}$$

Gross national expenditure (GNE) can be divided into its major components—consumption (C), investment (I), and government purchases (G). Gross national income (GNY) must be allocated to consumption (C), savings (S), and taxes (T). Equation (1) can be rewritten, expressing GNE and GNY as the sum of their components:

$$(2) C + I + G \equiv C + S + T$$

where: C = personal consumption expenditures;  
I = gross private investment;  
G = government purchases of goods and services;  
S = gross private saving;  
T = net government receipts.

Both GNE and GNY contain consumption (C). As a part of GNE, consumption is spending on consumer goods and services. As an allocation of GNY, consumption is that portion of income spent on consumer goods and services. Both statements refer to the same magnitude. For convenience, consumption (C) can be ignored, and attention focused on the remainder of GNE (I + G) and the remainder of GNY (S + T). Dropping consumption (C) from both sides of equation (2) leaves:

$$(3) I + G \equiv S + T.$$

Government expenditures (G) can be netted against receipts (T), yielding government saving (T-G). The resulting expression shows that investment (I) is iden-

tically equal to total savings [ $S + (T-G)$ ]:

$$(4) I \equiv S + (T-G).$$

In an accounting sense, saving and investment are always equal, regardless of the level of GNP. However, accounting definitions of saving and investment do not themselves provide an explanation of the dynamic forces that cause GNP to be what it is. Nevertheless, the concepts are useful in developing a framework for understanding what determines GNP.

Although *measured* saving and investment are always equal, *planned* saving and investment are not. Saving and investment are performed largely by different groups; each group is motivated by its own set of considerations. An attempt by businesses to invest more than is willingly saved by households, businesses, and governments sets in motion forces causing GNP to increase. Under such circumstances injections of investment expenditures into the income-expenditure stream exceed the leakages of private and government saving from it. An excess of injections over leakages leads to an increase in GNP. The rise in GNP continues to a level where planned saving and investment are brought into balance.

Whether an economy achieves high employment with stable prices (i.e., an optimal GNP)<sup>8</sup> depends on the relation between planned saving and investment at that specified level of economic activity. If investment falls short of planned saving at high employment, GNP will fall short of its optimal level and unemployment will result. On the other hand, if planned investment exceeds planned saving at high employment, GNP will exceed its optimal level and prices will rise. In terms of equation (4) these conclusions may be summarized as follows (where the subscript *H* denotes “high-employment value”):

Relation between planned saving and investment at high employment	Result
$I_H$ less than $S_H + (T_H - G_H)$	GNP falls short of its optimal level
$I_H$ equals $S_H + (T_H - G_H)$	GNP achieves its optimal level
$I_H$ greater than $S_H + (T_H - G_H)$	GNP exceeds its optimal level

<sup>7</sup>All terms are defined so as to be consistent with the national income accounts framework. Investment is defined to include gross private domestic investment and net foreign investment; private saving includes both personal and business saving; government purchases are for Federal, state, and local governments; and net government receipts are essentially taxes net of transfer payments.

<sup>8</sup>This discussion ignores possible inconsistencies between high employment and stable prices. Choice of an optimal GNP probably involves a “trade-off” between an increase in employment and a rise in the general level of prices.

Understanding why GNP exceeds or falls short of its optimal level is crucial to the policy formulation process. Within the analytical framework discussed above, the problem reduces to an analysis of the discrepancy between high-employment values of saving and investment. If a discrepancy exists, policy measures can be instituted which will restore GNP to its optimal level.

To make the saving-investment framework operationally useful for policy formulation purposes, it is helpful to make certain assumptions. Private saving ( $S$ ) and net government receipts ( $T$ ) are quite predictably related to GNP, and their values can be estimated for an optimal level of GNP. Investment ( $I$ ) and government spending ( $G$ ) are not so predictably related. Investment is subject to numerous influences in addition to the level of GNP, an important one being monetary actions. Government spending is largely determined by noneconomic elements, especially of a political character. Thus, we may assume that planned high-employment levels of investment and government spending are approximated by their observed values. In terms of the algebra, the  $H$  subscript is dropped from  $I$  and  $G$ .

With these assumptions, we may (1) state the appropriate magnitude of government saving ( $T_H - G$ ) needed to achieve optimal GNP, given the relation between actual investment and planned high-employment private saving ( $I - S_H$ ), or (2) state the amount of investment needed to close the high-employment savings-investment gap ( $I - S_H$ ), given the magnitude of government saving ( $T_H - G$ ). The first interpretation indicates the fiscal actions required to achieve optimal GNP, given monetary actions; the latter specifies the required monetary actions as they influence investment, given fiscal actions.

By regrouping equation (4) and denoting high-employment values, these interpretations of the saving-investment framework can be summarized as follows:

$$(5) \quad I - S_H = T_H - G.$$

The left-hand side of equation (5) indicates the private sector of the economy, the right-hand side, the government sector. The larger is high-employment government saving ( $T_H - G$ ), the more investment ( $I$ ) must exceed saving ( $S_H$ ) if high-employment with stable prices is to be achieved. Alternatively, the more investment ( $I$ ) exceeds saving ( $S_H$ ), the larger must be high-employment government saving ( $T_H - G$ ) if optimal GNP is to be achieved.

### Economic Setting

Economic activity advanced strongly in calendar 1965, continuing the expansion which began in early

1961. GNP rose 5.5 per cent in real terms and unemployment approached 4 per cent of the labor force late in the year. Fiscal and monetary actions provided a strong stimulus to the economy during calendar 1965.

**Recent Economic Experience in a Saving-Investment Framework.** With reference to the framework outlined above, actual investment approached planned high-employment saving during calendar 1965, resulting in high employment and production. This was the first time since late in 1956 that actual investment and planned high-employment saving were so nearly in balance.



From calendar 1957 to mid-1965, high-employment saving exceeded actual investment. The source of discrepancy can be attributed to two primary factors—the amount of investment spending and the level of high-employment government (Federal, state, and local) saving.

The historical record indicates the importance of monetary and fiscal actions in influencing economic activity. Federal fiscal actions are reflected directly in high-employment saving and in investment. In addition, saving and investment, particularly the latter, are responsive to monetary actions via interest rates. The period since 1961 has been marked by very stimulative monetary actions, while fiscal actions have been stimulative at some intervals during the period.

Stimulative fiscal actions during the 1961-65 period included a rising trend of Federal expenditures during the period, revised depreciation guidelines and an investment tax credit in calendar 1962, reduced income



tax rates for individuals and corporations in calendar 1964 and 1965, and reduced excise tax rates in mid-1965. These actions were offset in part by an increase in social security tax rates in calendar 1963 and the normal growth of revenues associated with the upward trend in income and employment.

**Prospects for Economic Activity in Calendar 1966.** The Council of Economic Advisers (CEA) has forecast GNP and its components for calendar 1966 (without, however, providing a distribution between halves). This forecast takes into consideration fiscal plans and, supposedly, an implicit assumption about monetary policy. The forecast for GNP is \$722 billion for the calendar year 1966 as a whole.<sup>9</sup> This suggests that GNP will be about \$711 billion in the first half and \$733 billion in the second.

The composition of the forecast increase in GNP in calendar 1966 does not differ markedly from previous years. Federal purchases of goods and services are scheduled to rise more rapidly, while consumer spending, plant and equipment expenditures, and state and local government outlays are expected to continue their steady advance.

Actual gross investment and high-employment saving are expected to be in approximate balance. It is this relation that underlies the CEA's belief that high employment can be maintained without excessive price inflation. Any tendency for investment to outrun high-employment saving would indicate excessive total demand and be reflected in increased prices.

### *Budget Policy in its Economic Setting*

Budget policy is outlined in the budget document on a fiscal year basis; the annual report of the Council of Economic Advisers provides additional insight into the implications of the budget for calendar 1966. The last section of this article attempts to analyze planned budget policy for calendar 1966.

**High-Employment Budget.** The high-employment budget is expected to move from a small surplus (Federal Government saving in terms of our analytical framework) in the second half of calendar 1965 to a slight deficit in the first half of calendar 1966. This fiscal stimulus arises from an increase of expenditures in excess of the restrictive measures on the receipts side—viz., rescinding of excise tax cuts on automobiles

and telephone service, increased social security tax collections, speed-up of individual and corporate tax collections, and normal growth in revenues as the economy expands.



The second half of calendar 1966 also is expected to show a net fiscal stimulus; the high-employment budget is expected to move toward a larger deficit of about \$1 billion. Planned increases in expenditures are expected to be larger than the growth in receipts. Increases in receipts will have to flow almost entirely from rising incomes, because no tax increases are scheduled in the budget plan for the second half of calendar 1966. Graduated withholding of personal income taxes may dampen purchasing power somewhat, but the impact is not expected to be large. The speed-up in corporate tax collections is not designed to change payment schedules in the second half of calendar 1966.

In the first half of calendar 1967 the high-employment budget is expected to show a surplus as the rate of increase of expenditures tapers off and receipts continue to climb because of rising incomes. Estimates so far in the future are not reliable, however, because of many contingencies and uncertainties, particularly regarding the war in Vietnam.

**Fiscal Plans and Economic Setting—An Evaluation.** Budget policy in calendar 1966 as presented in the CEA report is predicated on the belief that actual gross investment will be approximately equal to planned high-employment private saving. High-employment government saving is expected to be slightly more than \$2 billion, consisting of a state and local government surplus partly offset by a slight deficit in the high-employment Federal budget.

<sup>9</sup>Since the publication of the CEA report the GNP estimate for the fourth quarter of 1965 has been revised upward by \$2.6 billion. This statistical revision implies an increase in the CEA forecast from \$722 billion to nearly \$725 billion. Furthermore, data for the first three months of 1966 indicate that economic activity may be advancing even more rapidly than the CEA expected.

Of critical importance in judging the economic impact of the Federal budget is whether a dollar of receipts restrains private demand by a like amount. An implication of the high-employment budget as a measure of fiscal impact is that a dollar of increased expenditure has the same economic effect as a dollar decline in tax receipts. The validity of this assumption is especially important when it is noted that the budget program for calendar 1966 plans a near balance in the high-employment budget but includes marked increases in both expenditures and receipts. If a dollar increase in tax receipts does not restrain private spending by the same amount, the high-employment budget understates its fiscal impact.

As noted above, the national income accounts measure Government purchases at the time of delivery. Thus, the high-employment budget may not be entirely accurate as a measure of fiscal impact for this reason. If the flow of Government orders is relatively smooth, the Government expenditures series may accurately measure the impact of the budget on the economy over time. However, at times of sharp changes in Government orders, the economic effects of the change are not recorded in the budget accounts until the goods have been delivered.<sup>10</sup>

Such a factor may be particularly relevant early in calendar 1966. Increases in Government spending are projected over the current fiscal year (fiscal 1966) and the next, but new obligational authority is soaring this fiscal year and is scheduled to taper off in fiscal 1967. If it is the order stage of the Government spending process rather than the delivery stage which is relevant for measuring fiscal impact, the effect of projected increases in Government expenditures may be having its major impact currently (in the first half of calendar 1966).

Another implication following from this thesis is that the economic stimulus of the current defense buildup may evaporate late in calendar 1966 or early in calendar 1967 if the scheduled changes in obligational authority are realized.

The Council's economic plans appeared to be internally consistent at the time of publication of their report in late January. These plans, however, left

<sup>10</sup>For a discussion of this view of the Government spending process and its relevance for the 1967 Federal budget, see Murray L. Weidenbaum, "The Inflationary Impact of the Federal Budget," Washington University Working Paper 6529 (February 10, 1966).

little margin for error, even within their analytical framework. Any unexpected increase in expenditures would require offsetting fiscal or monetary actions. Granting their assumptions about expenditures, receipts, and the level of GNP, there is some question whether budget policy was designed to restrain total demand sufficiently to avoid price inflation, given the shortcomings of the high employment budget as a measure of fiscal impact.<sup>11</sup>

Since late January major measures of economic activity have indicated that total demand is rising more rapidly than the Council anticipated in their report. Within the saving-investment framework, it appears that planned investment is in excess of planned high-employment private saving. Such a situation would be appropriate if offset by high-employment government saving. This does not appear to be the case; it seems likely that the Federal Government is experiencing a high-employment deficit which is not being offset by a state and local government surplus.

Given this fiscal stance, investment and high-employment total saving (private and government) can be brought into equality by policy action designed to (1) discourage investment and/or (2) encourage private saving.<sup>12</sup> A failure to do one or both will result in price increases.

Unless fiscal plans are changed, the aim of monetary policy should be to dampen investment plans and to encourage private saving via higher interest rates, thereby reducing inflationary pressures. Higher interest rates would also be beneficial to the balance of payments by keeping U. S. prices competitive with the rest of the world and by reducing capital outflows. While such higher interest rates may have some social disadvantages, they may be more than offset by the benefits of stable prices and an improved balance of payments.

KEITH M. CARLSON

<sup>11</sup>This is not to imply that the Council is not aware of these shortcomings. See the testimony of Gardner Ackley, Chairman of the Council of Economic Advisers, before the Subcommittee on Fiscal Policy of the Joint Economic Committee, July 20, 1965.

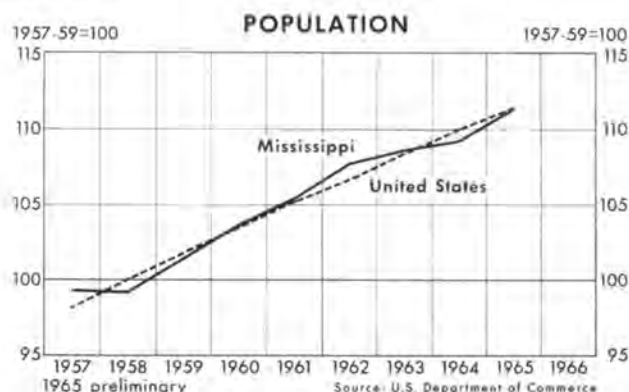
<sup>12</sup>Administration statements in recent weeks have indicated a possible move in the direction of fiscal restraint if price pressures continue in evidence. An increase in individual and corporate tax rates would increase Government saving and tend to discourage investment.



# Economic Trends in Mississippi

**R**ECENT GROWTH TRENDS show Mississippi making great strides relative to the nation. Most measures of economic activity in the state, however, are still well below the national average.

Since 1957 population has increased at the national rate after declining in relation to the national total for a number of years. The state's population rose from 2,072,000 in 1957 to 2,322,000 in 1965, an increase of 12 per cent.



Total employment in the state has moved up 7 per cent since 1960 compared with an 8 per cent gain nationally. Payroll employment in Mississippi (excludes agricultural, domestic, unpaid family, and self-employed workers) has increased from 367,000 to 481,000, a rise of more than 30 per cent. In comparison,



payroll employment in the nation rose only 14 per cent. The number of production workers in manufacturing rose from 113,000 in 1958 to 152,000 in 1965, a gain of 34 per cent, while the number of production workers in manufacturing in the United States increased only 13 per cent during this period.

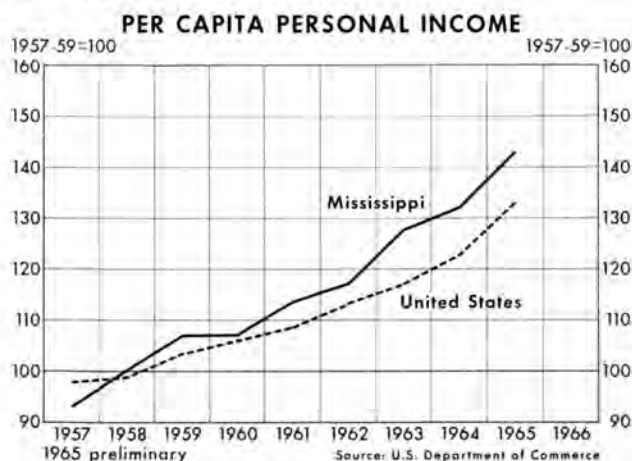
Mississippi is achieving a more favorable balance of manufacturing industries. Employment in industries such as paper, chemicals, stone, clay, metals, electrical machinery, and transportation equipment, where average hourly earnings are high, has increased rapidly in recent years. Employment in these "high earnings" groups rose from 39,000 to 52,000 during the 1958-65 period, an increase of 34 per cent compared with a 17 per cent rise nationally in the same groups. Primarily responsible for gains in the "high earnings" industries were employment increases in machinery and fabricated metals. Employment in both of these industries almost tripled during the seven-year period. Industries such as food processing, textiles, apparel, lumber, and furniture manufacture, in which average hourly earnings are low, still predominate, however. Of the 141,000 employees in the 12 major manufacturing groups in 1965, 63 per cent were employed in the five "low earnings" groups. In comparison, only 32 per cent of manufacturing workers in the United States were employed in these groups.

The introduction in the state of industries requiring substantial capitalization and highly skilled workers provides an opportunity for upgrading labor skills through on-the-job training. These developments will aid in alleviating the dearth of locally trained manpower. Along with existing wage differentials, some upgrading of labor skills will provide additional incentive for other highly capitalized industries to locate in the state.

Total and per capita personal incomes have also made major gains in Mississippi since 1957. Total personal income advanced from \$2.1 billion to \$3.6 billion, a gain of about 71 per cent. This compares with a 53 per cent gain for the nation. Per capita personal income in the state rose from \$1,013 to \$1,559, an increase of



54 per cent. Per capita income rose only about 36 per cent in the nation. These impressive growth trends demonstrate the dynamic nature of economic activity in the state.



Agriculture in Mississippi has moved sharply ahead in recent years, paralleling developments in the manufacturing sector. Realized gross farm income in the state rose \$200 million or 30 per cent from 1958 to 1964 compared with an 11 per cent gain for the nation. Net farm income rose 64 per cent compared with a 10 per cent decline nationally. As a result primarily of greater efficiency in the farm labor force and a reduction in the number of farms, net income per farm in the state more than doubled during the period, rising from \$1,462 to \$3,446, compared with a 9 per cent gain nationally. These major gains in agricultural efficiency have released numerous workers to other sectors of the state's economy, permitting the rapid industrial development of recent years. Since 1961 agricultural employment in the state has dropped from 175,000 to 147,000, a decline of almost 16 per cent.

Despite recent favorable developments, the state's economy as a whole lags substantially behind the nation. General measures by which the state lags the nation include per capita income, average hourly earnings, and value added per man-hour. In 1965 per capita income in Mississippi averaged \$1,559 compared with \$2,781 in the nation. Such income in the state was only 56 per cent of the national average. Similarly, average hourly earnings of production workers in manufacturing were well below the national

average. Value added per man-hour in manufacturing of \$4.78 was 62 per cent of the national level in 1963.

Numerous other broad measures of economic activity show the state lagging the nation. In 1965, 32 per cent of the state's population was employed compared with 38 per cent in the nation. A smaller portion of the workers in the state were employed in the relatively high income occupations than in the United States as a whole. In manufacturing, where wages are generally higher than in other occupations, employment in Mississippi in 1965 was 20 per cent of total employment, while 25 per cent of the nation's work force was employed in manufacturing. Relatively low-paid workers, such as farmers, domestic and unpaid family workers, and the self-employed, account for 36 per cent of the total in Mississippi compared with 16 per cent in the nation.

The quality of the labor force is an important element in the economy of an area. One indication of such quality is the type of industry prevailing. Using this as a measure, Mississippi is below average despite some very promising gains in recent years. Another measure is the level of education achieved. By this measure Mississippi is also below the national average. In 1960 the median number of years of school completed by the population over 25 years of age was 8.9 in Mississippi compared with 10.6 in the nation. Not only does the state lag the nation but it fell further behind during the decade ending in 1960. The median number of school years completed in Mississippi was 84 per cent of the U.S. median in 1960 compared with 87 per cent a decade earlier.

In summary, Mississippi has recently made major gains on the economic front. Total personal income, payroll employment, and output per worker in manufacturing have increased sharply in recent years. The farming community has also moved forward with great vigor.

Nevertheless, the state still lags the nation in most measures of economic activity. Low per capita incomes, a lack of balance in manufacturing industries, a relatively untrained labor force, and a continuing lag in educational accomplishment are major problem areas.



## Prosperity, Pressures, and Prices—(Continued from page 5)

since last summer. The net increase in the Federal debt from July to February was \$6.6 billion.

Yields on corporate bonds and interest rates paid and charged by banks rose in February and March. Yields on U. S. Government and municipal securities rose sharply in mid-February but declined in March.



The average yield on highest grade corporate bonds was 4.48 per cent in July, 4.82 per cent in late February, and 4.99 per cent in late March. The interest rate charged to prime business borrowers at major banks rose in early March from 5.00 per cent to 5.50 per cent.

The yield on three-month Treasury bills rose from 3.83 per cent in July to 4.66 per cent in late February and then declined to 4.51 per cent in late March. The

yield on large certificates of deposit in the secondary market has moved up to 5.30 per cent in late March, and rates paid on large certificates of deposit have been as high as the 5.50 per cent legal maximum in recent weeks.

### Summary

Output, prices, and imports have risen sharply in recent months in response to a strong rise in demand for goods and services. Interest rates in general have risen in response to increased demand for loan funds.

Money supply growth has continued at a very rapid rate since November, but time deposit growth has slackened. The posture of the Federal Government's spending and taxing programs remains stimulative.

The outlook is for continued strong demand, but higher interest rates and reduced values of assets could cause some delay in expenditures. Real output can scarcely continue to rise at recent rates since smaller pools of unemployed and shortages of some skills and materials seem likely to limit production growth. If real product growth is potentially less in the near future, total demand should appropriately grow at a reduced rate. Appropriate limitation of total demand by monetary and fiscal policies will not only help to restrict price increases, but will limit imports and improve the balance of payments.

After studying prospects for total demand and supply, those entrusted with formulating and implementing economic policy must decide if aggregate demand will be excessive, adequate, or inadequate in the coming months. Monetary and fiscal policy actions can then be employed to stimulate or temper demand.

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