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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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Money Supply Increases Rapidly

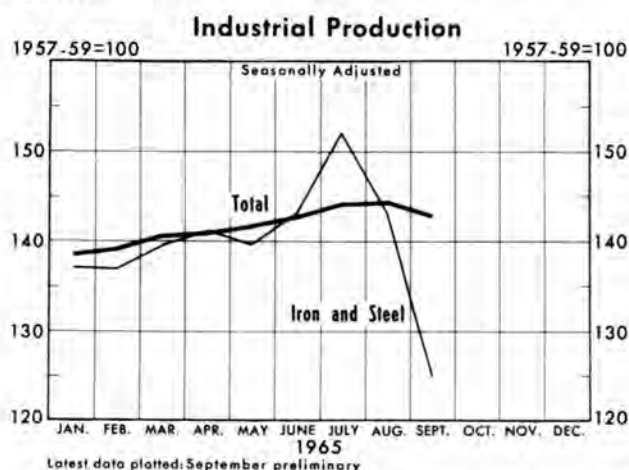
MONETARY GROWTH has been rapid since midyear, and the fiscal situation has been more stimulative. Of the many possible combinations of fiscal and monetary policies which could provide domestic stability and high employment, one in which fiscal policy turns stimulative tends to put upward pressure on interest rates. Such a policy mix has developed in recent months, and interest rates have risen. This development may be beneficial in curbing a chronic balance-of-payments deficit resulting from outflows of funds seeking higher interest rates abroad.

Economic activity expanded rapidly during the summer and has continued strong this fall. Earlier sharp gains in employment and production have moderated as the economy has been adjusting to the steel settlement and as utilization of the labor force has been intensifying. Prices of consumer services and of wholesale industrial commodities have continued to rise, although excise tax cuts and a special situation in agricultural prices have held down the over-all price indexes. The U. S. balance of payments with other countries returned to a deficit in the third quarter.

The Economy

The nation's real output of goods and services rose from the second to the third quarter at about the same pace as since mid-1963. Real gross national product in the third quarter was up at a 5.2 per cent annual rate from the second quarter and 4.6 per cent above a year ago. Real output grew at an average rate of 3.2 per cent from 1951 to 1964.

The economy remains buoyant this fall, even though month-to-month comparisons may appear unfavorable in the wake of the steel settlement. Conversely, the rates of increase in production and employment were artificially high during the steel inventory accumulation period earlier this year. On balance, industrial production has increased about 6 per cent over the past year, compared with a 5 per cent annual rate of increase since 1960. Since July gains in most sectors, particularly in electrical power output and in equipment production (including defense), have been more than offset by cutbacks in steel production and work stoppages in the coal and auto industries.



Payroll employment has risen 4.0 per cent over the past year despite some recent moderation in the rate of increase. This moderation of the employment expansion reflects inventory adjustment after the steel settlement and possibly a shortage of workers as utilization of the labor force has become more intense. The unemployment rate averaged 4.5 per cent from July to September, compared with 4.8 per cent during the first six months of this year and 5.2 per cent during 1964. Average workweeks in both manufacturing and contract construction remain relatively high but are below the peak levels reached last winter.

Wholesale prices have continued an upward movement which began in mid-1964, even though the prices



of farm products have declined since June. Industrial wholesale prices have risen at a 1.4 per cent rate since mid-1964. Since June excise tax cuts have induced declines in consumer durable goods prices which have balanced rising prices of services. However, consumer prices are still up at a 1.6 per cent annual rate since mid-1964.

International Developments

The balance of payments returned to a deficit in the third quarter after recording during the second quarter the first surplus since 1957. The deficit during the third quarter reflected higher investment outflows, which more than offset an improvement in the trade surplus.

The accumulated deficit so far this year has been at a substantially lower rate than the \$3.0 billion deficit in 1964. The improvement from the 1964 deficit reflects voluntary decreases in private capital outflows, mainly bank loans rather than direct investment.

Fiscal Situation

Fiscal developments, as measured by the full employment budget, have turned more stimulative since midyear as defense and social security outlays have risen and excise tax cuts have taken effect.¹ The full employment budget is estimated to have been nearly in balance during the third quarter, down from a \$6.7 billion surplus at an annual rate in the first half of this



¹The full employment budget abstracts from influences on the budget which result from fluctuations in economic activity and isolates and measures effects of changes in Government taxing and spending programs. Fiscal developments are said to be more expansionary the smaller the full employment surplus or the greater the full employment deficit. For a further explanation of the full employment budget see the December, April, and October issues of this Review.

(Continued on page 8)

Employment and Population Trends in Perspective

TOTAL EMPLOYMENT in the United States has expanded rapidly in recent years, judged both by historical standards and by capabilities and objectives. This article examines recent employment developments in historical perspective, in comparison with growth of population of working age, and in comparison with growth of total population. In addition, to place recent United States population developments in perspective, data on longer run population growth are presented.

Recent Employment Developments

Payroll employment has increased 4.0 per cent in the past year, compared with a 2.5 per cent average annual rate from 1961, the beginning of the current expansion, to 1964. Manufacturing employment has grown at a 4.3 per cent rate in the past year, more than twice the average rate from 1961 to 1964. Other payroll employment, which is cyclically more stable, has grown 3.9 per cent in the past year, compared with a 2.8 per cent average rate from 1961 to 1964.

Total employment has risen 2.4 per cent in the past year, a slower growth than for payroll employment because agricultural workers are included in total employment figures. Agricultural employment declined 8.5 per cent in the past year and at a 4.5 per cent average annual rate from 1961 to 1964. Total employment showed an average rate of increase of 1.8 per cent from 1961 to 1964.

Employment and Population of Working Age, 1948-1965

Employment experience in the United States has been remarkably favorable not only during the past year and during the expansionary period since 1961, but also during the entire postwar period. This section compares the recent record with other periods of economic expansion since World War II.

Employment: reference cycle comparisons. To assist in interpretation of trends, it is helpful to follow a procedure commonly used by business cycle analysts. According to Julius Shiskin of the Bureau of the Census:

"Comparisons of the patterns of expansions in terms of their previous peak levels appear to be superior to other alternatives. The advantage stems from the observation that the rise during the early stages of an expansion appears to be related typically to the magnitude of the decline during the previous recession—the more severe the decline, the more vigorous the rebound. Meaningful comparisons of the patterns of expansion, therefore, are more likely only after expansions have attained previous peak levels."¹

Postwar peaks in economic activity, according to the National Bureau of Economic Research, were in 1948, 1953, 1957, and 1960. The rate of employment growth has been striking in the 1960-1965 period compared with growth rates in previous cycles (see chart and Tables I and II).



¹ Julius Shiskin, "The Current Expansion in Historical Perspective," *Business Cycle Developments*, U. S. Bureau of the Census, January 1965, pp. 56-57.

Table I
Employment and Population

	Annual Rates of Change			
	Payroll Employment	Total Employment	Population Aged 18-64	Total Population
1948-1965	1.8%	1.2%	0.9%	1.7%
1948-1953	2.3	0.9	0.9	1.8
1953-1957	1.3	1.2	0.7	1.8
1957-1960	0.8	0.9	0.8	1.7
1960-1965	2.2	1.6	1.3	1.5
1965-1970	—	—	1.6	1.4
1970-1975	—	—	1.7	1.6
1975-1980	—	—	1.6	1.7

Sources: U. S. Bureau of Labor Statistics and U. S. Bureau of the Census. Rates for 1965-1980 relate to Series B or "middle" projections of the Bureau of the Census.

Population of working age. Assessment of recent employment experience is facilitated by comparisons other than with historical rates of change. The relation of employment growth to persons of working age is an additional measure of the strength of employment. This provides a basis alternative to the "labor force" for evaluating employment growth. The labor force is defined to include those persons who are working plus those who say they are looking for work.

Annual changes in population of working age (here defined as 18 years to 64 years) depend mainly on the difference between the number of persons turning 18 and the number turning 65. In recent years this change has been dominated by the increase in the number of persons turning 18; the number turning 65 has been relatively stable. Other factors—net immigration and deaths among the 18-64 group—have changed little.

The rate at which people are becoming 18 years of age depends largely on the number of births 18 years earlier, and this in turn depends on economic and social conditions at that time. Annual rates of growth in the 18-64 classification were relatively low from 1950 to 1958, reflecting the depressed conditions and the small number of births during the 1930's. These rates rose sharply in 1959, 1960, and 1961, reflecting births in 1941, 1942, and 1943. The slowdown in the rate of change from 1961 to 1964 reflected the decline in the birth rate in 1944 and 1945. The rapid rate of increase in 1965 reflects the "baby boom" of about 1947.

Employment and population of working age. Since 1948 employment has risen significantly more rapidly than population of working age. For the 1948-1965 period employment has grown at an average annual rate of 1.2 per cent, compared with a 0.9 per cent rate of growth of population of working age (Tables I and II). An increase in the proportion of women em-

ployed has contributed to the rapid increase of employment. The proportion of women aged 18 to 64 who were employed rose from about 34 per cent in 1948 to about 44 per cent in 1965. As further indication of strength in the nonfarm sector of the economy, agricultural employment declined from 13.5 per cent of total employment in 1948 to 6.5 per cent in 1965.

Employment has increased more rapidly than working age population in each business cycle since 1948. From 1948 to 1953 the rise in total employment (0.94 per cent per year) was slightly greater than growth in the 18-64 year old population group (0.85 per cent per year). During this period payroll employment grew at a 2.3 per cent rate. The large difference between rates of increase of payroll employment and of total employment indicates the substantial shift of labor to the nonfarm sector of the economy during the Korean War.

From 1953 to 1957 employment grew rapidly relative to the increase in population of working age. This population group increased at an average annual rate of 0.7 per cent during the period, while employment advanced at a 1.2 per cent rate.

In the 1957-1960 period employment increased at an 0.85 per cent rate, and population of working age rose at an 0.80 per cent average rate. Thus employment increases from 1957 to 1960 were little more than sufficient to keep pace with the growth of this population group.

In the 1960-1965 period working age population increased at a 1.3 per cent rate, more than one half greater than in the preceding cycle. The rate of growth of employment, however, increased at a 1.6 per cent rate. Thus the rate of growth of demand for labor has been especially strong in the current expansion.

An indication of the magnitude of the future availability of labor is provided by population projections for the working age group. It is estimated that population aged 18 to 64 will increase at a 1.6 per cent average annual rate from 1965 to 1970 (Table I). The rate is also expected to be 1.6 per cent from 1965 to 1975 and from 1965 to 1980. Thus the 1.6 per cent rate of increase of total employment from 1960 to 1965 was as great as any rate of increase of population of working age that is anticipated for a number of years. It may be anticipated that, just as in the past 5 years, 8 years, 12 years, and 17 years, future employment will expand more rapidly than population of working age.

Population in the Postwar Period

The rate of growth of total population is now less than in the immediate post-World War II years. Pop-

Table II
EMPLOYMENT AND POPULATION
 Annual Rates of Change
 (In Per Cent)

Terminal Year	Initial Year																		Thousands of Persons (Annual Averages)
	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	
1948	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59,117
1949	0.5	-1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58,423
1950	1.1	0.5	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59,748
1951	1.3	0.9	2.0	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60,784
1952	1.1	0.8	1.5	1.1	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	61,035
1953	1.2	0.9	1.5	1.2	1.0	1.5	-	-	-	-	-	-	-	-	-	-	-	-	61,945
1954	0.7	0.5	0.8	0.5	0.1	-0.1	-1.7	-	-	-	-	-	-	-	-	-	-	-	60,890
1955	1.1	0.9	1.3	1.1	0.9	1.0	0.8	3.4	-	-	-	-	-	-	-	-	-	-	62,944
1956	1.3	1.1	1.5	1.3	1.3	1.5	1.5	3.1	2.8	-	-	-	-	-	-	-	-	-	64,708
1957	1.2	1.1	1.3	1.2	1.1	1.3	1.2	2.2	1.6	0.5	-	-	-	-	-	-	-	-	65,011
1958	0.9	0.8	1.0	0.9	0.7	0.8	0.7	1.2	0.5	-0.6	-1.6	-	-	-	-	-	-	-	63,966
1959	1.1	1.0	1.2	1.0	1.0	1.0	1.0	1.5	1.0	0.5	0.4	2.5	-	-	-	-	-	-	65,581
1960	1.1	1.0	1.2	1.1	1.0	1.1	1.1	1.5	1.2	0.8	0.9	2.1	1.7	-	-	-	-	-	66,681
1961	1.0	0.9	1.1	1.0	1.0	1.0	1.0	1.3	1.0	0.6	0.7	1.5	0.9	0.2	-	-	-	-	66,796
1962	1.1	1.0	1.2	1.1	1.0	1.1	1.0	1.4	1.1	0.8	0.9	1.5	1.1	0.9	1.6	-	-	-	67,846
1963	1.1	1.0	1.2	1.1	1.0	1.1	1.1	1.4	1.1	0.9	1.0	1.5	1.2	1.1	1.5	1.4	-	-	68,809
1964	1.2	1.1	1.3	1.2	1.1	1.2	1.2	1.5	1.2	1.1	1.1	1.6	1.4	1.4	1.8	1.8	2.3	-	70,357
1965	1.3	1.2	1.3	1.3	1.3	1.3	1.3	1.6	1.4	1.2	1.3	1.8	1.6	1.6	2.0	2.2	2.5	2.8	72,305 e

POPULATION AGED 18 TO 64¹

Terminal Year	Initial Year																		Thousands of Persons (July 1)
	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	
1948	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90,528
1949	1.1	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	91,525
1950	1.1	1.1	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	92,597
1951	1.0	1.0	0.9	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	93,246
1952	1.0	0.9	0.8	0.7	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	93,850
1953	0.9	0.9	0.8	0.7	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	94,436
1954	0.9	0.8	0.8	0.7	0.6	0.6	0.7	-	-	-	-	-	-	-	-	-	-	-	95,046
1955	0.8	0.8	0.7	0.7	0.7	0.6	0.7	0.7	-	-	-	-	-	-	-	-	-	-	95,670
1956	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.8	-	-	-	-	-	-	-	-	-	96,418
1957	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.7	-	-	-	-	-	-	-	-	97,126
1958	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	-	-	-	-	-	-	-	97,753
1959	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	-	-	-	-	-	-	98,532
1960	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.9	-	-	-	-	-	99,463
1961	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.1	1.3	-	-	-	-	100,778
1962	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.1	1.2	1.1	-	-	-	101,894
1963	0.9	0.9	0.9	0.8	0.8	0.9	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.1	1.1	-	-	102,989
1964	0.9	0.9	0.9	0.8	0.8	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.1	1.1	1.0	1.0	-	104,026
1965	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.5	1.9	105,993 e

TOTAL POPULATION¹

Terminal Year	Initial Year																		Thousands of Persons (July 1)
	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	
1948	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	146,631
1949	1.7	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	149,188
1950	1.9	1.9	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	152,271
1951	1.8	1.8	1.9	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	154,878
1952	1.8	1.8	1.8	1.7	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	157,553
1953	1.8	1.8	1.8	1.7	1.7	1.7	-	-	-	-	-	-	-	-	-	-	-	-	160,184
1954	1.8	1.8	1.8	1.7	1.7	1.7	1.8	-	-	-	-	-	-	-	-	-	-	-	163,026
1955	1.8	1.8	1.8	1.7	1.7	1.7	1.8	1.8	-	-	-	-	-	-	-	-	-	-	165,931
1956	1.8	1.8	1.8	1.7	1.8	1.8	1.8	1.8	1.8	-	-	-	-	-	-	-	-	-	168,903
1957	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	-	-	-	-	-	-	-	-	171,984
1958	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	-	-	-	-	-	-	-	174,882
1959	1.8	1.8	1.8	1.7	1.7	1.7	1.8	1.8	1.8	1.7	1.7	1.7	-	-	-	-	-	-	177,830
1960	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	-	-	-	-	-	180,684
1961	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	-	-	-	-	183,756
1962	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	-	-	-	186,656
1963	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.5	1.5	-	-	189,417
1964	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.4	-	192,119
1965	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.3	194,583

¹ Figures relate to the population of all states and the District of Columbia. Alaska and Hawaii are included beginning 1950. Armed forces overseas are included.
 e-Estimated.

Sources: U. S. Bureau of Labor Statistics and U. S. Bureau of the Census.

Table III
POPULATION OF THE UNITED STATES¹
Annual Rates of Change²
(In Per Cent)

Terminal Year	1630	1640	1650	1660	1670	1680	1690	1700	1710	1720	1730	1740	1750	1760	1770	1780	Initial Year										1790	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950	Thousands of Persons	Terminal Year
1640	18.4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	27	1640
1650	12.2	6.4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50	1650
1660	9.5	5.2	4.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	75	1660
1670	8.1	4.9	4.1	4.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	112	1670
1680	7.1	4.4	3.8	3.6	3.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	152	1680
1690	6.4	4.2	3.7	3.5	3.2	3.3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	210	1690
1700	5.8	3.8	3.3	3.1	2.7	2.5	1.8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	251	1700
1710	5.4	3.7	3.2	3.0	2.8	2.6	2.3	2.8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	332	1710
1720	5.2	3.6	3.2	3.1	2.9	2.8	2.7	3.2	3.5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	466	1720
1730	5.0	3.6	3.2	3.1	2.9	2.9	2.8	3.1	3.2	3.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	629	1730
1740	4.8	3.6	3.3	3.2	3.0	3.0	3.0	3.3	3.4	3.4	3.7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	906	1740
1750	4.7	3.5	3.2	3.1	3.0	3.0	2.9	3.1	3.2	3.1	3.2	2.6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1,171	1750
1760	4.5	3.5	3.2	3.1	3.0	3.0	2.9	3.1	3.2	3.1	3.2	2.9	3.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1,594	1760
1770	4.4	3.4	3.2	3.1	3.0	3.0	3.0	3.1	3.2	3.1	3.1	2.9	3.1	3.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2,148	1770
1780	4.3	3.4	3.1	3.1	3.0	3.0	2.9	3.1	3.1	3.0	3.0	2.9	2.9	2.8	2.6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2,780	1780
1790	4.3	3.4	3.2	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3,929	1790
1800	4.2	3.4	3.2	3.1	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.3	3.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5,297	1800
1810	4.1	3.3	3.2	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.2	3.1	3.2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7,224	1810
1820	4.1	3.3	3.2	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.0	3.1	3.0	3.1	3.2	3.0	3.0	2.9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	9,618	1820
1830	4.0	3.3	3.1	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.0	3.1	3.0	3.0	3.1	3.0	3.0	2.9	3.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	12,901	1830
1840	4.0	3.3	3.1	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.1	3.0	3.0	2.9	2.9	2.9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	17,120	1840	
1850	3.9	3.3	3.1	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.1	.	.	.	.	.	.	.	.	.	.	.	.	.	23,261	1850	
1860	3.9	3.3	3.1	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.1	3.1	.	.	.	.	.	.	.	.	.	.	.	.	31,513	1860	
1870	3.8	3.2	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.7	2.4	.	.	.	.	.	.	.	.	.	.	39,905	1870		
1880	3.8	3.2	3.1	3.0	3.0	3.0	2.9	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.7	2.6	2.4	2.3	.	.	.	.	.	.	.	.	.	50,262	1880		
1890	3.7	3.2	3.0	3.0	2.9	2.9	2.9	3.0	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.7	2.7	2.7	2.6	2.5	2.3	2.3	2.3	.	.	.	.	.	.	.	.	63,056	1890		
1900	3.6	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.6	2.6	2.6	2.5	2.4	2.2	2.2	2.1	1.9	.	.	.	.	.	.	.	76,094	1900		
1910	3.6	3.1	2.9	2.9	2.8	2.8	2.8	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.6	2.6	2.6	2.5	2.4	2.3	2.2	2.1	2.1	1.9	2.0	.	.	.	.	.	.	92,407	1910			
1920	3.5	3.0	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.5	2.5	2.4	2.4	2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.4	.	.	.	.	106,461	1920						
1930	3.4	3.0	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.4	2.4	2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.6	1.4	1.5	.	.	.	123,077	1930										
1940	3.3	2.9	2.8	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.2	2.1	2.1	2.0	1.8	1.7	1.6	1.5	1.4	1.2	1.1	0.7	.	132,122	1940										
1950	3.3	2.8	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.0	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.4	.	152,271	1950										
1960	3.2	2.8	2.7	2.6	2.6	2.6	2.5	2.6	2.6	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2.0	1.9	1.8	1.7	1.6	1.5	1.5	1.4	1.3	1.3	1.6	1.7	180,684	1960										

¹Figures relate to the total population of all states and the District of Columbia. Alaska and Hawaii are included beginning 1950. Armed forces overseas are included beginning 1940.

²The annual rates of change for U.S. population were computed from decennial rates of change. Decennial rates of change were computed by subtracting 1 from the antilogarithm of $\frac{\log X_1 - \log X_0}{n}$, where X_0 is the population in the initial year, X_1 is the population in the terminal year, and n is the number of intervening decades. The annual rates of change were derived from the decennial rates by subtracting 1 from the antilogarithm of $\frac{\log (1 + R)}{10}$, where R is the decennial rate (in rate, not percent, form).

Sources: U. S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1957* (Washington, D. C.: Government Printing Office, 1960), Series Z 1-19, p. 756 for data for 1630-1780; Series A 1-3, p. 7 for data for 1790-1890.

U. S. Bureau of the Census, *Current Population Reports*, Series P-25, No. 311, "Estimates of Population of the United States, by Single Years of Age, Color, and Sex: 1900 to 1959," July 2, 1965 for data for 1900-1950; Series P-25, No. 314, "Estimates of the Population of the United States, by Single Years of Age, Color, and Sex: 1960 to 1964," August 19, 1965 for data for 1960.

ulation increased at a 1.8 per cent average annual rate from 1946 to 1957, at a 1.7 per cent rate from 1957 to 1961, and at a 1.4 per cent rate since 1961 (Table II).

In analyzing population changes, it is important to look beyond births, deaths, and net immigration. In particular, analysis of birth rates requires an examination of data on family size and the number of women of childbearing age. A prime factor underlying recent trends in population growth has been a slow growth in the number of women of childbearing age.

The rate of population growth is expected to increase, not because family size is expected to increase,

but because the number of women of childbearing age will increase. It is anticipated that the rate of increase of total population will rise from 1.4 per cent in 1965-1970 to 1.6 per cent in 1970-1975 and to 1.7 per cent in 1975-1980 (Table I).

Population, 1630-1960

Understanding and evaluation of current population developments may be aided by consideration of rates of increase over a long period. The annual rates of growth of population by decades for the period 1630-1960 are shown in Table III.

The 1.7 per cent average rate of increase of population from 1950 to 1960 was up substantially from the previous four decades. The last previous decade that exceeded this rate was 1900-1910, a period of rapid immigration. From 1910 to 1950 population increased at a 1.3 per cent annual rate. The rate of increase had declined markedly from 3.1 per cent per annum in the decade before the Civil War to 2.3 per cent in 1860-1890 and to 1.9 per cent in 1890-1910.

For nearly two centuries prior to the Civil War (1670-1860), population increased at an average rate of about 3 per cent per annum. There was remark-

ably little deviation from this 3 per cent rate from decade to decade, though there was substantial variation in the rate of immigration. This uniformity in the rate of growth supports a hypothesis that natural increase rather than immigration was by far the major element in population growth.²

The 1.4 per cent rate from 1962 to 1965 has been about the same as the rate from 1910 to 1930, lower

²See Conrad Taeuber and Irene B. Taeuber, *The Changing Population of the United States* (A Volume in the Census Monograph Series; New York: John Wiley and Sons, Inc., 1958), pp. 292-96.

than at any time before 1910, and less than half the 3 per cent rate which prevailed for nearly two centuries from 1670 to 1860.

Summary

This article has undertaken to show that contrary to widely held views:

(1) The rate of growth of jobs in the United States in the post-World War II period has been greater than the rate of growth of population of working age.

(2) Recent rates of increase of both total population and population of working age have been modest compared with rates of increase which prevailed throughout most of the history of the United States.



Money Supply Increases Rapidly—(Continued from page 2)

year. In recent years, the full employment budget has always shown a surplus but has on the whole trended downward since 1960.

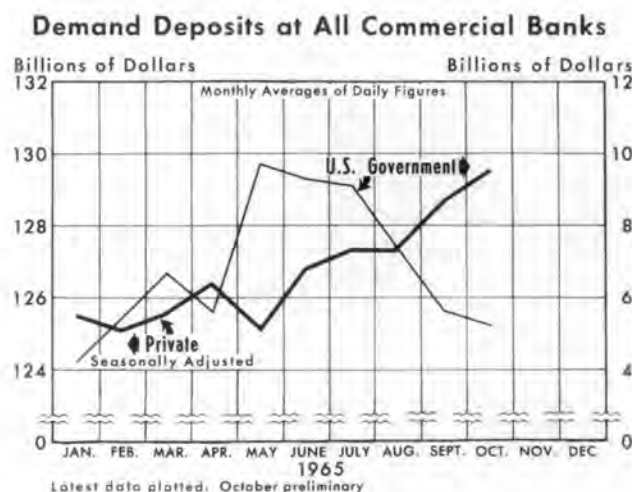
Monetary Developments

In the fiscal and economic setting outlined above, monetary actions have remained expansionary. Money supply growth has been rapid in recent months, and bank credit has continued to expand, though at a more moderate rate than earlier this year. While total member bank reserves have changed little since June, reserves available for private demand deposits (generally viewed as an important determinant of the money supply) have risen rapidly.

The money supply (demand deposits plus currency) has grown at a 6.9 per cent annual rate since June and 4.2 per cent over the past year. These relatively ex-

pansionary rates occurred even though the Federal Reserve discount rate was increased from 3½ per cent to 4 per cent last November. By comparison, the money supply increased at a 2.6 per cent rate from 1960 to 1964 and at a 1.9 per cent average rate from 1951 to 1960.

Large shifts between U. S. Government demand deposits (not a component of the money supply) and private demand deposits (the major component of the money supply) have been partially responsible for gyrations in the demand deposit component of the money supply this year. As Government deposits were accumulated from January to February and from April to May, private demand deposits (seasonally adjusted) declined; substantial reductions of Government demand deposits from March to April and from August to September were accompanied by rises in the demand deposit component of the money supply.



Total reserves of member banks have risen 4.4 per cent over the past year, although they were about unchanged from June to October. By comparison, reserves rose at a 3.5 per cent rate from 1960 to 1964 and at a 2.0 per cent average rate from 1951 to 1960.

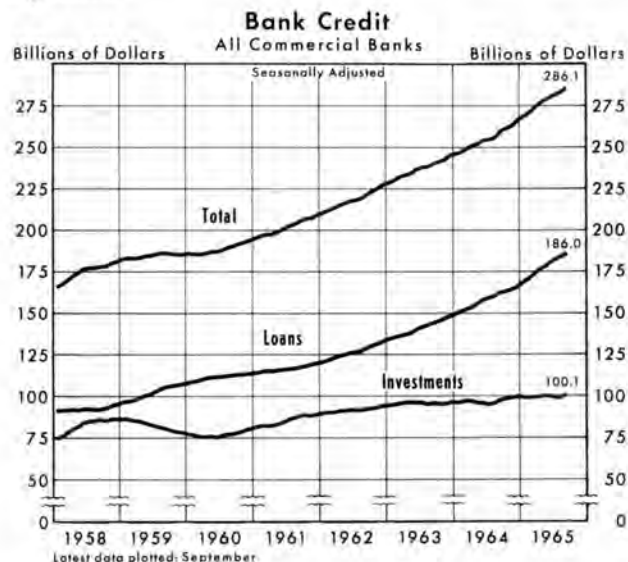
Reserves available for private demand deposits rose at a 3.6 per cent rate from June to October, even though total reserves were about unchanged.² This development reflected a marked reduction in the reserves required against Government demand deposits. Reserves available for private demand deposits have risen 1.7 per cent over the past year, compared with a 1.4 per cent average rate of increase from 1960 to 1964.



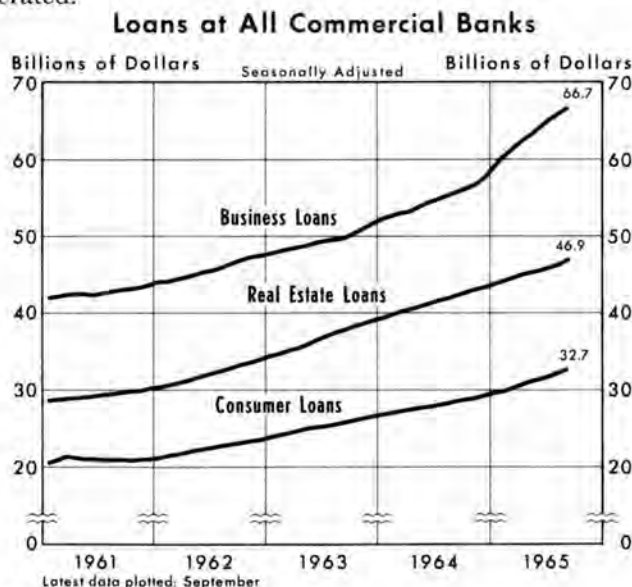
Bank credit (loans and investments) expanded 10 per cent during the past year but has risen at an 8 per cent rate since June. By comparison, bank credit increased at an 8 per cent rate from 1960 to 1964 and at a 5 per cent average rate from 1951 to 1960. With little expansion of total reserves since June, banks have been able to expand their loans and investments by increasing liabilities requiring little or no reserve backing. Time and savings deposits, with a 4 per cent reserve requirement compared with an average requirement of about 15 per cent for demand deposits, have grown at an 18 per cent rate since June. Commercial banks have also expanded liabilities which

²Reserves available for private demand deposits are computed by subtracting reserves required to support time deposits, U. S. Government demand deposits, and interbank deposits from total reserves. These reserves are important because they are the reserves available to support private demand deposits, the major component of the money supply.

require no reserves, such as debentures and promissory notes.



Banks have increased their holdings of loans and "other" securities (mainly municipals) 15 per cent in the past year while they have reduced holdings of Government securities 7 per cent. Business loans have risen 20 per cent, consumer loans, 14 per cent, and real estate loans, 11 per cent. Since July business loan expansion has slowed somewhat, while the growth of consumer and real estate loans has accelerated.



Interest Rates

Interest rates rose from the end of July to early October and have since remained at their peak levels. During the current economic expansion (since early 1961), interest rates have risen more gradually than in the previous two cyclical upswings. This has been in part because corporations have been able to finance

much of their plant and equipment outlays from internally generated funds and because monetary expansion has been rapid and sustained. Hence, after 56 months of business expansion interest rates are still below their 1959-60 peaks.

Both short- and long-term interest rates have moved up this fall. Yields on three-month Treasury bills rose from 3.82 per cent in mid-August to 4.01 per cent in early October. In late September and in October yields on new certificates of deposit of 90 days or more were often quoted at the 4.50 per cent ceiling permitted under Regulation Q. The average yield on long-term Government bonds rose from 4.15 per cent in late July to 4.29 per cent in early October. Interest rates on state and local bonds experienced a sharp rise in September and are now about 35 basis points above their February low. Yields on corporate bonds have continued a gradual rise which began last spring.



Several market factors have probably been responsible for a weakening in the demand for Treasury bills recently, thereby putting upward pressure on yields. Corporate funds available for short-term investment have been attracted to banks by the higher C.D. yields. Banks, induced by improving profit opportunities and rising interest costs, have channeled funds into higher yielding loans and long-term bonds instead of short-term bills. Also, nonbank investors have probably been attracted to higher yielding assets.

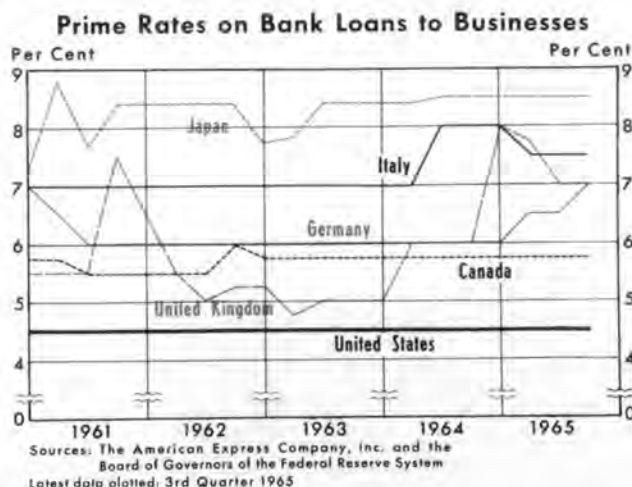
Rising long-term rates reflect a strong demand for funds by business and government. Corporate capital needs to finance fixed investment³ and inventory

³Business expenditures for new plant and equipment in 1965 are expected to total \$50.9 billion, almost 13.5 per cent above the 1964 total (*Economic Indicators*, September 1965, prepared for the Joint Economic Committee by the Council of Economic Advisers).

growth have outstripped internally generated funds, and therefore businesses have turned increasingly to banks and capital markets. Corporate long-term security offerings in the third quarter of 1965 were 25 per cent above those of the third quarter of 1964. The Federal Government has become a net borrower of funds as the cash budget turned from surplus in the second quarter to a deficit in the third quarter. State and local government long-term security offerings are up somewhat from their high levels last year.

The timing of new security issues may have placed upward pressure on yields during September. Large offerings of state and local government securities were made around mid-September, nearly coinciding with large corporate offerings and the Treasury announcement of a \$4 billion tax bill offering. The supply of securities in the market was further increased as corporations reduced their holdings of short-term issues to meet tax and dividend payments on September 15. Confronted with these large security offerings and rising market yields, investors may have held back funds in anticipation of still higher yields, thereby exerting further upward pressure on yields. Furthermore, bank credit expansion during the month of September was small.

The demand for bank loans has grown faster than the supply of available funds, and some lending rates have inched higher. However, the prime rate on bank loans to business has not risen and is well below the prime rates of other developed countries. In periods



of economic expansion the prime rate usually rises as demand for bank funds increases faster than the supply. For example, the prime rate rose from 3.5 per cent to 5.0 per cent from mid-1958 to late 1959.

Rising interest rates may serve a useful function for the domestic objectives of high employment and price stability. First, in times of excessive loan demand,

rising interest rates ration available credit to real investments which provide the greatest addition to national product. Second, rising interest rates tend to bring about equilibrium between saving and investment flows without inflationary pressures by curbing excessive investment and encouraging saving. On the other hand, rising interest rates could dampen a healthy credit expansion if they were caused by speculative forces or inappropriate monetary or fiscal policies.

In general, the more stimulative the taxing and spending actions of the Government, the higher the interest rate structure consistent with optimum total demand for goods and services. A smaller Government surplus or greater deficit requires more Government borrowing (or less debt repayment), putting upward pressure on rates. If the economy is experiencing optimum demand, an easier fiscal policy requires a more restrictive monetary policy, which may also cause some upward pressure on rates.

Comparative Policy Mixes

Interest rates serve a balance-of-payments function as well as a domestic economic function. Higher interest rates help to reduce capital outflows, one of the causes of a chronic deficit in the U. S. balance of payments.

One method of restoring equilibrium in international payments is the adoption of mutually beneficial monetary and fiscal policies by both surplus and deficit countries. Surplus countries might adopt a combination of monetary and fiscal policy which results in lower interest rates, while deficit countries might en-

courage higher interest rates. Such policies need not conflict with domestic goals of price stability and full employment in either the surplus or deficit countries.

The appropriate policy combination for surplus countries would be greater fiscal restriction (higher taxes and less Government spending) and more rapid monetary expansion, which together tend to cause lower interest rates.⁴ Such a policy mix would reduce capital imports. With regard to deficit countries, the appropriate combination of policies would consist of stimulative fiscal actions (lower tax rates or greater Government outlays) to assure optimum aggregate demand and some monetary restriction permitting interest rates to rise.

⁴This view is expressed in *Guidelines for Improving the International Monetary System*, Report of the Subcommittee on International Exchange and Payments of the Joint Economic Committee, Congress of the United States (1965), pp. 17-18.

"Reasonable men may differ as to whether the United States has achieved the optimum mix of policies. But there is little room for disagreement on the conclusion that some European surplus countries have resorted to a clearly inappropriate combination of monetary and fiscal policies. In the face of inflationary conditions at home, they have raised interest rates and some have even cut taxes. They should have done the opposite—reduced interest rates to discourage capital inflows and encourage outflows, and raised taxes to curb inflationary pressures. These inappropriate policies have greatly intensified the difficulties of adjustment. In recent years, the monetary policies of the leading countries have been more competitive than complementary. Even when the United States raised short-term interest rates, interest differentials were not permitted to narrow in several instances because certain countries again raised their rates.

"We have made significant progress in improving international consultation and cooperation on economic affairs. But here, clearly, is an area where much further work remains to be done. Nations should not work at cross purposes in their monetary and fiscal policies. We urge that an improved system for harmonizing such policies be developed, under the aegis of the IMF and OECD."



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