

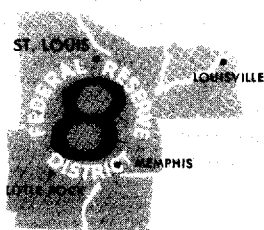
December 1964

FEDERAL RESERVE BANK OF ST. LOUIS

Review

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Volume 46 • Number 12

FEDERAL RESERVE BANK
OF ST. LOUIS

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1964: Fourth Year of Economic Expansion

Introduction

THE YEAR 1964 witnessed the graceful “aging” of one of the longest peacetime periods of economic expansion on record. A rise in economic activity was manifested in production, employment, income, and sales. Since prices changed only moderately, the increase in the economy’s dollar product was largely real. While the nation’s balance of payments with other countries was somewhat improved, it remained adverse.

Monetary and fiscal developments made important contributions to the expansion in business activity. The money stock had increased rapidly for a prolonged period prior to 1964 and continued to rise during the year.¹ The public’s demand for goods and services was further buoyed by a sizable reduction in Federal tax rates early in the year.

The rise in economic activity was accompanied by strong credit demands and by a large volume of saving, resulting in increases in the quantity of outstanding debt. Interest rates on most marketable securities changed little during the year. Typically, in periods of rising economic activity credit demands at given interest rates outpace saving and monetary expansion with a result that interest rates rise.

¹ This article went to press on December 21.

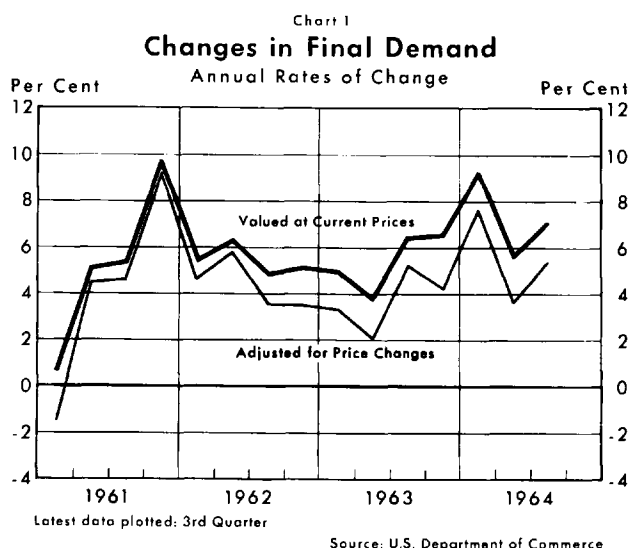
This article first considers the accomplishments of the economic system in 1964 and then the conditions which made them possible.

The Economic Successes of 1964

Economically, the year 1964 was a general success. Total production, employment, and incomes increased. Prices remained relatively stable, and there was some improvement in the nation's balance of payments.

Increases in Total Demand

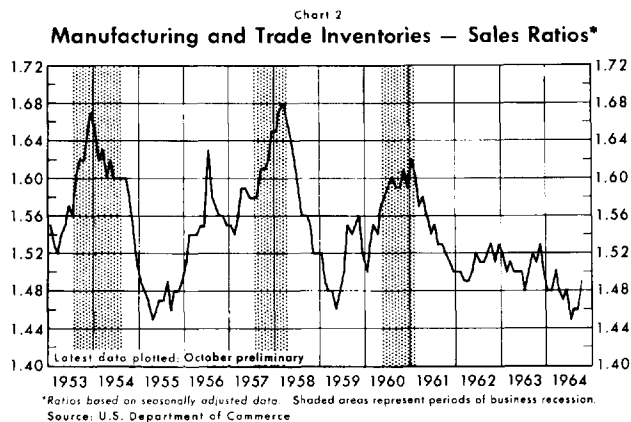
Stimulated by monetary and fiscal developments, demands for the economy's product rose markedly in the past year. The rate of increase in total spending rose sharply from the third quarter of 1963 until early 1964 and then declined (Chart 1). Considering the



year ending with the third quarter 1964 as a whole, total spending (GNP adjusted for inventory changes) rose 7.4 per cent. This may be compared with increases at an annual rate of 5.2 per cent both in the corresponding year-earlier period and in the period since 1956. Spending on real product—i.e., the dollar volume of spending adjusted for price changes—rose at a 5.3 per cent rate from the third quarter of 1963 to the third quarter of 1964, compared with an increase of 3.6 per cent a year earlier and with an average rate of growth of 3.4 per cent since 1956. In October and November, spending was adversely affected by work stoppages in the auto industry. However, sales in other areas of the economy continued to rise.

Investment outlays for new plant and equipment rose 14.1 per cent during the year ending with the third quarter of 1964, compared with 4.3 per cent in the corresponding year-earlier period.

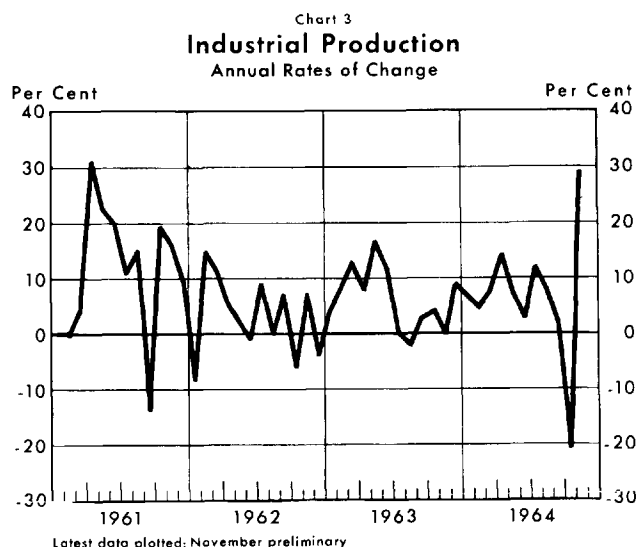
Spending by businesses for inventories continued to advance cautiously during 1964. Total inventories (i.e., stocks of manufacturers, wholesalers, and retailers) increased 3.3 per cent in the year ending with October, about the same rate as during the current expansion as a whole. Inventories have risen more slowly than sales since 1961 (Chart 2), contrary to



experience in other recent periods of economic expansion. The change in inventory practices may have resulted from one or more factors: expectation of relative price stability; belief that goods will be obtainable promptly when desired; and improvements in inventory control methods resulting from the application of scientific control procedures to business inventory problems. Restraint in inventory accumulation augurs well for further economic advance.

Increases in Output

Industrial output increased rapidly during the past year. The rate of increase in industrial production



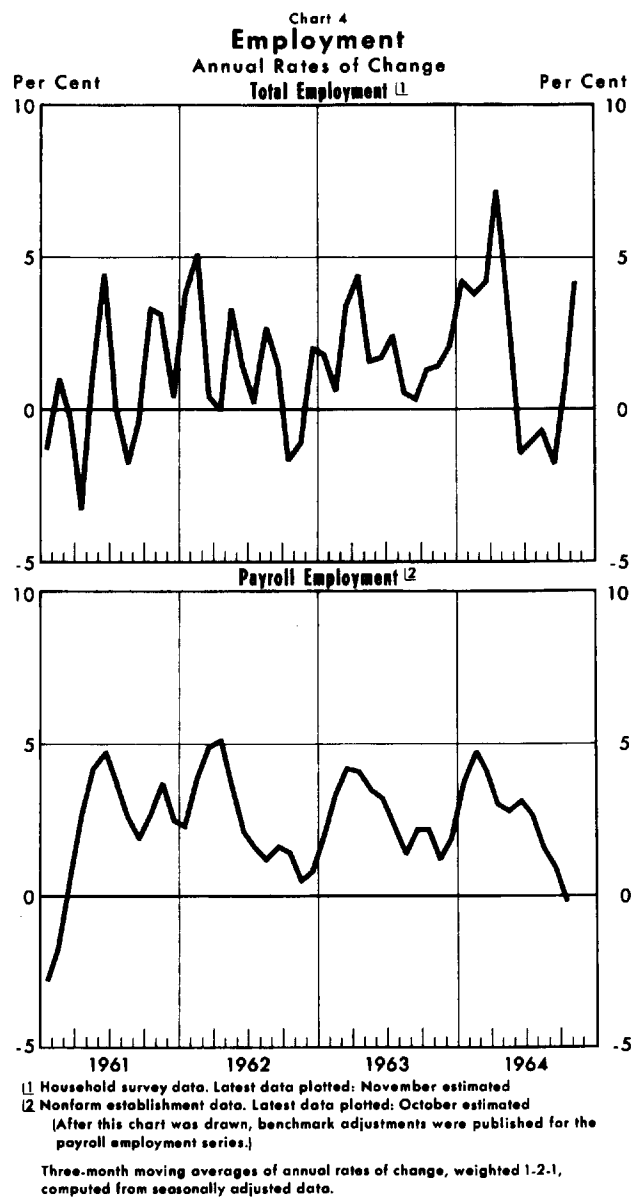
rose markedly from late 1963 to the spring of 1964 (Chart 3). In the twelve months ending with September (preceding the automobile strike), the nation's industrial production increased 6.6 per cent. This may be compared with a 5.0 per cent rate in the comparable year-earlier period and with an average annual rate of increase of 3.6 per cent since 1956. After September, industrial output in the nonautomotive sectors of the economy continued to rise at rates approximating those earlier in the year.

Construction expenditures were virtually unchanged from the fall of 1963 to the fall of 1964, following an increase of 8 per cent in the comparable year-earlier period. Approximate stability in total construction outlays during 1964 reflected offsetting movements in different types of expenditures. Residential construction, after rising until spring, declined steadily thereafter. Increases in expenditures on public construction and on commercial and industrial construction approximately offset the declines in the residential area. Housing starts—which generally precede, and provide the basis for estimates of, subsequent expenditures—averaged an annual rate of 1.5 million units in the three months ending with November 1964, compared with a 1.7 million unit rate in the corresponding year-earlier period.

Increases in Employment

Over the past year the number of jobs increased more rapidly than the working-age population. From November 1963 to November 1964, total employment rose 2.1 per cent and payroll employment increased 3.0 per cent. During the past year the population of approximate working age (20 years to 64 years) rose at an annual rate of about 1.1 per cent. It is estimated that the population between the ages of 16 and 64 is increasing at about a 1.6 per cent annual rate. Most of the rise in the total employment estimates was in the first quarter. Payroll employment, which may be a better indicator of short-term developments in the demand for labor, increased throughout 1964, though at a declining rate in the second half of the year (Chart 4).

The number unemployed, which had fluctuated around 4.2 million in 1963, declined until May 1964 and thereafter tended to stabilize (Chart 5). During the three months ending with November 1964, unemployment averaged 3.8 million, down 8.7 per cent from the corresponding year-earlier level. Unemployment as a per cent of the labor force averaged 5.7 per cent



in late 1963, then declined to about 5 per cent at mid-1964, and remained near that level for the rest of the year. The unemployment rate for married men, which fluctuated near the 3.2 per cent level in late 1963, declined steadily to mid-1964 and has since remained near the 2.7 per cent level.

Unchanged Price Trends

General price stability has accompanied the current expansion in economic activity. The general level of wholesale prices has been virtually unchanged since 1958. However, some other price statistics indicate upward movement in the level of average prices. According to the implicit GNP price deflators,² prices have risen at increasing rates over the past three years (Table I).

Table I
PRICE MOVEMENTS

Periods		Per Cent Change in Annual Rates		
From 3rd Qtr. of:	To 3rd Qtr. of:	Implicit Deflators	Consumer Price Index	Wholesale Price Index
1963	1964	1.94	1.12	0.10
1962	1963	1.54	1.32	-0.30
1961	1962	0.86	1.25	0.70
1955	1961	2.37	1.94	1.16

Source: Department of Commerce and Bureau of Labor Statistics.

One basis for considering the past few years as a period of "general price stability" may be that the price increases have been sufficiently small that they could be neglected by those whose economic decisions are in part based on price expectations. Price increases in the past three years, as shown by the implicit deflators, the consumer price index, and the wholesale price index, have been somewhat less than during the preceding six years (Table I). A further basis for belief that recent years have been marked by "general price stability" is that the ostensible price increases may be in part a reflection of biases in the price indexes such as inadequate allowance for quality changes.

²The implicit price deflators weigh the influence of price changes according to the volume of expenditures on various goods and also include increases in Government pay rates. They are derived by dividing estimates of gross national product in current dollars by estimates of the dollar volume of gross national product, assuming unchanged prices. These estimates are made by the Department of Commerce.

Balance-of-Payments Situation

During 1964, as well as for the preceding half dozen years, the balance-of-payments situation has been an important consideration in connection with monetary and fiscal actions with respect to interest rates. In early 1964 there was continuation of the striking improvement in the U. S. balance of payments which had begun in the last half of 1963. From mid-1963 through the first quarter of 1964, the average deficit was at an annual rate of \$1.3 billion, compared with \$3.5 billion in the preceding four quarters. However, in the second and third quarters of 1964, the deficit widened (Table II).

Judged by either the trade balance or the current balance, the U. S. foreign payments position has been exceptionally strong since early 1963. The high foreign demand for U. S. exports contributed to improvement in the over-all balance of payments and to the rise in domestic business activity. The trade surplus for the last three quarters of 1963 was at a \$5.4 billion annual rate; in the first three quarters of 1964 the surplus was at an annual rate of \$6.5 billion.

On the other hand, private capital transactions have had a more adverse effect on the total balance of payments since the beginning of 1964 than in the last half of 1963; the worsening has occurred despite special policy measures to moderate these outflows. Net private capital movements from this country averaged \$5.2 billion per annum in the first half of 1964, up substantially from the \$2.9 billion in the last half of 1963 but about unchanged from the outflow in the first half of 1963.

Although the Interest Equalization Tax Bill was not passed until August 1964, it had a significant effect on certain long-term capital outflows immediately following its proposal in July 1963. The uncertainty which prevailed pending its passage discouraged the purchase of foreign securities by U.S. residents. In the first half of 1963 the total outflow on these transactions had reached a record annual rate of \$2.0 billion. Over the next year this outflow fell to only \$0.2 billion. Preliminary estimates for the third quarter of 1964, the first since passage of the bill, show a further moderate decrease to \$0.1 billion per annum.

Other forms of U.S. long-term investment abroad were not directly affected by the terms of the interest equalization tax. Long-term bank credit, which averaged \$230 million in 1961-62, rose to an annual rate of about \$1.2 billion in the last half of 1963 and remained

Table II
U. S. BALANCE OF PAYMENTS, 1963-64
Seasonally Adjusted Annual Rates
(Millions of dollars)

	1963		1964		
	1st Half	2nd Half	1st Quarter	2nd Quarter	3rd Quarter
Merchandise exports	20,924	23,054	24,448	24,168	25,568
Merchandise imports	—16,498	—17,494	—17,464	—18,304	—18,960
Trade balance	4,426	5,560	6,984	5,864	6,608
Services (including remittances and persons)	46	— 310	1,236	460	n.a.
Current balance	4,472	5,250	8,220	6,324	n.a.
Government grants and capital ...	— 4,136	— 3,432	— 3,056	— 3,760	n.a.
Private capital:					
Direct and portfolio.....	— 4,070	— 2,418	— 2,924	— 2,784	n.a.
Short-term	— 976	— 530	— 2,404	— 2,384	n.a.
Errors and omissions.....	— 258	— 420	— 768	— 124	n.a.
Balance on regular transactions...	— 4,968	— 1,554	— 932	— 2,728	— 2,260
Means of finance:					
(not seasonally adjusted)					
Special Government transactions..	1,258	1,380	592	284	812
Increase in short-term foreign liquid dollar assets					
[decrease (—)]	— 2,480	648	— 664	796	2,956
Decrease in U.S. monetary reserve assets [increase (—)] ..	312	444	— 204	1,212	280

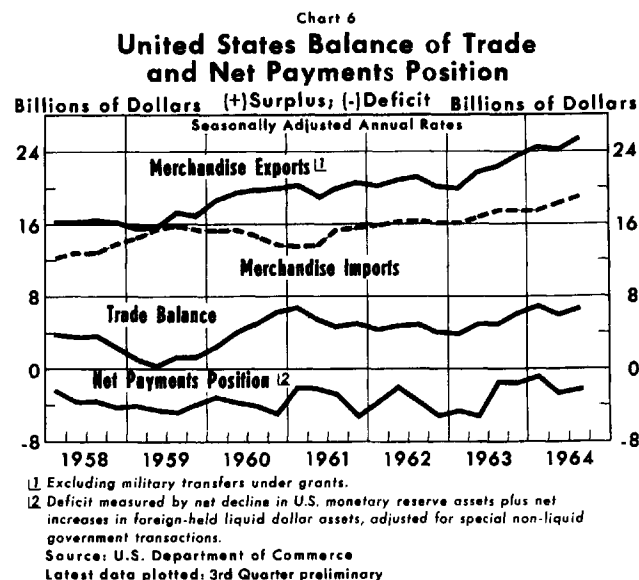
n.a.—Not available when this Review went to press.

high (at a \$600 million annual rate) during the first half of 1964. In the third quarter of 1964 the outflow of long-term bank credit increased to nearly \$1.0 billion per annum.

Direct investment abroad by U.S. residents, which averaged \$1.6 billion in 1961-62, has since remained high. In the first half of 1964, outflows of this type averaged \$2.0 billion per annum, up nearly 7 per cent from the year 1963. To the extent that foreign demands for U.S. capital were curtailed by the interest equalization tax and did not find substitute U.S. supplies, greater credit availability in this country might have contributed to the sluggish behavior of domestic interest rates. While this situation may have had a temporary effect on domestic credit conditions in late 1963, it appears that market alternatives soon developed, and the effect of the interest equalization tax was attenuated.

In the first half of 1964, recorded U.S. short-term capital outflows reached an annual rate of \$2.4 billion, slightly higher than the rate for the second quarter of 1963. Both short-term credit to foreigners and U.S. liquid funds held abroad rose significantly and accounted about equally for most of the outflow. Preliminary figures for the third quarter of 1964 indicate only nominal recorded short-term outflows.

A balance-of-payments deficit, as measured in Table II and presented in Chart 6, can be financed in three broad ways. The United States may pay out part of its international monetary reserves (primarily gold); foreigners may accept liquid claims denominated in dollars; or, special intergovernment transactions may be undertaken to meet part of the deficit. To the extent that special transactions are undertaken, the liquidity position of the United States as a reserve currency is unaffected; an increase in foreign liquid dollar holdings or a decline in U.S. holdings of convertible currency do not reduce the U.S. gold stock. Since 1962, the deficit has been financed in ways that have greatly moderated the reduction in the U.S. gold stock; indeed, in the first three quarters of 1964 the United States acquired \$47 million net in gold. While the manner of financing the deficit receives a great deal of attention, undue emphasis on gold movements should be avoided. Although gold gains and losses do influence our international liquidity position, a more basic policy concern lies in the size and composition of the total deficit.



Measures Facilitating the Economic Successes of 1964

Monetary and fiscal actions contributed to the economic success of 1964. The rise in economic activity during 1964 was preceded and accompanied by Government actions commonly believed to be expansive. Maintenance of relatively stable interest rates was compatible with monetary expansion.

The stock of money had risen at a 3.8 per cent annual rate during 1963, compared with a 2.0 per cent average annual rate of growth in the 13 years since 1951. The 3.8 per cent rate of increase during 1963 is especially marked as compared with a 2.0 per cent annual rate during the most recent recession and early recovery (from May 1960 to the end of 1962). Judged by historical precedent, one might have expected that the rate of increase in money during an advanced period of economic expansion (1963 was the third year of the expansion which began in early 1961) would have been somewhat less than the increases which occurred during the recession and early recovery periods. To the extent that the stimulative effects of monetary action impinge on the economy with some lag, this background of monetary experience from which 1964 was to emerge was expansive (unless, of course, there was a marked increase in the demand for money). Moreover, the rate of monetary expansion accelerated further, to 4.2 per cent, in the first eleven months of 1964.

Monetary Expansion

Monetary expansion during much of 1964 was sufficiently rapid to permit the banking system to make large net credit extensions to commerce, industry, and government without a rise in interest rates. During the period from mid-1960 to the autumn of 1962, in the interest of the balance-of-payments situation, the concern with short-term interest rates was largely one of preventing downward movements. As the economic expansion progressed and credit demands intensified, this same concern for avoiding undue rate changes resulted in progressively more stimulative monetary actions.³

³ In a review of "Major Issues in Monetary and Fiscal Policies" in the November 1964 Federal Reserve Bulletin (pp. 1400-1413), Professor Harry G. Johnson expresses a view on p. 1409 that "... while I believe that monetary policy was an important influence (in recent years), I am not convinced that the monetary stimulation that has occurred has been fully intended. There is reason to suspect that it has been, to some extent, the unintended consequence of a policy intended to be modestly restrictive in the sense of raising the level of (short-term) interest rates, but one that actually turned out to be quite expansionary in its effects on the money supply."

At any given level of total demand, a Government policy "mix" which includes a tax cut (as in 1964) results in higher interest rates than would an equally stimulative "mix" with no tax cut or with a smaller tax cut. A policy "mix" in which monetary policy is assigned a relatively easier role might result in interest rates which could stimulate greater capital outflows.

During 1964 the Federal Reserve System made substantial net open market purchases of Treasury securities. These purchases resulted in a rapid expansion in total reserves, reserves available for private demand deposits, and the demand deposit segment of money. After early October the rate of monetary expansion slowed; in late November short-term interest rates rose.

Open Market Operations

The Federal Reserve System made substantial net additions to its portfolio of Government securities in 1964; from December 1963 to early December 1964, net purchases were at an annual rate of \$3.4 billion. Average annual net purchases in the previous decade were \$810 million. Net open market operations during 1964, both unadjusted and adjusted for seasonal variations, are presented by month in Table III.

Table III
OPEN MARKET OPERATIONS

	Net Purchases (+) or Net Sales (—) ¹ (Millions of dollars)			
	1963		1964	
	Unadjusted	Seasonally Adjusted	Unadjusted	Seasonally Adjusted
January	\$ — 348	\$ +485	\$ — 529	\$ +391
February	+ 343	+621	— 191	+109
March	+ 72	+136	+ 380	+453
April	+ 284	+130	+ 109	— 61
May	+ 241	+179	+ 409	+343
June	+ 402	+468	+ 724	+798
July	+ 618	+655	+ 267	+304
August	+ 75	—312	+ 220	—201
September	+ 108	+268	+ 155	+330
October	+ 307	— 80	+ 61	—358
November	+ 478	+311	+ 702	+519
December	+ 603	+238	+1,128*	+718*
Total	+3,183		+3,435*	

¹ Change from daily average portfolio of previous month.

* December based on 16 days.

Rise in Reserves

Open market operations along with the other factors affecting bank reserves were sufficient during 1964 to accommodate a sizable increase of currency in the hands of the nonbank public and also to achieve a

rise in bank reserves unprecedentedly large for this phase of a business cycle (Table IV and Chart 7).⁴

Table IV
SOURCES AND USES OF RESERVES
(Millions of dollars)

	Change During 1963 ¹		Change During 1964 ²	
	Sources	Uses	Sources	Uses
Open market operations.....	3,099		2,866	
Nonbank public's holdings of currency		1,800		1,964
Other ³		606		113
Change in total reserves	693		789	
Required reserves for Government deposits	72		40	
Required reserves for time deposits		486		484
Required reserves for inter- bank deposits		33		39
Change in reserves avail- able for private demand deposits	246		306	

¹ Change from December 1962 daily average to December 1963 daily average.

² Change from December 1963 daily average to November 1964 daily average.

³ Includes changes in Treasury's balance with the Federal Reserve, gold flows, changes in foreign deposits, float, and member bank borrowing.

The rise in reserves, in turn, fostered rapid expansion in total bank credit, matched by both time deposit growth (as banks served an intermediary role between saving and investment) and demand deposit creation (the major segment of the money stock).

A substantial part of the rise in bank reserves was necessary to provide reserves required against the increase of Government deposits and time deposits. These deposits, which are not normally regarded as money, rose at an \$11.8 billion annual rate from December 1963 to November 1964; the rise in reserves required behind these increases in deposits totaled \$403 million (Table IV).

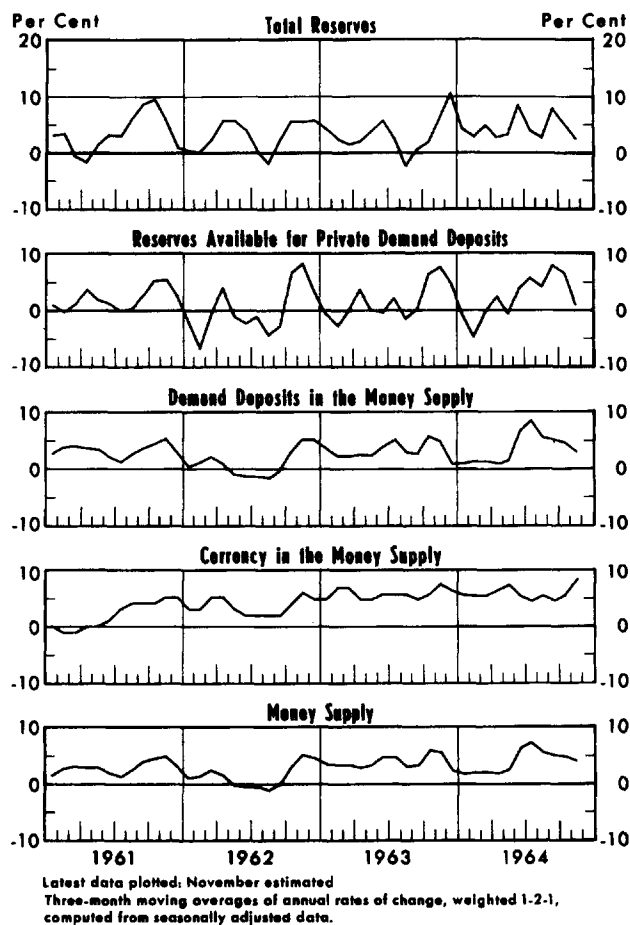
Reserves available to support growth of private demand deposits expanded at an annual rate of \$306 million, or 2.1 per cent, from December 1963 to November 1964 (Table IV and Chart 7). This increase was more rapid than the \$246 million, or 1.7 per cent, increase in 1963 and the 1.0 per cent average rate of increase during the early recovery period (from February 1961 to the end of 1962).

Rise in Demand Deposits

Changes in the demand deposit part of money are closely associated with changes in those reserves available to support them since banks seek to keep "fully" invested and do not change their excess reserve holdings greatly and since there are usually only moderate

⁴ Member bank reserves consist of currency in the vaults of member banks and their deposits at Federal Reserve Banks.

Chart 7
Selected Monetary Variables
Annual Rates of Change



net movements of funds between banks with different reserve requirements (Chart 7). Reflecting the marked increase in such reserves, private demand deposits rose rapidly from December 1963 to November 1964, at a 3.8 per cent annual rate. In 1963 demand deposits had increased 3.1 per cent.

Rise in Money

The stock of money, demand deposits plus currency held by the nonbank public, rose substantially in 1964. The increase in demand deposits (at an annual rate of slightly less than 4 per cent) along with an even sharper growth in currency holdings of the public (at an annual rate of over 6 per cent) from December 1963 to November 1964 resulted in a marked expansion in money (Chart 7). The money supply expanded at a 4.2 per cent annual rate from December 1963 to November 1964, slightly more than the 3.8 per cent growth in 1963. Both 1963 and 1964 increases were rapid, about double the average rate of growth since 1951. In the first five months of 1964, monetary expansion was moderate; from May to early October,

Table V
SELECTED MONETARY VARIABLES

Annual Rates of Change
(Three-month moving averages, weighted 1-2-1)

	Total Reserves	Reserves Available for Private Demand Deposits	Demand Deposits in the Money Supply	Currency in the Money Supply	Money Supply
1961 January	3.1%	1.0%	2.7%	0.1%	1.7%
February	3.4	-0.2	3.8	-1.0	2.8
March	-0.7	1.1	4.0	-1.0	3.2
April	-1.5	3.6	3.7	0	3.0
May	1.5	1.9	3.4	0	3.0
June	3.3	1.3	2.1	1.1	2.1
July	3.1	0	1.3	3.1	1.3
August	6.2	0.4	2.7	4.1	2.5
September	8.8	2.7	3.7	4.1	4.0
October	9.5	5.2	4.4	4.1	4.6
November	6.0	5.3	5.2	5.1	5.0
December	1.0	2.4	2.9	5.1	3.3
1962 January	0.2	-2.1	0.3	3.1	1.2
February	0.1	-6.9	1.1	3.1	1.4
March	2.5	-0.7	2.1	5.1	2.5
April	5.6	4.1	0.8	5.1	1.7
May	5.6	-1.1	-1.0	3.0	-0.2
June	4.1	-2.2	-1.3	2.0	-0.4
July	0.3	-1.2	-1.3	2.0	-0.4
August	-1.9	-4.4	-1.6	2.0	-1.0
September	2.3	-2.7	-0.3	2.0	0
October	5.7	6.4	2.9	4.0	3.1
November	5.5	8.2	5.2	5.9	5.1
December	5.8	3.1	5.2	4.9	4.7
1963 January	4.4	-0.3	3.6	4.9	3.7
February	2.5	-2.6	2.3	6.8	3.4
March	1.6	0	2.3	6.8	3.4
April	2.1	3.6	2.6	4.9	3.0
May	3.7	0.1	2.5	4.9	3.4
June	5.6	-0.3	4.0	5.8	4.8
July	2.3	2.1	5.1	5.7	4.8
August	-2.4	-1.4	3.0	5.7	3.2
September	0.3	0.1	2.8	4.8	3.4
October	1.8	6.5	5.8	5.7	5.9
November	6.2	7.7	4.8	7.5	5.6
December	10.6	4.6	1.0	6.5	2.4
1964 January	4.2	-1.0	1.0	5.6	1.8
February	1.8	-4.7	1.3	5.5	2.0
March	4.7	-0.2	1.3	5.5	2.1
April	1.7	2.2	1.0	6.4	1.9
May	3.2	-0.6	1.5	7.3	2.7
June	8.6	4.0	6.4	5.4	6.4
July	3.9	5.7	8.4	4.5	7.3
August	2.7	4.2	5.6	5.4	5.6
September	7.8	8.0	5.1	4.5	5.2
October	5.1	6.6	4.6	5.4	4.8
November	2.6e	1.0e	2.9e	8.3e	4.1e

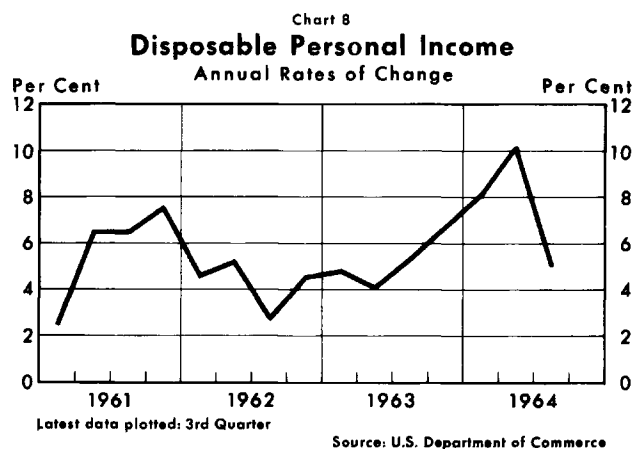
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it was marked; from early October to early December, the money stock again rose only moderately. In view of the relatively restrictive fiscal situation during 1963, the rapid expansion of money was especially

desirable. Following the tax cut of early 1964, the continued rise in money was tolerable in view of the absence of price inflation and the practicability of fuller use of resources.

Fiscal Actions

An even more important source of stimulation, according to the most commonly held view, stemmed from reductions in Federal tax withholding rates and declines in other tax liabilities early in 1964. The rate of increase in personal after-tax income rose at an increasing pace from mid-1963 to mid-1964. Affected by the tax reduction and the earlier monetary expansion, after-tax income rose 8 per cent from the third quarter of 1963 to the third quarter of 1964 (Chart 8),



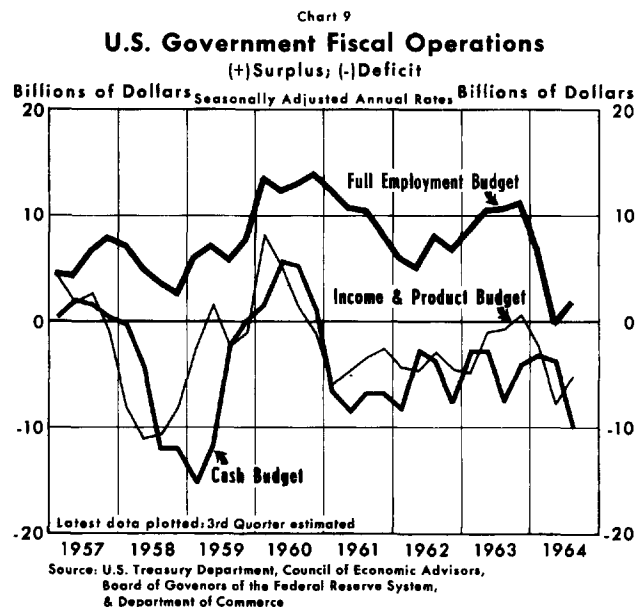
compared with a rise of 4.8 per cent in the corresponding year-earlier period. Per capita after-tax income rose 6.2 per cent in the year ending in the third quarter of 1964, compared with a 3.2 per cent increase a year earlier.

In making judgments about the impact of changes in tax rates and Government spending on the economy, it is useful to identify shifts in the net budget position which emerge solely from Government actions. To accomplish this, it is necessary to estimate what the budget position would be in the absence of cyclical changes in the economy. One approach is to make continuous estimates of what the Federal surplus or deficit would be at "full employment" under current tax schedules and expenditure plans.

A summary measure of the fiscal impact of the Federal Government on economic activity may be provided by the so-called "full employment budget." Given a set of tax rates, there are variations in tax receipts as incomes and profits vary. Similarly, some Government expenditures vary in response to changes in economic activity without any change in laws or other Government decisions. Because of these relationships between tax receipts and expenditures and economic activity, some changes in the Federal Government's net budget position (i.e., changes in surplus or

deficit) reflect movements in economic activity. In addition, changes in surplus or deficit may result from such explicit Government action as changes in tax rates or spending plans.

For many years prior to 1964, tax returns and provisions for Federal Government expenditures were such that at *full employment* a substantial surplus would have been experienced (Chart 9).⁵ In 1963



the tax structure and expenditure provisions by Congress were such that the surplus *under conditions of full employment* would have been \$10.3 billion.

Primarily as a result of the tax cut, the full employment surplus declined to a \$7.0 billion annual rate in the first quarter of 1964 and then to a \$1.0 billion rate in the second and third quarters. Thus, the Federal tax and expenditure situation was much more stimulative or less restrictive in 1964 than in 1963. This same impression is also gained from consideration of more orthodox and less hypothetical budgets (Chart 9).

Debt Management

In contrast to stimulative monetary and fiscal actions, management of the public debt probably had only a moderate net impact on spending for goods and services during 1964. The average maturity of the marketable Federal debt fluctuated near the five-year mark, and the volume of short-term Government securities in the hands of the nonbank public remained approximately unchanged.

⁵ See Nancy H. Teeters, "Estimates of the Full-Employment Surplus, 1955-1964," in a forthcoming issue of *The Review of Economics and Statistics*.

In short, judged by employment, production, growth, and price level developments until December, policy actions appear to have been appropriate. The Federal budget situation which emerged from the tax cut, the rate of increase of money which prevailed before and during 1964, and the management of the public debt had stimulative effects on the economy but do not appear to have been inordinately expansive.

Interest Rates

Interest rate developments are also an important factor in explaining the entire 1961-64 expansion and the more immediate economic success of 1964. Interest rates in general have risen less in 1961-64 than in earlier expansions. In 1964 they rose little if any during most of the year (Table VI). Even after the rise in the discount rate (the rate on loans from

Reserve Banks to member banks) from 3½ per cent to 4 per cent effective November 24, the increases in market rates were slight (except for a few short-term rates). Such stability is unprecedented in the fourteen years since the Treasury-Federal Reserve "Accord" in early 1951. Interest rates rose sharply in the 1954-57 and 1958-60 periods of economic expansion (Chart 10).

While short-term market rates moved higher from the beginning of economic recovery in 1961 to late 1964, the rise was less than in other recent periods of economic expansion and occurred in successive steps punctuated by prolonged periods of interest rate stability. Moreover, the rise in short-term rates since 1961 has not been so great relative to long-term rates as in earlier advances. Largely because of balance-of-payments considerations, short-term market interest

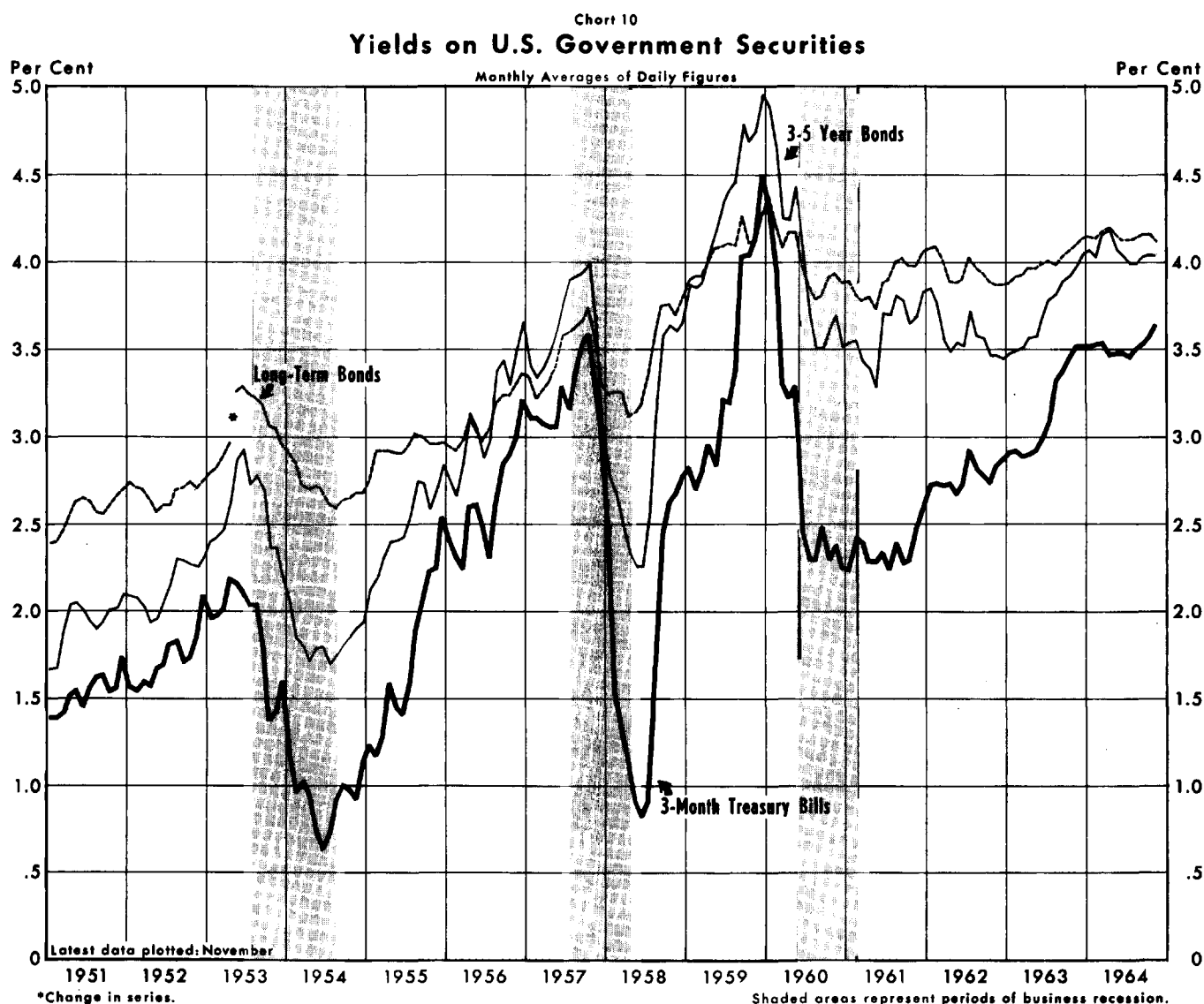


Table VI
MARKET YIELDS ON SELECTED SECURITIES

(Per cent per annum)

	Nov. 1963 ¹	Nov. 20, 1964 ²	Dec. 11, 1964 ²
U. S. Government securities			
3-month bills	3.52	3.61	3.81
6-month bills	3.65	3.78	3.94
3- to 5-year issues.....	3.97	4.02	4.06
Long-term bonds	4.10	4.11	4.12
Commercial paper	3.88	4.00	4.13
Finance company paper, 30-89 days	3.75	3.75	3.88
Bankers' acceptances	3.71	3.88	4.13
Aaa corporate bonds	4.33	4.42	4.45
Baa corporate bonds	4.84	4.80	4.83
Aaa state and local government bonds..	3.17	3.05	3.01
Conventional mortgages	5.80	5.80	5.80
Bank rate on prime business loans	4.50	4.50	4.50

¹Monthly averages of daily figures.

² Weekly averages of daily figures.
e—estimated.

Sources: Board of Governors of the Federal Reserve System, Moody's Investors Service, Federal Housing Administration, and finance companies.

rates did not decline as much during the 1960-61 recession as in earlier periods of declining credit demands. Although interest rates fell precipitously in early 1960, there was no further decline after mid-1960.

The modest magnitude of interest rate increases in the 1961-64 period of business expansion, despite the customary increases in the demand for credit, was at least in part the result of a continued rapid monetary expansion. The growth in money has probably been a major factor contributing to the length and strength of the expansion.

Demand for Credit

Interest rates rose less in 1964 and since 1961 than in other economic expansion periods in spite of great credit demands. The rise in economic activity described above was accompanied by strong demands for credit. In a market economy there is generally a correspondence between changes in economic activity and shifts in demands for credit. With rising economic activity and an optimistic outlook, there is, typically, an increase in debt-financed capital formation by both businesses and consumers. In addition, debt-financed inventory building typically accompanies a business expansion.

Corporate debt increased somewhat more in 1964 than during the preceding year. From December 1963 to December 1964, net new security offerings were about \$12.1 billion, compared with \$10.6 billion in the corresponding year-earlier period. Business loans of commercial banks rose an estimated \$5.3 billion in the

twelve months ending with November 1964, compared with an increase of \$4.1 billion during the corresponding year-earlier period. Mortgage credit rose about \$30.0 billion from the second quarter of 1963 to the second quarter of 1964, compared with the \$27.3 billion increase in the preceding year-earlier period. Consumer installment debt increased \$5.5 billion in the year ending with October 1964, about the same as during the previous year.

In addition to credit demands generated by the private domestic economy, it is important to consider those which emerged as a result of the Federal deficit and deficits of state and local governments. The Federal cash deficit, which amounted to \$4.6 billion in 1963, rose to an annual rate of \$5.6 billion in the first three quarters of 1964. The 1964 deficit was financed by borrowing an estimated \$8 billion. That borrowing was greater than the deficit is explained in part by the fact that the Treasury built up its cash balances. Borrowing by state and local governments, as indicated by new security offerings, is estimated to have amounted to \$10.0 billion in the twelve months ending with December 1964, up from the \$9.2 billion similarly borrowed the previous year.

Credit Supplies

The past year was not an ordinary one with respect to the demand for and supply of credit. As discussed above, there was virtual stability in interest rates from October 1963 until late November 1964. During such a period it is possible to make direct inferences about shifts both in demand and supply from an analysis of changes in outstanding quantities. Stability in interest rates, like stability in any price, implies that shifts in demand are accompanied by shifts in supplies. An increase in the demand for credit would result in a rise in the cost of credit if not accompanied by a corresponding expansion in credit supplies. Conversely, a decline in credit demands would result in a fall in interest rates unless there were a corresponding diminution in credit supplies. In view of these considerations, it may be inferred that the growth in credit discussed in the immediately preceding section was accompanied by approximately equal increases in credit supplies and in credit demands.

The flow of spending for goods and services was matched by an equal flow of income. As discussed above, the rise in final demand for the economy's product in 1964 was accompanied by large credit demands—as some units spent more than they received as income. While these spending units ran “deficits,” others spent less than their income and ran “surpluses.” The expansion in credit over the past year was a by-

product of the process by which the slack introduced into spending by net savers was taken up by those whose spending and investing plans involved outlays in excess of current income.

The rise in credit during 1964 appears to have reflected an increase in both the demand for and supply of credit. Ordinarily it would be inappropriate to draw inferences about what is happening to both demand and supply by making reference to rates of growth in outstanding quantities. Under most circumstances, when outstanding quantities of debt rise or decline sharply, there will have been accompanying movements in interest rates; consequently, in analyzing shifts in quantities it would be difficult to sort out the effects of changes in demand from changes in supply. For example, during periods when outstanding credit rises sharply and interest rates increase (as has been the case in most periods of economic expansion), it may be inferred that the demand for credit increased—that is, there were increased “takings” of credit even though interest rates rose. However, there may or may not have been an increase in supply (in the sense that suppliers *would have* offered greater quantities at unchanged rates). It cannot be known, after the fact, whether the greater “takings” were squeezed from a basically unchanged supply environment by the more attractive yields or whether there was also some greater “availability” at any given rate.

Credit from Saving and from Debt Monetization

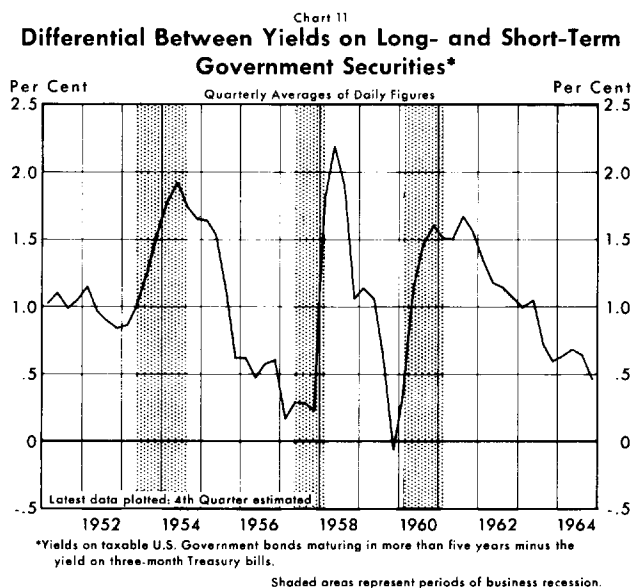
Credit demands of the economy were met by large credit supplies from direct investment by savers, from intermediation-type credit (where financial institutions stand between savers and investors), and from bank credit creation which monetizes debt (bank credit expansion beyond the role of banks acting as passive intermediaries). The volume of personal and business saving was substantial, resulting in part from the tax cut. Major financial intermediaries attracted and loaned a sizable portion of this flow. Net funds attracted into mutual savings banks, savings and loan associations, time deposits at commercial banks, and life insurance companies amounted to nearly \$36 billion during the year ending with September. This flow of funds was about the same as that during the comparable year-earlier period.

Notwithstanding the large supplies of intermediation-type credit in 1964, there was an increase in the rate of growth of that bank credit which is a net contribution to investment funds. After December 1963, commercial bank credit matched by increases in de-

mand deposits rose at a 4 per cent annual rate compared with a 3 per cent increase in 1963. In other advanced periods of economic expansion, there were declines in the rate of increase in demand deposits and money expansions (see “Monetary Expansion” above). The expansion of credit was sufficient to maintain relative stability in interest rates, especially long-term rates. The relatively low interest rates and large volume of credit may have facilitated some outflow of funds abroad.

Interest Rate Structure

In the economic expansion since 1961 and in 1964, short-term interest rates have not been high relative to long-term rates (Chart 11). In other recent periods



of rising economic activity, the differential between yields on short-term and long-term market instruments became negligible (in fact, short-term interest rates rose above long-term rates in late 1959). Thus far in the current expansion, the pronounced “twist” in the yield curve which characterized earlier periods of rising business activity has not been so conspicuous.

These developments are somewhat at variance with the popular conception of the much-discussed “operation twist.” The purpose of “operation twist” was to permit short-term interest rates to rise in an effort to moderate outflows of funds seeking higher returns abroad, while maintaining relatively low long-term rates in an effort to stimulate domestic business activity. Consistent with this objective, the maturity composition of the Federal Reserve System’s portfolio of Government securities changed significantly between late 1963 and late 1964. In particular, the System’s

holdings of securities maturing in less than three months declined sharply while its holdings maturing in one to five years increased (Table VII). These

Table VII
FEDERAL RESERVE HOLDINGS OF
U.S. GOVERNMENT SECURITIES

	December 4, 1963		December 9, 1964		Change
	Billions	Per Cent Distribution	Billions	Per Cent Distribution	Billions
1 to 90 days	\$ 7.0	20.7	\$ 4.4	11.9	\$—2.6
91 days to 1 year	15.9	46.9	17.0	45.9	+1.1
1-5 years	8.5	25.0	13.2	35.7	+4.7
5-10 years	2.3	6.8	2.1	5.7	—0.2
Over 10 years	0.2	0.6	0.3	0.8	+0.1
Total	\$34.0	100.0	\$37.0	100.0	\$+3.0

transactions tended to exert upward pressures on short-term market interest rates and downward pressures on long-term rates. Viewed more broadly, however, the totality of Government debt-management actions tended to exert downward pressures on short-term interest rates and upward pressures on long-term rates. As Table VIII shows, the public's holdings of

Table VIII
PUBLIC'S HOLDINGS OF
MARKETABLE U.S. GOVERNMENT SECURITIES

	September 30, 1963		September 30, 1964		Change
	Billions	Per Cent Distribution	Billions	Per Cent Distribution	Billions
Within 1 year	\$ 62.3	38.8	\$ 61.1	37.8	\$—1.2
1-5 years	45.4	28.3	42.7	26.4	—2.7
5-10 years	33.8	21.1	37.8	23.4	+3.9
Over 10 years	18.9	11.8	20.0	12.4	+1.1
Total	\$160.5	100.0	\$161.6	100.0	\$+1.0

short-term securities (maturing in less than one year) declined moderately and its holdings of longer-term debt instruments (maturing in more than five years) rose.

In short, while it is a fact that long-term interest rates were about unchanged in 1964 and short-term interest rates rose (consistent with the purposes of "operation twist"), this development was not obviously the result of public policy. Rather, it was an unusually moderate manifestation of the twist which generally accompanies a period of marked business expansion. The distinguishing feature of interest rate developments in 1964 and in the whole expansion was not any unusual increase in or high level of short-term rates relative to long-term rates, but the fact that interest rates generally did not rise in 1964 and have not risen markedly since 1961. The relative stability of interest rates may reflect the special character of the expansion, during which continuing large

flows of savings have been associated with a liberal expansion of money. In any event, given the relative stability in interest rates generally, stability in long-term rates may have been simply a market development. In view of the unusually moderate rise in short-term interest rates, stability in long-term rates merely partially achieved that relation between long- and short-term interest rates which has characterized other recent periods of economic expansion.

Alternative Views of Monetary Developments During 1964

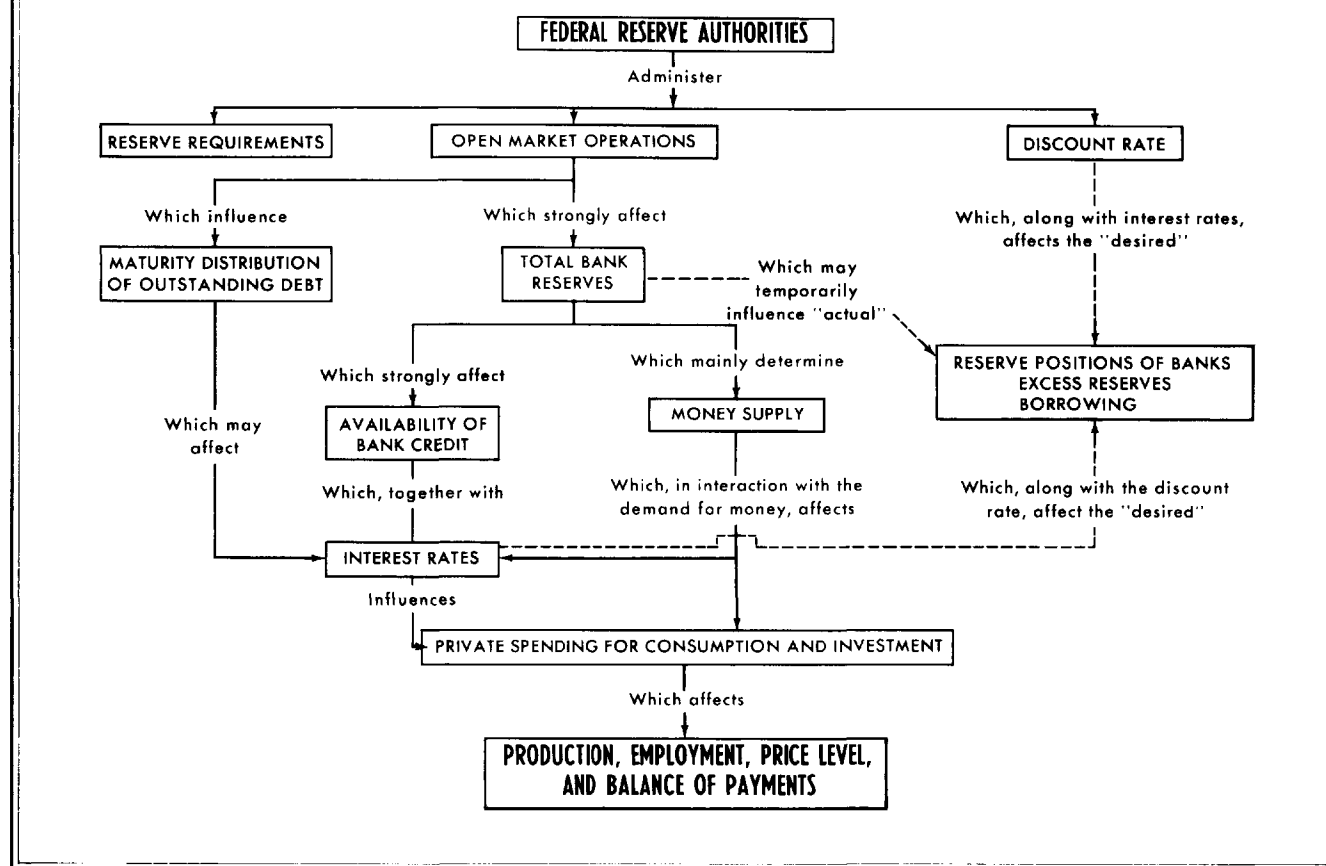
The foregoing discussion has emphasized the interrelation between interest rates, the strength of business activity, and changes in bank credit and money. Given the strength of business activity, the expansion in bank credit during 1964 was a result of the extent to which savers and borrowers used the intermediary facilities of commercial banks plus the credit expansion made possible by those additional reserve increases which accompanied stable interest rates. The growth in demand deposits was similarly determined: there was a certain growth in total reserves consistent with relatively stable interest rates; a certain volume of reserves were "used-up" to support the growth in time deposits; the remaining reserves were available to support demand deposit expansion.

On the following page is a simplified diagram which, for illustrative purposes, depicts several possible views of the flow of monetary influence. Those factors and lines of influence emphasized in this article are shown in red. There are alternative views of the monetary process, several of which are presented in the diagram. Each of these views could serve as a framework for an analysis of the past year.

According to one alternative view, monetary actions might be judged by viewing reserve positions of member banks. Some financial writers regard levels of or changes in "free reserves" as significant indicators of monetary developments. The free reserves magnitude is obtained by subtracting member bank borrowings from member bank holdings of excess reserves.

Over the past decade free reserves have ranged from net "free" levels of about \$700 million to net borrowed levels of \$500 million; during most of 1964 free reserves remained virtually unchanged at about \$100 million, near the middle of their range of recent years. Near the end of October, however, free reserves became somewhat lower—until in the two weeks ending November 11 they reached a net borrowed position of \$43 million. Such a movement in

Flows of Monetary Influence



free reserves is interpreted by some as a move toward somewhat less ease.

There is a growing opinion that the amount of free reserves which the banking system desires to hold is related to the opportunity cost of holding excess reserves and to the cost of borrowing from the Federal Reserve relative to other methods of making reserve adjustments; these relationships are also depicted on the accompanying flow diagram. According to this view, an evaluation of a movement in free reserves should consider possible changes in the desirability of holding excess reserves or of borrowing from Reserve Banks.

After the increase in the Federal Reserve discount rate in late November, there was a decline in the relative attractiveness of borrowing. Such a development would suggest that there would be a decrease in the banking system's desired level of borrowings from the Federal Reserve and an increase in desired free reserves. In the two weeks ending December 16, free reserves rose to an average of \$190 million, a move interpreted by some financial writers as evidence of

an increase in credit availability. The rise in free reserves was occasioned by a decline in borrowing (which seems to have reflected the fact that needed reserves could be obtained elsewhere at a smaller cost) along with approximate stability in excess reserves. There is no reason to believe that this development increased the willingness or ability of the banks to expand or increased total bank reserves, total bank credit, or the money supply.

While some analysts measure the impact of monetary actions on the "reserve positions" of banks, others concentrate on what banks do. Such analysts often place much emphasis on changes in the "availability" of credit. This view is placed into perspective on the flow diagram. In particular, there may be great interest in the changes which have occurred in commercial bank holdings of earning assets. Loans are viewed by some as a particularly important earning asset. During 1964 there was a rapid rise in total loans and major loan components; specifically, business loans, consumer loans, and real estate loans rose rapidly. A broader view includes the investments of commercial

FEDERAL RESERVE SYSTEM ACTIONS DURING 1964

Discount Rate

In effect January 1, 1964.....	3½%
November 24, 1964.....	4 %
In effect December 21, 1964.....	4 %

Reserve Requirements

	Percentage Required			
	Demand Deposits		Time Deposits	
	Reserve City Banks	All Other Member Banks	Reserve City Banks	All Others Member Banks
In effect January 1, 1964...	16½	12	4	4
In effect December 21, 1964	16½	12	4	4

Margin Requirements on Stocks

In effect January 1, 1964.....	70%
In effect December 21, 1964.....	70%

Maximum Permissible Interest Rates Payable on Time and Savings Deposits

	Savings Deposits		Other Time Deposits	
	Under 1 Year	1 Year and Over	Under 90 Days	90 Days and Over
In effect January 1, 1964...	3½%	4%	1%	4 %
November 24, 1964.....	4 %	4%	4%	4½%
In effect December 21, 1964	4 %	4%	4%	4½%

banks along with loans. Total loans and investments also rose very rapidly during the year. Changes in total loans and investments are generally associated with changes in total bank reserves.

Summary

The year 1964 was the fourth consecutive year of strong business expansion. The continued or renewed

strength of the economy was supplemented by fiscal policy in the form of tax reductions. Monetary actions also were stimulative since relatively stable interest rates required substantial net purchases of Treasury securities by the Federal Reserve and increases in the money supply. Increases of prices were moderate and inventories remained at exceptionally low levels relative to sales.

Per Jacobsson Foundation Lectures

On November 9, 1964, in Basle, Switzerland, the Per Jacobsson Foundation presented the inaugural lectures of a series to be continued in future years and other cities. The Foundation thus honored the late Managing Director of the International Monetary Fund and began to carry out its principal purpose, which is to sponsor and publish regularly lectures on international monetary affairs by recognized authorities.

The first two lectures, both on the subject of "Economic Growth and Monetary Stability," were given by Maurice Frère, former Governor of the National Bank of Belgium and President of the Bank for International Settlements (viewing the subject from the standpoint of a developed country), and by Rodrigo Gómez, Director General of the Bank of Mexico (the view from a developing country).

Copies of the texts of these lectures are available in English, French, and Spanish. Requests for copies (indicating the language desired) should be addressed to:

The Per Jacobsson Foundation
International Monetary Fund Building
Washington, D. C. 20431

Agricultural Situation and Prospects

This article is primarily a summary of information presented by the staff of the United States Department of Agriculture at the 42nd Annual Agricultural Outlook Conference, November 16-19, 1964.

INCOME OF THE FARM POPULATION is expected to continue upward in 1965. Income per farm operator family probably will rise above the estimated \$6,230 of 1964, continuing the steady rise from \$4,800 in 1959. Gains are likely from both farm and nonfarm sources. Aggregate net income from agriculture is expected to approach the \$12.4 billion estimated for 1964. If these expectations are realized, 1965 will be the fifth consecutive year of relative stability in aggregate net income from farming. Realized gross income will probably equal the 1964 estimate of \$41.9 billion. Only a slight increase in total production expenses is anticipated.

Total production of farm products is expected to increase somewhat, and exports are expected to decline slightly. Per capita food supplies in 1965 will probably remain at about the same level as in 1964. Increases in beef, veal, and citrus fruit will about offset decreases in pork, lamb, animal fat, and vegetables.

Income of Farm People

Personal income of farm families rose from \$4,826 to \$6,230, or 29 per cent, from 1959 to 1964, reflecting

an increase in per family realized net income from farming and off-farm sources. Realized net income from farming climbed from \$2,753 to \$3,600, or 31 per cent. A major portion of this increase resulted from the disappearance of low-income farms. Incomes in the larger size groupings rose at a smaller rate.

Based on the January-September estimates, realized net operator income per farm from farming and total income per farm operator family in 1964 will each average about 3 per cent more than in 1963 (Table I). Operator family income on the average farm in 1964 is estimated to amount to \$3,600 from farming and \$2,630 from other sources, or a total of \$6,230. Such income will probably show some further increase in 1965, resulting from continued stability in aggregate net income from farming, a further decline in number of farms, and a further increase in the nonfarm incomes of farm families.

Farm Income

Gross farm income from farming in 1964 is estimated at \$41.9 billion and will probably be virtually the same in 1965 (Table II). Cash receipts from farm

Table I
NUMBER OF FARMS AND NET INCOME PER FARM
OPERATOR FAMILY

	Number of Farms	Realized Net Income from Farming ¹	Off-Farm Income	Total Income
	(Thousands)	(Dollars)	(Dollars)	(Dollars)
1959	4,097	2,753	2,073	4,826
1960	3,949	2,961	2,231	5,192
1961	3,811	3,299	2,294	5,593
1962	3,688	3,420	2,349	5,769
1963	3,573	3,504	2,431	5,935
1964 ²	3,474	3,600	2,630	6,230
1965 ²	3,400	3,700	2,700	6,400

¹ Includes nonmoney income from farm food and housing.
² Based on preliminary estimates and *Outlook* information.

Source: USDA, *Farm Income Situation and Agricultural Finance Outlook*.

Table II
INCOME FROM FARMING
(Millions of dollars)

	Gross Farm Income ¹	Production Expenses	Realized Net Income
1940	11,038	6,749	4,289
1945	25,772	12,922	12,850
1950	32,482	19,297	13,185
1955	33,332	21,862	11,470
1960	37,934	26,242	11,692
1961	39,550	27,091	12,459
1962	40,792	28,202	12,590
1963	41,737	29,219	12,518
1964 ²	41,900	29,500	12,400

¹ Includes nonmoney income and Government payments.
² Based on annual rate for first three quarters.

Source: USDA, *Farm Income Situation*.

commodity sales are likely to be somewhat lower in 1965 than in 1964 and Government payments somewhat higher. The volume of farm products is likely to increase, but the gain will be more than offset by lower prices.

Cash receipts from livestock and livestock products are expected to be moderately higher in 1965 than in 1964, but the gain is likely to be more than offset by lower receipts from crop marketings. Receipts from beef cattle sales will probably be greater than in 1964, reflecting an increase in pounds sold and little change in price. Receipts from sales of hogs are also expected to be greater, with a decline in volume more than offset by higher prices. Receipts from poultry are expected to increase and from eggs to decline.

Receipts from crop sales in 1965 are expected to be lower than in 1964, as both volume of crops and average prices are expected to be down. The anticipated lower volume of crops marketed is expected to result from the relatively small 1964 crop. Typically, a considerable portion of any year's crop receipts is from sales of crops produced the preceding year. Prices of crops are likely to average lower, partly as a result of declines in some Government price supports. The announced loan level of \$1.25 per bushel for 1965 wheat is 5 cents per bushel less than a year earlier. Little change is expected in other price support programs. With normal growing conditions average prices for 1965 crops of potatoes and some other vegetables and fruits are likely to be lower.

Government payments to farmers, estimated at about \$2.2 billion¹ in 1964, are apparently headed for higher levels in 1965. Both marketing and export certificate payments have been increased 5 cents per bushel for wheat. In addition, Government payments under the Feed Grain Program may be up about 10 per cent because of increased participation. The phasing out of contracts may result in some decline in payments under the Soil Bank Program, partially offsetting the above increases.

Production Expenses

Farm production expenses in 1965 are expected to continue upward from the estimated \$29.5 billion for 1964.² The rate of increase, however, may be slower than in most recent years. Production expenses have increased at an average of about 3½ per cent per year during the past decade. Increased use of fertilizer,

other chemicals, and mechanical power have accounted for most of the cost increase. Higher prices paid for production items account for the remaining portion. There has been a wide diversity in the price trends of individual expense items. Wage rates and farm machinery prices have risen steadily. On the other hand, fertilizer prices and prices of production items of farm origin such as feeder cattle and livestock feed have shown no pronounced trend.

Expenditures for a number of important items, including feed, livestock, fertilizer, taxes, interest, and depreciation charges, will probably increase somewhat in 1965. Partially offsetting these increases, however, will be a decline in the use of hired labor. With fewer and larger farms the substitution of machines for labor is expected to continue, contributing to a further reduction in farm labor use in 1965 and succeeding years.

Financial Outlook

The financial outlook is generally favorable for those who own farm real estate. The upward trend in real estate values is expected to continue. Debts may also increase but less than the value of assets. Thus, farm equities will probably rise.

The value of farm assets is expected to approach \$229 billion by January 1, 1965, about \$8 billion higher than a year earlier. Practically all of the increase is due to the estimated rise in real estate values from \$150.8 billion to \$158.5 billion. Estimated increases in the value of motor vehicles, farm machinery, time deposits, and investments in cooperatives will about offset an anticipated reduction in livestock and crop inventories.

Farm debt has increased about \$3 billion, or 10 per cent, during each of the past three years. The January 1, 1965 farm debt estimate is expected to show a similar gain (Table III). This will bring total farm debt to \$36.4 billion. In 1964, for the first time since 1961, real estate debt rose faster than nonreal estate debt. The rates of increase from January 1, 1964 to January 1, 1965 were 11.9 per cent and 8.6 per cent, respectively.

The ratio of farm debt to farm assets has increased in recent years. Debt is projected to total about 16 per cent of farm assets in January 1965 (Table III). This compares with 15 per cent a year earlier, 12 per cent in 1960, and 8 per cent in 1950. Farm debt declined rapidly relative to asset value during World War II as the value of assets increased rapidly. Since 1945, debt has increased more rapidly than value of assets and is now almost as high relative to asset values as in 1940.

¹ Expenditures by the Department of Agriculture during the 1964 fiscal year totaled \$7.9 billion.

² Seasonally adjusted annual rate for first three quarters.

Table III
FARM ASSETS AND LIABILITIES FOR SELECTED YEARS¹
(January 1)

	Assets	Liabilities	Liabilities as a Per Cent of Assets
	(Billions of dollars)		
	TOTAL		
1940	52.5	9.6	18.3
1945	93.3	7.6	8.1
1950	129.9	10.7	8.2
1955	160.3	15.2	9.5
1960	198.2	23.6	12.0
1961	198.2	24.8	12.5
1962	206.2	26.8	13.0
1963	213.7	29.7	13.9
1964	221.1	33.0	14.9
1965 ²	229.0	36.4	15.9
	REAL ESTATE		
1940	33.6	6.6	19.6
1945	53.9	4.9	9.1
1950	75.3	5.6	7.4
1955	98.2	8.2	8.4
1960	129.9	12.1	9.3
1961	131.4	12.8	9.7
1962	137.4	13.9	10.1
1963	142.8	15.2	10.6
1964	150.8	16.8	11.1
1965 ²	158.5	18.8	11.8
	NONREAL ESTATE		
1940	18.9	3.0	15.9
1945	39.4	2.7	6.9
1950	54.6	5.1	9.3
1955	62.3	7.2	11.6
1960	68.3	11.5	17.0
1961	66.8	12.0	18.0
1962	68.8	12.9	18.8
1963	70.9	14.5	20.5
1964	70.6	16.2	22.9
1965 ²	70.5	17.6	25.0

¹ Excluding CCC loans.

² Based on *Outlook* estimates.

Source: USDA, *The Balance Sheet of Agriculture and Agricultural Finance Outlook*.

Relative to assets, nonreal estate farm debt has increased at a much greater rate than real estate debt since 1950. Nonreal estate debt rose from 9 per cent of total nonreal estate assets in 1950 to 25 per cent in 1965. In comparison, real estate debt rose from 7 per cent to 12 per cent of total farm real estate value during the same 15-year period.

Real estate assets per farm have increased substantially in recent years, reflecting both larger size units and rising land prices. The average value of real estate per farm (both owned and rented) increased almost fourfold from 1950 to 1964, rising from \$14,000 to \$50,000. Such values in 1964 were more than \$100,000 in six states and exceeded \$200,000 in two, Arizona and Nevada.

These increases partially explain the major gains in farm real estate debt and some shifts in methods of financing farmland. Almost every year since the first estimates in 1946, the proportion of land sales financed by the sellers through installment contracts has increased. By 1963 almost 30 per cent of all sales were financed by this method. A factor contributing to the increased use of installment contracts is the tax advantage to sellers.

Food Supplies

Per capita food production in 1965 is expected to be about the same as in 1964. Food production is expected to total 1.4 per cent more than in 1964, about the same gain as in population growth.

Per capita output of animal products is expected to be little changed from 1964. Increases in beef, veal, and, perhaps, turkeys will about offset declines in pork and lamb. Dairy products and broilers will be about unchanged.



REVIEW INDEX — 1964

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Apr.	<i>Economic Expansion Continues</i> <i>1963 Earnings and Expenses of Central Mississippi Valley Member Banks</i> <i>Income Per Farm in Central Mississippi Valley States</i>	Oct.	<i>Recent Employment Trends</i> <i>Bank Loans, 1961-1964</i> <i>Agricultural Conditions in the Central Mississippi Valley</i>
May	<i>Further Expansion in Economic Activity</i> <i>Farm Commodity Exports and International Trade Policies</i>	Nov.	<i>Money Supply in Five Countries, 1951-1964</i> <i>Production and Money Expand Rapidly—with neither Price Inflation nor Interest Rate Increases</i> <i>Employment and Population Trends in the Central Mississippi Valley</i> <i>Economic Indicators—St. Louis and Louisville</i>
June	<i>Inventories Continue in Balance</i> <i>Value Added by Manufacture, Central Mississippi Valley Metropolitan Areas, 1957 to 1964</i> <i>Beef Cattle Prices</i>	Dec.	<i>1964: Fourth Year of Economic Expansion</i> <i>Agricultural Situation and Prospects</i>