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*86th Congress, 2nd Session*

1960

**SUPPLEMENT TO**

# **Economic Indicators**

**HISTORICAL AND DESCRIPTIVE  
BACKGROUND**

*Prepared for the Joint Economic Committee  
by the Committee Staff and the  
Office of Statistical Standards, Bureau of the Budget*

Printed for the use of the Joint Economic Committee

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# Letters of Transmittal

DECEMBER 2, 1960.

*To Members of the Joint Economic Committee:*

For the information of the members of the Joint Economic Committee and others interested there is transmitted herewith a fourth edition of the *Supplement* to the Committee's monthly publication *Economic Indicators*, containing selected charts and historical tables of the various indicators which are published monthly, and a description of the derivation, limitations, and uses of each indicator. These materials were developed by the Committee staff and the Office of Statistical Standards, Bureau of the Budget, with the cooperation of the agencies responsible for each series.

As you are undoubtedly aware, there has been continuing widespread interest in having this information readily available. The historical and descriptive *Supplement to Economic Indicators* is used not only by Members of Congress and other users of *Economic Indicators*, both within the Government and among the nearly 9,500 private subscribers, but has become an important teaching aid in college courses in statistics. It is believed that this new revision of the original publication will be especially helpful because of the addition of selected historical charts.

PAUL H. DOUGLAS,  
*Chairman, Joint Economic Committee.*

NOVEMBER 17, 1960.

The Honorable PAUL H. DOUGLAS,  
*Chairman, Joint Economic Committee,  
United States Senate, Washington, D.C.*

DEAR SENATOR DOUGLAS: Transmitted herewith is the 1960 *Supplement* to the Committee's monthly publication *Economic Indicators* prepared in response to the Committee's instructions in its annual report filed with the Congress February 29, 1960 (S. Report 1152, 86th Cong., 2d session).

A brief explanation of the purpose and content of the *Supplement* is presented in the foreword.

It might also be helpful to point out for the benefit of persons not familiar with the monthly *Economic Indicators* that this is a regular publication printed by the Congress in accordance with Public Law 120, 81st Congress, 1st session, chapter 237. *Economic Indicators* was first published by the Joint Economic Committee as a Committee Print in 1948 to provide its members with information on current economic trends and developments in a concise and graphic form. Knowing that other Members of the Congress, businessmen, farm leaders, labor organizations, and representatives of the press also sought such information, the Joint Committee at the same time sponsored legislation which later resulted in authorizing publication on a permanent basis. *Economic Indicators* is prepared each month for the Joint Economic Committee by the Council of Economic Advisers.

The monthly *Indicators* is used widely by schools and libraries as a reference source and has an extensive circulation of foreign subscribers, covering all major nations of the world. The publication currently has a list of nearly 9,500 paid subscribers. *Economic Indicators* is sold through the Superintendent of Documents, United States Government Printing Office, Washington, D.C., price 20 cents per copy; \$2 per year; \$2.50 foreign.

The Joint Committee has always welcomed comments directed toward making *Economic Indicators* and this *Supplement* more useful publications. Comments were especially solicited during a special review

of the monthly *Indicators* this year. That publication, beginning with the November issue, and the 1960 *Supplement* take account of many of the suggestions made. It should be understood, of course, that the materials included must be limited to those series most widely used by Members of Congress, executive Government agencies, and others. The Committee policy has been to carry standard series and relationships without interpretation. Other publications of the Committee and the executive agencies are considered the medium for interpretations of the data.

The development and supervisory work on the first issue was done by the Committee staff, with descriptions of the series written by members of the staff of the Office of Statistical Standards, Bureau of the Budget, and tables prepared by Frances James of the Council of Economic Advisers and the agencies compiling the original data. The 1960 *Supplement* was prepared under the direction of Raymond T. Bowman, Assistant Director for Statistical Standards, Bureau of the Budget, by the staff of the Office of Statistical Standards in consultation with the Council of Economic Advisers and with the cooperation of the agencies compiling the data. The entire project was carried out in response to requests directed to the Bureau of the Budget by the Subcommittee on Economic Statistics.

Respectfully submitted.

JOHN W. LEHMAN,  
*Clerk and Acting Executive Director.*



## Foreword

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This is the fourth edition of the *Supplement to Economic Indicators* containing historical data and a description of each series as well as references to additional technical publications. It shows annual data for each series in the same tabular form as current data are published monthly in *Economic Indicators*. The explanatory text accompanying each series is intended to meet the need for general information which cannot be repeated each month but which is essential for understanding and interpreting the significance of the current data. The *Supplement*, along with the current issues of *Economic Indicators*, also meets a need of teachers and students for a convenient source of information for keeping up with current economic conditions and at the same time becoming familiar with basic sources and methods used to provide such indicators.

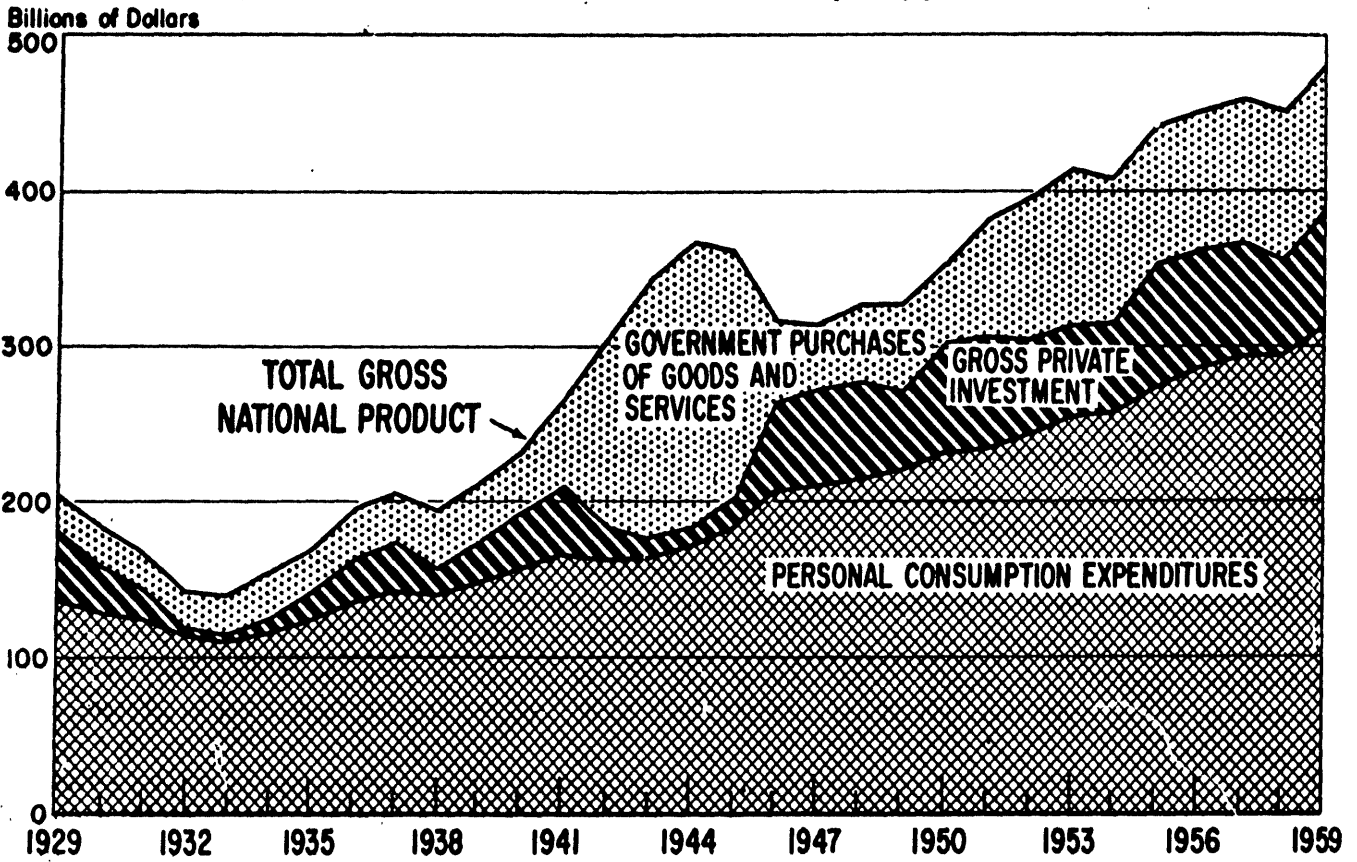
The text accompanying each series provides in nontechnical language: a description of the series, an explanation of how the data are obtained and the series derived, its relation to other series, and its principal uses and limitations. References are also given to primary publications of the series, sources showing more detailed data, and publications which contain more complete and technical explanations.

The *Supplement* was first published in December 1953. It was revised in November 1955 and again in September 1957. As in the earlier editions, this revision brings both text and tables up to date. Minor revisions in the tables in *Economic Indicators* were made from time to time since 1957 and some major changes were introduced in the November 1960 issue. This issue of the *Supplement* reflects all of those changes. The descriptive material gives the sources of data and statistical procedures now being used in compiling the series. Brief explanations of the methods used in making seasonal adjustments are also provided.

A significant new feature in content of the present issue of the *Supplement* is the addition of charts. The monthly issues of *Economic Indicators* have always included charts, showing seasonally adjusted data where available, for a period of 5 or 6 years. Selected charts included in this issue of the *Supplement* show a somewhat longer historical perspective of month-to-month or quarter-to-quarter changes from 1947, seasonally adjusted where available.

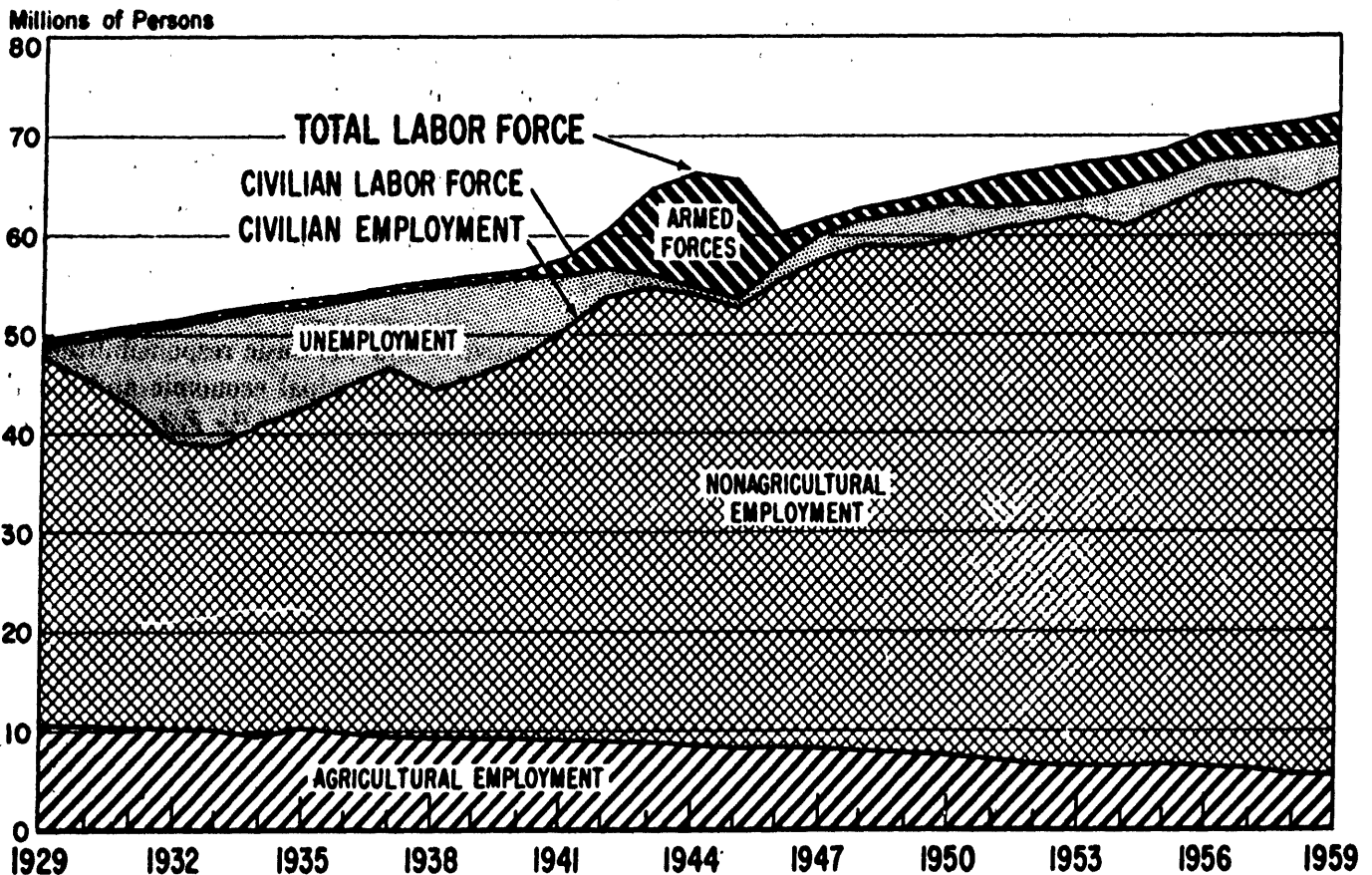
A more comprehensive guide to the organization of Federal statistics and the basic responsibilities of the various Federal statistical agencies, as well as brief descriptions of the principal economic and social statistics series collected by Government agencies, is contained in *Statistical Services of the Federal Government*, available from the Superintendent of Documents, Government Printing Office.

**Gross National Product or Expenditure in 1959 Prices, 1929-59**  
*(Annual data. Gross Private Investment includes net exports of goods and services)*



SOURCE OF DATA: DEPARTMENT OF COMMERCE

**Growth of the Labor Force, 1929-59**  
*(Annual data)*



SOURCE OF DATA: DEPARTMENT OF LABOR

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# TOTAL OUTPUT, INCOME, AND SPENDING

## THE NATION'S INCOME, EXPENDITURE, AND SAVING

*Description of series.*—The Nation's income, expenditure, and saving, representing a summary of the Nation's economic accounts, are shown in the accompanying table for persons, business, international, and government. The accounts shown here represent a statement of the gross national product in terms of receipts and expenditures for these four categories; for every dollar of expenditure there must be a dollar of receipts. Thus the combined receipts (disposable personal income, gross retained earnings of business, and government receipts) must equal the combined expenditures (personal consumption expenditures, gross private domestic investment, net foreign investment, and government expenditures). It follows that for any period in which the receipts for any of the four categories exceed expenditures, the difference will be offset by an excess of expenditures over receipts in another category or categories. The relationship of receipts to expenditures for each of the four categories is shown in the first table in *Economic Indicators*.

The exact balancing of the combined receipts and expenditures reported for the four categories—persons, business, international, government—requires recognition of a statistical discrepancy, since the estimating procedure involves somewhat independent data on each side of the accounts and does not produce the identity which is conceptually present. In the accompanying table, the total of personal, business, foreign net transfers by government, and government receipts plus the statistical discrepancy equals the total of personal and business expenditures, government purchases of goods and services and net exports.

The personal account summarizes the more detailed statistics on personal income and consumption shown elsewhere in *Economic Indicators*, particularly in the table on Disposition of Personal Income (see p. 14). It should be noted that, although the personal income account includes the income of unincorporated

businesses and farms, the consumer expenditure account includes only expenditures for consumption purposes. Investments of noncorporate as well as corporate businesses are included in the business expenditure account. The actual or imputed rent of dwellings is included in consumer expenditure; but residential construction, whether for owner occupancy or for rental purposes, is included with business investment.

In the business account, receipts or gross retained earnings include the undistributed profits of corporations after adjustment for inventory valuation, plus the capital consumption allowances of both corporate and noncorporate enterprises and institutions, including residences. The capital consumption allowances must be added to receipts since investment is on a gross basis—i.e., before deduction for depreciation, capital outlays charged to current expense, and accidental damage to fixed capital. Business investment includes additions to plant and equipment and inventories of both corporate and noncorporate enterprises, as well as residential construction. Because of conceptual difficulties and limitations in the data which prevent differentiating investment items in the present consumer and government accounts, as shown here business investment constitutes the only current savings of the Nation identified in real terms.

In the international account, the expenditures item represents the difference between exports of goods and services on the one hand, and imports of goods and services on the other. The receipts item consists solely of foreign net transfers by government. For 1929-45, foreign net transfers by government were negligible. For that period, net exports of goods and services have been equated with the excess of receipts or expenditures for this sector.

The government account shows receipts and expenditures on an income and product account basis, rather than on either a cash or a conventional budget

The Nation's Income, Expenditure, and Saving

[Billions of dollars]

Year	Persons			Business			International				
	Disposable personal income <sup>1</sup>	Personal consumption expenditures	Personal saving (+) or dis-saving (-)	Gross retained earnings <sup>2</sup>	Gross private domestic investment	Excess of investment (-)	Foreign net transfers by Government	Net exports of goods and services			Excess of transfers (+) or of net exports (-) <sup>3</sup>
								Net exports	Exports	Imports	
1929.....	83.1	79.0	4.2	11.5	16.2	-4.7	( <sup>4</sup> )	0.8	7.0	6.3	-0.8
1930.....	74.4	71.0	3.4	8.8	10.3	-1.5	( <sup>4</sup> )	.7	5.4	4.8	-.7
1931.....	63.8	61.3	2.5	5.2	5.5	-.3	( <sup>4</sup> )	.2	3.6	3.4	-.2
1932.....	48.7	49.3	-.6	2.7	.9	1.8	( <sup>4</sup> )	.2	2.5	2.3	-.2
1933.....	45.7	46.4	-.6	2.6	1.4	1.2	( <sup>4</sup> )	.2	2.4	2.3	-.2
1934.....	52.0	51.9	.1	4.9	2.9	2.0	( <sup>4</sup> )	.4	3.0	2.5	-.4
1935.....	58.3	56.3	2.0	6.3	6.3	.1	( <sup>4</sup> )	-.1	3.3	3.3	.1
1936.....	66.2	62.6	3.6	6.5	8.4	-1.9	( <sup>4</sup> )	-.1	3.5	3.6	.1
1937.....	71.0	67.3	3.7	7.8	11.7	-4.0	( <sup>4</sup> )	.1	4.6	4.5	-.1
1938.....	65.7	64.6	1.1	7.8	6.7	1.2	( <sup>4</sup> )	1.1	4.3	3.2	-1.1
1939.....	70.4	67.6	2.9	8.3	9.3	-1.0	( <sup>4</sup> )	.9	4.4	3.5	-.9
1940.....	76.1	71.9	4.2	10.4	13.2	-2.8	( <sup>4</sup> )	1.5	5.4	3.8	-1.5
1941.....	93.0	81.9	11.1	11.5	18.1	-6.6	( <sup>4</sup> )	1.1	6.0	4.8	-1.1
1942.....	117.5	89.7	27.8	14.1	9.9	4.3	( <sup>4</sup> )	-.2	4.9	5.1	.2
1943.....	133.5	100.5	33.0	16.3	5.6	10.7	( <sup>4</sup> )	-2.2	4.5	6.8	2.2
1944.....	146.8	109.8	36.9	17.2	7.1	10.1	( <sup>4</sup> )	-2.1	5.4	7.5	2.1
1945.....	150.4	121.7	28.7	15.6	10.4	5.2	( <sup>4</sup> )	-1.4	7.4	8.8	1.4
1946.....	160.6	147.1	13.5	13.1	28.1	-15.1	0.3	4.9	12.8	7.9	-4.6
1947.....	170.1	165.4	4.7	18.9	31.5	-12.6	.1	9.0	17.9	8.9	-8.9
1948.....	189.3	178.3	11.0	26.6	43.1	-16.5	1.6	3.5	14.5	11.0	-1.9
1949.....	189.7	181.2	8.5	27.6	33.0	-5.4	3.2	3.8	14.0	10.2	-.5
1950.....	207.7	195.0	12.6	27.7	50.0	-22.3	2.8	.6	13.1	12.5	2.2
1951.....	227.5	209.8	17.7	31.5	56.3	-24.8	2.1	2.4	17.9	15.5	-.2
1952.....	238.7	219.8	18.9	33.2	49.9	-16.6	1.5	1.3	17.4	16.1	.2
1953.....	252.5	232.6	19.8	34.3	50.3	-16.0	1.6	-.4	16.6	17.0	2.0
1954.....	256.9	238.0	18.9	35.5	48.9	-13.4	1.4	1.0	17.5	16.5	.4
1955.....	274.4	256.9	17.5	42.1	63.8	-21.8	1.5	1.1	19.4	18.3	.4
1956.....	292.9	269.9	23.0	43.0	67.4	-24.3	1.5	2.9	23.1	20.2	-1.5
1957.....	308.8	285.2	23.6	45.6	66.1	-20.5	1.5	4.9	26.2	21.3	-3.5
1958.....	317.9	293.5	24.4	44.6	56.0	-11.4	1.3	1.2	22.7	21.5	.1
1959.....	337.3	313.8	23.4	50.5	72.0	-21.6	1.5	-1.0	22.9	23.8	2.5

See footnotes at end of table on next page.

basis, to be consistent with the receipts and expenditures of consumers and business and with the gross national product total. The government receipts include personal, corporate and indirect business taxes, and contributions for social insurance. Government interest charges and transfer payments, such as social security and veterans' benefits and net transfers to abroad, are not included in the gross national product, although some items are income to recipients. They are therefore subtracted here from both receipts and expenditures.

The government income and product accounts are on a consolidated basis, just as the cash accounts are, but they depart from the latter because of the timing of the items included in each and because of conceptual differences. The income and product accounts of the government are designed to be in accord with the accrual records maintained by private business. Thus, business taxes, especially those on corporate profits, are recorded on an accrual rather than a collections basis, and government expenditures for goods are corrected for the lag between deliveries and pay-

The Nation's Income, Expenditure, and Saving—Continued

(Billions of dollars)

Year	Government						Surplus (+) or deficit (-) on income and product account	Total income or receipts	Statistical discrepancy	Gross national product or expenditure
	Net receipts			Expenditures						
	Net receipts	Tax and nontax receipts or accruals	Transfers, interest, and subsidies <sup>1</sup>	Purchases of goods and services	Total expenditures	Transfers, interest, and subsidies <sup>2</sup>				
1929.....	9.5	11.3	1.7	8.5	10.2	1.7	1.0	104.2	0.3	104.4
1930.....	8.9	10.8	1.8	9.2	11.0	1.8	-.3	92.1	-1.0	91.1
1931.....	6.4	9.5	3.1	9.2	12.3	3.1	-2.8	75.4	.8	76.3
1932.....	6.4	8.9	2.5	8.1	10.6	2.5	-1.7	57.7	.8	58.5
1933.....	6.7	9.3	2.6	8.0	10.7	2.6	-1.4	55.0	.9	56.0
1934.....	7.4	10.5	3.1	9.8	12.8	3.1	-2.4	64.2	.7	65.0
1935.....	8.0	11.4	3.4	10.0	13.3	3.4	-2.0	72.7	-.2	72.5
1936.....	8.9	12.9	4.1	11.8	15.9	4.1	-3.0	81.6	1.1	82.7
1937.....	12.3	15.4	3.1	11.7	14.8	3.1	.6	91.0	-.2	90.8
1938.....	11.2	15.0	3.8	12.8	16.6	3.8	-1.6	84.8	.5	85.2
1939.....	11.2	15.4	4.2	13.3	17.5	4.2	-2.1	89.9	1.2	91.1
1940.....	13.3	17.7	4.4	14.1	18.5	4.4	-.7	99.8	.8	100.6
1941.....	21.0	25.0	4.0	24.8	28.8	4.0	-3.8	125.4	.4	125.8
1942.....	28.3	32.6	4.3	59.7	64.0	4.3	-31.4	160.0	-.8	159.1
1943.....	44.4	49.2	4.8	88.6	93.4	4.8	-44.2	194.2	-1.7	192.5
1944.....	44.6	51.2	6.5	96.5	103.1	6.5	-51.9	208.6	2.8	211.4
1945.....	43.1	53.2	10.1	82.9	92.9	10.1	-39.7	209.1	4.5	213.6
1946.....	34.6	51.1	16.5	30.5	47.0	16.5	4.1	208.6	2.1	210.7
1947.....	41.6	57.1	15.4	28.4	43.8	15.4	13.3	230.7	3.5	234.3
1948.....	42.8	59.2	16.5	34.5	51.0	16.5	8.2	260.3	-.8	259.4
1949.....	37.0	56.4	19.4	40.2	59.5	19.4	-3.1	257.5	.5	258.1
1950.....	47.2	69.3	22.1	39.0	61.1	22.1	8.2	285.3	-.7	284.6
1951.....	66.6	85.5	18.9	60.5	79.4	18.9	6.1	327.7	1.2	329.0
1952.....	72.2	90.6	18.4	76.0	94.4	18.4	-3.9	345.6	1.4	347.0
1953.....	75.7	94.9	19.2	82.8	102.0	19.2	-7.1	364.1	1.3	365.4
1954.....	68.5	90.0	21.5	75.3	96.7	21.5	-6.7	362.3	.9	363.1
1955.....	78.4	101.4	23.0	75.6	98.6	23.0	2.9	396.5	1.0	397.5
1956.....	84.2	109.5	25.3	79.0	104.3	25.3	5.2	421.6	-2.4	419.2
1957.....	87.5	116.3	28.7	86.5	115.3	28.7	1.0	443.4	-.6	442.8
1958.....	82.1	115.2	33.1	93.5	126.6	33.1	-11.4	445.9	-1.7	444.2
1959.....	94.6	129.1	34.5	97.1	131.6	34.5	-2.5	483.9	-1.8	482.1

<sup>1</sup> Personal income less personal taxes and nontax payments (fines, penalties, etc.).

<sup>2</sup> Undistributed corporate profits, corporate inventory valuation adjustment, capital consumption allowances, and excess of wage accruals over disbursements.

<sup>3</sup> Net foreign investment with sign changed.

<sup>4</sup> For 1929-45, net exports of goods and services and net foreign investment have been equated.

<sup>5</sup> Government transfer payments to persons, foreign net transfers by Government, net interest paid by Government, and subsidies less current surplus of Government enterprises.

Source: Department of Commerce.

ments therefor. Capital transactions, such as receipts from the sale of government property and changes in loans and investments of government credit agencies, are excluded from the income and product accounts although such transactions are included in both the cash and conventional budgets.

*Uses and limitations.*—A set of economic accounts for the Nation reduces the voluminous detail of eco-

nomie activity to understandable proportions by providing the factual background for seeing in perspective the operations of the major categories of the economy—persons, business, international, and government—and the interrelationships or transactions between and among them. A statement of these accounts serves a number of purposes:

(1) In summarizing the pattern of change in the

economy over recent periods, the statement indicates what one should look for among the other charts and tables included in *Economic Indicators*.

(2) The accounting methodology needed to prepare this statement helps to assure that the various estimates, such as income, expenditures, savings, investment, in the other charts and tables are consistent.

(3) It is frequently necessary to project and evaluate the likely economic impact of public and private programs on the economy. These accounts make possible the quantitative expression of the combination of such public and private plans within a framework of the flows of incomes and expenditures of various groups in the economy so as to measure inconsistencies or imbalances between and among them, and inconsistencies between and among the assumptions upon which these plans are based.

Preparation of a Nation's economic budget for a future period, using these accounts, is especially helpful when government programs are of such magnitude and importance that they dominate changes in the economy; in other words, when government spending and tax plans are the main forces making for changes in the economy. At other times, its main benefit is in identifying and measuring inflationary and deflationary programs of government and private economic groups and in pointing out areas in which adjustments are necessary to achieve economic stability and growth.

(4) Another use, related to the preceding, is that of enabling those who must make actual forecasts, such as business firms, private economists, and others, to check their forecasts as to consistency with past patterns of fluctuations in activity in both the economy as a whole and in its various segments, and consistency among the various assumptions as to income, savings, investment, prices, and employment that underlie the forecast.

Certain limitations must be recognized in using these economic accounts. In the first place, the statistics do not throw light on all aspects of the economy but only on broad summary categories; thus they must be supplemented by the use of additional economic information, such as that contained in other parts of *Economic Indicators*. Second, since the data are national in coverage, their trends and changes must be carefully interpreted and supplemented by other data for use in the analysis of regional or individual industry problems. Third, they do not, of course, provide the assumptions or the reasons which one should have for explaining or projecting economic changes; they provide only the relevant statistical background for intelligent reasoning and judgment. Finally, it must be recognized that for some of these categories estimates for both receipts and expenditures rest upon data collected for other purposes, or upon indirect estimates in cases where no direct survey is regularly conducted. Thus there will be times when it will be difficult to interpret the meaning of some of the changes in the accounts if statistical discrepancies arising from technical problems in estimating various items are so large that they throw doubt on the importance of movements in the accounts.

*References.*—The estimates included in the Nation's economic accounts are all taken from the national income and product statistics of the Department of Commerce: see references below, under National Income (p. 10).

See also Technical Notes on the Nation's Economic Budget, Appendix A: *Report of the Joint Committee on the Economic Report on the January 1952 Economic Report of the President*, Senate Report No. 1295, 82d Congress, 2d session, pages 99-105, and statistical materials prepared by the Council of Economic Advisers for inclusion with the Economic Report of the President.

## GROSS NATIONAL PRODUCT OR EXPENDITURE

*Description of series.*—Gross National Product (often called GNP) represents the total national output of goods and services at current market prices. It measures this output in terms of the expenditures by which these goods are acquired. These expenditures are the sum of four major items: (1) personal consumption expenditures, (2) gross private domestic investment, (3) net exports of goods and

services, and (4) government purchases of goods and services. The goods and services included in the GNP are for the most part those actually bought for final use in legal markets. There are a number of exceptions, the most important of which is the rental value of owner-occupied dwellings.

The GNP series measures the product attributable to the factors of production—labor and property—



supplied by residents of continental United States. For the most part these factors are located in this country, but the GNP total also includes earnings of American employees of the United States (Government stationed abroad, foreign interest and dividends received by Americans, and the profits from foreign branches of American business.

“Personal consumption expenditures” measures the sum of money and imputed expenditures made by consumers (individuals, nonprofit institutions such as hospitals, etc.) for goods and services. This series is described below, in the section on Disposition of Personal Income.

“Gross private domestic investment” consists of new construction, producers’ durable equipment, and change in business inventories. This component of GNP is described below, in a separate section (p. 22).

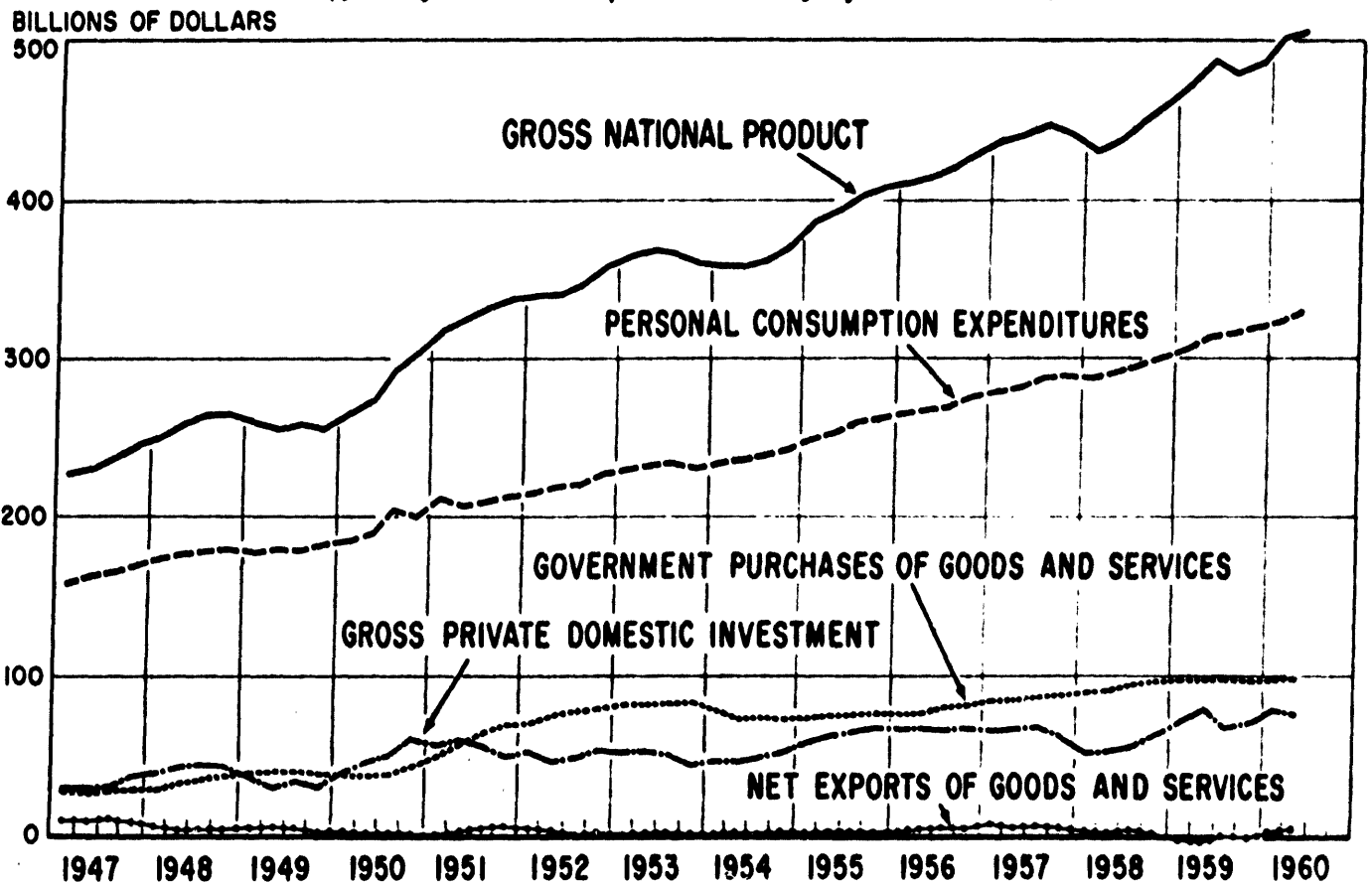
“Net exports of goods and services” measures the excess of “exports” of goods and services (domestic output sold abroad, and the production abroad credited to United States-owned resources) over “imports” (United States purchases of foreign output,

production in the United States credited to foreign-owned resources, and net private cash remittances to abroad). The items are obtained from the official balance of payments series; reconciliations of the GNP measures with the balance of payments are shown in *U.S. Income and Output*, Table IV-4 and in the July issue of the *Survey of Current Business*.

“Government purchases of goods and services” are those made by Federal, State, and local governments. They include (1) net purchases of new goods (such as school buildings and armaments), (2) payments for services (principally compensation for government employees), (3) gross investment by government enterprises, and (4) net government purchases from abroad. Items which do not represent current productive activity—such as transfer payments (e.g., social security, veterans’ payments, and net transfers to abroad), government interest, subsidies, loans, and other financial transfers—are excluded. The GNP series on government purchases differs from expenditures shown in the Federal Budget, which include many but not all of these items. Differences may also arise because of varia-

### Gross National Product or Expenditure, 1947-60

(Quarterly data in current prices. Seasonally adjusted annual rates)



SOURCE OF DATA: DEPARTMENT OF COMMERCE

## Gross National Product or Expenditure

(Billions of dollars, except last column)

Year	Total gross national product in 1959 prices <sup>1</sup>	Total gross national product	Personal consumption expenditures	Gross private domestic investment	Net exports of goods and services	Government purchases of goods and services					Implicit price deflator for total GNP, 1959=100 <sup>4</sup>
						Total	Federal			State and local	
							Total <sup>2</sup>	National defense <sup>3</sup>	Other		
1929.....	203.6	104.4	79.0	16.2	0.8	8.5	1.3	( <sup>5</sup> )	( <sup>5</sup> )	7.2	51.3
1930.....	184.3	91.1	71.0	10.3	.7	9.2	1.4	( <sup>5</sup> )	( <sup>5</sup> )	7.8	49.4
1931.....	170.3	76.3	61.3	5.5	.2	9.2	1.5	( <sup>5</sup> )	( <sup>5</sup> )	7.7	44.8
1932.....	144.8	58.5	49.3	.9	.2	8.1	1.5	( <sup>5</sup> )	( <sup>5</sup> )	6.6	40.4
1933.....	141.5	56.0	46.4	1.4	.2	8.0	2.0	( <sup>5</sup> )	( <sup>5</sup> )	6.0	39.6
1934.....	155.1	65.0	51.9	2.9	.4	9.8	3.0	( <sup>5</sup> )	( <sup>5</sup> )	6.8	41.9
1935.....	170.3	72.5	56.3	6.3	-.1	10.0	2.9	( <sup>5</sup> )	( <sup>5</sup> )	7.1	42.6
1936.....	194.5	82.7	62.6	8.4	-.1	11.8	4.8	( <sup>5</sup> )	( <sup>5</sup> )	7.0	42.5
1937.....	204.7	90.8	67.3	11.7	.1	11.7	4.6	( <sup>5</sup> )	( <sup>5</sup> )	7.2	44.3
1938.....	195.3	85.2	64.6	6.7	1.1	12.8	5.3	( <sup>5</sup> )	( <sup>5</sup> )	7.5	43.6
1939.....	211.6	91.1	67.6	9.3	.9	13.3	5.2	1.3	3.9	8.2	43.1
1940.....	229.9	100.6	71.9	13.2	1.5	14.1	6.2	2.2	4.0	7.9	43.8
1941.....	267.9	125.8	81.9	18.1	1.1	24.8	16.9	13.8	3.2	7.8	47.0
1942.....	305.0	159.1	89.7	9.9	-.2	59.7	52.0	49.6	2.7	7.7	52.2
1943.....	342.9	192.5	100.5	5.6	-2.2	88.6	81.2	80.4	1.5	7.4	56.1
1944.....	367.7	211.4	109.8	7.1	-2.1	96.5	89.0	88.6	1.6	7.5	57.5
1945.....	361.1	213.6	121.7	10.4	-1.4	82.9	74.8	75.0	1.0	8.1	59.1
1946.....	316.2	210.7	147.1	28.1	4.9	30.5	20.6	18.8	4.5	9.9	66.6
1947.....	315.7	234.3	165.4	31.5	9.0	28.4	15.6	11.4	5.4	12.7	74.2
1948.....	328.0	259.4	178.3	43.1	3.5	34.5	19.3	11.6	8.2	15.2	79.1
1949.....	328.4	258.1	181.2	33.0	3.8	40.2	22.2	13.6	8.9	17.9	78.6
1950.....	356.4	284.6	195.0	50.0	.6	39.0	19.3	14.3	5.2	19.7	79.9
1951.....	385.3	329.0	209.8	56.3	2.4	60.5	38.8	33.9	5.2	21.7	85.3
1952.....	399.4	347.0	219.8	49.9	1.3	76.0	52.9	46.4	6.7	23.2	86.9
1953.....	417.6	365.4	232.6	50.3	-.4	82.8	58.0	49.3	9.0	24.9	87.5
1954.....	409.2	363.1	238.0	48.9	1.0	75.3	47.5	41.2	6.7	27.7	88.7
1955.....	441.9	397.5	256.9	63.8	1.1	75.6	45.3	39.1	6.6	30.3	90.0
1956.....	451.2	410.2	269.9	67.4	2.9	79.0	45.7	40.4	5.7	33.2	92.9
1957.....	459.5	442.8	285.2	66.1	4.9	86.5	49.7	44.4	5.7	36.8	96.4
1958.....	451.3	444.2	293.5	56.0	1.2	93.5	52.6	44.8	8.3	40.8	98.4
1959.....	482.1	482.1	313.8	72.0	-1.0	97.1	53.3	46.0	7.8	43.9	100.0

<sup>1</sup> These estimates represent an approximate conversion of the Department of Commerce series in 1964 prices. See *U.S. Income and Output*, a Supplement to the Survey of Current Business, 1968.

<sup>2</sup> Less Government sales.

<sup>3</sup> These expenditures correspond closely with the "major national security" category in *The Budget of the United States Government for the Fiscal Year Ending June 30, 1961*, shown on p. 31 of *Economic Indicators*.

<sup>4</sup> Total gross national product in current prices divided by total gross national product in 1959 prices.

<sup>5</sup> Not available.

Source: Department of Commerce.

tion in the time at which expenditures occur and are recorded.

*Statistical procedures.*—Hundreds of basic economic series are evaluated, adjusted, and combined in the process of preparing the GNP estimates. For example, consumer expenditures are estimated for benchmark years primarily from data in the Censuses of Business and Manufactures, reports of the Department of Agriculture, Internal Revenue Service, and Interstate Commerce Commission, with current

annual and quarterly estimates carried forward by using the Census Bureau's Annual Survey of Manufactures and Monthly Report on Retail Trade, and data from other sources. Construction activity is estimated as described below in the section on New Construction (p. 56). Investment in producers' durable equipment is estimated for benchmark years from Census of Manufactures and related data, with current quarterly and annual totals estimated principally from sample surveys and construction data

of the Department of Commerce and financial reports to other agencies. For details of the methods used, reference should be made to the comprehensive studies by the Department of Commerce, e.g., the 1954 *National Income Supplement to the Survey of Current Business*, and *U.S. Income and Output*, 1958.

The methods used to eliminate seasonal variation differ with the particular series to be adjusted. For most components the conventional ratio-to-moving-average method has been employed. However, when satisfactory results have not been obtained, resort has been made to more refined methods. For further information see the section "Measurements of Quarterly and Monthly Movements," *U.S. Income and Output*, p. 95 ff.

The magnitude of the seasonal correction may be illustrated by the accompanying comparison of the GNP on an unadjusted and seasonally adjusted basis for the year 1959. The corrections shown in the table are computed values reflecting the net results of many individually corrected components underlying the published series. It follows from this that the magnitude of the correction will vary somewhat

from year to year as the result of shifts in the relative importance of the component series. The summary results may also be modified by changes in the seasonal patterns of the individual component series, which regularly come under review.

*Relation to other series.*—Two other series widely used as indicators of the general level of economic activity are national income and the Federal Reserve index of industrial production. Gross national product and national income are compiled from the same series of accounts, but whereas the former measures the market value of total output, the latter measures only the earnings of labor and property (net of capital consumption) which flow from that output. National income is smaller than the gross national product chiefly because the latter includes (1) allowance for depreciation and other capital consumption, and (2) indirect taxes (such as sales and excise taxes).

The GNP measures total output, whereas the Federal Reserve index of industrial production covers selected sections of the economy—manufactures, mining, electricity, and gas. The products in the GNP series are final product, whereas the Federal Re-

### Seasonal Correction, Gross National Product, 1959

[Billions of dollars]

Component	Seasonally adjusted quarterly rates				Unadjusted quarterly rates				Correction, quarterly rates (Seasonally adjusted minus unadjusted)			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Gross national product.....	118.3	122.0	120.4	121.6	113.8	121.0	119.1	128.1	4.5	1.0	1.3	-6.5
Personal consumption expenditures..	76.5	78.4	79.0	79.9	73.1	77.3	77.3	86.1	3.4	1.1	1.7	-6.2
Durable goods.....	10.4	11.1	11.0	10.9	9.4	11.2	10.4	12.4	1.0	-.1	.6	-1.5
Nondurable goods.....	36.3	36.9	37.0	37.4	33.6	35.7	36.0	42.4	2.7	1.2	1.0	-5.0
Services.....	29.8	30.4	31.0	31.6	30.1	30.5	31.0	31.3	-.3	-.1	.0	.3
Gross private domestic investment..	17.7	19.7	16.9	17.7	17.5	19.3	17.5	17.7	.2	.4	-.6	.0
New construction.....	9.8	10.3	10.3	9.8	8.3	10.3	11.4	10.3	1.5	.0	-1.1	-.5
Producers' durable equipment...	6.0	6.5	6.6	6.7	5.6	7.0	6.3	7.0	.4	-.5	.3	-.3
Change in business inventories...	1.9	2.9	.0	1.2	3.6	2.1	-.2	.4	-1.7	.8	.2	.8
Net exports of goods and services...	-.2	-.6	-.1	-.1	-.2	-.4	-.5	.2	.0	-.2	.4	-.3
Exports.....	5.5	5.5	6.0	5.9	5.3	5.7	5.7	6.2	.2	-.2	.3	-.3
Imports.....	5.7	6.1	6.0	6.0	5.5	6.0	6.3	6.0	.2	.1	-.3	.0
Government purchases of goods and services.....	24.3	24.4	24.5	24.1	23.5	24.7	24.8	24.2	.8	-.3	-.3	-.1
Federal.....	13.3	13.4	13.4	13.1	13.2	13.5	13.4	13.0	.1	-.1	.0	.1
State and local.....	11.0	11.0	11.1	11.0	10.3	11.2	11.3	11.1	.7	-.2	-.2	-.1

serve index includes both final and intermediate product, and thus may show an increase or decrease in activity to be reflected later or not at all in the flow of final output. The GNP series in current prices combines price and volume changes, whereas the Federal Reserve index measures only physical volume.

*Uses and limitations.*—The GNP total is the most inclusive monetary measure of trends in the economy as a whole which is currently estimated. It also has high value as an analytic tool, since the movements of many sectors of the economy, including the sales of many industries and enterprises, are quite closely related to changes in the level of GNP.

The GNP in current dollars combines the effects

of changes in both the price level and the physical volume of output. Movements in the total from quarter to quarter should not be interpreted as necessarily representing changes in the physical quantity of goods and services produced by the economy. GNP estimates corrected for price changes (“deflated GNP”) show annual and quarterly changes in the total volume of national output as well as in the major components. One of the most important characteristics of the GNP is that changes in the total can be analyzed by examination of changes in its components, notably purchases by consumers, private business investment, government expenditures, and the movement of foreign trade.

*References.*—See below, under National Income.

## NATIONAL INCOME

*Description of series.*—National Income is the aggregate of earnings by labor and property from the current production of goods and services by the Nation’s economy. It is the sum of five major items: (1) compensation of employees, (2) proprietors’ income, (3) rental income of persons, (4) net interest, and (5) corporate profits and inventory valuation adjustment.

“Compensation of employees” is the sum of wages, salaries, and certain supplements, such as employer contributions for social insurance.

“Proprietors’ income” measures the monetary earnings and income in kind of sole proprietorships (including doctors, lawyers, and other self-employed), partnerships and producers’ cooperatives, exclusive of capital gains or losses on inventory or other asset holdings. The farm proprietors’ income shown here is conceptually the same as farm operators’ net income including adjustment for inventory change, as shown below in the section on Farm Income. Some variations between the two series prior to 1952 result from differences in the timing of revisions. The supplementary income which individuals obtain from renting property does not appear here, but under rental income of persons.

“Rental income of persons” consists of (1) net money income from rental of real property, (2) estimated net rental value to homeowners of their homes, and (3) royalties received from patents, copyrights, and rights to natural resources.

“Net interest” measures both the money interest

and the imputed interest accruing to the Nation’s residents from private business and from abroad, minus government interest disbursements to business which appear as part of business incomes. Imputed interest consists of the value of financial services received by persons without explicit payment and property income withheld by life insurance companies and mutual financial intermediaries on account of persons.

“Corporate profits” are the earnings of corporations organized for profit, measured before Federal and State profit taxes, but without deduction of depletion charges and exclusive of capital gains and losses. (For a more extended discussion, see section on Corporate Profits below, p. 19.)

“Corporate inventory valuation adjustment” measures the excess of the value of change in the volume of corporate inventories (in terms of average prices during the period) over the change in terms of book values. This adjustment is required since, as is customary in business accounting, corporate profits are reported inclusive of inventory profits or loss, whereas only the value of the real change in inventories is counted as current output in the national product. A parallel adjustment is made to “proprietors’ income” for noncorporate inventories.

*Statistical procedures.*—The methods of estimation employed in the very complex area of national income are described in detail in the 1954 *National Income Supplement* to the Survey of Current Business. Further information is provided in *U.S. In-*

# National Income

[Billions of dollars]

Year	Total national income	Compensation of employees <sup>1</sup>	Proprietors' income		Rental income of persons	Net interest	Corporate profits and inventory valuation adjustment		
			Farm	Business and professional			Total	Profits before tax	Inventory valuation adjustment
1929.....	87.8	51.1	6.0	8.8	5.4	6.4	10.1	9.6	0.5
1930.....	75.7	46.8	4.1	7.4	4.8	6.0	6.6	3.3	3.3
1931.....	59.7	39.7	3.2	5.6	3.8	5.8	1.6	-.8	2.4
1932.....	42.5	31.1	1.9	3.4	2.7	5.4	-2.0	-3.0	1.0
1933.....	40.2	29.5	2.4	3.2	2.0	5.0	-2.0	.2	-2.1
1934.....	49.0	34.3	2.4	4.6	1.7	4.9	1.1	1.7	-.6
1935.....	57.1	37.3	5.0	5.4	1.7	4.8	2.9	3.1	-.2
1936.....	64.9	42.9	4.0	6.5	1.8	4.7	5.0	5.7	-.7
1937.....	73.6	47.9	5.6	7.1	2.1	4.7	6.2	6.2	( <sup>2</sup> )
1938.....	67.6	45.0	4.3	6.8	2.6	4.6	4.3	3.3	1.0
1939.....	72.8	48.1	4.3	7.3	2.7	4.6	5.7	6.4	-.7
1940.....	81.6	52.1	4.6	8.4	2.9	4.5	9.1	9.3	-.2
1941.....	104.7	64.8	6.5	10.9	3.5	4.5	14.5	17.0	-2.5
1942.....	137.7	85.3	10.0	13.9	4.5	4.3	19.7	20.9	-1.2
1943.....	170.3	109.6	11.4	16.8	5.1	3.7	23.8	24.6	-.8
1944.....	182.6	121.3	11.5	18.0	5.4	3.3	23.0	23.3	-.3
1945.....	181.2	123.2	11.8	19.0	5.6	3.2	18.4	19.0	-.6
1946.....	180.9	117.7	15.3	21.3	6.2	3.1	17.3	22.6	-5.3
1947.....	198.2	128.8	15.5	19.9	6.5	3.8	23.6	29.5	-5.9
1948.....	223.5	141.0	17.8	22.4	7.3	4.2	30.8	33.0	-2.2
1949.....	217.7	140.8	12.9	22.7	8.3	4.8	28.2	26.4	1.9
1950.....	241.9	154.2	14.0	23.5	9.0	5.5	35.7	40.6	-5.0
1951.....	279.3	180.3	16.3	26.0	9.4	6.3	41.0	42.2	-1.2
1952.....	292.2	195.0	15.3	26.9	10.2	7.1	37.7	36.7	1.0
1953.....	305.6	208.8	13.3	27.4	10.5	8.2	37.3	38.3	-1.0
1954.....	301.8	207.6	12.7	27.8	10.9	9.1	33.7	34.1	-.3
1955.....	330.2	223.9	11.8	30.4	10.7	10.4	43.1	44.9	-1.7
1956.....	350.8	242.5	11.6	32.1	10.9	11.7	42.0	44.7	-2.7
1957.....	366.9	255.5	11.8	32.7	11.0	13.4	41.7	43.2	-1.5
1958.....	367.7	257.0	14.0	32.3	12.2	14.7	37.4	37.7	-.2
1959.....	399.6	277.8	11.8	34.7	12.4	16.4	46.6	47.0	-.5

<sup>1</sup> Includes employer contributions for social insurance. (See also table on Sources of Personal Income).

<sup>2</sup> Less than \$50 million.

NOTE.—Quarterly data available beginning 1939; annual from 1929. Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce.

come and Output, 1958, also issued as a supplement to the Survey. The following indicate briefly the types of estimating procedures used:

“Compensation of employees”—reliable data are available each year from the social security system, with current monthly estimates resting chiefly on employer reports to the Bureau of Labor Statistics on employment and earnings.

“Proprietors' income”—estimated from income tax returns to the Internal Revenue Service, usually obtained every second year, with current quarterly data derived from analysis of trends in noncorporate as

well as corporate sales and corporate profits in individual industries.

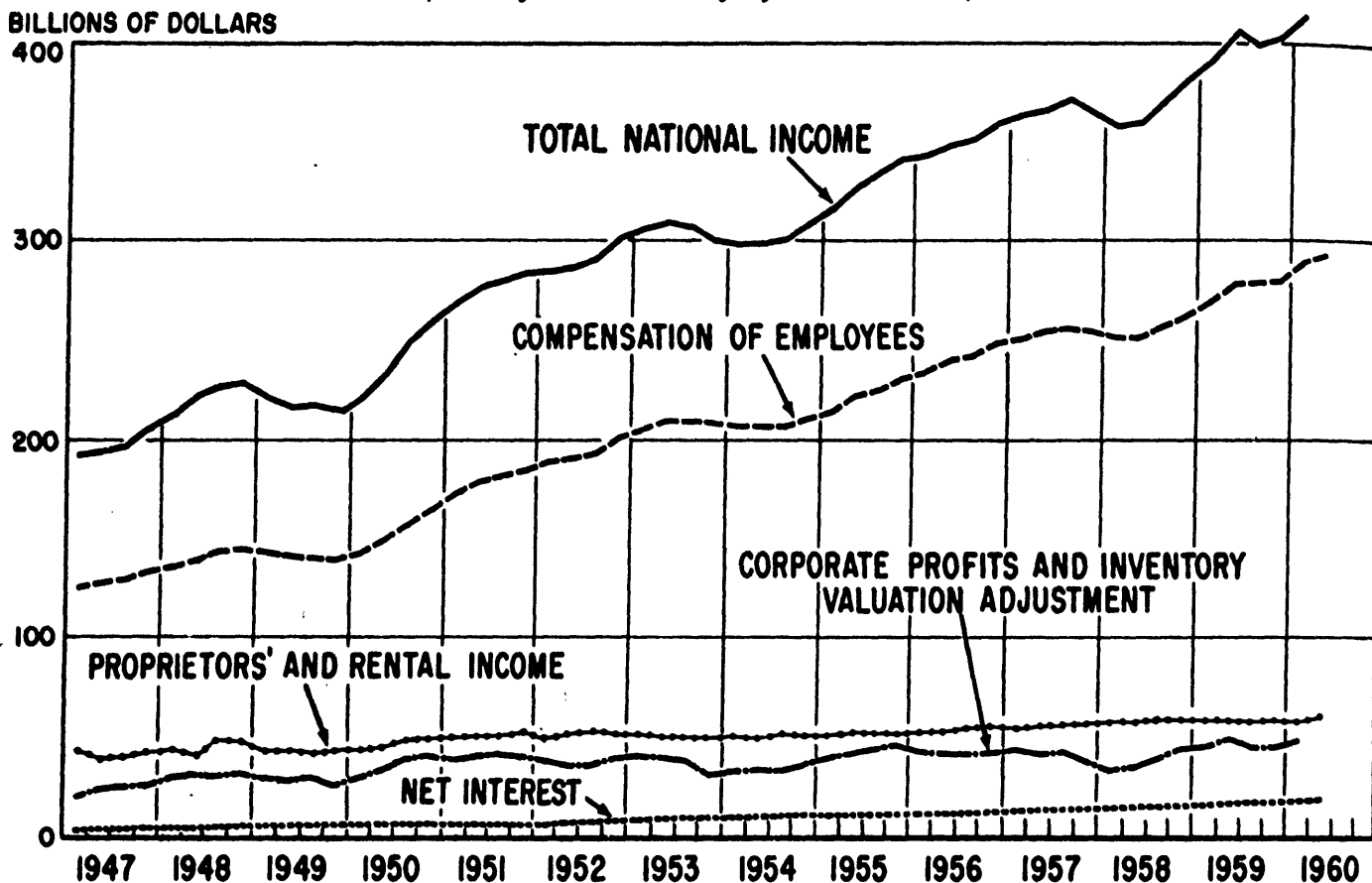
“Rental income of persons”—estimated from a variety of Census Bureau, Internal Revenue Service, Department of Agriculture, and BLS data on rents paid and on the distribution of property ownership and rental income between persons and business.

“Net interest”—estimated from reports to the Internal Revenue Service, Bureau of the Census, Board of Governors of the Federal Reserve System, and other agencies on interest and debt.

Seasonal adjustments are not available for the in-

## National Income, 1947-60

(Quarterly data. Seasonally adjusted annual rates)



SOURCE OF DATA: DEPARTMENT OF COMMERCE

come components of the national accounts, with the exception of corporation profits. This is so because the basic data sources do not provide a completely unadjusted monthly series for wages and salaries, and because in the case of proprietors' income, actual net income data are lacking altogether on a monthly and quarterly basis.

*Uses and limitations.*—The national income is a useful measure of the rate of flow of earnings from current output. By definition it excludes income from the revaluation of past output—e.g., capital gains and losses. The movements of this series correspond with movements in production. However, the value of the national income series lies more in the composition than in the total. It may mean little to know that national income (unadjusted for price changes) has gone up; but it may be very important to know the relative contribution of wages and profits to that increase.

The chief cautions for use result partly from the definitions used, and partly from the nature of the

basic data. With respect to the first, care must be taken not to interpret movements in the series as measuring something other than they are intended to measure. For example, variations in wages and profits do not necessarily indicate changes in the welfare of workers or in the ability of corporations to provide new capital. For such purposes, these variations must be considered in the light of other factors such as the cost of living and the cost of new plant and equipment. With respect to the second—which is particularly applicable to the current data on proprietors' income, rental income of persons, and the corporate inventory valuation adjustment—it should be recognized that many of the available data permit only fair approximations of the phenomena being measured, and therefore too great reliance should not be placed on these statistics as instruments of precise measurement.

*References.*—The official quarterly estimates for the series included in the national income and product accounts are published by the Office of Business

Economics, Department of Commerce, in the *Survey of Current Business*: first quarter in the May issue, second quarter in August, third quarter in November, and fourth quarter in the following February. Preliminary quarterly estimates by the Council of Economic Advisers appear in *Economic Indicators* in the month following the end of each quarter. Preliminary annual estimates are published by the Office of Business Economics in the February issue of the *Survey*, revised estimates in the July issue. Complete annual and quarterly statistics for 1929-45, with and without seasonal adjustment, and a de-

tailed explanation of fundamental concepts and underlying procedures are given in the 1954 *National Income Supplement* to the Survey of Current Business. Further information and detailed statistics for 1946-55 are presented in *U.S. Income and Output* a 1958 supplement to the Survey. Annual and quarterly data for 1956-59 are published in the July 1960 *Survey*. For personal income, detailed State estimates are presented in *Personal Income by States Since 1929*, issued as a supplement to the Survey in 1957. These statistical data are updated each year in the August *Survey*.

## SOURCES OF PERSONAL INCOME

*Description of series.*—"Personal income" is composed of income received currently by individuals, unincorporated businesses, and nonprofit institutions (including pension, trust, and welfare funds). This income is divided into labor income, proprietors' income, rental income of persons, dividends, personal interest, and transfer payments. Capital gains and losses are excluded. Most of the income is in monetary form, but there are important exceptions—chiefly rental value to owner-occupants of homes and value of food produced and consumed on farms.

"Labor income" is principally wages and salaries. It excludes employer contributions for social insurance. "Proprietors' income" and "Rental income of persons" are defined above, in the section on National Income. "Dividends" are cash dividend disbursements by corporations organized for profit to stockholders who are United States persons. "Personal interest income" is the "Net interest" component of National Income plus net interest paid by Government. "Transfer payments" include payments not resulting from current production, such as social security benefits, military pensions, corporate gifts to nonprofit institutions, direct relief, and consumer bad debts. They do not include government interest.

Seasonally adjusted data, preferred for most purposes, are derived directly from seasonally adjusted

national income data. Unadjusted data are not available (see p. 9).

*Relation to other series.*—Personal income differs from national income by including transfer payments and government interest and by excluding contributions for social insurance (by employee and employer), the corporate inventory valuation adjustment, and corporate profits tax liability and undistributed corporate profits.

*Uses and limitations.*—The estimates for personal income and components and for disposable income measure trends in spending power of individuals. The inclusion of substantial nonmonetary items—imputed rent, interest, food, fuel—should be noted but the effect of these items should not be overemphasized. They tend to make the income estimates more stable, but have little effect on the ability of the estimates to show when a change is occurring and the direction of the shift.

Disposable personal income, discussed in the next section, gives a more direct measure of income available for spending, since it approximates take-home income, than does personal income. For measuring changes, in real terms, i.e., in consumers' buying power, the estimates of disposable income in constant prices are to be preferred.

*References.*—See above under National Income.

## Sources of Personal Income

[Billions of dollars]

Year	Total personal income	Labor income (wage and salary disbursements and other labor income) <sup>1</sup>	Proprietors' income		Rental income of persons	Dividends	Personal interest income	Transfer payments	Less: Personal contributions for social insurance	Non-agricultural personal income <sup>2</sup>
			Farm	Business and professional						
1929.....	85.8	51.0	6.0	8.8	5.4	5.8	7.4	1.5	0.1	77.7
1930.....	76.9	46.7	4.1	7.4	4.8	5.5	6.9	1.5	.1	70.8
1931.....	65.7	39.6	3.2	5.6	3.8	4.1	6.9	2.7	.2	60.9
1932.....	50.1	30.9	1.9	3.4	2.7	2.6	6.6	2.2	.2	46.9
1933.....	47.2	29.4	2.4	3.2	2.0	2.1	6.2	2.1	.2	43.6
1934.....	53.6	34.1	2.4	4.6	1.7	2.6	6.1	2.2	.2	49.8
1935.....	60.2	37.2	5.0	5.4	1.7	2.9	5.9	2.4	.2	53.9
1936.....	68.5	42.5	4.0	6.5	1.8	4.5	5.8	3.5	.2	63.2
1937.....	73.9	46.7	5.6	7.1	2.1	4.7	5.9	2.4	.6	67.0
1938.....	68.6	43.6	4.3	6.8	2.6	3.2	5.8	2.8	.6	62.8
1939.....	72.9	46.6	4.3	7.3	2.7	3.8	5.8	3.0	.6	67.1
1940.....	78.7	50.5	4.6	8.4	2.9	4.0	5.8	3.1	.7	72.6
1941.....	96.3	62.8	6.5	10.9	3.5	4.5	5.8	3.1	.8	88.0
1942.....	123.5	83.0	10.0	13.9	4.5	4.3	5.8	3.1	1.2	111.5
1943.....	151.4	106.7	11.4	16.8	5.1	4.5	5.8	3.0	1.8	137.6
1944.....	165.7	118.5	11.5	18.0	5.4	4.7	6.2	3.6	2.2	151.6
1945.....	171.2	119.4	11.8	19.0	5.6	4.7	6.9	6.2	2.3	156.8
1946.....	179.3	113.8	15.3	21.3	6.2	5.7	7.6	11.4	2.0	161.2
1947.....	191.6	125.2	15.5	19.9	6.5	6.5	8.2	11.8	2.1	172.8
1948.....	210.4	137.9	17.8	22.4	7.3	7.2	8.7	11.3	2.2	189.2
1949.....	208.3	137.4	12.9	22.7	8.3	7.5	9.4	12.4	2.2	192.1
1950.....	228.5	150.2	14.0	23.5	9.0	9.2	10.3	<sup>3</sup> 15.1	2.9	211.3
1951.....	256.7	175.5	16.3	26.0	9.4	9.0	11.2	12.6	3.4	237.0
1952.....	273.1	190.2	15.3	26.9	10.2	9.0	12.1	13.2	3.8	254.3
1953.....	288.3	204.1	13.3	27.4	10.5	9.2	13.4	14.3	3.9	271.5
1954.....	289.8	202.5	12.7	27.8	10.9	9.8	14.6	16.2	4.6	273.8
1955.....	310.2	218.0	11.8	30.4	10.7	11.2	15.8	17.5	5.2	295.0
1956.....	332.9	235.7	11.6	32.1	10.9	12.1	17.5	18.8	5.8	317.9
1957.....	351.4	247.7	11.8	32.7	11.9	12.6	19.6	21.9	6.7	336.1
1958.....	360.3	249.1	14.0	32.3	12.2	12.4	20.8	26.4	6.8	342.6
1959.....	383.3	268.3	11.8	34.7	12.4	13.4	23.5	27.0	7.8	367.6

<sup>1</sup> Compensation of employees (see national income table, p. 9) excluding employer contributions for social insurance and the excess of wage accruals over disbursements.

<sup>2</sup> Personal income exclusive of net income of unincorporated farm enterprises, farm wages, agricultural net interest, and net dividends paid by agricultural corporations.

<sup>3</sup> Includes \$2.7 billion National Service Life Insurance dividend, most of which was paid in the first half of the year.

NOTE.—Quarterly data available beginning 1939; annual from 1929. Detail will not necessarily add to totals because of rounding.

Sources: Department of Commerce.

## DISPOSITION OF PERSONAL INCOME

*Description of series.*—"Disposable personal income" is equal to personal income less taxes on individuals (including income and other taxes not deductible as business expense) and other general government revenues received from individuals as individuals.

"Personal consumption expenditures" is the sum of money and imputed expenditures made by persons

(individuals, nonprofit institutions such as hospitals, etc.) for goods and services. The expenditure total covers total purchase cost to persons including general sales taxes. The full cost of automobiles, refrigerators, furniture, and the like is included in the period when sold—quarter or year—regardless of when payments are made or completed. The purchase of homes is not included as an expenditure:



instead the estimated rental value to the homeowner is included if he occupies the home.

"Durable goods" are those items which generally last three years or longer in use. "Nondurable goods" are tangible commodities with a shorter life. "Services" include housing, telephone, electricity, shoe repair, gas and water, and also such items as the expense of handling life insurance, and banking services furnished without payment (such as free checks where a minimum balance is maintained).

"Personal saving" is equal to disposable personal income less personal consumption expenditures. As such, it conceptually includes not merely cash and bank deposits but changes in reserves of life insurance companies, increase in equity of farmers (e.g., land, machinery), homeowners, etc.

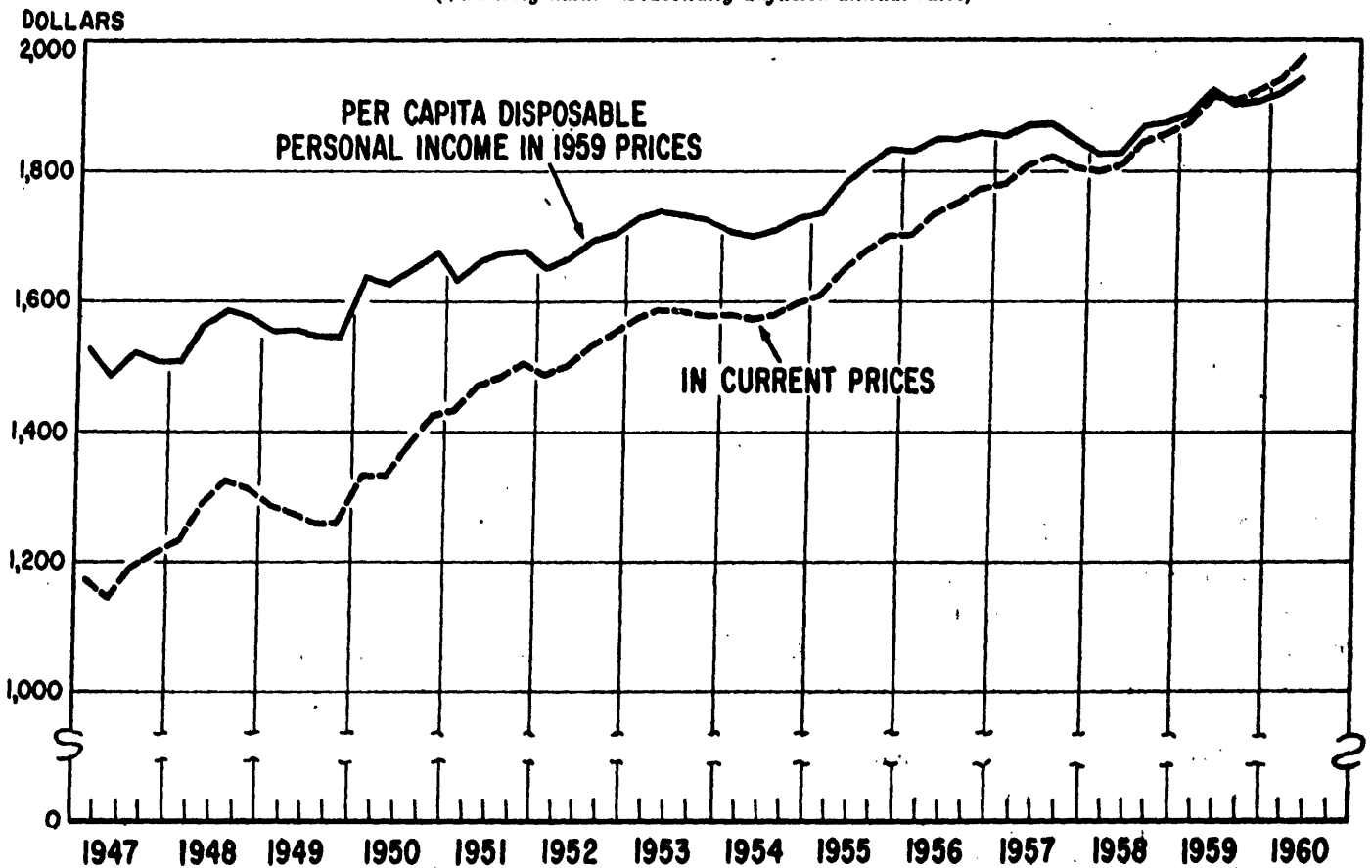
"Per capita disposable personal income" is the disposable personal income series divided by the Census Bureau estimate of total population for the middle of the period covered.

Per capita disposable personal income in 1959 prices is obtained by dividing the current dollar

series by the implicit deflator for personal consumption expenditures on a 1959 base.

*Statistical procedures.*—Most personal consumption expenditures for goods are estimated for benchmark years from the value of the output of specified items as reported in the Census of Manufactures, less the portion of this output bought by business and government or exported. To the consumer portion of manufactured products is added the value of nonmanufactured consumer goods (for example, nonprocessed foods) to derive producers' output for consumers. Successive adjustments are added for transportation, imports and exports, wholesale and retail inventory changes, wholesale and retail markups, and sales taxes. Transportation charges are computed from data on transportation compiled by the Interstate Commerce Commission and other sources. Wholesale and retail markups are derived from Census of Business and Internal Revenue Service data. For service items a great variety of sources and procedures are used.

Per Capita Disposable Income, 1947-60  
(Quarterly data. Seasonally adjusted annual rates)



SOURCE OF DATA: DEPARTMENT OF COMMERCE AND COUNCIL OF ECONOMIC ADVISERS

## Disposition of Personal Income

Year	Disposable personal income <sup>1</sup>	Personal consumption expenditures				Personal saving	Saving as percent of disposable income	Per capita disposable personal income <sup>1</sup>		Population <sup>1</sup>
		Total	Durable goods	Non-durable goods	Services			Current prices	1959 prices <sup>2</sup>	
Billions of dollars							Dollars		Thousands	
1929.....	83.1	79.0	9.2	37.7	32.1	4.2	5.1	682	1,199	121,875
1930.....	74.4	71.0	7.2	34.0	29.8	3.4	4.6	604	1,110	123,188
1931.....	63.8	61.3	5.5	28.9	26.9	2.5	3.9	514	1,060	124,149
1932.....	48.7	49.3	3.6	22.8	22.9	-0.6	-1.2	390	909	124,949
1933.....	45.7	46.4	3.5	22.3	20.7	-0.6	-1.3	364	881	125,690
1934.....	52.0	51.9	4.2	26.7	21.0	.1	.2	411	936	126,485
1935.....	53.3	56.3	5.1	29.3	21.9	2.0	3.4	458	1,020	127,362
1936.....	66.2	62.6	6.3	32.8	23.5	3.6	5.4	516	1,139	128,181
1937.....	71.0	67.3	6.9	35.2	25.1	3.7	5.2	551	1,172	128,981
1938.....	65.7	64.6	5.7	34.0	25.0	1.1	1.7	506	1,100	129,969
1939.....	70.4	67.6	6.7	35.1	25.8	2.9	4.1	537	1,180	131,028
1940.....	76.1	71.9	7.8	37.2	26.9	4.2	5.5	576	1,255	132,122
1941.....	93.0	81.0	9.7	43.2	29.0	11.1	11.9	697	1,420	133,402
1942.....	117.5	89.7	7.0	51.3	31.5	27.8	23.7	871	1,584	134,860
1943.....	133.5	100.5	6.6	59.3	34.7	33.0	24.7	976	1,627	136,739
1944.....	146.8	109.8	6.8	65.4	37.7	36.9	25.1	1,061	1,676	138,397
1945.....	150.4	121.7	8.1	73.2	40.4	28.7	19.1	1,075	1,639	139,928
1946.....	160.6	147.1	15.9	84.8	46.4	13.5	8.4	1,136	1,607	141,389
1947.....	170.1	165.4	20.6	93.4	51.4	4.7	2.8	1,180	1,511	144,126
1948.....	189.3	178.3	22.7	98.7	56.9	11.0	5.8	1,291	1,561	146,631
1949.....	189.7	181.2	24.6	96.6	60.0	8.5	4.5	1,272	1,553	149,188
1950.....	207.7	195.0	30.4	99.8	64.9	12.6	6.1	1,369	1,647	151,683
1951.....	227.5	209.8	29.5	110.1	70.2	17.7	7.8	1,474	1,664	154,360
1952.....	238.7	219.8	29.1	115.1	75.6	18.9	7.9	1,520	1,680	157,028
1953.....	252.5	232.6	32.9	118.0	81.8	19.8	7.8	1,582	1,731	159,636
1954.....	256.9	238.0	32.4	119.3	86.3	18.9	7.4	1,582	1,714	162,417
1955.....	274.4	256.9	39.6	124.8	92.5	17.5	6.4	1,660	1,791	165,270
1956.....	292.9	269.9	38.5	131.4	100.0	23.0	7.9	1,742	1,847	168,176
1957.....	308.8	285.2	40.4	137.7	107.1	23.6	7.6	1,804	1,860	171,198
1958.....	317.9	293.5	37.3	142.0	114.2	24.4	7.7	1,826	1,846	174,054
1959.....	337.3	313.8	43.4	147.6	122.8	23.4	6.9	1,906	1,906	176,947

<sup>1</sup> Personal income (p. 12) less personal taxes and nontax payments (fines, penalties, etc.).

<sup>2</sup> Income in current prices divided by the implicit price deflator for personal consumption expenditures on a 1969 base.

<sup>3</sup> Population of the United States as of July 1, excluding Alaska and Hawaii; includes armed forces abroad.

NOTE.—Quarterly data available beginning 1939; annual from 1929. Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce.

Estimates of consumption expenditures for years between benchmarks and quarterly consumption expenditure estimates rest chiefly on the trends shown by the Census Bureau's Annual Survey of Manufactures and retail sales figures by kind of store, Federal Reserve Board data for department stores, State sales tax reports, and other source data.

For information on seasonal adjustments, see discussion under Gross National Product or Expenditure, and National Income.

*Relation to other series.*—Estimates of personal consumption expenditures will show much the same trends from quarter to quarter as the figures for total retail sales. However, personal consumption expenditures also include a wide variety of services and such items as food produced and consumed on farms which are outside of retail trade. Conversely, retail trade includes some commodity items, such as building materials and trucks, which are not part of personal consumption expenditures.

The estimate of personal net saving and the net claims estimate of the Securities and Exchange Commission differ in level and trend. The chief reason for the difference is the inclusion in the personal saving series (and not in the net claims estimates) of net purchases of nonfarm residences and net increases in persons' equities in farms and other unincorporated businesses. (For a detailed reconciliation of the two series, see table V-9 in *U.S. Income and Output*, which is carried forward each year in the July issue of the *Survey*.)

*Uses and limitations.*—The estimates of personal consumption expenditures represent a generally useful, reliable measure of trends in consumer purchases. They may be used to study trends in the ratio of wages, or more generally of income, to expenditure,

## FARM INCOME

*Description of series.*—There are two major concepts of farm income. One relates to all the people who live on farms and the incomes they receive from nonfarm as well as farm sources. The other views agriculture as a business and measures the gross and net income received by farm operators from farming. The Agricultural Marketing Service of the Department of Agriculture prepares estimates relating to both concepts.

Estimates of "income received by the total farm population" are available only on an annual basis, back to 1910 for income from agricultural sources, but only to 1934 for income from nonagricultural sources. Income of the farm population "from agricultural sources" covers the net income of farm operators from farming, including the inventory change, plus farm wages received by farm resident workers. Income "from nonagricultural sources" includes earnings from nonfarm employment plus interest, dividends, rents, and royalties from nonfarm investments. Transfer payments are excluded.

Farm operators' gross and net farm income and farm production expenses are estimated annually from 1910 and quarterly from 1929. "Realized gross" farm income of farm operators is the sum of (1) cash receipts from farm marketings, (2) the value of farm products consumed directly in farm households, (3) gross rental value of farm dwellings, and (4) Government payments to farmers. Farm "production expenses," which now account for about two-

and to review the division of the national output between consumer takings, business capital formation, and government defense or other expenditures.

The estimates of personal saving are among the least satisfactory of the significant series which appear in the national income accounts. They are the residual from two larger estimates. The errors and limitations present in the hundreds of series, developed for other purposes, which must be used at present in estimating the national income do not completely cancel out. To this extent these errors are transmitted into the saving estimate. Quarter-to-quarter changes for recent periods are, however, subject to revision as better data become available.

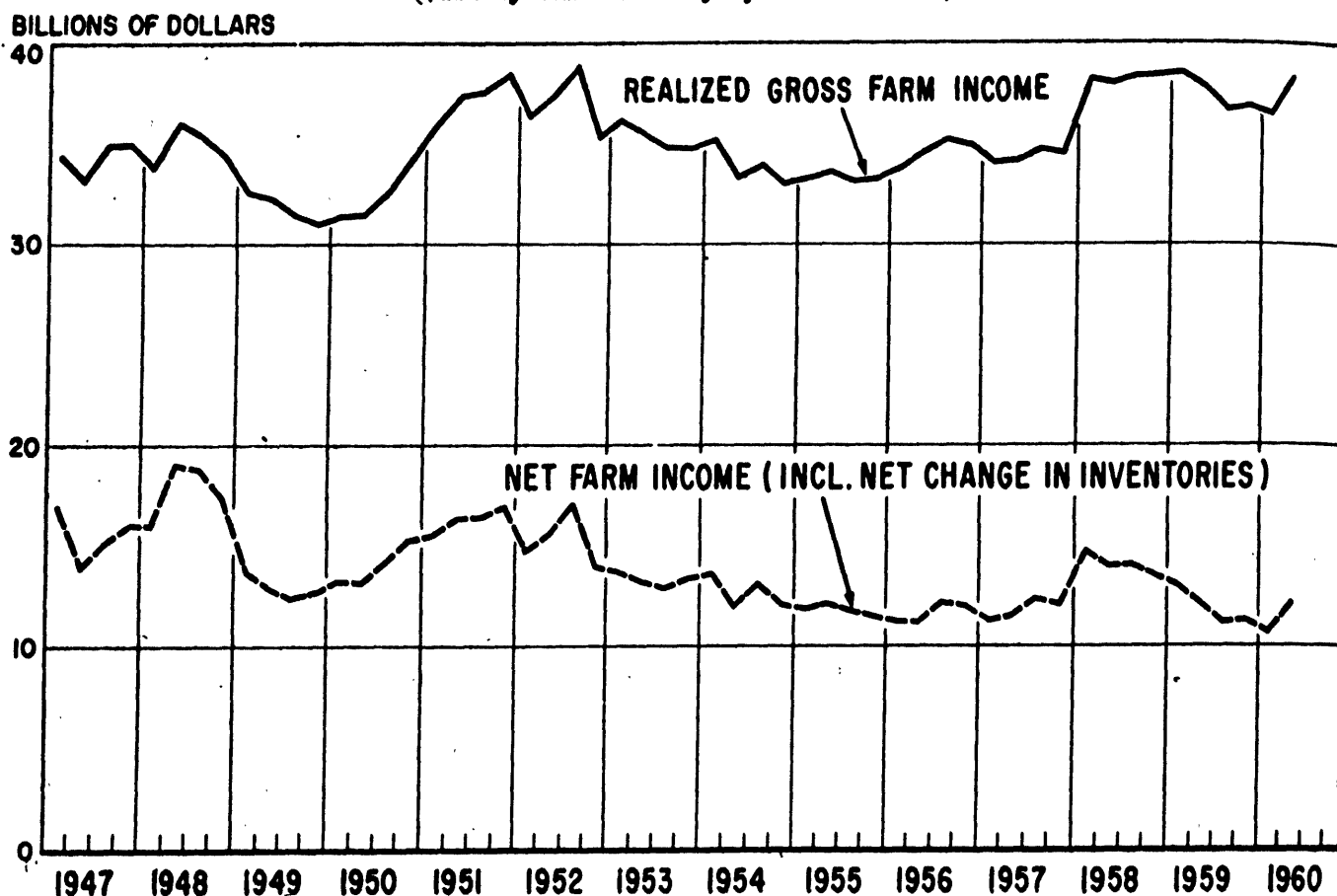
*References.*—See above, under National Income.

thirds of gross farm income, are the aggregate of all current farm operating expenses and overhead costs to farm operators. Farm operators' "Net income, excluding net change in inventories" is the remainder of realized gross farm income after farm production expenses have been deducted; and "Net income, including net change in inventories" takes into account changes in farmers' holdings of animals and crops. The "Net income per farm including net change in inventories" is calculated by dividing the U.S. totals by estimated numbers of farms based on the 1954 Census of Agriculture definition.

*Statistical procedures.*—Since the average farm family receives about a third of its total net income in the form of earnings from employment in nonagricultural occupations or as returns from investment in nonfarm property, the measurement of these items is obviously important as a supplement to the regular measures of farm income. Estimates of income received by the farm population from nonagricultural sources are tied to benchmark estimates obtained from sample surveys for several scattered years, and are interpolated or extrapolated for other years on the assumption that changes in the farm population's share of total nonagricultural income are proportionate to changes in the farm population as a percentage of the total population. Since the first benchmark surveys were for the years 1934-36, the series starts there and does not extend back to 1910 along with the series on farm income. Totals

## Farm Income, 1947-60

(Quarterly data. Seasonally adjusted annual rates)



SOURCE OF DATA: DEPARTMENT OF AGRICULTURE

derived from various surveys covering the years 1941, 1946, 1949, 1950, and 1955 have also been used either as benchmarks or as supplementary check data.

For the computation of gross farm income, the estimates of cash receipts from marketings are based on information collected by the Department of Agriculture on the quantity sold and average prices received by farmers for the various farm commodities. The current estimates of monthly crop marketings are based on estimated production, the normal percentage of the crop sold, and the usual seasonal movement to market, supplemented by available current data on market receipts. For most of the important livestock items, current reports on production or market receipts are available and are used to estimate current livestock marketings. The estimates of cash receipts from marketings are later revised as more complete data on production, crop-year sales and monthly marketings become available. The value of farm products consumed directly in farm households is estimated on the basis of information obtained from farmers (annually for important products and less

frequently for other products) on the volume of home consumption, valued at prices received by farmers for the sale of similar products. The gross rental value of farm dwellings is designed to represent the amount which would have to be paid if the dwellings were rented separately from the farms. Government payments to farmers comprise all Federal payments made directly to farmers in which a sale or title transfer to the Government is not involved—at the present time, Soil Bank, conservation, wool, and Sugar Act payments. Net Commodity Credit Corporation loans and purchase-agreement deliveries are included in cash receipts from marketings.

The estimates of farm production expenses of farm operators are based on about 40 separate series. Some of the operating expense series are based on data obtained in the Censuses of Agriculture, with interpolations for intercensal years; others are based on special surveys and trade information. Depreciation charges on buildings, motor vehicles, and other farm machinery and equipment are estimated annually as the amount which farmers would have

## Farm Income

Year	Income received by total farm population			Income received by farm operators from farming						Net income per farm including net change in inventories <sup>4</sup>	
	From all sources	From agricultural sources <sup>1</sup>	From non-agricultural sources	Realized gross		Production expenses	Net income		Current prices	1959 prices <sup>5</sup>	
				Total <sup>2</sup>	Cash receipts from marketings		Excluding net change in inventory	Including net change in inventory <sup>3</sup>			
	Billions of dollars									Dollars	
1929.....	( <sup>6</sup> )	7.0	( <sup>6</sup> )	13.9	11.3	7.6	6.3	6.1	943	1,766	
1930.....	( <sup>6</sup> )	5.1	( <sup>6</sup> )	11.4	9.1	6.9	4.5	4.3	650	1,303	
1931.....	( <sup>6</sup> )	1.0	( <sup>6</sup> )	8.4	6.4	5.5	2.9	3.3	506	1,177	
1932.....	( <sup>6</sup> )	2.5	( <sup>6</sup> )	6.4	4.7	4.4	1.9	2.0	305	831	
1933.....	( <sup>6</sup> )	3.0	( <sup>6</sup> )	7.1	5.3	4.3	2.8	2.6	382	1,021	
1934.....	5.3	3.4	1.9	8.5	6.4	4.7	3.9	2.9	434	1,026	
1935.....	7.9	5.9	2.0	9.7	7.1	5.1	4.6	5.3	778	1,809	
1936.....	7.3	5.0	2.3	10.7	8.4	5.6	5.1	4.3	643	1,495	
1937.....	9.3	6.8	2.5	11.3	8.9	6.1	5.2	6.0	911	2,056	
1938.....	7.4	5.1	2.3	10.1	7.7	5.8	4.3	4.4	675	1,596	
1939.....	7.7	5.2	2.5	10.6	7.9	6.2	4.4	4.5	697	1,675	
1940.....	8.0	5.3	2.7	11.0	8.4	6.7	4.3	4.6	720	1,714	
1941.....	10.6	7.5	3.1	13.8	11.1	7.7	6.2	6.6	1,044	2,320	
1942.....	14.9	11.1	3.8	18.8	15.6	9.9	8.8	9.9	1,600	3,101	
1943.....	17.4	13.2	4.2	23.4	19.6	11.5	11.9	11.8	1,942	3,377	
1944.....	17.8	13.4	4.4	24.4	20.5	12.2	12.2	11.8	1,967	3,246	
1945.....	18.2	14.0	4.2	25.8	21.7	12.9	12.9	12.4	2,060	3,296	
1946.....	21.4	17.1	4.3	29.7	24.8	14.5	15.2	15.3	2,574	3,677	
1947.....	22.4	17.5	4.9	34.4	29.6	17.0	17.3	15.5	2,648	3,221	
1948.....	24.9	19.8	5.1	34.9	30.2	18.9	16.1	17.8	3,066	3,523	
1949.....	19.9	14.7	5.2	31.8	27.8	18.0	13.8	12.9	2,259	2,689	
1950.....	21.0	15.7	5.3	32.5	28.5	19.3	13.2	14.0	2,479	2,916	
1951.....	23.7	18.1	5.6	37.3	33.0	22.2	15.2	16.3	2,951	3,173	
1952.....	23.4	17.3	6.1	37.0	32.6	22.6	14.4	15.3	2,829	3,010	
1953.....	21.1	15.1	6.0	35.3	31.1	21.4	13.9	13.3	2,502	2,690	
1954.....	20.2	14.4	5.8	33.9	30.0	21.7	12.2	12.7	2,440	2,596	
1955.....	19.8	13.5	6.3	33.3	29.6	21.9	11.5	11.8	2,313	2,461	
1956.....	20.1	13.4	6.7	34.6	30.6	22.6	12.0	11.6	2,338	2,461	
1957.....	20.2	13.6	6.6	34.4	29.8	23.4	11.0	11.8	2,426	2,476	
1958.....	22.2	15.8	6.4	38.2	33.5	25.2	13.0	14.0	2,952	2,952	
1959.....	20.4	13.6	6.8	37.5	33.1	26.2	11.3	11.8	2,548	2,548	

<sup>1</sup> Including change in inventory of crops and livestock valued at the average price for the year. Net income of farm operators from farming and farm wages received by farm resident workers.

<sup>2</sup> Cash receipts from marketings, Government payments, and nonmoney income furnished by farms.

<sup>3</sup> Data prior to 1946 differ from "Farm proprietors' income" on pages 9 and 12 because of revisions by the Department of Agriculture not yet incorporated into the national income accounts of the Department of Commerce.

<sup>4</sup> The number of farms is based on the 1954 Census of Agriculture definition. The numbers (in millions) are 4.7 for 1958 and 4.6 for 1959.

<sup>5</sup> Income in current prices divided by the index of prices paid by farmers for items used in family living on a 1959 base.

<sup>6</sup> Series on income from nonagricultural sources begins in 1934.

Source: Department of Agriculture.

had to pay if they had replaced, at prices prevailing during the year, the amount of plant and equipment used up during the year. Estimates are also made for taxes on farm property, interest on outstanding indebtedness, and net property-insurance premiums.

The net change in inventories reflects physical changes in all livestock and crops on farms, except crops under CCC loan, with the changes valued at average prices for the year.

Annual estimates are made of the number of farms, based on benchmark data from the Censuses of Agriculture adjusted for incompleteness. (In the 1954 Census of Agriculture the underenumeration was 8.1 percent for number of farms and 5.4 percent for land in farms.) National estimates for intercensal years are the sum of separate State estimates. They are based on data which vary from State to State.

Estimates of cash receipts from farm marketings are adjusted for seasonal variation and expanded to an annual rate in one operation by the usual ratio-moving-total method. The normal quarterly distribution of cash receipts in recent years has been 21 percent in the first quarter, 20 percent in the second quarter, 27 percent in the third quarter, and 32 percent in the fourth quarter—requiring some fairly large seasonal adjustments.

Except for cash receipts, however, monthly or quarterly information on farm income and expenses is insufficient for the direct application of ordinary methods of seasonal adjustment. Quarterly data are generally available with respect to changes in the price factors underlying both expenses and non-money income, but information on the quantities involved is available only on an annual basis. While cash receipts can be seasonally adjusted in the usual manner, therefore, the other quarterly estimates are interpolated from annual data largely in terms of price changes, with the quantity factors either held constant throughout the year or varied in some reasonable manner.

*Relation to other series.*—The series on net income of farm operators including net change in inventories is conceptually the same as farm proprietors' income in the national income series (see p. 9), although some variations exist prior to 1946 because of differences in the timing of revisions.

The Department of Agriculture also publishes estimates of the net income originating in agriculture, regardless of who receives it, of the net cash income

of farm operators and the farm population, omitting nonmoney income, and of the net income of persons engaged in agriculture.

*Uses and limitations.*—The estimates of farm operators' realized gross farm income are for the most part based on a comprehensive body of basic data and are considered to be reasonably accurate. The estimates of farm production expenses, however, are based in part on incomplete data, less frequently collected, and may be subject to a fair-sized margin of error. Any errors in the expense estimates are fully reflected in the estimates of net income of farm operators.

Information on total farm income and on net income per farm and per capita is useful as a general indicator of the economic well-being of a broad sector of the economy. Its usefulness is limited, however, because of a wide variation in type-of-farming operations and in size of farms. Some segments of the farm economy may prosper at the same time that other segments are seriously distressed. In order to supply more detailed data on how the different segments of the farm economy are affected by changing prices of farm products and of farm production items, the Agricultural Research Service has developed data on farm costs and returns for 32 of the more important type-of-farming areas, and several more are being developed. The Agricultural Marketing Service has also developed some preliminary estimates of income for commercial and noncommercial farms separately.

*References.*—The basic release of the farm income data is *The Farm Income Situation*, published four times a year by the Agricultural Marketing Service. The annual series are also published, with other principal series relating to agriculture, in the Department of Agriculture's annual *Agricultural Statistics*. The methods used to estimate farm operators' income are described in detail in *Major Statistical Series of the U.S. Department of Agriculture*, Volume 3—Gross and Net Farm Income, published in 1957. The methods used for the quarterly estimates of farm operators' income in terms of seasonally adjusted annual rates are described in an article by Ernest W. Grove in the July 1954 issue of *Agricultural Economic Research*, published by the Agricultural Marketing Service. The individual studies of commercial family-operated farms by type and location are published annually by the Agricultural Research Service in *Farm Costs and Returns*.

# CORPORATE PROFITS

*Description of series.*—The corporate profits and related series of the Office of Business Economics, Department of Commerce, contains profits estimates for past years and recent quarters for all United States corporations organized for profit. Data are shown for broad industry groups, and estimates are made of the distribution of profits between dividends and retained earnings, as well as corporate tax liability (Federal and State corporate income and excess profits taxes).

The national income concept of profit is used in these series. Dividends received by corporations are deducted from profits (and dividends) to obtain unduplicated totals reflecting income originating in United States corporations. Profits are calculated inclusive of depletion, which is not considered an element of capital consumption in the national income and product accounts. Capital gains and losses are eliminated from profits because they do not measure gains or losses originating from current produc-

tion. Adjustments for international flows affecting profits are made. In these respects the national income measure of profits differs from those commonly used in company reports and shown in, for example, the Internal Revenue Service tabulation of profits and the financial report series of the Federal Trade Commission and Securities and Exchange Commission.

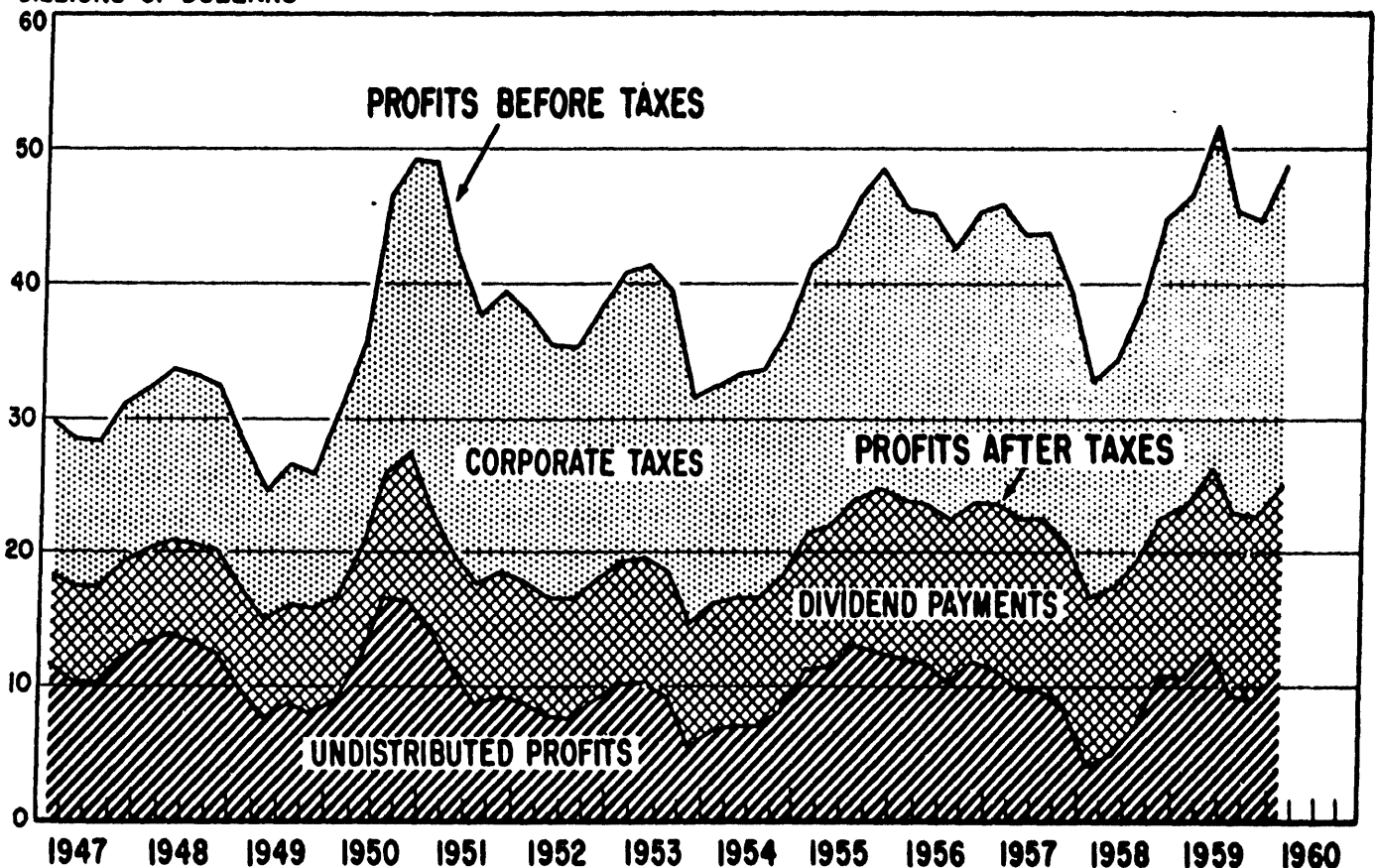
A significant revision of the corporate profits series was undertaken for the period 1948-1957. This involved a change in the data base used in evaluating the effects of Internal Revenue Service audit on the underlying income tax statistics, the inclusion of an allowance for profits of speculative builders, and certain minor statistical improvements.

*Statistical procedures.*—The annual data published in the corporate profits series are, except for the most recent year or two, based upon tabulations by the Internal Revenue Service of unaudited corporate income tax returns. The data in these tabulations are

## Corporate Profits, 1947-60

(Quarterly data. Seasonally adjusted annual rates)

BILLIONS OF DOLLARS



SOURCE OF DATA: DEPARTMENT OF COMMERCE

## Corporate Profits

[Billions of dollars]

Period	Corporate profits (before taxes) and inventory valuation adjustment <sup>1</sup>						Corporate profits before taxes	Corporate income tax liability	Corporate profits after taxes		
	All industries	Manufacturing			Transportation, communications, and public utilities	All other industries			Total	Dividend payments	Undistributed profits
		Total	Durable goods industries	Nondurable goods industries							
1929	10.1	5.1	2.6	2.5	2.0	3.0	9.6	1.4	8.3	5.8	2.4
1930	6.6	3.9	1.5	2.4	1.2	1.5	3.3	.8	2.5	5.5	-3.0
1931	1.6	1.3	.0	1.3	.6	-.2	-.8	.5	-1.3	4.1	-5.4
1932	-2.0	-.6	-1.1	.4	.2	-1.5	-3.0	.4	-3.4	2.6	-6.0
1933	-2.0	-.5	-.5	.0	.1	-1.5	.2	.5	-.4	2.1	-2.4
1934	1.1	.9	.2	.7	.4	-.2	1.7	.7	1.0	2.6	-1.6
1935	2.9	2.0	.9	1.1	.5	.5	3.1	1.0	2.2	2.9	-.7
1936	5.0	3.1	1.7	1.4	.7	1.2	5.7	1.4	4.3	4.5	-.2
1937	6.2	3.6	1.7	2.0	.8	1.8	6.2	1.5	4.7	4.7	.0
1938	4.3	2.2	.7	1.4	.6	1.5	3.3	1.0	2.3	3.2	-.9
1939	5.7	3.2	1.6	1.5	1.0	1.5	6.4	1.4	5.0	3.8	1.2
1940	9.1	5.4	3.0	2.3	1.3	2.4	9.3	2.8	6.5	4.0	2.4
1941	14.5	9.3	6.3	3.0	2.0	3.2	17.0	7.6	9.4	4.5	4.9
1942	19.7	11.7	7.1	4.5	3.5	4.5	20.9	11.4	9.5	4.3	5.2
1943	23.8	13.7	8.0	5.6	4.4	5.7	24.6	14.1	10.5	4.5	6.0
1944	23.0	13.0	7.3	5.7	3.9	6.1	23.3	12.9	10.4	4.7	5.7
1945	18.4	9.5	4.5	5.0	2.8	6.1	19.0	10.7	8.3	4.7	3.6
1946	17.3	8.4	2.1	6.3	1.8	7.1	22.6	9.1	13.4	5.8	7.6
1947	23.6	12.8	5.3	7.4	2.1	8.7	29.5	11.3	18.2	6.5	11.7
1948	30.8	16.8	7.4	9.4	2.9	11.2	33.0	12.5	20.5	7.2	13.3
1949	28.2	15.3	7.9	7.4	2.9	10.1	26.4	10.4	16.0	7.5	8.5
1950	35.7	20.4	12.0	8.4	4.0	11.3	40.6	17.9	22.8	9.2	13.6
1951	41.0	24.4	13.5	10.9	4.5	12.0	42.2	22.4	19.7	9.0	10.7
1952	37.7	21.1	11.8	9.3	4.8	11.8	36.7	19.5	17.2	9.0	8.3
1953	37.3	21.4	12.1	9.3	4.9	11.0	38.3	20.2	18.1	9.2	8.9
1954	33.7	18.4	10.1	8.3	4.4	11.0	34.1	17.2	16.8	9.8	7.0
1955	43.1	25.0	14.2	10.8	5.4	12.8	44.9	21.8	23.0	11.2	11.8
1956	42.0	23.5	12.6	10.9	5.6	12.9	44.7	21.2	23.5	12.1	11.3
1957	41.7	22.9	13.1	9.8	5.5	13.3	43.2	20.9	22.3	12.6	9.7
1958	37.4	18.8	9.2	9.6	5.4	13.2	37.7	18.6	19.1	12.4	6.7
1959	46.6	24.8	12.8	12.0	6.3	15.5	47.0	23.2	23.8	13.4	10.5

<sup>1</sup> See p. 9 for inventory valuation adjustment.

Source: Department of Commerce.

adjusted to make them comparable, statistically and conceptually, with other entries in the national income accounts. The important conceptual accounting adjustments are suggested by the statement above of differences between the conventional accounting concept of profit and the national income concept. Another important adjustment of the tabulations is the audit adjustment which makes allowance for additional profits disclosed by auditing of the income tax returns by Internal Revenue. Mutual financial intermediaries are not considered part of the corpo-

rate universe for national income purposes, and profits of these companies are removed from the tax return tabulations.

The estimates for the most recent year or two and for quarters are made by extrapolating the benchmark estimates, i.e., the latest available estimates based upon Internal Revenue tabulations of corporation tax returns. The extrapolators for manufacturing corporations are based upon the FTC-SEC *Quarterly Financial Report*; those for Federally regulated industries are obtained from reports to the



Federal regulatory agencies; and those for other industries are based upon nongovernmental surveys and upon miscellaneous sources of varying reliability. When the Internal Revenue tabulations of tax returns for a given year become available, the estimates for that year are revised to conform to the Internal Revenue tabulations.

The adjustment of corporate profits estimates for seasonal variation is difficult because of the volatility of profits. A diversity in seasonal patterns exists among the various industries, so the adjustment is made in considerable industry detail. While for most industry components the ratio-to-moving-average method has been used, a clearer seasonal pattern has been obtained in certain industries by using linear regressions of the unadjusted data for the given quarter of each year against trend, plus cyclical values for the same period. The seasonal patterns in corporate profits have been subject to periodic revision as the post war experience lengthened. The correction for seasonal variation is made in terms of the corporate profits share of national income (i.e., corporate profits before tax, plus inventory valuation adjustment) which experience has shown to permit a more meaningful basis of adjustment than profits before taxes alone.

The magnitude of the corporate profits seasonal correction may be seen in the comparison of unadjusted and seasonally adjusted quarterly data for the year 1959 shown in the table at the bottom of this page.

Corporate income tax liability estimates are derived by multiplying the quarterly estimates of profits before taxes by annual tax ratios. For current quarters the ratios of taxes to profits before tax for the latest full year are used with any necessary adjustments, such as to allow for new Federal tax legislation. Quarterly net corporate dividends are estimated from a sample of publicly reported dividends

which account for three-fourths of total dividend disbursements. Other profit components are estimated as residuals: profits after tax being equal to profits before tax less corporate income tax liability, and undistributed corporate profits being equal to profits after tax less dividends.

*Relation to other series.*—The corporate profits series is designed primarily to measure the contribution of corporate profits to the national income. It is as consistent with the concepts of the national income accounts, and with other series which are a part of those accounts, as the basic data permit, and can be used in conjunction with the other national income series (e.g., net interest, proprietors' and rental income, compensation of employees, etc.) with confidence in their conceptual comparability.

The corporate profits series is based upon reports from companies rather than establishments. This results in some noncomparability with series based upon reports from establishments. Furthermore, surveys based upon the establishment unit of classification are not confined to establishments of corporations but include establishments of other forms of organization as well. The corporate profits series, or any other series based upon company reports, cannot safely be assumed to be directly comparable with these establishment series unless the reports on the different bases have been reconciled. These factors are more important when series for specific industries are being compared, however, than when the broad aggregates published in *Economic Indicators* are compared.

The series on expenditures for new plant and equipment (p. 25) and sales and inventories (p. 65 ff.) are also based primarily upon company reports. The plant and equipment expenditures and the sales and inventories series, however, cover unincorporated as well as incorporated businesses. These three series

*Seasonal Correction, Corporate Profits and Inventory Valuation Adjustment, 1959*

[Billions of dollars]

Quarters	Seasonally adjusted quarterly rates	Unadjusted quarterly rates	Correction, quarterly rates (seasonally adjusted minus unadjusted)
I.....	11.4	10.6	0.8
II.....	12.6	12.8	-.2
III.....	11.2	11.4	-.2
IV.....	11.4	11.7	-.3

cover closely related economic phenomena and can be used to supplement one another analytically.

*Uses and limitations.*—The corporate profits series is an important economic indicator, reflecting the state of health of a substantial part of the Nation's business community. Certain limitations of the series require that it be used with caution, however.

(1) As its title indicates, the series measures only the profits of corporations. It does not, therefore, portray fully the profit position of all business.

(2) The corporate profits series contained in *Economic Indicators* are rather broad aggregates and need to be supplemented by data pertaining to specific industries for some analytical uses.

(3) The quarterly corporate profits estimates are less reliable than the annual estimates, especially the

annual estimates for periods more than two years prior to the current year. There are two principal reasons for this: (a) quarterly income statements, upon which the quarterly series must be based, are inherently less reliable than annual income statements; and (b) wide gaps in the financial data available quarterly for some industries, such as trade and services, make the underlying basis of the quarterly estimates weaker than that of the annual estimates.

*References.*—See above under National Income. A complete statement of the methods and the sources of data used in preparing these estimates is presented in pages 92-97 of the 1954 *National Income Supplement* to the Survey of Current Business, and pages 93-94, 100-101, and 105 of *U.S. Income and Output*, also a supplement to the Survey of Current Business.

## GROSS PRIVATE DOMESTIC INVESTMENT

*Description of series.*—Gross Private Domestic Investment is one of the major components of gross national product. The series measures gross fixed investment and net changes in business inventories. Gross fixed investment (or gross fixed capital formation) is defined as all newly produced durable goods (i.e., those with an average life exceeding one year) acquired by their ultimate business users. New residential construction purchased by owner-occupants is also included because homeownership is treated as a business in the national accounts. The "Change in business inventories" series measures physical changes in business inventories valued at average prices prevailing during the year.

Separate statistical series are published for "Fixed investment" (which in turn consists of separate series for "New construction" and "Producers' durable equipment") and for "Change in business inventories." The "New Construction" series used in computing gross private domestic investment is based on the private construction component of the new construction series described below, with the addition of estimates for oil- and gas-well drilling.

A major revision of the "Producers' durable equipment" series was undertaken in conjunction with the preparation of the 1954 *National Income Supplement* to the Survey of Current Business. The estimates were revised for the entire period since 1929. Further significant revisions covering the period be-

ginning with 1946 are described in *U.S. Income and Output*.

The quarterly estimates of producers' durable equipment and change in business inventories are revised annually to reflect more complete data than were available when the initial estimates were made. The revisions in the "Change in business inventories" series have sometimes been quite sizable, and have resulted primarily from revisions in the basic book value inventory aggregates.

*Statistical procedures.*—The principal method of estimation used for the "Producers' durable equipment" series has been the commodity-flow technique. In brief, this technique consists of (1) analyzing total manufacturing output to obtain an estimate of the proportion that consisted of finished producers' durable goods, (2) tracing the flow of those goods through distribution channels, (3) measuring their distributive costs, and (4) adding the estimate of those distributive costs to manufacturers' sales value to arrive at an estimate of the costs of those goods to their purchasers.

For the years 1929-39, 1947, and, to a lesser extent, 1954, data available from the manufacturers and trade censuses made it possible to carry out the commodity-flow technique of estimating purchases of producers' durable equipment in greater detail than was possible in other years. New benchmark estimates of producers' durable equipment for 1954 were

## Gross Private Domestic Investment

(Billions of dollars)

Year	Total gross private domestic investment	Fixed investment					Change in business inventories	
		Total	New construction <sup>1</sup>			Producers' durable equipment	Total	Nonfarm
			Total	Residential nonfarm	Other <sup>2</sup>			
1929.....	16.2	14.6	8.7	3.6	5.1	5.8	1.7	1.8
1930.....	10.3	10.6	6.2	2.1	4.1	4.5	-.4	-.1
1931.....	5.5	6.8	4.0	1.6	2.4	2.8	-1.3	-1.6
1932.....	.9	3.5	1.9	.6	1.2	1.6	-2.6	-2.6
1933.....	1.4	3.0	1.4	.5	1.0	1.6	-1.6	-1.4
1934.....	2.9	4.0	1.7	.6	1.1	2.3	-1.1	.2
1935.....	6.3	5.4	2.3	1.0	1.3	3.1	.9	.4
1936.....	8.4	7.4	3.3	1.6	1.7	4.2	1.0	2.1
1937.....	11.7	9.5	4.4	1.9	2.5	5.1	2.2	1.7
1938.....	6.7	7.6	4.0	2.0	2.0	3.6	-.9	-1.0
1939.....	9.3	8.9	4.8	2.7	2.1	4.2	.4	.3
1940.....	13.2	11.0	5.5	3.0	2.5	5.5	2.2	1.9
1941.....	18.1	13.6	6.6	3.5	3.1	6.9	4.5	4.0
1942.....	9.9	8.1	3.7	1.7	2.0	4.3	1.8	.7
1943.....	5.6	6.4	2.3	.9	1.4	4.0	-.8	-.6
1944.....	7.1	8.2	2.7	.8	1.9	5.4	-1.0	-.6
1945.....	10.4	11.5	3.8	1.1	2.7	7.7	-1.1	-.6
1946.....	28.1	21.7	11.0	4.8	6.3	10.7	6.4	6.4
1947.....	31.5	32.0	15.3	7.5	7.7	16.7	-.5	1.3
1948.....	43.1	38.4	19.5	10.1	9.3	18.9	4.7	3.0
1949.....	33.0	36.0	18.8	9.6	9.2	17.2	-3.1	-2.2
1950.....	50.0	43.2	24.2	14.1	10.1	18.9	6.8	6.0
1951.....	56.3	46.1	24.8	12.5	12.3	21.3	10.2	9.1
1952.....	49.9	46.8	25.5	12.8	12.7	21.3	3.1	2.1
1953.....	50.3	49.9	27.6	13.8	13.8	22.3	.4	1.1
1954.....	48.9	50.5	29.7	15.4	14.3	20.8	-1.6	-2.1
1955.....	63.8	58.1	34.9	18.7	16.2	23.1	5.8	5.5
1956.....	67.4	62.7	35.5	17.7	17.8	27.2	4.7	5.1
1957.....	66.1	64.6	36.1	17.0	19.0	28.5	1.6	.8
1958.....	56.0	58.5	35.4	18.0	17.4	23.1	-2.5	-3.6
1959.....	72.0	66.1	40.3	22.3	18.0	25.8	5.9	5.4

<sup>1</sup> Revisions in the "New construction" series shown on p. 58 have not yet been incorporated into these accounts.

<sup>2</sup> Includes petroleum and natural gas well drilling, which are excluded from "New construction" estimates on p. 58.

NOTE.—Quarterly data available beginning 1939; annual from 1929. Detail will not necessarily add to totals because of rounding.

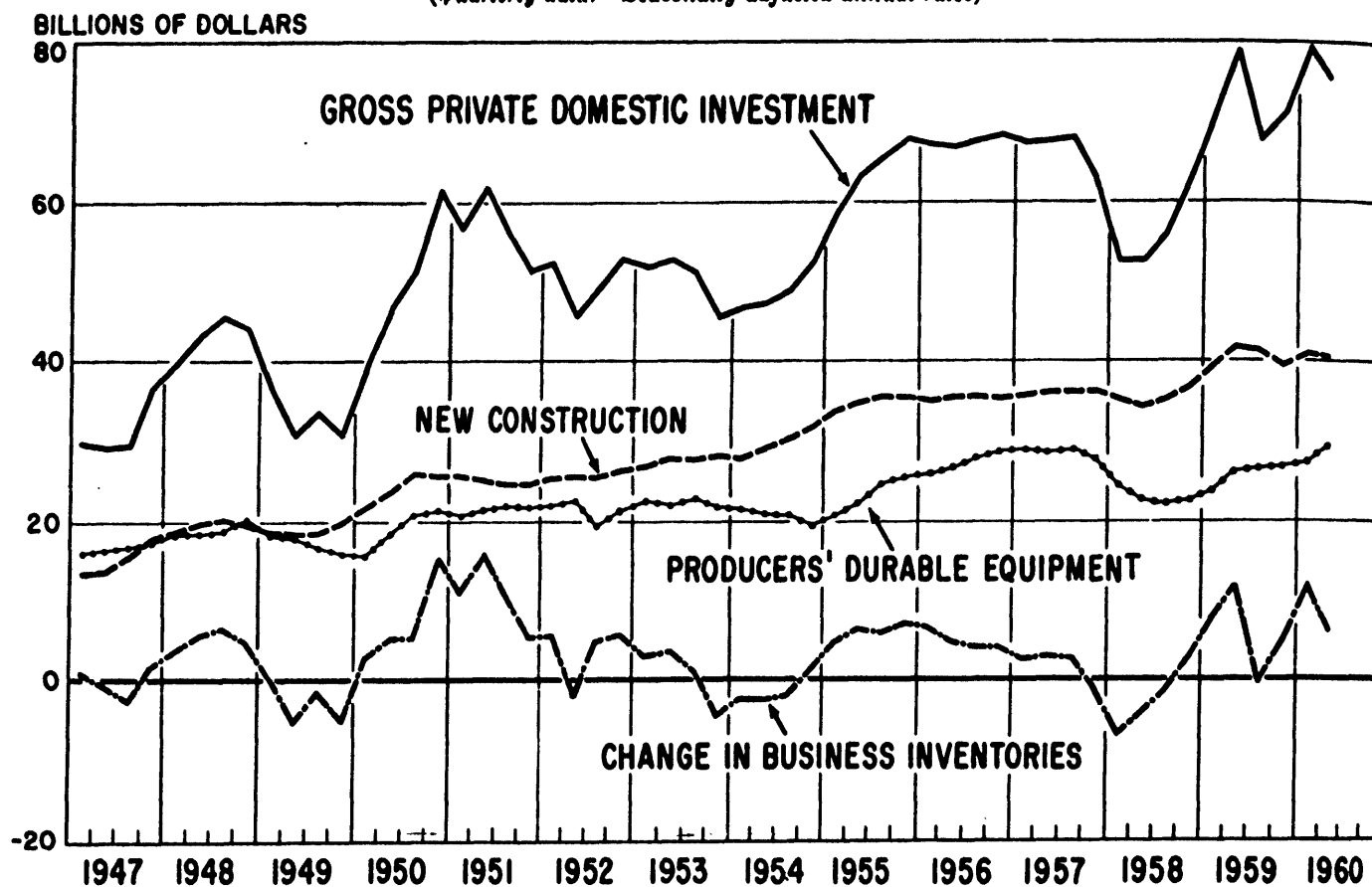
Source: Department of Commerce.

developed on the basis of Census data, and it has been possible to develop annually for 1955-57 "secondary" benchmark estimates primarily from data collected by the Bureau of the Census in its annual sample surveys of manufacturers. Annual estimates for the years 1955-57 take into account both the secondary benchmarks and the series used in making the quarterly estimates. The quarterly estimates and the annual estimates of producers' purchases of durable equipment for 1957 and later years are derived largely by interpolation and extrapolation based on

the OBE-SEC Plant and Equipment Expenditures Survey (see next section). The Survey results are adjusted for comparability with estimates of producers' durable equipment, principally by the exclusion of expenditures on new plant, the inclusion of expenditures on new farm equipment and the addition of expenditures for passenger cars to the extent that they are not covered. The Plant and Equipment Expenditures Survey has been used to estimate the quarterly movement of producers' durable equipment for the period 1947 to date. The quarterly estimates

## Gross Private Domestic Investment, 1947-60

(Quarterly data. Seasonally adjusted annual rates)



SOURCE OF DATA: DEPARTMENT OF COMMERCE

for earlier years are based mainly on selected industry sales data from the Department of Commerce Monthly Industry Survey, except for the 1950-52 period when data from the National Production Authority were utilized.

The primary source for estimates of changes in the nonfarm portion of business inventories is reported accounting data on the book value of inventories at the beginning and end of the period for which the estimates are made. Because inventory calculation by individual business firms varies widely in method, numerous adjustments in the reported data are necessary to arrive at an estimate consistent with the basic concept. The principal adjustment is that of removing the price-change element in the reported figures and revaluing inventory change in current dollars.

*Relation to other series.*—The relationship between the "Producers' durable equipment" series and the estimated equipment series implied in Expenditures for New Plant and Equipment, to which it is most closely related, is discussed in the following section.

The "Change in business inventories" series is most closely related to the estimates of "Inventories," discussed on pages 65 to 72. A basic difference between these series is that the series on business inventory change, included here, measures changes in inventories over a period of time, whereas the inventories series presented below measures the level of inventories at a given point in time. The series also differ conceptually in their measurement of inventories: the inventories series is based upon data as reported by the reporting companies, whereas for the inventory-change series OBE adjusts the reported data to reflect a uniform method of valuation.

The producers' durable equipment series and the change in business inventories series are seasonally adjusted primarily by use of the ratio-to-moving-average method. Modifications in this seasonal adjustment method are made when appropriate, and improvements in the seasonal adjustment factors are instituted when experience suggests that they are desirable. The magnitude of the gross private domestic investment seasonal correction may be seen in the table on page 7.

*Uses and limitations.*—The gross private domestic investment series measure an economic factor of crucial importance in business conditions.

Limitations in the "Fixed investment" series can be traced to limitations in the data on which they are based, especially in the data available for current quarters. The absence of reliable current data on government purchases of producers' durable equipment constitutes a special problem when the commodity-flow method of estimation is used. The limitations of the data on manufacturers' commodity sales and on new plant and equipment expenditures affect the current estimates of investment in producers' durable equipment. Nevertheless, the discrepancies between initial quarterly estimates and the revised estimates based on more complete data have generally not been great.

The figures on "Change in business inventories," although rough estimates to a considerable degree, are useful indicators of the physical volume change in

inventories during the period under review. A serious limitation in the series is inherent in the basic method of calculation that must be used. The estimates are calculated as the difference between large and possibly volatile inventory totals at two points in time. Even small errors in the estimates of total inventories can lead to large relative errors in the estimates of inventory change. This limitation contributes appreciably to the difficulty of determining seasonal patterns in the quarterly changes in business inventories. Because comprehensive accounting data on inventories become available only after a lag of about two years, current estimates of inventory change are based upon less satisfactory data than are the estimates for past years.

*References.*—See above, under National Income. For a full discussion of the concepts and statistical methods, see particularly pages 43-45 and 122-138 in the 1954 *National Income Supplement*, and pages 82-85 and 97-98 of *U.S. Income and Output*.

## EXPENDITURES FOR NEW PLANT AND EQUIPMENT

*Description of series.*—The series on expenditures for new plant and equipment, published jointly by the Office of Business Economics (Department of Commerce) and the Securities and Exchange Commission, measures the expenditures by all private business (except agriculture, real estate, professions, and institutions) for new plant, machinery, and equipment for which the reporting companies maintain depreciation accounts. Expenditures charged off as current expense are excluded. Estimates are made quarterly for actual plant and equipment expenditures and anticipated expenditures for the two succeeding quarters and the calendar year. These estimates are based upon information contained in annual reports of all corporations registered with SEC and quarterly reports from a group of registered corporations which make over 90 percent of the capital expenditures by registered corporations; and in annual and quarterly reports by a group of unregistered mining, manufacturing, distribution trade, service, and construction companies to OBE and by railroads, motor carriers, water carriers, and pipeline companies to the Interstate Commerce Commission. In 1960 a large expansion was made in the sample of financial organizations.

The last major revision in the series was published

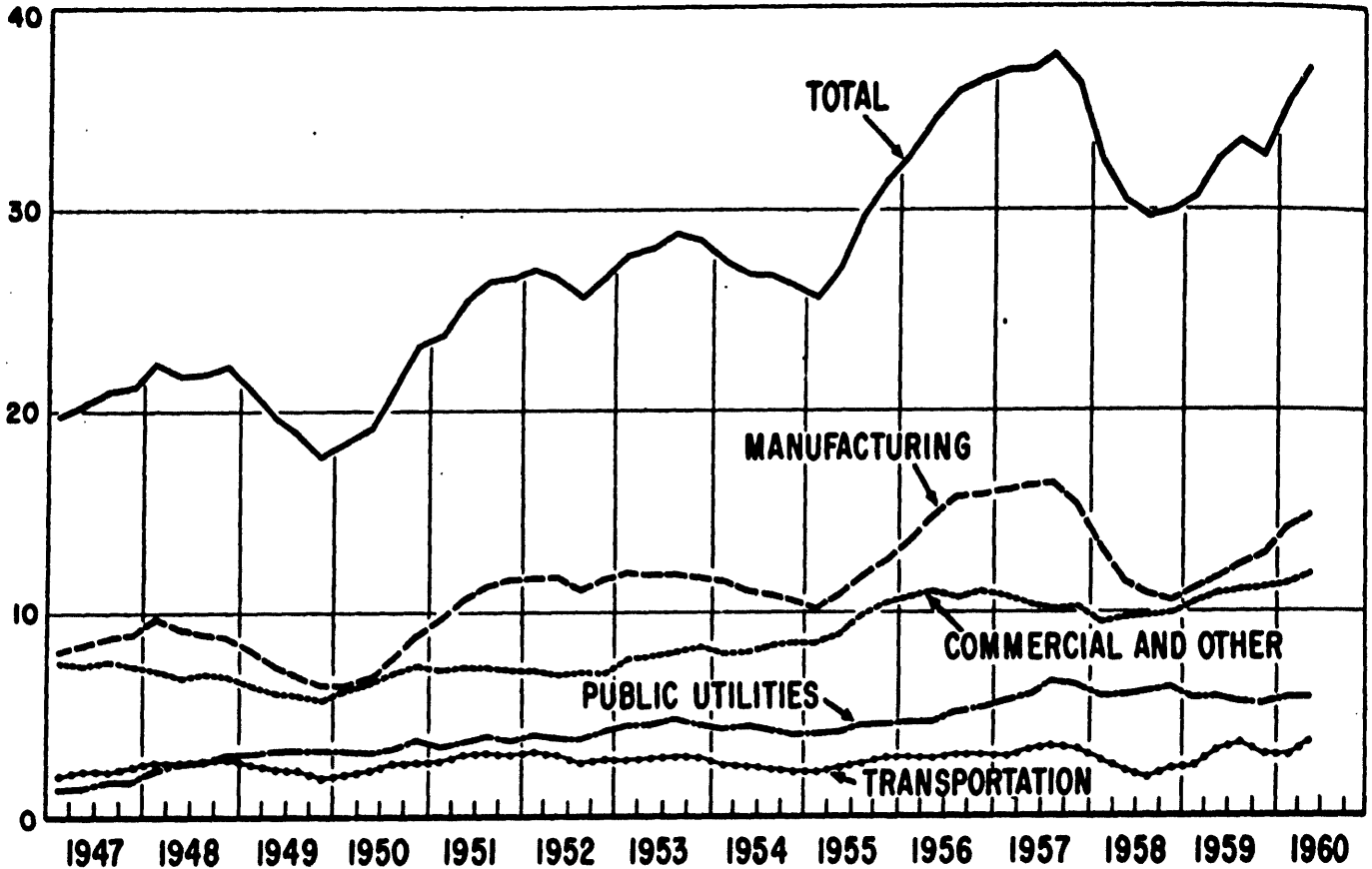
in two parts, the revision for manufacturing industries in the December 1951 issue of the *Survey of Current Business* and the revision for nonmanufacturing industries in the August 1952 issue. The revision established a new set of benchmark data and introduced improvements in the estimating procedures being used. For example, information contained in the annual mandatory financial reports (Form 10K) to SEC was used for the first time and adjustments were made for biases arising out of changes in the business population.

*Statistical procedures.*—The benchmarks for the estimates were developed by applying weights derived from reports to the Internal Revenue Service for the tax year 1948 to sample expenditure figures for the benchmark period (i.e., 1948). Actual plant and equipment expenditures data were not available for the universe of all firms, so it was necessary to derive a benchmark by using pieces of related information which were complete—specifically, total assets for corporations and total sales and operating receipts for unincorporated business. Ratios of plant and equipment expenditures to total assets or to sales and operating receipts were computed from the reporting sample and from other sources. These ratios were multiplied by IRS universe assets, or

## Expenditures for New Plant and Equipment, 1947-60

(Quarterly data. Seasonally adjusted annual rates)

BILLIONS OF DOLLARS



SOURCE OF DATA: SECURITIES AND EXCHANGE COMMISSION, AND DEPARTMENT OF COMMERCE

sales and operating receipts, to determine universe estimates of plant and equipment expenditures in 1948.

The estimations of year-to-year and quarter-to-quarter movements in these expenditures are made by extrapolating the benchmark estimates on the basis of the annual and quarterly reports received by SEC, OBE and ICC. Essentially, the estimation procedure is as follows: given a universe estimate for a specified period, the universe estimate for the next period is derived by multiplying the given universe estimate by a link relative which is derived from aggregates for the given period and the period following for a matched sample of reporting companies. The group of reporting companies accounts for at least two-thirds of aggregate investment in plant and equipment, although the sample is not randomly selected. Coverage varies considerably by industry groups. Sample expenditures as percent of estimated universe expenditures in the third quarter of 1957 were as follows: manufacturing 79; mining

37; railroads 99; transport, except railroads, 50; public utilities 82; communications 95; commercial 11; and total 66.

The factors used for adjusting plant and equipment expenditures data due to seasonal fluctuations are based on the ratio-to-moving-average technique. These seasonal adjustment factors are applied to both the estimates of anticipated expenditures for a given quarter and the estimates of actual expenditures for that quarter. The seasonally adjusted estimates of anticipated expenditures are further adjusted for the systematic biases of underestimation or overestimation that have been found in the reported data.

The seasonal adjustment factors and the bias adjustment factors have remained relatively stable for any given quarter during recent years, but they are modified as circumstances warrant. The bias adjustment factors are applied as multipliers; the seasonal adjustment factors are applied as divisors. The magnitudes of the adjustments made in the 1953-1958 quarterly estimates are suggested by the aver-

ages of the adjustment factors used for those years shown in the table below.

*Relation to other series.*—The OBE-SEC series on actual plant and equipment expenditures utilizes the same definitions of investment as those of the Census of Manufactures, Census of Business, and the annual survey of manufactures of the Bureau of the Census. There are substantial differences between the Census Bureau data on expenditures for plant and equipment and the OBE-SEC series. Most important, the OBE-SEC series supplies both actual and anticipatory data on a quarterly and annual basis, whereas the Census data relate only to annual expenditures in past periods. In addition, the OBE-SEC series obtains reports on companywide outlays, whereas the Census Bureau obtains reports on outlays of establishments. Thus, the Census Bureau's annual series on manufacturers covers only *establishments* whose primary activity is manufacturing, whereas the OBE-SEC quarterly and annual manufacturing series covers all activities, manufacturing as well as nonmanufacturing, of *companies* whose primary activity is manufacturing; and excludes manufacturing activities of companies whose primary activity is nonmanufacturing. Finally, the OBE-SEC estimates cover all industries except agriculture, professions and institutions, and real estate, whereas the Census estimates cover only manufacturing, mining (1954 and 1958) and the wholesale, retail and service trades (1958).

The OBE-SEC series, covering all industries, differs somewhat in concept from the "Producers' durable equipment" and "New construction" components of gross private domestic investment (see p. 22). Unlike the latter series the OBE-SEC series is confined to nonagricultural industries, and excludes expenditures of institutions and professional persons and plant and equipment outlays charged off as current

expenses; it is based on a survey requesting information on expenditures charged to capital account, for which depreciation accounts are maintained. The current estimates of investment in producers' durable equipment are for the most part derived indirectly by extrapolating benchmarks on the basis of percent-change estimates developed from the equipment-expenditures portion of the OBE-SEC series; and the estimates of new private construction are developed from both direct and indirect sources.

The OBE-SEC series on manufacturers' expenditures for new plant and equipment is directly comparable in classification and scope with the Census-OBE series on manufacturers' sales, new orders, and inventories (see p. 70). It has a different scope from the Federal Trade Commission-Securities and Exchange Commission financial reports series in manufacturing, mainly in that the FTC-SEC estimates of balance sheet and income statement items cover only *corporations*, and a different degree of consolidation is involved.

*Uses and limitations.*—This series is one of the very few economic series in which estimates of anticipated events as well as historical events are made. The series measures economic phenomena of great importance in the analysis of business conditions. An estimate of anticipated expenditures for a period can be different from actual expenditures for the same period either because the estimating procedures and statistical techniques employed are faulty or because the anticipated expenditures were in fact—for any number of reasons—not made or were made in greater amount. Except in a few periods in the past when marked differences between anticipated and actual expenditures for the same period have occurred as a result of unanticipated developments of major importance, such as the outbreak of Korean hostilities, both the annual data and the quarterly

*Average Adjustment Factors, Expenditures for New Plant and Equipment, 1953-58*

Quarter	Bias Adjustment Factors		Seasonal adjustment factors for the same quarter
	First anticipated expenditures estimate for a given quarter	Second anticipated expenditures estimate for the same quarter	
First.....	0.98	0.94	0.90
Second.....	1.01	.98	1.03
Third.....	.98	.93	.99
Fourth.....	1.07	1.03	1.07

## Expenditures for New Plant and Equipment

(Billions of dollars)

Year	Total <sup>1</sup>	Manufacturing			Mining	Transportation		Public utilities	Commercial and other <sup>2</sup>
		Total	Durable goods	Nondurable goods		Railroads	Other		
1939.....	5.51	1.94	0.76	1.19	0.33	0.28	0.36	0.52	2.08
1945.....	8.69	3.98	1.59	2.39	.38	.55	.57	.50	2.70
1946.....	14.85	6.79	3.11	3.68	.43	.58	.92	.79	5.33
1947.....	20.61	8.70	3.41	5.30	.69	.89	1.30	1.54	7.49
1948.....	22.06	9.13	3.48	5.65	.88	1.32	1.28	2.54	6.90
1949.....	19.28	7.15	2.59	4.56	.79	1.35	.89	3.12	5.98
1950.....	20.60	7.49	3.14	4.36	.71	1.11	1.21	3.31	6.78
1951.....	25.64	10.85	5.17	5.68	.93	1.47	1.49	3.66	7.24
1952.....	26.49	11.63	5.61	6.02	.98	1.40	1.50	3.89	7.09
1953.....	28.32	11.91	5.65	6.26	.99	1.31	1.56	4.55	8.00
1954.....	26.83	11.04	5.09	5.95	.98	.85	1.51	4.22	8.23
1955.....	28.70	11.44	5.44	6.00	.96	.92	1.60	4.31	9.47
1956.....	35.08	14.95	7.62	7.33	1.24	1.23	1.71	4.90	11.05
1957.....	36.96	15.96	8.02	7.94	1.24	1.40	1.77	6.20	10.40
1958.....	30.53	11.43	5.47	5.96	.94	.75	1.50	6.09	9.81
1959.....	32.54	12.07	5.77	6.29	.99	.92	2.02	5.67	10.88

<sup>1</sup> Excludes agriculture.

<sup>2</sup> Includes trade, service, finance, communications, and construction.

NOTES.—These figures do not agree precisely with the plant and equipment expenditures included in the gross national product estimates of the Department of Commerce. The main difference lies in the inclusion in the gross national product of investment by farmers, professionals, and institutions, and of certain outlays charged to current expense.

Detail will not necessarily add to totals because of rounding.

Data on expenditures for new plant and equipment are not available for the years prior to 1939 and for the years 1940-44.

Sources: Securities and Exchange Commission and Department of Commerce.

anticipatory data that have been adjusted for seasonal variations and systematic biases have proved a reliable indicator of the overall trend of capital expenditures. The survey has generally reflected the cyclical turning points in the postwar period.

There are two principal deficiencies in the statistical procedures employed in making the estimates of expenditures for new plant and equipment. One of these, mentioned above, is the inadequacy of the sample for some industries. Within the past few years, however, the coverage in some of these industries—notably: mining, finance, service, construction, trade, and transportation other than rail and air—has been strengthened considerably. The second deficiency is

that in several areas (e.g., trade, services and construction) the benchmark data are either out of date or of limited reliability.

*References.*—These estimates are published quarterly in Department of Commerce and Securities and Exchange Commission press releases and in the *Survey of Current Business*. Annual data and quarterly data for the preceding four years are shown in *Business Statistics*, the biennial statistical supplement to the Survey of Current Business. For a fuller description of the methods employed in making the estimates and of the latest revisions in the series, see the December 1951 and August 1952 issues of the *Survey of Current Business*.



# EMPLOYMENT, UNEMPLOYMENT, AND WAGES

## LABOR FORCE

*Description of series.*—Each month the Bureau of Labor Statistics of the Department of Labor publishes estimates of the labor force and of total employment and unemployment. In addition to the overall figures, detail is presented on the characteristics of employed and unemployed persons, such as age, sex, color, marital status, and veteran status. Employed persons are further subdivided into those employed in agriculture and in nonagricultural pursuits, by class-of-worker (wage and salary workers, self-employed, etc.), by broad occupation groups, by hours worked during the survey week and by reasons for part-time work. Duration of unemployment is shown for the unemployed. Although most of the statistics are presented for the United States as a

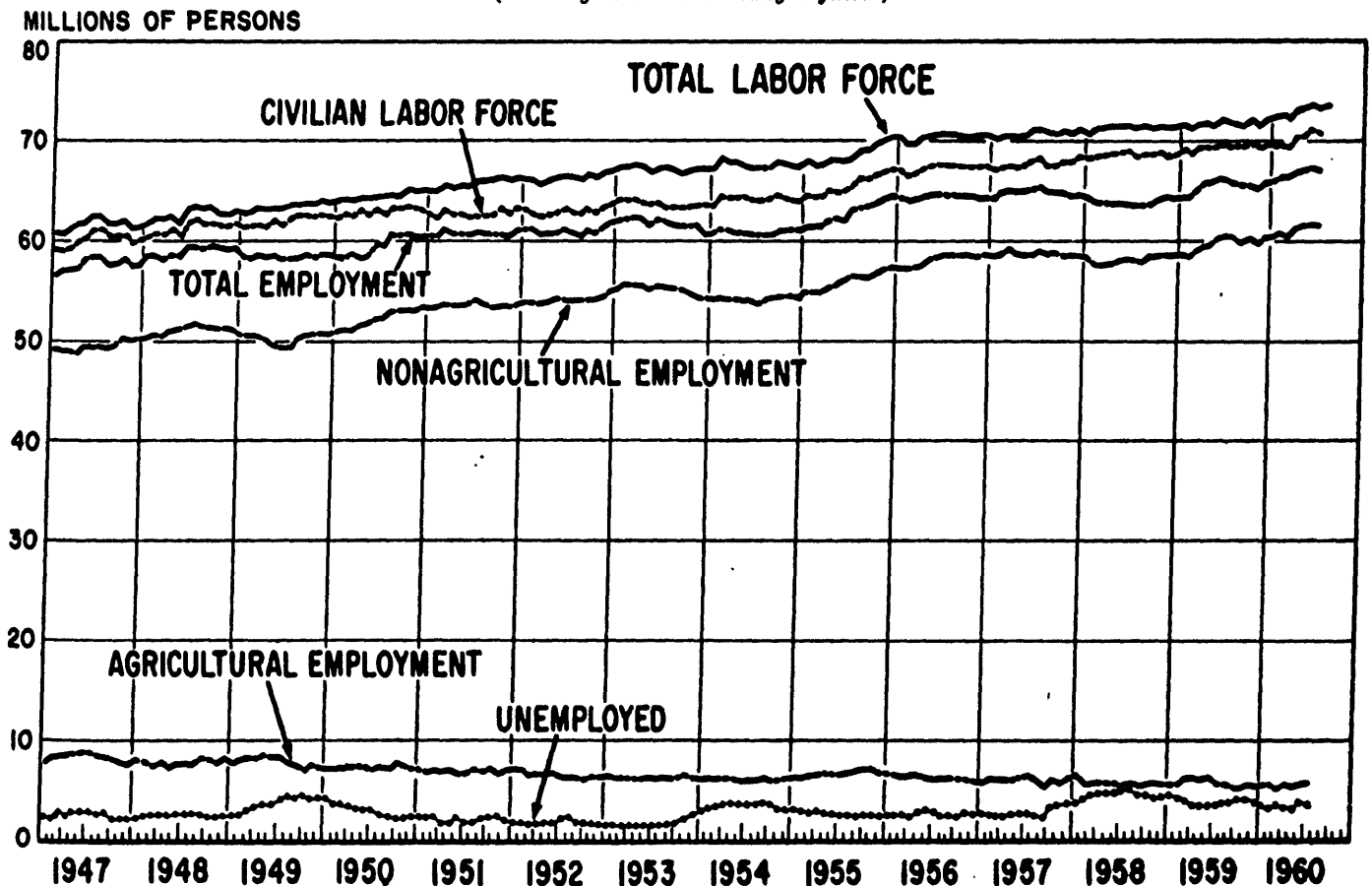
whole, an increasing amount of material is being published for major geographic regions.

The information is obtained from a sample survey of households, conducted by the Bureau of the Census, which represents all persons in the United States except those living in institutions (such as prisons or homes for the aged). On the basis of responses to interviewers, all persons 14 years and over in the sample households are classified as employed, unemployed, or not in the labor force for the calendar week containing the 12th of the month. Prior to July 1955, the reference week was the calendar week containing the 8th of the month; this change was made to improve comparability with other series.

Counted as *employed* are all persons who, during

Status of the Labor Force, 1947-60

(Monthly data. Seasonally adjusted)



SOURCE OF DATA: DEPARTMENT OF LABOR

*Status of the Labor Force*

Year	Total labor force (including armed forces) <sup>1</sup>	Civilian labor force	Civilian employment			Unemployment	
			Total	Agricultural	Nonagricultural	Number	Percent of civilian labor force
Thousands of persons 14 years of age and over							
1929.....	49, 440	49, 180	47, 630	10, 450	37, 180	1, 550	3.2
1930.....	50, 080	49, 820	45, 480	10, 340	35, 140	4, 340	8.7
1931.....	50, 680	50, 420	42, 400	10, 290	32, 110	8, 020	15.9
1932.....	51, 250	51, 000	38, 940	10, 170	28, 770	12, 060	23.6
1933.....	51, 840	51, 590	38, 760	10, 090	28, 670	12, 830	24.9
1934.....	52, 490	52, 230	40, 890	9, 900	30, 990	11, 340	21.7
1935.....	53, 140	52, 870	42, 260	10, 110	32, 150	10, 610	20.1
1936.....	53, 740	53, 440	44, 410	10, 000	34, 410	9, 030	16.9
1937.....	54, 320	54, 000	46, 300	9, 820	36, 480	7, 700	14.3
1938.....	54, 950	54, 610	44, 220	9, 690	34, 530	10, 390	19.0
1939.....	55, 600	55, 230	45, 750	9, 610	36, 140	9, 480	17.2
1940.....	56, 180	55, 640	47, 520	9, 540	37, 980	8, 120	14.6
1941.....	57, 530	55, 910	50, 350	9, 100	41, 250	5, 560	9.9
1942.....	60, 380	56, 410	53, 750	9, 250	44, 500	2, 660	4.7
1943.....	64, 560	55, 540	54, 470	9, 080	45, 390	1, 070	1.9
1944.....	66, 040	54, 630	53, 960	8, 950	45, 010	670	1.2
1945.....	65, 290	53, 860	52, 820	8, 580	44, 240	1, 040	1.9
1946.....	60, 970	57, 520	55, 250	8, 320	46, 930	2, 270	3.9
1947.....	61, 758	60, 168	57, 812	8, 256	49, 557	2, 356	3.9
1948.....	62, 898	61, 442	59, 117	7, 960	51, 156	2, 325	3.8
1949.....	63, 721	62, 105	58, 423	8, 017	50, 406	3, 682	5.9
1950.....	64, 749	63, 099	59, 748	7, 497	52, 251	3, 351	5.3
1951.....	65, 983	62, 884	60, 784	7, 048	53, 736	2, 099	3.3
1952.....	66, 560	62, 966	61, 035	6, 792	54, 243	1, 932	3.1
1953.....	67, 362	63, 815	61, 945	6, 555	55, 390	1, 870	2.9
1954.....	67, 818	64, 468	60, 890	6, 495	54, 395	3, 578	5.6
1955.....	68, 896	65, 848	62, 944	6, 718	56, 225	2, 904	4.4
1956.....	70, 387	67, 530	64, 708	6, 572	58, 135	2, 822	4.2
1957.....	70, 744	67, 946	65, 011	6, 222	58, 789	2, 936	4.3
1958.....	71, 284	68, 647	63, 966	5, 844	58, 122	4, 681	6.8
1959.....	71, 946	69, 394	65, 581	5, 836	59, 745	3, 813	5.5

<sup>1</sup> Data for 1940-52 revised to include about 150,000 members of the armed forces who were outside the United States in 1940 and therefore were not enumerated in the 1940 census and were excluded from 1940-52 estimates.

NOTE.—Monthly labor force data available beginning March 1940. Annual data are averages of monthly figures. Data for 1947 forward adjusted to reflect new definitions of employment and unemployment adopted in 1957.

Source: Department of Labor.

the survey week, were either (a) "At work"—those who did any work for pay or profit, or those who worked without pay for 15 hours or more on a family farm or business; or (b) "With a job but not at work"—those who did not work and were not looking for work but had a job or business from which they were temporarily absent because of vacation, illness, industrial dispute, bad weather, or because they were taking time off for various other reasons. Prior to 1957, this group also included persons on lay-off who had definite instructions to return to work

within 30 days of the date of layoff (now classified as unemployed) and those waiting to start new wage and salary jobs within 30 days (now classified either as unemployed or, if currently in school, as not in the labor force).

Included as *unemployed* are persons who did not work at all during the survey week and were looking for work. Also included as unemployed are those who did not work at all during the survey week and (a) were waiting to be called back to a job from which they had been laid off; or (b) were waiting

to report to a new wage or salary job scheduled to start within the following 30 days (and were not in school during the survey week); or (c) would have been looking for work except that they were temporarily ill or believed no work was available in their line of work or in the community. Prior to 1957, part of group (a) above (those whose layoffs were for definite periods of less than 30 days) were classified as employed, "with a job but not at work," rather than as unemployed, as were all of the persons in group (b) above (waiting to start new jobs within 30 days).

The sum of the employed and the unemployed constitutes the *civilian labor force*. The *total labor force* also includes members of the Armed Forces stationed either in the United States or abroad. All other civilians 14 years of age and over are classified as "not in the labor force" (housewives, students, retired or disabled persons, those doing less than 15 hours of unpaid family work, and the voluntarily idle).

The sample survey described above was started in March 1940. Prior to that date there was no periodic direct enumeration of the labor force. The estimates shown for 1939 and earlier years were prepared by the Bureau of Labor Statistics, using information such as the 1930 and 1940 Censuses of Population, and employment trends from BLS and Department of Agriculture series for intervening years. The techniques used in preparing the estimates for the earlier years are described in "Labor Force, Employment, and Unemployment, 1929-39: Estimating Methods," which appeared in the July 1948 issue of the Labor Department's *Monthly Labor Review*.

The labor force survey, initiated by the WPA, was conducted by the Bureau of the Census from 1942 through June 1959 as part of the Current Population Survey. Since July 1959, the Bureau of Labor Statistics has been responsible for monthly statistics on the labor force, with the Bureau of the Census acting as collecting and compiling agent.

*Statistical procedures.*—Since the survey was instituted in 1940, there have been a number of revisions in the series. In November 1943 an improved sample design was introduced and the estimates were revised back to 1940 using the 1940 Census of Population figures as a benchmark for that date. Starting in July 1945, a modified set of questions was used which resulted in a more nearly complete count of employed persons; the estimates were again revised

back to 1940 to take account of the improvement in interviewing procedure. Beginning in 1953, 1950 population counts were introduced into the estimating procedure and no backward revisions were made. The 1953 changes raised the levels of labor force, total employment, and agricultural employment by about 350,000, affecting primarily the figures for totals and for males.

In January 1954 the sample was spread from 68 sample areas to 230 sample areas (although retaining the overall size of about 21,000 interviewed households) in the interest of improving the reliability of the estimates. The estimates for 1953, which were deficient in certain respects, were revised to achieve greater comparability with those from the new sample. Estimates prior to 1953 are not exactly comparable with those from the expanded sample, although for most major items the series can be regarded as reasonably consistent.

Beginning in July 1955, survey data cover the calendar week containing the 12th of the month: previously the survey covered the week containing the 8th.

In May 1956, the sample was expanded from 230 to 330 sample areas and from 21,000 to 35,000 interviewed households, to improve further the reliability of the statistics and to provide a basis for more detailed data for the Nation as a whole and for geographic regions. Full comparisons of the results from the 230- and 330-area samples—available for both April and May of 1956—showed only small differences either in major categories or in detailed groups. For most purposes, therefore, the data from the expanded sample since May 1956 can be used as a continuous series with earlier statistics.

Starting in January 1957, certain limited changes were made in the definitions of employment and unemployment, following a comprehensive interagency review of concepts in this field. The changes involved primarily a transfer of two small groups from the employed to the unemployed classification, as described in the definitions given above. Statistics for major categories on both the old and new bases have been published by the Bureau of the Census for 1957 and adjustments carried back to 1947. Starting in 1960, data include Alaska and Hawaii. This inclusion has resulted in an increase of about 300,000 in the labor force, four-fifths of this in nonagricultural employment. The levels of other labor force categories were not changed appreciably.

A composite estimating procedure is used. This method involves the preparation of two intermediate estimates for a given item each month: (1) an estimate obtained by applying to the final estimate for the preceding month an estimate of month-to-month change based on those parts of the sample common to the 2 months (roughly 75 percent of the sample units); and (2) an estimate based on the data for the current month only, inflated to independent estimates of the population by age, sex, and color (previously the sole estimation procedure used). The final estimate is then obtained from a weighted average of the intermediate estimates (1) and (2), achieving a substantial reduction in sampling variability for most items.

The panel of respondents is rotated. A single household is interviewed for four consecutive months, dropped for eight months, and picked up again for the next four months. Thus roughly three-fourths of the sample is identical from one month to the next, and one-fourth is added; and in any given month about one-half the sample is identical with that interviewed in the same month a year earlier.

The major labor force categories (using the definitions as revised in 1957) have been seasonally adjusted back to 1947 using a ratio-to-moving-average method with a provision for "moving" adjustment factors to take account of changing seasonal patterns. The methods used are described in "New Seasonal Adjustment Factors for Labor Force Components" by Morton S. Raff and Robert L. Stein in the August 1960 issue of the *Monthly Labor Review*. Factors in use during 1960 for the years 1958, 1959, and 1960 indicate the range of magnitude of the seasonal fluctuations in the series. (See table on p. 33.)

*Relation to other series.*—The labor force estimates of employment, obtained from a sample of households, differ in a number of respects from estimates of employment prepared from reports of employing establishments and based on payroll records, such as the Bureau of Labor Statistics current nonagricultural employment series and the Department of Agriculture estimates of farm employment. Because of these differences and variability in sampling and response, changes in the various series may not always be consistent. The labor force estimates provide information on the work status of the population: persons employed at more than one job, either because they hold more than one job concurrently or because they changed jobs during the survey week,

are counted only once and are classified according to the job at which they work the greatest number of hours during the week. Estimates based on reports from business establishments and farms, on the other hand, count persons who work for more than one establishment as many times as the number of different payrolls on which their names appear. The labor force estimates relate to all types of workers, including domestic service workers, unpaid family workers (working 15 hours or more during the week) and self-employed persons, groups which are excluded from nonagricultural employment series based on establishment reports. On the other hand, workers less than 14 years of age are excluded from the labor force estimates whereas the payroll-based series have no age exclusions. An additional difference arises from the fact that some persons with a job but not at work are likely to be included with the employed in the labor force estimates, whereas only part of this group (those receiving pay while away from work) are included in the payroll estimates.

For a number of reasons, the unemployment estimates are not directly comparable with statistics derived from unemployment insurance operations. In the first place, some unemployed persons are not eligible for unemployment insurance, particularly young persons looking for their first jobs, domestic servants, most former State and local government workers, agricultural workers, and persons who lost their jobs in firms too small to be covered by the various State unemployment insurance laws. Unemployed persons who have already received all of the benefits to which they are currently entitled are not included in the insured unemployment figures. Also, the qualifications for drawing unemployment insurance differ from the definition of unemployment used in the labor force series. For example, some persons with a job but not at work and persons working only a few hours during the week are eligible for unemployment insurance, but are classified in the labor force series as employed. Furthermore, some persons may be reported to the Census Bureau interviewers as not looking for work even though they may be registered at public employment offices, consider themselves available for jobs and may be eligible for unemployment insurance.

*Uses and limitations.*—One of the chief advantages of the household labor force, employment and unemployment estimates is that they provide the only comprehensive figures covering the employment

*Seasonal Adjustment Factors for the Labor Force and Major Components, to be Used for the Period 1958-60*

Month	Civilian labor force	Employment			Unemployment	
		Total	Agricultural	Nonagricultural	Number	Rate
January.....	97.7	96.9	81.3	98.6	114.2	116.7
February.....	98.0	97.0	81.8	98.7	116.3	118.6
March.....	98.4	97.7	86.2	99.0	111.1	112.9
April.....	99.0	98.6	93.0	99.2	103.1	104.1
May.....	100.1	100.1	106.0	99.5	99.4	99.2
June.....	102.4	101.8	118.2	100.0	113.2	110.4
July.....	102.7	102.4	117.9	100.7	105.0	102.3
August.....	101.8	102.3	111.1	101.3	91.2	89.5
September.....	100.4	101.2	109.9	100.2	83.9	83.5
October.....	100.6	101.8	112.0	100.7	78.8	78.2
November.....	100.0	100.5	97.4	100.9	90.0	89.9
December.....	99.1	99.4	85.0	101.0	93.5	94.4

status of the whole population. The data are collected monthly and published promptly. The estimates of unemployment, in particular, are used as a current indicator of the general health of the economy.

Another advantage of the household enumeration method of obtaining labor force information is the possibility of relating work status to other personal and family characteristics. Classifications are made not only by broad occupation and industry groups, but also by sex, age, and color, by marital status and number of children. For example, changes in the employment of married women, and of married women with small children, can be studied. By asking supplementary questions from time to time other information concerning the family can be similarly estimated, such as family incomes and the amount of migration during the course of a year. All these analyses throw light on the changing size and composition of the labor force.

It should be noted that in the classification used, anyone who did any work for pay or in his own business or profession during the survey week (or did 15 or more hours of unpaid work in a family enterprise) is counted as employed. Also counted as employed are those who did not work nor look for work but who had definite jobs from which they were temporarily absent. (The numbers in these groups are shown separately.) Thus the survey indicates roughly the total demand for jobs: the number of persons who have jobs (the employed) and the number seeking jobs (the unemployed). To understand current trends, the summary figures need to be supplemented by the detailed data. The infor-

mation provided regularly on hours worked shows the number of full-time and part-time employed. Starting in May 1955, information is also provided monthly on the extent of part-time employment, and the amount of such part-time employment arising from economic causes; these data were available only quarterly or less frequently prior to that date. Monthly data on changes in the duration of unemployment add meaning to the total count of unemployment.

Since the estimates are prepared from a relatively small sample, the user should not attach significance to very small changes. Estimates of sampling variability in the data are regularly published. The relative standard sampling error for the 330-area sample is estimated at about 0.3 to 0.5 percent for summary estimates of the civilian labor force, total employment, and nonagricultural employment; and roughly 2.5 to 3.5 percent for agricultural employment and total unemployment.

The user should also keep in mind that the information is collected by personal interview, usually with the housewife. She may not, in some cases, have exact knowledge for all members of the household. For this reason, as well as because of the relatively small size of the sample, only broad occupational and industry groupings of the data are published. Finally, the measurement of unemployment is in some cases difficult, since it depends in part on the attitude of the person interviewed. The classification of a person as unemployed has been made as objective as possible, by using the criterion of "looking for work," but no method has been as yet developed

which will insure consistent reporting of activity month after month. Some marginal (usually very small) groups may be reported as unemployed in some circumstances whereas they would be reported as not in the labor force in others. Most of these problems of measurement affect persons whose attachment to the labor force is casual or intermittent, especially married women and youths still in school looking for part-time jobs.

*References.*—Monthly estimates are first released by the Bureau of Labor Statistics in the *Monthly Report on the Labor Force* which presents the household labor force series, the employer nonagricultural employment series, and the insured unemployment series in a combined release. The same labor force

data, together with additional details, are published monthly in *Employment and Earnings* which also includes explanatory notes describing the data and the methodology, indicating the reliability of the estimates and summarizing the seasonal adjustments. A more detailed technical note is available on request to the BLS. Annual summaries and supplementary information on work experience during the preceding year, multiple jobholding, etc., are published by the BLS in a series of "Special Labor Force Reports." Related demographic data from the Current Population Survey are published by the Bureau of the Census in special reports (Current Population Reports, Series P-60, Consumer Income; Series P-20, Population Characteristics).

## UNEMPLOYMENT INSURANCE PROGRAMS

*Description of series.*—Weekly data on claims for benefits under employment security programs, obtained as a byproduct of operations, represent a measure of unemployment among workers covered by the programs. The series are compiled by the Bureau of Employment Security from reports from State employment security agencies covering State programs, the program of unemployment compensation for Federal employees, and the ex-servicemen's unemployment compensation program. Figures for earlier years also include Korea veterans filing under the Veterans' Readjustment Assistance Act of 1952 and World War II veterans who filed for benefits under the Servicemen's Readjustment Act of 1944, but exclude claims filed under the temporary extension of unemployment compensation during the 1958 recession. The data for "all programs" also include in the national totals the program of unemployment insurance administered by the Railroad Retirement Board. "State programs" exclude the Federal employee, servicemen, and railroad industry programs.

Insured unemployment represents the number of covered workers totally or partially unemployed during a given week for which they have filed unemployment insurance claims. Weekly insured unemployment figures are available for each State for the State, Federal employee (UCFE) and ex-servicemen's (UCX) programs. Weekly averages for the calendar month are also provided. In addition, for the week ending nearest the fifteenth of each month, insured unemployment figures for 145 major labor

market areas are provided, including State programs, UCFE, and UCX.

Initial claims are notices of the beginning of a period of unemployment for which benefits may later be claimed. These data are also available on a weekly basis for each State. This series provides a measure of the volume of new unemployment emerging under the State, UCFE, and UCX programs. Data on initial claims are not added to the insured unemployment count, however, since such claims do not certify to completed weeks of unemployment.

Exhaustions are a count of the number of claimants who have drawn the final weekly benefit payment to which they are entitled in a given benefit year under provisions of the State unemployment insurance laws.

Covered employment under all programs includes the employment of workers covered by State programs, and the Railroad Retirement Board programs from the beginning of the series, the employment of Federal government workers since 1955, and the armed forces since 1958, when the UCX program became operative. Although coverage of the Federal and State unemployment insurance programs has expanded until it now includes about 80 percent of all wage and salary workers in nonagricultural industries, certain groups of workers are excluded—namely, self-employed persons, unpaid family workers, and persons employed in specific industries, such as agriculture, domestic service, many nonprofit organizations, and most State and local governments. Also, within the "covered" industries, employees of

firms below a specified size (fewer than four employees) are excluded in many States. Prior to 1958, members of the armed forces are excluded from the count of covered employment because it was impossible to estimate the numbers actually eligible in any given year under the various programs which were in effect beginning with World War II. Between September 1940 and July 1947, an estimated 16.5 million different individuals served in the Armed Forces. These persons, upon discharge, could have drawn benefits under the Servicemen's Readjustment Act between September 1944 and September 1951 if unemployed and otherwise eligible. Between June 1950 and January 1955, an estimated 6.8 million individuals served in the armed forces during the Korean conflict. These individuals, upon discharge, could have drawn benefits under the UCV program (Unemployment Compensation for Veterans) beginning October 1952. The rights for most such veterans under this program were terminated in July 1958. However, a small number, depending upon

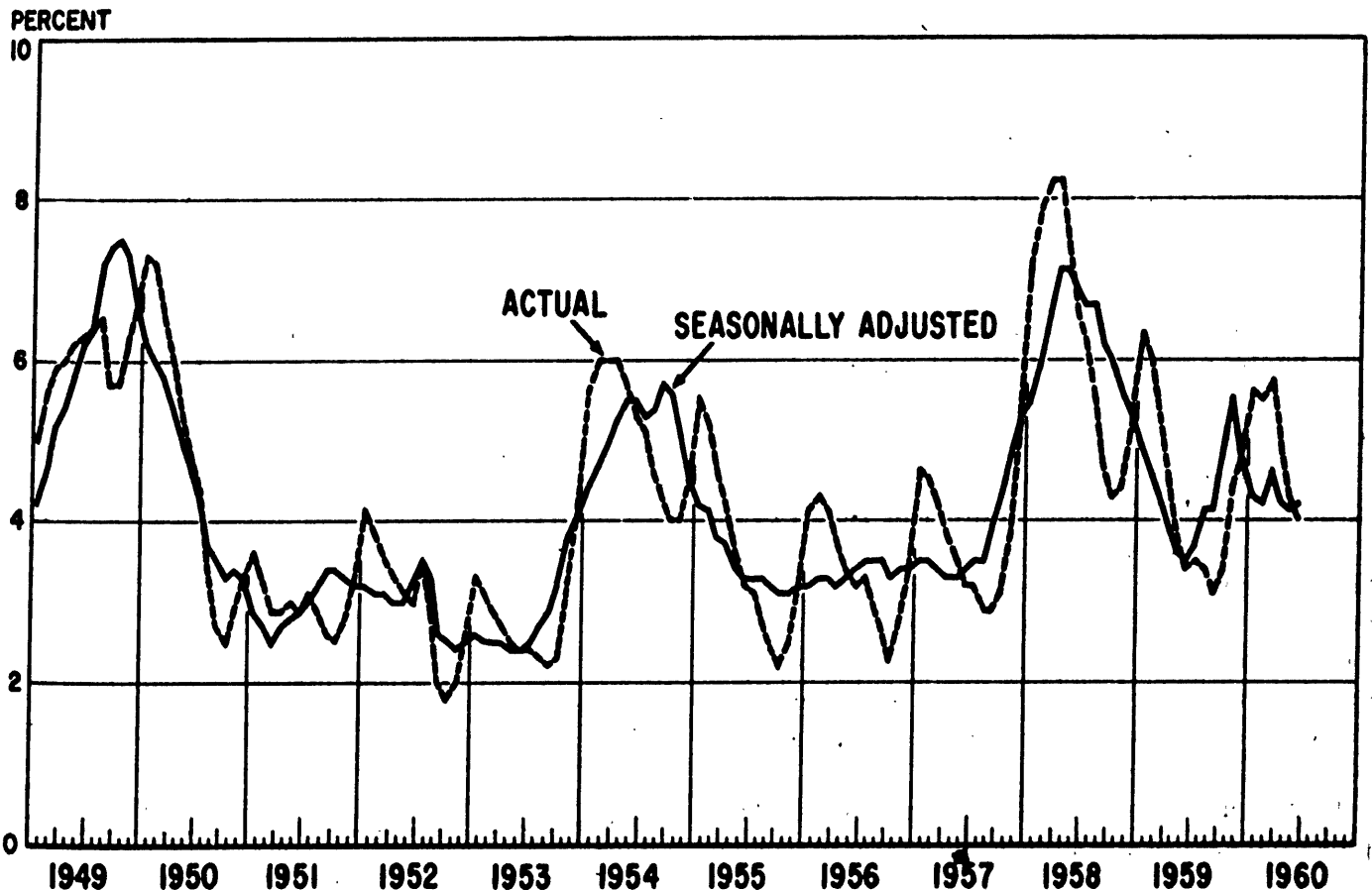
their discharge dates, were still eligible for UCV benefits through January 1960. Persons eligible for benefits under the UCX program include ex-servicemen who entered the armed forces after January 31, 1955, as well as veterans who entered prior to that date but were discharged after October 27, 1958.

The annual covered employment series is the average of 12 mid-monthly employment figures for the year. In 1959, workers covered by State programs accounted for about 87 percent of the total. Insured unemployment as a percent of covered employment (shown here for the State programs only) relates insured unemployment to the average covered employment for a preceding 12-month period, the period approximating the time when the wage credits were earned on which benefits were based.

Under State programs, the average weekly check is obtained by dividing the number of weeks of unemployment compensated for total unemployment into the amount of benefits paid for total unemployment.

### Rates of Insured Unemployment Under State Programs, U.S., 1949-60

(Monthly data. Percent of covered employment)



SOURCE OF DATA: DEPARTMENT OF LABOR



## Unemployment Insurance Programs

Year	All programs			State programs					
	Covered employment <sup>1</sup>	Insured unemployment (weekly averages) <sup>2</sup>	Benefits paid <sup>2</sup>	Insured unemployment	Initial claims	Exhaustions	Insured unemployment as percent of covered employment	Benefits paid	
								Total	Average weekly check
	Thousands		Mil. dol.	Weekly average, thousands				Mil. dol.	Dollars
1940.....	24,291	1,331	534.7	1,282	214	50	5.6	518.7	10.56
1941.....	28,136	842	358.8	814	164	30	3.0	344.3	11.06
1942.....	30,819	661	350.4	649	122	21	2.2	344.1	12.66
1943.....	32,419	149	80.5	147	36	4	.5	79.6	13.84
1944.....	31,714	111	67.2	105	29	2	.4	62.4	15.90
1945.....	30,087	720	574.9	589	116	5	2.1	445.9	18.77
1946.....	31,856	2,804	2,878.5	1,295	189	38	4.3	1,094.9	18.50
1947.....	33,876	1,805	1,785.0	1,009	187	24	3.1	775.1	17.83
1948.....	34,646	1,468	1,328.7	1,002	210	20	3.0	789.9	19.03
1949.....	33,098	2,479	2,269.8	1,979	322	37	6.2	1,736.0	20.48
1950.....	34,308	1,605	1,467.6	1,503	236	36	4.6	1,373.1	20.76
1951.....	36,334	1,000	862.9	969	208	16	2.8	840.4	21.09
1952.....	37,006	1,069	1,043.5	1,024	215	18	2.9	998.2	22.79
1953.....	38,072	1,065	1,050.6	995	218	15	2.8	962.2	23.58
1954.....	36,617	2,048	2,291.8	1,865	303	34	5.2	2,026.9	24.93
1955.....	40,014	1,395	1,560.2	1,254	226	25	3.5	1,350.3	25.04
1956.....	42,758	1,318	1,540.6	1,212	226	20	3.2	1,380.7	27.02
1957.....	43,447	1,567	1,913.0	1,450	268	23	3.6	1,733.9	28.17
1958.....	44,501	2,766	3,892.5	2,509	370	50	6.4	3,512.7	30.58
1959.....	45,727	1,856	2,651.7	1,682	281	33	4.4	2,279.0	30.41

<sup>1</sup> Includes workers under the State, UCFE (effective January 1955), and RR programs; beginning with calendar year 1958, also includes members of the armed forces since such persons, upon discharge—if unemployed and otherwise qualified—are eligible for benefits under the program of Unemployment Compensation for Ex-servicemen (UCX). This program became effective October 27, 1958.

<sup>2</sup> Includes State, UCFE, RR, UCX, UCV, and SRA programs.

NOTE.—Includes Alaska and Hawaii for all years. Annual data start with 1940. Monthly and weekly data on insured unemployment available beginning July 1945.

Source: Department of Labor.

**Statistical procedures.**—The insured unemployment figures are complete counts of completed weeks of unemployment for which benefits are claimed (by the filing of continued claims). The BES sums the data reported by the State employment security agencies and the Railroad Retirement Board to get national totals weekly. Generally, a continued claim filed in a given week certifies to unemployment in the preceding week. Therefore, the weeks of unemployment claimed in a given week are assumed to represent insured unemployment in the preceding week, i.e., the week in which the unemployment actually occurred.

Insured unemployment as a percent of covered employment is seasonally adjusted by a ratio-to-moving-average method, using the same techniques as are used in the labor force and nonagricultural employees series, noted above. The seasonal adjustment factors

for the rate of insured unemployment, State programs, for use with data for 1958, 1959, and 1960 are:

Month	Factor
January.....	129.2
February.....	130.3
March.....	123.3
April.....	116.1
May.....	104.9
June.....	95.3
July.....	93.4
August.....	81.9
September.....	75.6
October.....	71.1
November.....	79.0
December.....	100.4

**Relation to other series.**—For a comparison with total unemployment, see above, under Labor Force (p. 32).



*Uses and limitations.*—The BES series are derived from administrative records and provide complete counts of claims-taking transactions rapidly, on a weekly basis. The insured unemployment figures serve two purposes as economic indicators. First, since they are available weekly they provide the most up-to-date information on current trends in unemployment. Second, they provide geographic detail for labor market areas as well as for States. In using these figures as economic indicators, however, certain inherent limitations must be kept in mind.

The limitations of the series, as well as their unique advantages, stem from the fact that they are byproducts of administrative records. In the first place, as described above, workers in certain industries and in the very small firms are not covered, at least in some States. In addition, some groups of covered workers may not be included in the data on insured unemployment because they are not eligible for benefits. These groups include unemployed workers whose previous jobs were in covered industries but who did not earn sufficient wage credits or were not employed the required length of time; unemployed covered workers who are disqualified for various reasons, such as voluntary quitting without good cause, discharge for misconduct, refusal of suitable work, or temporary illness; persons who are eligible to receive benefits but for one reason or another do not apply; and finally, workers who have exhausted their benefit rights. In a period when unemployment is substantial and of long duration, the volume of exhaustions may have an important bearing on the magnitude of the insured unemployment levels. Unlike total unemployment, the insured unemployment series does not include new entrants into the labor market, who are looking for, but have not yet found work.

These limitations vary over time as well as between States. During the years since 1939, exclusions on account of "size-of-firm" provisions have declined. Originally, State unemployment insurance programs excluded workers in firms with fewer than eight employees. In January 1966, amendments to the Social Security Act resulted in coverage of workers in firms employing four or more. In addition, changes in many State laws during these years have resulted in the coverage of workers in firms employing fewer than four. At the beginning of 1960, seventeen States had "size-of-firm" provisions of one or more.

Weekly data are subject to some variation from week to week as holidays call for a rescheduling of the claimant's appearance at the local office. The effects of this factor, however, have been reduced considerably since 1959, when nearly all the States adopted procedures for adjusting "weeks claimed" totals affected by holidays. Monthly data are presented as "average weekly volume of insured unemployment" and are not significantly affected by holiday weeks. The monthly data, however, are influenced to some extent by administrative factors. Forty-six States and the District of Columbia operate on an "individual benefit year" basis. In such States a worker who previously had insufficient wage credits may become eligible for benefits when the earnings of a new quarter become a part of his base period. This administrative factor exerts an upward influence on both insured unemployment and initial claims during the first month of each quarter in most States. Similarly, four States which operate on a "uniform benefit year" usually show an administrative rise in insured unemployment at the beginning of the new benefit year.

Exhaustion of benefits reflects both economic conditions and duration provisions of the various State unemployment insurance laws. While a count of the number of claimants who have exhausted their benefit rights is a useful economic indicator, it is difficult to determine how long unemployment continues after the claimant has exhausted his benefits. It may be assumed that some exhaustees will find new employment shortly after their benefits for a given benefit year have been exhausted, while others will remain unemployed for varying periods of time. Consequently, a knowledge of the number of persons who have exhausted benefits in the past gives no indication of the number who are still unemployed, and hence does not provide an estimate which can be added to insured unemployment to estimate a total count of unemployment from covered industries. Furthermore, in interpreting monthly figures on exhaustions, the usual seasonal increase in the late winter months should be kept in mind.

*References.*—The basic release of the weekly data is the BES Unemployment Insurance Claims, which contains initial claims as well as insured unemployment for the State, Federal employee and ex-service-men programs by States, and nationally for the Railroad Retirement Board program. Insured unemployment for the week ending nearest the 15th of

the month is included in *The Monthly Report on the Labor Force* for the States and for major labor market areas. Weekly figures, monthly averages, and actual and seasonally adjusted insured unemployment rates are also published in the BES monthly periodical, *The Labor Market and Employment Security*. Weekly data back to July 1945 are available

upon request from the BES. A comprehensive summary of technical notes, "Insured Unemployment, Employment, and Wage Statistics: Their Source, Nature and Limitations," appears in the March 1960 issue of *The Labor Market and Employment Security*. Reprints of this summary of technical notes are available upon request to the BES.

## NONAGRICULTURAL EMPLOYMENT

*Description of series.*—Current monthly series on employment in nonagricultural establishments, with related information on hours and earnings (see below), are prepared by the Bureau of Labor Statistics. Employment estimates are published for about 230 separate industry groups and subgroups as well as 8 major industry divisions (manufacturing, mining, trade, etc.). Estimates of women employed in manufacturing industries are available quarterly.

Employment figures represent the total number of persons employed in nonagricultural establishments in the continental United States during a specified payroll period which (for all industries except Federal Government) is that ending nearest the 15th of the month. Employed persons include all those who worked during or received pay for any part of the payroll period, including part time as well as full time, temporary as well as permanent, employees. Workers on an establishment's payroll who are on paid sick leave, paid holiday or paid vacation, or who work a part of a specified pay period and are unemployed or on strike during the other part are considered employed. Persons on the payroll of more than one establishment during the pay period are counted each time reported. On the other hand, persons are not considered employed who are laid off, on leave without pay, or on strike for the entire pay period. Proprietors, the self-employed and unpaid family workers, and domestic workers in households are not included. Government employment statistics refer to civilian employees only, but include employees of State and local governments as well as Federal.

Information on employment, hours and earnings is collected each month from a sample of establishments under cooperative arrangements with State agencies (primarily State employment security agencies affiliated with the Bureau of Employment Security). The cooperating State agencies mail questionnaires to the reporting establishments and edit

them when returned, before passing the information on to the BLS. To eliminate duplicate reporting, the same establishment reports are used for preparing State, area, and national estimates.

Durable goods manufacturing industries include: ordnance and accessories, lumber and wood products, furniture and fixtures, stone, clay and glass products, primary metal industries, fabricated metal products, machinery, transportation equipment, instruments and miscellaneous manufacturing industries. All other manufacturing industries are included in the nondurable manufacturing estimates. Employees of government-operated manufacturing establishments, such as ordnance plants and shipyards, are included under government.

*Statistical procedures.*—Current estimates depend on monthly reports from a sample of employers. The sample of about 180,000 establishments is designed to obtain reports from most if not all the large establishments in each industry but the proportion of total employment covered varies considerably from industry to industry. It is high (69 percent) in manufacturing, for example, and much lower in wholesale and retail trade (20 percent) and service industries.

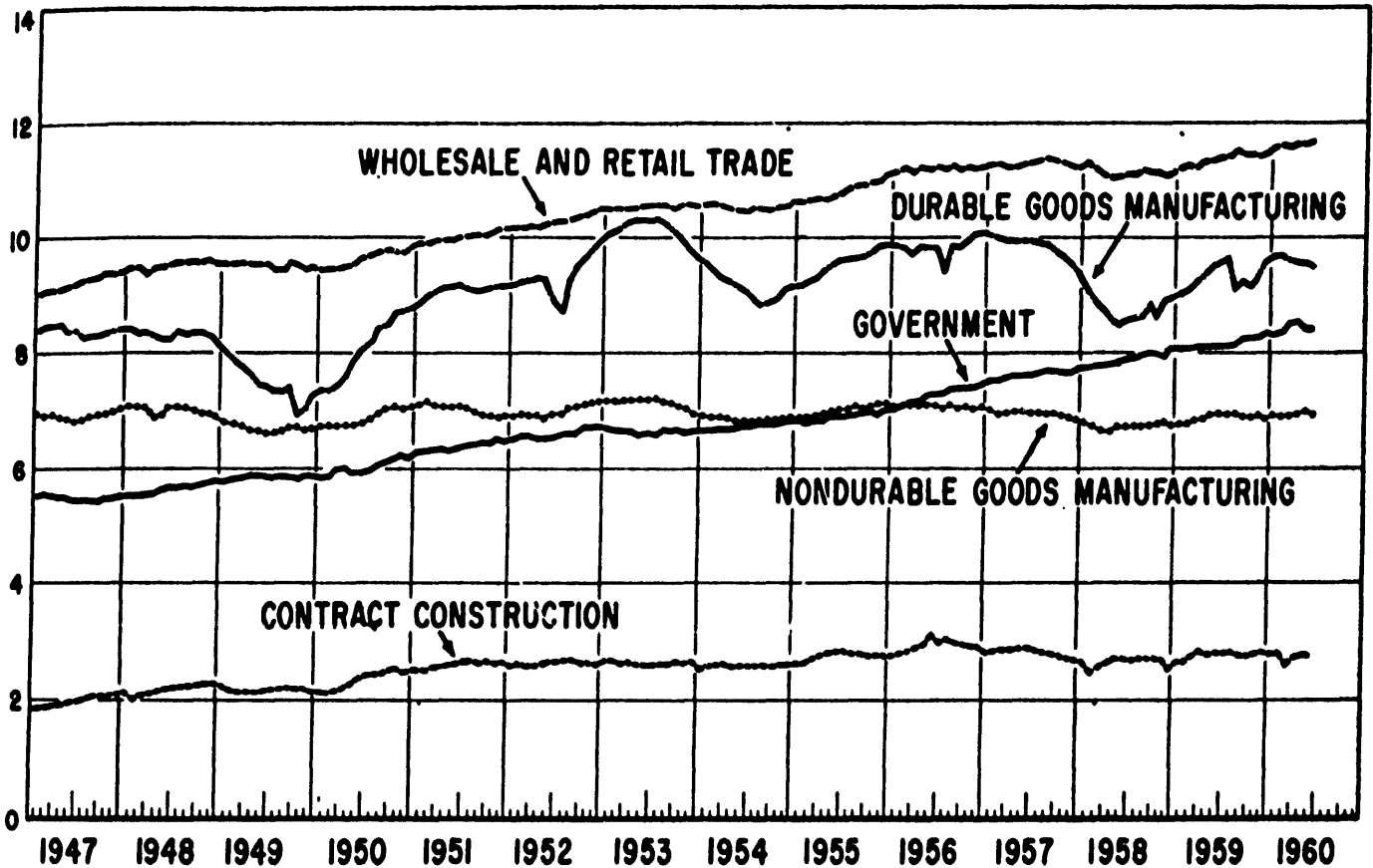
In order to compute total employment from the sample reports, month-to-month changes in the sample establishments are applied to a total employment figure (benchmark) separately for each industry. The benchmark figures are obtained from sources which, singly or in combination, insure either a complete count of employment for the specified benchmark period, or an estimate of reasonable accuracy. This method takes advantage of benchmark data which are byproducts of other governmental functions.

Since 1939 the basic sources of benchmark information have been periodic tabulations of employment data by industry compiled by State agencies from reports of establishments covered under State

## Employees in Nonagricultural Establishments, 1947-60

(Monthly data. Seasonally adjusted)

MILLIONS OF PERSONS



SOURCE OF DATA: DEPARTMENT OF LABOR

unemployment insurance laws. Employment in small-size establishments exempt from State unemployment insurance laws is based on data obtained from the United States Bureau of Old-Age and Survivors Insurance. For industries not covered by either of the two programs, benchmarks are compiled from other sources: for example, for interstate railroads, from information reported to the Interstate Commerce Commission; for State and local government, from data reported to the Bureau of the Census; for the Federal Government, from data compiled by the Civil Service Commission. Establishments are classified into the same industrial groupings for benchmark purposes as for monthly reporting.

The most recent benchmark adjustment was to data for the first quarter of 1957 (published in July 1958). These revisions were carried back to the first quarter of 1956 where appropriate. The next revision will be to benchmark data for the first quarter of 1959, which will be published early in 1961. This benchmark revision will also incorporate a revision

in the benchmark procedure whereby for selected industries the estimates will be stratified by size of establishment.

Establishments reporting employment information are classified into industries on the basis of their principal product or activity. Prior to publication of State and area data for January 1959, all national, State and area employment, hours, and earnings series were classified in accordance with the following: (1) for manufacturing, the Standard Industrial Classification, 1945, and (2) for nonmanufacturing, the Industrial Classification Code, Social Security Board, 1942. Beginning with January 1959 (with an overlap for 1958), State and Area series are classified under the revised Standard Industrial Classification, 1957. The national industry statistics will be converted to the 1957 SIC early in 1961, at the time of the revision to 1959 benchmark information. Comparable data will be available from at least January 1958, thus providing an overlap of more than three years.

Seasonally adjusted employment aggregates are

## Nonagricultural Employment

[Thousands of wage and salary workers <sup>1</sup>]

Year	Total <sup>2</sup>	Manufacturing, private			Nonmanufacturing, private				Government (Federal, State, and local)
		Total	Durable goods	Non- durable goods	Total <sup>2</sup>	Contract construc- tion	Wholesale and retail trade	Mining	
1929.....	31,041	10,534	( <sup>3</sup> )	( <sup>3</sup> )	17,441	1,497	6,401	1,078	3,0
1930.....	29,143	9,401	( <sup>3</sup> )	( <sup>3</sup> )	16,593	1,372	6,064	1,000	3,1
1931.....	26,383	8,021	( <sup>3</sup> )	( <sup>3</sup> )	15,098	1,214	5,531	864	3,2
1932.....	23,377	6,797	( <sup>3</sup> )	( <sup>3</sup> )	13,355	970	4,907	722	3,2
1933.....	23,466	7,258	( <sup>3</sup> )	( <sup>3</sup> )	13,041	809	4,999	735	3,16
1934.....	25,699	8,346	( <sup>3</sup> )	( <sup>3</sup> )	14,055	862	5,552	874	3,2
1935.....	26,792	8,907	( <sup>3</sup> )	( <sup>3</sup> )	14,408	912	5,692	888	3,47
1936.....	28,802	9,653	( <sup>3</sup> )	( <sup>3</sup> )	15,487	1,145	6,076	937	3,682
1937.....	30,718	10,606	( <sup>3</sup> )	( <sup>3</sup> )	16,363	1,112	6,543	1,006	3,749
1938.....	28,902	9,253	( <sup>3</sup> )	( <sup>3</sup> )	15,773	1,015	6,453	882	3,876
1939.....	30,311	10,078	4,683	5,394	16,238	1,150	6,612	845	3,995
1940.....	32,058	10,780	5,337	5,443	17,076	1,294	6,940	916	4,202
1941.....	36,220	12,974	6,945	6,028	18,586	1,790	7,416	947	4,660
1942.....	39,779	15,051	8,804	6,247	19,245	2,170	7,333	983	5,483
1943.....	42,106	17,381	11,077	6,304	18,645	1,567	7,189	917	6,080
1944.....	41,534	17,111	10,858	6,253	18,380	1,094	7,260	883	6,043
1945.....	40,037	15,302	9,079	6,222	18,791	1,132	7,522	826	5,944
1946.....	41,287	14,461	7,739	6,722	21,231	1,661	8,602	852	5,595
1947.....	43,462	15,290	8,372	6,918	22,698	1,982	9,196	943	5,474
1948.....	44,448	15,321	8,312	7,010	23,477	2,169	9,519	982	5,650
1949.....	43,315	14,178	7,473	6,705	23,281	2,165	9,513	918	5,856
1950.....	44,738	14,967	8,085	6,882	23,745	2,333	9,645	889	6,026
1951.....	47,347	16,104	9,080	7,024	24,854	2,603	10,012	916	6,389
1952.....	48,303	16,334	9,340	6,994	25,360	2,634	10,281	885	6,609
1953.....	49,681	17,238	10,105	7,133	25,798	2,622	10,527	852	6,645
1954.....	48,431	15,995	9,122	6,873	25,685	2,593	10,520	777	6,751
1955.....	50,056	16,563	9,549	7,014	26,579	2,759	10,846	777	6,914
1956.....	51,766	16,903	9,835	7,068	27,586	2,929	11,221	807	7,277
1957.....	52,162	16,782	9,821	6,961	27,754	2,808	11,302	809	7,626
1958.....	50,543	15,468	8,743	6,725	27,182	2,648	11,141	721	7,893
1959.....	51,975	16,168	9,290	6,878	27,680	2,767	11,385	676	8,137

<sup>1</sup> Includes all full- and part-time wage and salary workers in nonagricultural establishments who worked during or received pay for any part of the pay period ending nearest the 15th of the month. Excludes proprietors, self-employed persons, domestic servants, unpaid family workers, and personnel of the armed forces. Total derived from this table not comparable with estimates of nonagricultural employment of the civilian labor force (p. 30) which include proprietors, self-employed persons, unpaid family workers, and domestic servants, which count persons as employed when they are not at work because of industrial disputes, bad weather, etc., and which are based on a sample survey of households, whereas the estimates in this table are based on reports from employing establishments.

<sup>2</sup> Excludes Alaska and Hawaii. Total for 1959 including Alaska and Hawaii is 52,208.

<sup>3</sup> Also includes transportation and public utilities; finance, insurance, and real estate; and services and miscellaneous not shown separately here.

<sup>4</sup> Not available.

NOTE.—Monthly data available beginning January 1939; annual from 1919.

Source: Department of Labor.

prepared by a ratio-to-moving-average method. The seasonal factors, prepared for "two-digit" manufacturing industries and for the nonmanufacturing industry divisions, are available from the Bureau of Labor Statistics on request. The magnitudes of the adjustments may be judged from the implicit seasonal adjustment factors for total nonagricultural employment for 1959. The adjusted series prepared by summing the aggregates of the seasonally adjusted components will give slightly different results.

### Implicit Seasonal Adjustment Factors for Total Nonagricultural Employment for 1959 by Months

January .....	98.5	July .....	99.6
February .....	98.3	August .....	100.1
March .....	98.9	September .....	100.9
April .....	99.1	October .....	101.1
May .....	99.7	November .....	101.0
June .....	100.3	December .....	102.1

*Relation to other series.*—For a comparison with the nonagricultural employment estimates compiled

as a part of the labor force series, see above (p. 32).

In addition to total employment in each industry, BLS also prepares estimates of production worker employment for mining and manufacturing industries, for construction workers in contract construction, and for nonsupervisory workers in public utilities and trade. These estimates are comparable with the average hours and earning series (see below) which are prepared from information reported on the same questionnaires as the employment figures.

In general, BLS employment estimates are comparable with other data collected from establishments, such as employment, production, and similar data obtained by the Census Bureau in the manufacturing censuses and annual surveys. Some differences will be found, however, especially for individual industries, caused chiefly by differences in definitions of the industries covered, in the business units considered parts of an establishment, and in the industrial classification of establishments.

More serious differences are found between the BLS establishment-based series and those based on reports from companies, such as financial reports on profits, because the industry totals that result when a single industry classification is assigned to an entire company differ substantially from those in which each establishment of the company has been assigned to the industry of its principal activity. (See *Corporate Profits*, above, p. 19.)

*Uses and limitations.*—Current employment statistics are widely used as a timely indicator of changes in economic activity in various sectors of the economy. Comparable information for a large number of detailed industries is provided within a few weeks. Furthermore, because of the promptness with which basic information is supplied in considerable industry detail, these estimates are frequently incorporated in other Federal statistical series, particularly in making current estimates of production, productivity, and national income.

The publication of comparable State and local area estimates by the cooperating State agencies using the same concepts and methods provides a means whereby business trends can be followed for all States and the District of Columbia and for about 130 metropolitan areas.

The national estimates are not all of uniform quality, however. In general, those for manufacturing industries are most reliable. Since "cutoff" sam-

pling rather than a probability design has been used, it is not possible to calculate the sampling variability of monthly estimates. Experience with the program has shown that the monthly employment data in some industries tend to have an increasing bias for the successive months between two benchmarks. Although this error cannot be adjusted precisely on a current basis, average adjustment is made through the use of bias adjustment factors before publication. Appropriate changes in employment levels are also made, when necessary, at the next revision to new benchmarks. The comparison made for the first 3 months of 1957, the last benchmark adjustment, for example, resulted in changes amounting to 0.5 percent of all nonagricultural employment. The changes were less than 0.5 percent for three of the eight major industry divisions; under 2 percent for two other divisions; and 3.2, 3.3, and 6.4 percent for the remaining three divisions. One significant cause of differences between the benchmarks and the estimates are the changes in industrial classifications of individual firms, which are usually not reflected in BLS estimates until they are adjusted to new benchmarks. Other causes are sampling and response errors.

*References.*—Monthly summary data first appear in *The Monthly Report on the Labor Force*. The basic monthly release for the employment, hours, and earnings series is the *BLS Employment and Earnings*, which contains national, State, and area estimates and explanatory notes. The national employment, hours and earnings series for 13 months are also reprinted in the *Monthly Labor Review*. Annual averages for the past 6 years are contained in an Annual Supplement issue of *Employment and Earnings* published in the Spring of each year. More detailed technical notes on "Measurement of Industrial Employment" and "Hours and Earnings in Non-agricultural Establishments" appear in *Techniques of Preparing Major BLS Statistical Series* (BLS Bulletin 1168), December 1954. Continuous data for the entire history of a series are provided by the BLS on request. Also available are: *Guide to Employment Statistics of BLS* (1954), *Guide to State Employment Statistics* (1960), and *Guide to Area Employment Statistics* (1960), which list all series for which employment, hours, and earnings data are available, with beginning dates and detailed industry descriptions.

# WEEKLY HOURS OF WORK

## Average Weekly Hours

*Description of series.*—With the employment figures for the specified payroll period, described in the preceding section, BLS collects from the sample establishments total man-hours for which pay is received by production or nonsupervisory workers, including hours paid for holidays, sick leave, and vacations taken. Data on average weekly hours, weekly earnings and hourly earnings are regularly published for about 350 individual industry groups and subgroups, as well as for mining, construction and manufacturing among the major industry divisions. Because of sample limitations, estimates are not prepared for other industry divisions or for all non-agricultural industries combined. Overtime hours (hours in excess of regular hours for which premium payments were made) are estimated separately for major industry groups in manufacturing.

*Statistical procedures.*—The average hours figures are obtained by dividing the number of production

and related workers (or nonsupervisory workers in industries other than mining and manufacturing) into the total man-hours reported for each industry. The average hours are normally less than scheduled hours because of such factors as absenteeism, labor turnover, part-time work, and stoppages.

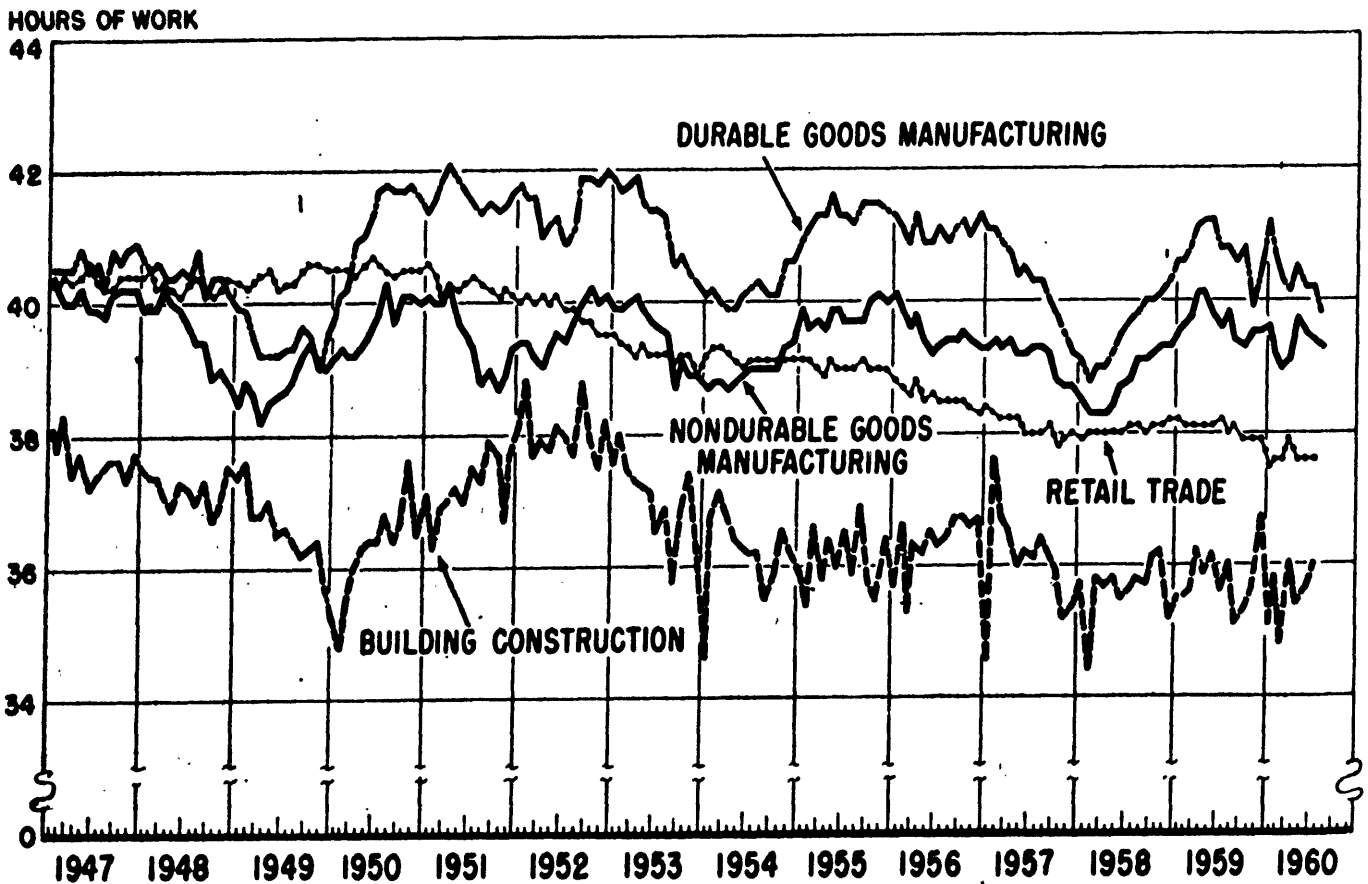
Seasonally adjusted series are prepared in a manner similar to that for nonagricultural employment. The magnitude of the seasonal adjustments is illustrated by the seasonal adjustment factors for average hours of manufacturing production workers, which are:

January.....	99.7	July.....	99.7
February.....	99.6	August.....	100.2
March.....	99.6	September.....	100.7
April.....	99.2	October.....	100.5
May.....	99.5	November.....	100.4
June.....	100.2	December.....	100.9

*Uses and limitations.*—Changes in hours worked supplement the information on employment, since frequently hours worked are affected even before em-

### Average Weekly Hours in Selected Industries, 1947-60

(Monthly data for production workers or nonsupervisory employees. Seasonally adjusted)



SOURCE OF DATA: DEPARTMENT OF LABOR

Weekly Hours of Work

Year	Average hours per week <sup>1</sup>					Persons at work in nonagricultural industries by hours worked per week <sup>2</sup>				
	Manufacturing			Building construction	Retail trade <sup>3</sup>	Over 40 hours	35-40 hours	Under 35 hours		
	Total	Durable goods	Non-durable goods					Total	Part time for economic reasons	
				Usually work full time <sup>4</sup>	Usually work part time <sup>4</sup>					
Hours per week					Millions of persons 14 years of age and over					
1929.....	44.2	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
1930.....	42.1	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
1931.....	40.5	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
1932.....	38.3	32.6	41.9	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
1933.....	38.1	34.8	40.0	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
1934.....	34.6	33.9	35.1	28.9	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
1935.....	36.6	37.3	36.1	30.1	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
1936.....	39.2	41.0	37.7	32.8	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
1937.....	38.6	40.0	37.4	33.4	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
1938.....	35.6	35.0	36.1	32.1	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
1939.....	37.7	38.0	37.4	32.6	42.7	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
1940.....	38.1	39.3	37.0	33.1	42.5	31.5		5.6	( <sup>5</sup> )	( <sup>5</sup> )
1941.....	40.6	42.1	38.9	34.8	42.1	35.2		5.2	( <sup>5</sup> )	( <sup>5</sup> )
1942.....	42.9	45.1	40.3	36.4	41.1	38.2		5.3	( <sup>5</sup> )	( <sup>5</sup> )
1943.....	44.9	46.6	42.5	38.4	40.3	39.7		4.6	( <sup>5</sup> )	( <sup>5</sup> )
1944.....	45.2	46.6	43.1	39.6	40.4	38.1		5.4	( <sup>5</sup> )	( <sup>5</sup> )
1945.....	43.4	44.1	42.3	39.0	40.3	36.5		5.9	( <sup>5</sup> )	( <sup>5</sup> )
1946.....	40.4	40.2	40.5	38.1	40.7	21.4	18.1	5.4	( <sup>5</sup> )	( <sup>5</sup> )
1947.....	40.4	40.6	40.1	37.6	40.3	20.3	21.2	6.0	( <sup>5</sup> )	( <sup>5</sup> )
1948.....	40.1	40.5	39.6	37.3	40.3	19.4	21.0	8.5	( <sup>5</sup> )	( <sup>5</sup> )
1949.....	39.2	39.5	38.8	36.7	40.4	17.6	20.9	9.9	( <sup>5</sup> )	( <sup>5</sup> )
1950.....	40.5	41.2	39.7	36.3	40.5	17.5	22.4	10.2	( <sup>5</sup> )	( <sup>5</sup> )
1951.....	40.7	41.6	39.5	37.2	40.2	19.3	23.3	8.9	( <sup>5</sup> )	( <sup>5</sup> )
1952.....	40.7	41.5	39.6	38.1	39.9	19.4	25.1	7.3	( <sup>5</sup> )	( <sup>5</sup> )
1953.....	40.5	41.3	39.5	37.0	39.2	18.1	26.3	8.6	( <sup>5</sup> )	( <sup>5</sup> )
1954.....	39.7	40.2	39.0	36.2	39.1	15.7	24.4	11.8	( <sup>5</sup> )	( <sup>5</sup> )
1955.....	40.7	41.4	39.8	36.2	39.0	18.0	27.0	8.7	( <sup>5</sup> )	( <sup>5</sup> )
1956.....	40.4	41.1	39.5	36.4	38.6	18.7	27.3	9.4		
1957.....	39.8	40.3	39.1	36.1	38.1	17.6	28.6	9.7	1.1	0.9
1958.....	39.2	39.5	38.8	35.7	38.1	16.6	28.3	10.4	1.2	1.0
1959.....	40.3	40.8	39.6	35.8	38.1	17.3	27.7	11.7	1.6	1.3
									1.0	1.3

<sup>1</sup> For production workers or nonsupervisory employees.

<sup>2</sup> Differs from total employed in nonagricultural industries which includes persons with jobs but not at work for such reasons as illness, vacation, bad weather, and industrial disputes.

<sup>3</sup> Excludes eating and drinking places.

<sup>4</sup> Includes persons who worked part time because of slack work, material shortages or repairs, new job started, or job terminated.

<sup>5</sup> Primarily includes persons who could find only part time work.

<sup>6</sup> Not available.

<sup>7</sup> Data beginning with January 1948 not strictly comparable with those for earlier years.

NOTE.—Monthly data on average weekly hours available beginning 1932 for manufacturing industries, 1934 for building construction, and 1939 for retail trade. Annual data for total manufacturing industries available for years 1909 and 1914 and on continuous basis beginning with 1919. Monthly data on persons at work by hours worked per week available monthly beginning 1940, and numbers classified by reason for part-time work available monthly beginning May 1955. Beginning January 1960 data include Alaska and Hawaii.

Source: Department of Labor.

ployment by changes in economic activity. The hours figures are used in compiling the average earnings figures discussed below. They also serve as a basis for current production estimates for some industries (see description of the index of industrial production, p. 47).

Hours paid for as measured by these series differ from hours worked, and from "plant man-hours," which do not include hours paid for vacation, sick leave, or holidays.

In addition to gross hours for a large number of industries, BLS also publishes monthly estimates of average weekly overtime hours by major industry group in manufacturing and indexes of aggregate weekly man-hours in industrial and construction activities.

*References.*—See above, under Nonagricultural Employment (p. 41).

### Persons At Work, By Hours Worked

*Description of series.*—As part of the collection of information on the labor force (see above, p. 29), hours worked during the survey week at all jobs are obtained. Those working less than 35 hours a week are divided first into two groups, those who usually work full time and those who usually work part time. Each of these groups is then classified according to whether the part-time work during the survey week was the result of (1) "economic" reasons, such as slack work, material shortages, plant or machine repairs, new job started during week, could find only part-time work; or (2) other reasons, such as holidays, bad weather, own illness, vacation, participation in labor dispute, did not want full-time work, etc.

The average hours worked per week by persons working part time in nonagricultural industries for economic reasons differ according to whether such persons usually work full time or usually hold part-time jobs. Annual averages are available beginning 1956 and are:

	Usually work full time	Usually work part time
1956.....	24.0	18.2
1957.....	24.5	18.3
1958.....	25.2	18.1
1959.....	23.8	18.3

*Uses and limitations.*—Changes in the number of persons working part time for economic reasons may reflect changes in economic conditions as soon as, or even earlier than, the number of unemployed. Experience in interpreting the series on reasons for part-time employment has been limited, since the figures have been available on a monthly basis only since May 1955. Information on persons at work by hours worked is also published, classified by broad industrial and occupational groups and by selected personal characteristics. This is the only source of information on hours covering all industries. In analyzing these data, and comparing them with the results of the establishment survey (see above), it should be remembered that the labor force survey includes hours worked at *all* jobs during the survey week, and that the hours reported by the household respondent may reflect in some cases scheduled hours rather than actual hours worked. The establishment survey, on the other hand, includes hours paid for but not worked as well as hours worked, and the average is affected by turnover during the payroll period.

*References.*—See above, under Status of the Labor Force (p. 34).



# AVERAGE HOURLY AND WEEKLY EARNINGS—SELECTED INDUSTRIES

*Description of series.*—The payroll figures on which these averages are based are collected by BLS with the employment and hours figures, described above. They are reported before deductions for taxes, social insurance, etc. They include pay for sick leave, holidays, vacations, and overtime taken, but exclude retroactive pay and bonuses, unless earned and paid regularly each pay period. Earnings in 1959 prices are the average weekly earnings figures adjusted for changes in purchasing power as determined by the Consumer Price Index, with 1959=100.

*Statistical procedures.*—Average hourly earnings are derived by dividing total payrolls by total man-hours reported for each industry. Only the sample data are used, since there are no benchmarks available for hours and earnings.

Average weekly earnings are obtained by multiplying average weekly hours and average hourly earnings for each industry.

*Uses and limitations.*—Average hourly earnings figures are widely used in collective bargaining, in "escalating" long-term sales contracts (such as labor costs for equipment which takes a number of months

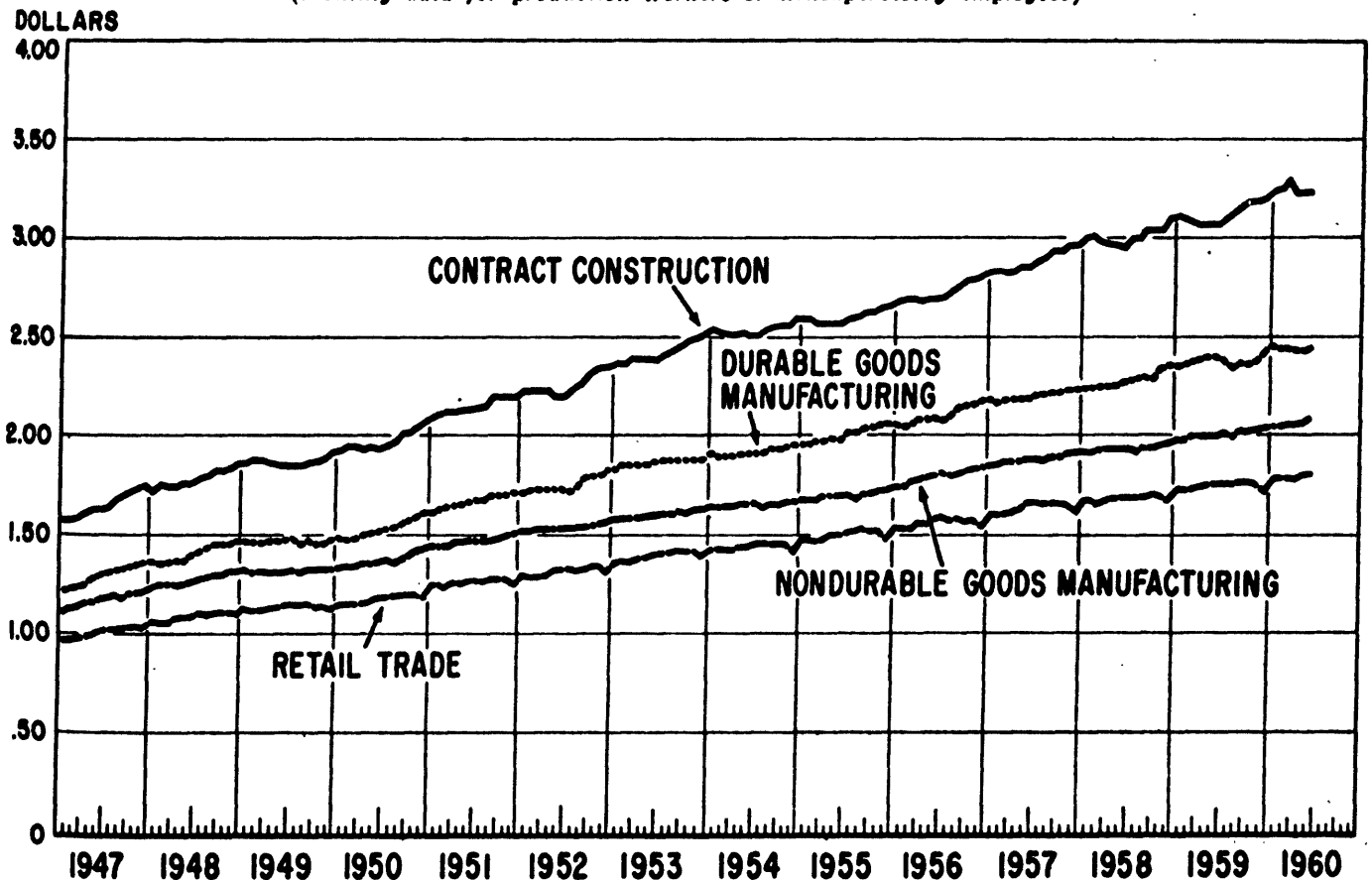
or years to build) and in general economic analysis.

The hourly earnings figures reflect not only changes in basic hourly and incentive wage rates, but also such variable factors as premium pay for overtime and late-shift work and changes in output of workers paid on an incentive basis. The changing employment of workers as between relatively high-paid and low-paid work, and relatively high-wage and low-wage industries, also affects the hourly earnings averages.

Hourly earnings refer to the actual return to the worker for a stated period of time, and should not be confused with wage rates, which represent the rates stipulated for a given unit of work or time. Since certain types of payments (see above) as well as payments to workers excluded from the production worker (or nonsupervisory employee) definition are not included, the earnings series should not be taken to represent labor costs to the employer.

Average weekly earnings are affected by changes in the length of the workweek as well as all of the factors which affect average hourly earnings. They come closer than the hourly earnings to measuring what the worker has to spend. However, they do not

Average Hourly Earnings in Selected Industries, 1947-60  
(Monthly data for production workers or nonsupervisory employees)



## Average Hourly and Weekly Earnings—Selected Industries

[For production workers or nonsupervisory employees]

Year	Average hourly earnings—current prices					Average weekly earnings—current prices					Average weekly earnings, all manufacturing industries, 1959 prices <sup>1</sup>
	Manufacturing industries			Build- ing construc- tion	Retail trade <sup>1</sup>	Manufacturing industries			Build- ing construc- tion	Retail trade <sup>1</sup>	
	All	Durable goods	Non- durable goods			All	Durable goods	Non- durable goods			
1929	\$0. 566	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	\$25. 03	\$27. 22	\$22. 93	( <sup>2</sup> )	( <sup>2</sup> )	\$42. 57
1930	. 552	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	23. 25	24. 77	21. 84	( <sup>2</sup> )	( <sup>2</sup> )	40. 58
1931	. 515	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	20. 87	21. 28	20. 50	( <sup>2</sup> )	( <sup>2</sup> )	39. 98
1932	. 446	\$0. 497	\$0. 420	( <sup>2</sup> )	( <sup>2</sup> )	17. 05	16. 21	17. 57	( <sup>2</sup> )	( <sup>2</sup> )	36. 35
1933	. 442	. 472	. 427	( <sup>2</sup> )	( <sup>2</sup> )	16. 73	16. 43	16. 89	( <sup>2</sup> )	( <sup>2</sup> )	37. 68
1934	. 532	. 556	. 515	\$0. 795	( <sup>2</sup> )	18. 40	18. 87	18. 05	\$22. 97	( <sup>2</sup> )	40. 09
1935	. 550	. 577	. 530	. 815	( <sup>2</sup> )	20. 13	21. 52	19. 11	24. 51	( <sup>2</sup> )	42. 74
1936	. 556	. 586	. 529	. 824	( <sup>2</sup> )	21. 78	24. 04	19. 94	27. 01	( <sup>2</sup> )	45. 76
1937	. 624	. 674	. 577	. 903	( <sup>2</sup> )	24. 05	26. 91	21. 53	30. 14	( <sup>2</sup> )	48. 78
1938	. 627	. 686	. 584	. 908	( <sup>2</sup> )	22. 30	24. 01	21. 05	29. 19	( <sup>2</sup> )	46. 07
1939	. 633	. 698	. 582	. 932	\$0. 542	23. 86	26. 50	21. 78	30. 39	\$23. 14	50. 02
1940	. 661	. 724	. 602	. 958	. 553	25. 20	28. 44	22. 27	31. 70	23. 50	52. 39
1941	. 729	. 808	. 640	1. 010	. 580	29. 58	34. 04	24. 92	35. 14	24. 42	58. 57
1942	. 853	. 947	. 723	1. 148	. 626	36. 65	42. 73	29. 13	41. 80	25. 73	65. 56
1943	. 961	1. 059	. 803	1. 252	. 679	43. 14	49. 30	34. 12	48. 13	27. 36	72. 63
1944	1. 019	1. 117	. 861	1. 319	. 731	46. 08	52. 07	37. 12	52. 18	29. 53	76. 29
1945	1. 023	1. 111	. 904	1. 379	. 783	44. 39	49. 05	38. 29	53. 73	31. 55	71. 94
1946	1. 086	1. 156	1. 015	1. 478	. 893	43. 82	46. 49	41. 14	56. 24	36. 35	65. 50
1947	1. 237	1. 292	1. 171	1. 681	1. 009	49. 97	52. 46	46. 96	63. 30	40. 66	65. 23
1948	1. 350	1. 410	1. 278	1. 848	1. 088	54. 14	57. 11	50. 61	68. 85	43. 85	65. 62
1949	1. 401	1. 469	1. 325	1. 935	1. 137	54. 92	58. 03	51. 41	70. 95	45. 93	67. 22
1950	1. 465	1. 537	1. 378	2. 031	1. 176	59. 33	63. 32	54. 71	73. 73	47. 63	71. 92
1951	1. 59	1. 67	1. 48	2. 19	1. 26	64. 71	69. 47	58. 46	81. 47	50. 65	72. 63
1952	1. 67	1. 77	1. 54	2. 31	1. 32	67. 97	73. 46	60. 98	88. 01	52. 67	74. 61
1953	1. 77	1. 87	1. 61	2. 48	1. 40	71. 69	77. 23	63. 60	91. 76	54. 88	78. 09
1954	1. 81	1. 92	1. 66	2. 60	1. 45	71. 86	77. 18	64. 74	94. 12	56. 70	78. 02
1955	1. 88	2. 01	1. 71	2. 66	1. 50	76. 52	83. 21	68. 06	96. 29	58. 50	83. 26
1956	1. 98	2. 10	1. 80	2. 80	1. 57	79. 99	86. 31	71. 10	101. 92	60. 60	85. 73
1957	2. 07	2. 20	1. 88	2. 96	1. 64	82. 39	88. 66	73. 51	106. 86	62. 48	85. 38
1958	2. 13	2. 28	1. 94	3. 10	1. 70	83. 50	90. 06	75. 27	110. 67	64. 77	84. 26
1959	2. 22	2. 38	2. 01	3. 22	1. 76	89. 47	97. 10	79. 60	115. 28	67. 06	89. 47

<sup>1</sup> Excludes eating and drinking places.

<sup>2</sup> Earnings in current prices divided by Consumer Price Index on a 1959 base.

<sup>3</sup> Not available.

<sup>4</sup> Data beginning with January 1948 not strictly comparable with those for earlier years.

NOTE.—Average hourly earnings monthly data available beginning 1932 for manufacturing industries, 1934 for building construction, and 1939 for retail trade. Annual data for total manufacturing industries available for years 1909 and 1914 and on continuous basis beginning with 1919.

Average weekly earnings monthly data available beginning June 1914 for all manufacturing industries, 1923 for durable and nondurable goods manufacturing, 1934 for building construction, and 1939 for retail trade. - Annual data for all manufacturing industries also available for the years 1909 and 1914.

Source: Department of Labor.

represent take-home pay, since no deductions have been made for income and social security taxes, group insurance, occupational supplies, union dues, or other payroll deductions.

The fact that large establishments predominate in the BLS sample may affect somewhat the level of the average earnings figures for some industries. The stratification of the sample by size, which will be effective with the adjustment to 1959 benchmarks, is expected to correct this situation. Since hours and

earnings data are not collected for all industries, there are no summary series for average hourly or weekly earnings in all nonagricultural establishments.

References.—See above, under Nonagricultural Employment (p. 41). Estimates of hourly earnings excluding overtime and of net spendable weekly earnings in manufacturing and earnings in 1947-49 dollars for selected industries are also published in *Employment and Earnings*.

# PRODUCTION AND BUSINESS ACTIVITY

## INDUSTRIAL PRODUCTION AND PRODUCTION OF SELECTED MANUFACTURES

*Description of series.*—The index of industrial production is prepared monthly by the Board of Governors of the Federal Reserve System. It is designed to measure changes in the physical volume or quantity of output of manufacturing and mining establishments and electric and gas utilities. The industries covered by the index produce about 35 percent of the value of the total output of goods and services in the United States.

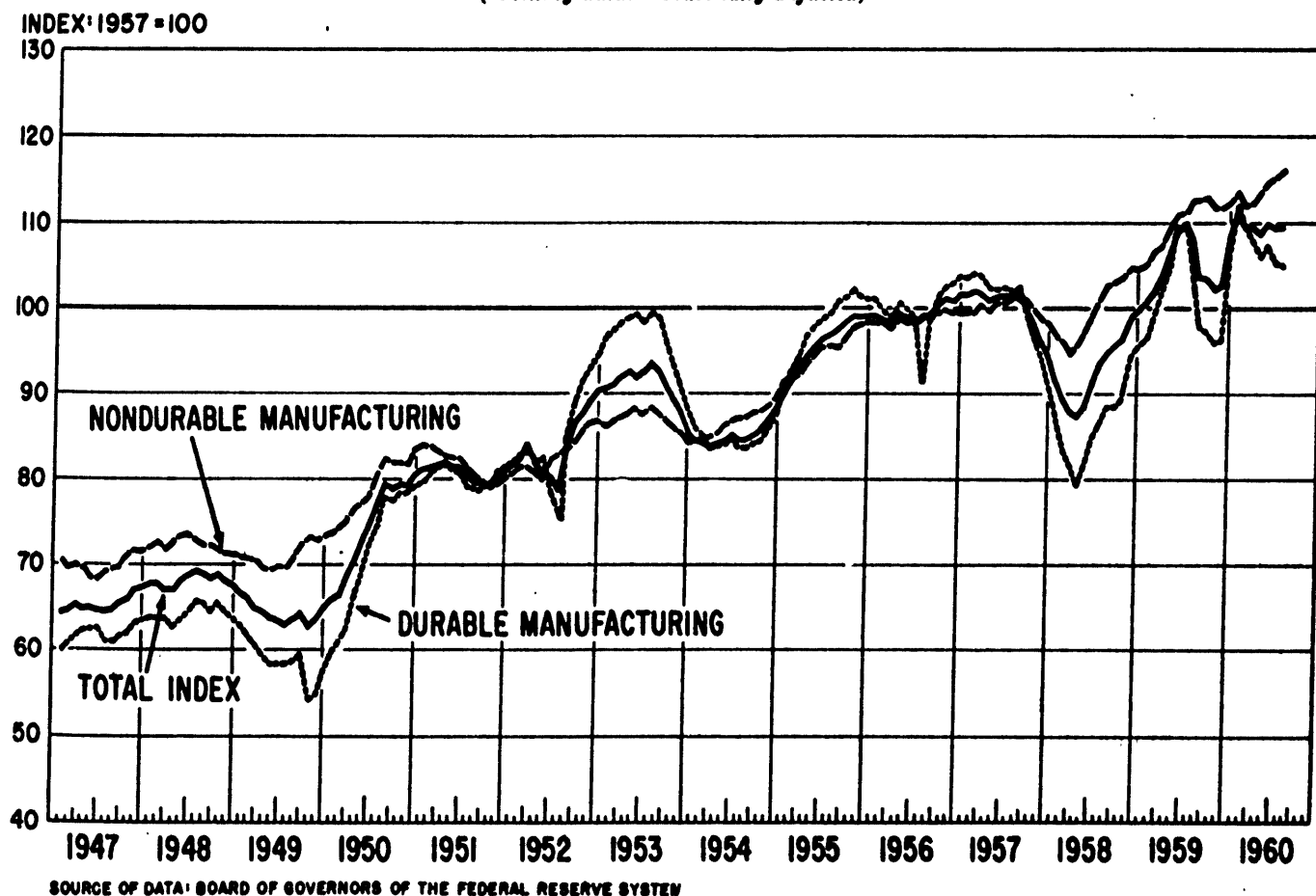
The monthly indexes are based on figures compiled by government agencies and by various trade organizations and publications. The component series are selected to represent the industries, industry groups,

and other subdivisions in the index, and where necessary and possible they include adjustments for undercoverage or other deficiencies in the basic series. For example, series based on shipments data are adjusted, where feasible, for inventory changes; and those based on man-hours data for estimated changes in output per man-hour. In all, there are 207 monthly series, combined according to relative value added in 1957 for the period beginning in 1953.

The monthly series are adjusted periodically to levels indicated by more reliable and comprehensive annual indexes and, for manufactured goods, Census benchmark indexes. The most recent benchmark

### Industrial Production, 1947-60

(Monthly data. Seasonally adjusted)



**Industrial Production**  
[1957=100, annual averages]

Year	Total industrial production	Industry					Market			
		Manufacturing			Mining	Utilities	Final products			Materials
		Total	Durable	Non-durable			Total	Consumer goods	Equipment	
1929.....	38	39	37	40	52	14	(1)	(1)	(1)	(1)
1930.....	32	32	27	36	45	14	(1)	(1)	(1)	(1)
1931.....	26	26	19	34	39	13	(1)	(1)	(1)	(1)
1932.....	21	20	12	30	32	12	(1)	(1)	(1)	(1)
1933.....	24	24	15	34	37	12	(1)	(1)	(1)	(1)
1934.....	26	26	18	35	39	13	(1)	(1)	(1)	(1)
1935.....	31	31	23	39	42	14	(1)	(1)	(1)	(1)
1936.....	36	36	30	43	48	16	(1)	(1)	(1)	(1)
1937.....	40	40	34	46	54	18	(1)	(1)	(1)	(1)
1938.....	31	31	22	41	47	18	(1)	(1)	(1)	(1)
1939.....	38	38	30	47	51	20	(1)	(1)	(1)	(1)
1940.....	44	44	39	40	58	22	(1)	(1)	(1)	(1)
1941.....	56	58	56	60	62	24	(1)	(1)	(1)	(1)
1942.....	<sup>1</sup> 69	<sup>1</sup> 73	<sup>1</sup> 77	<sup>1</sup> 66	64	27	(1)	(1)	(1)	(1)
1943.....	<sup>1</sup> 82	<sup>1</sup> 89	<sup>1</sup> 100	<sup>1</sup> 74	66	30	(1)	(1)	(1)	(1)
1944.....	<sup>1</sup> 81	<sup>1</sup> 86	<sup>1</sup> 98	<sup>1</sup> 71	71	32	(1)	(1)	(1)	(1)
1945.....	70	73	76	68	71	33	(1)	(1)	(1)	(1)
1946.....	59	60	53	67	70	34	(1)	(1)	(1)	(1)
1947.....	65	66	62	70	76	39	65	70	53	66
1948.....	68	69	64	72	80	43	67	72	58	69
1949.....	64	65	59	71	71	46	65	71	50	64
1950.....	75	76	71	79	80	53	74	82	54	75
1951.....	81	82	80	82	87	60	79	81	75	82
1952.....	84	85	85	83	87	65	85	83	90	83
1953.....	91	92	96	87	89	71	91	88	96	91
1954.....	85	86	85	87	86	77	87	87	85	84
1955.....	96	97	98	95	95	85	95	97	91	97
1956.....	99	100	100	99	100	94	99	99	99	100
1957.....	100	100	100	100	100	100	100	100	100	100
1958.....	93	92	87	100	91	105	95	99	87	91
1959.....	105	105	102	110	95	115	107	110	100	104

<sup>1</sup> Not available.

<sup>2</sup> Indexes should be used with caution because of special conditions due to wartime activity.

Source: Board of Governors of the Federal Reserve System.

indexes were based on quantity and value data for thousands of individual products covered in the Censuses of Manufactures for 1947 and 1954, and were first published in 1958. Annual indexes based on more information than is available monthly but generally less than is available at Census intervals are also used to adjust many of the monthly series. Most of the annual indexes (as of August 1960) have been calculated through 1957.

The Census benchmark indexes were based very largely on physical product data, and to a minor degree on value data deflated by price indexes and

materials consumption data. The annual indexes rely more heavily on deflated value data, although they are still predominantly physical product measures. A little less than half of the monthly series (measured by relative importance in the index in 1957) are based on physical product data, and about half are based on man-hour data adjusted for estimated changes in output per man-hour. Man-hour series are of very minor importance in the annual indexes, and were not used at all in the Census benchmark indexes.

## INDUSTRY GROUPINGS

The 207 monthly series are grouped in two separate classifications, permitting two alternative ways of accounting for changes in the total index. One of the two, based largely on the 1957 edition of the Standard Industrial Classification (SIC), has as its principal categories durable manufactures, nondurable manufactures, mining, and utilities. Durable manufactures include 11 of the SIC major groups—primary metals; fabricated metal products; nonelectrical machinery; electrical machinery; transportation equipment; instruments; ordnance; stone, clay, and glass; lumber; furniture; and miscellaneous manufactures. It also includes measures of the manufacturing activities of the Department of Defense. It accounted, in 1957, for 50 percent of the weight of the total index.

Nondurable manufactures include 10 SIC major groups—food and beverages, tobacco, textiles, apparel, paper, printing, chemicals, petroleum, rubber and plastics, leather, and also includes representation of the manufacturing establishments owned by the Atomic Energy Commission. It accounted, in 1957, for 37 percent of the total index. Mining activities, accounting for 9 percent of the index in 1957, include coal and metal mining, crude oil and natural gas extraction, oil and gas well drilling, and production of sand, clay, and other nonmetallic minerals. Utility output of electricity and gas includes both private-

and government-owned establishments, and accounted for 5 percent of the total index in 1957.

In the table "Production of Selected Manufactures" nine series selected from the component group indexes are shown for the period 1947-1959. These are among the major components of the index of manufactures.

## MARKET GROUPINGS

The second system of classification is based on type of end-use, and has as its major categories consumer goods, equipment, and materials. Each of the 207 monthly series is assigned to one of the market groupings as well as to an industry grouping. For example, the auto production series is a component of consumer goods in the market classification and of transportation equipment in the industry classification. Truck production, which is also part of transportation equipment in the industry grouping, is in equipment in the market grouping.

The consumer goods grouping, accounting for 31 percent of the total index in 1957, is further subdivided into automotive products, home goods (including appliances, furniture, television, etc.), apparel, and consumer staples. The first two of these categories, automotive and home goods, include the series formerly published as a separate index of consumer durables output, and the combination of these two is now published as a supplementary grouping

### *Production of Selected Manufactures*

[1957=100, annual averages]

Year	Durable manufactures					Nondurable manufactures			
	Primary metals	Fabricated metal products	Machinery	Transportation equipment	Lumber and products	Textiles, apparel and leather	Paper and printing	Chemicals, petroleum and rubber	Foods, beverages and tobacco
1947.....	81	75	63	40	92	84	68	51	83
1948.....	84	76	64	44	96	87	71	54	83
1949.....	71	69	57	44	84	83	71	53	84
1950.....	89	84	70	53	103	92	78	65	87
1951.....	97	90	80	59	102	90	81	72	88
1952.....	89	88	88	69	101	92	79	75	90
1953.....	100	99	96	86	107	94	85	80	91
1954.....	81	89	84	79	104	90	87	79	93
1955.....	106	97	93	96	114	98	95	92	96
1956.....	104	97	103	92	110	101	99	96	100
1957.....	100	100	100	100	100	100	100	100	100
1958.....	78	92	85	84	100	99	99	99	102
1959.....	90	104	103	98	113	115	108	113	107

Source: Board of Governors of the Federal Reserve System.

of the regular production index. Equipment series, accounting for 16 percent of the total in 1957, are further divided between business equipment and an unpublished defense equipment category.

The materials component consists of two major categories, durable goods materials and nondurable materials. Durable goods materials, accounting for 28 percent of the 1957 total index, include all industries producing materials or components used primarily in the manufacture of finished durable goods; they range from metal mining and logging to electronic tubes and original equipment auto tires. Nondurable materials, comprising 25 percent of the 1957 total index, include business fuel and power, containers, and other business supplies as well as textiles, paper, and other basic nondurable materials.

*Statistical procedures.*—The method used in combining the individual series is the weighted average of relatives. This consists of (1) reducing each series into relatives with the average for the base period, 1957, as 100; (2) multiplying each series of relatives by a base-year weight factor; and (3) adding the products (series of relatives multiplied by weights) for any one month to obtain the index number for the month. The weights used are percentage weight

factors, that is, percentage of the weight assigned to each series to the total weight assigned to all series in the base period. Since the total of the percentage weight factors is equal to 100, the sum of the products of all series for any one month (all series times their respective weight factors) gives the index of industrial production for that month. The products of the component series and their weights give the number of points contributed to the index by individual series. This method of computation facilitates analysis of the changes in the index. For example, it makes it possible to observe the points contributed by each series or group of series, and therefore to determine which series or group of series are responsible for the month-to-month changes in the total index or in the index for any group or subgroup of industries.

The weights used are based on value added—the difference between the value of products and the cost of materials or supplies consumed—in individual industries in 1957. The value-added data for mining are based on the 1954 Census of Mineral Industries and on Department of Commerce national income estimates by industry for 1954 and 1957. The value-added figures for manufacturing are obtained mainly from the Census Bureau Annual Survey of Manu-

*Relative Importance of Major Groupings in the Index of Industrial Production, 1947-49 and 1957*

Industry group	Relative weight		Market group	Relative weight	
	1957	1947-49		1957	1947-49
Total index.....	100.00	100.00	Total index.....	100.00	100.00
Manufacturing, total.....	86.49	86.40	Final products, total.....	46.75	47.52
Durable.....	49.66	42.72	Consumer goods.....	31.13	35.87
Nondurable.....	36.83	43.68	Equipment, including defense.....	15.62	11.65
Mining.....	8.55	9.41	Materials.....	53.25	52.48
Utilities.....	4.96	4.19			
			Consumer Goods		
Durable Manufactures			Automotive products.....	3.35	2.92
Primary metals.....	7.73	6.65	Home goods.....	4.40	5.74
Fabricated metal products.....	5.42	5.13	Apparel, including knit goods and shoes.....	5.20	7.77
Machinery.....	15.31	13.20	Consumer staples.....	18.18	19.44
Transportation equipment.....	10.76	7.02			
Lumber and products.....	1.65	2.91	Equipment		
Other durable manufactures.....	8.79	7.81	Business equipment.....	12.16	10.38
			Defense equipment.....	3.46	1.27
Nondurable Manufactures					
Textiles, apparel, and leather.....	7.32	13.03	Materials		
Paper and printing.....	7.93	8.30	Durable goods materials.....	27.81	24.37
Chemicals, petroleum, and rubber.....	10.94	9.73	Nondurable materials.....	25.44	28.11
Food, beverages, and tobacco.....	10.64	12.62			

factures for 1957. Weights for utility series are derived from Federal Power Commission data. In many cases, value-added data are available only for groups of two or more individual series in the index; the assumption usually made in these cases is that value added is proportional to value of product within each group. The 1947-49 and 1957 proportions (or the relative importance of the major groupings based on the 1947 and 1957 weights) shown here for major groupings are given in detail in *Industrial Production 1959 Revision*, Board of Governors of the Federal Reserve System.

Components of the index are adjusted for two kinds of short-time recurring fluctuations—differences in the number of working days from month-to-month and seasonal variations. The first adjustment is accomplished by reducing reported quantity figures to average daily output in the month. For this purpose, only regular weekend closings—where in effect—are treated as nonworking days. No allowance is made for holiday shutdowns, whose effects on production are adjusted by the seasonal variation factors. The adjustment, in effect, leads to monthly estimates of output on a daily-average basis. No working day adjustment is needed for the man-hour series which are reported in terms of weekly rates.

Adjustment for seasonal variation is made for 65 series or groupings of series, about half of them in the industry classification and half in the market classification. Seasonally adjusted indexes for larger aggregates in both classifications and for total industrial production are weighted combinations of these groupings. Seasonal factors have been developed by the ratio-to-moving-average method described in "Adjustment for Seasonal Variation," published in the *Federal Reserve Bulletin* for June 1941. Use has also been made of the Census Method II program for seasonal adjustment by electronic computer, which is a mechanical version of the ratio-to-moving-average technique. A description of the editing and professional review which accompanies the mechanical procedure is described in *Industrial Production 1959 Revision* published by the Board of Governors of the Federal Reserve System.

#### REVISION IN 1959

Since its first publication in 1927, the index has undergone several major revisions. The most recent revision was completed in 1959, with revised indexes

and new groupings carried back to January 1947. The principal changes were: (1) adjustment of individual monthly series to levels shown by Census of Manufactures and other data; (2) broadening of coverage to include electric and gas utility output, and introduction of new component series in a number of manufacturing and mining industries; (3) introduction of new market groupings of production series described above; (4) selection of 1957 as weight year for the period beginning with January 1953, and as a new reference base period; the old reference base of 1947-49 was continued in addition to the new one for major groupings of the index; and (5) adoption of the latest (1957) version of the standard industry classification, prepared under the auspices of the U.S. Bureau of the Budget.

*Relation to other series.*—As an important general economic indicator, the index of industrial production is related in varying degree to other general economic indicators. Among the more important series to which the index is closely related are those on manufacturers' sales. It should be observed, however, that these are value or dollar-volume series, and are therefore influenced by price as well as quantity changes. The industrial production index, on the other hand, being a measurement of physical volume, registers quantity changes only. Differences in movement between the production index for manufacturing and the shipment series for manufacturing are also possible for other reasons: production differs from shipments because of changes in factory inventories; the production index uses the establishment as the unit for the industry classification, whereas the shipment series uses the company as the unit; and the production index uses value added as weights for the series, whereas the shipments series implicitly uses value of shipments.

The "consumer" and "business equipment" market groupings of industrial production refer to many of the same goods as the consumer goods and producers' durable equipment categories of the gross national product. Even after these gross national product categories are deflated for price changes, however, there are conceptual and statistical differences from the production series which should be kept in mind in comparing the two. The production series include production for inventory, for export, and for government purchase as well as for domestic business and consumers, and are weighted on the basis

of value added by industry in 1957. The deflated consumer goods and equipment expenditure series in the gross national product include imported goods but not goods for export, inventory, or government use. They are implicitly weighted on the basis of final purchase price in 1954, including value added by transportation, trade, and other sectors as well as industry. The basic data used to calculate the expenditure series, furthermore, differ in concept and coverage from the basic production data.

*Uses and limitations.*—The total index of industrial production is probably most widely used as a business barometer. Both in whole and in detail it is used with related data on employment, inventories, trade, prices, and other economic variables, in analyzing short- and long-run developments in the economy.

The component indexes are used to determine the areas in which the occurrence of important changes accounted for the observed changes in the total index. They are also used in analyses relating to individual industries. Many companies, for instance, make continuing studies of their own output and sales figures in relation to the output movements of the industry. They also use the industry and prod-

uct series in studies of potential markets, and in other types of research.

The coverage of the index is limited to manufacturing, mining, and electric and gas utilities. It should not be used as a measure of total production, because agriculture, construction activity, and the various service sectors are not included. It might be noted, however, that changes in the output of manufactures, minerals, and utilities are especially significant, in part because they account for such a large part of variation in the total of all economic activity.

*References.*—The index of industrial production is published monthly in the Business Indexes release, available on request from the Division of Administrative Services, Board of Governors of the Federal Reserve System, Washington 25, D.C. Each issue shows all the groupings and individual indexes published on a 1957 base. Indexes on both a 1957 and a 1947-49 base for groupings, but not for individual series, are shown in the monthly *Federal Reserve Bulletin*. A detailed description of the latest revision, including tables of revised individual indexes and groupings, is provided in the volume, *Industrial Production, 1959 Revision*.

## WEEKLY INDICATORS OF PRODUCTION

The following brief descriptions relate to the weekly series presented each month in *Economic Indicators* for a number of selected indicators—steel, electric power, bituminous coal, freight, paperboard, and cars and trucks. The series are useful as current measures, available more promptly than monthly or annual figures. They are subject, however, to erratic movements not shown in comparable series covering longer time periods.

The historical table of annual data presented here is in terms of weekly averages, in order to facilitate comparison of historic levels with the current series in *Economic Indicators*. Weekly averages for years, as shown in this table, are computed by dividing the total annual figures by 52. Weekly averages for months, as shown in current issues of *Economic Indicators*, are computed by assigning individual weeks to the month in which a majority of the days fall.

### Steel Produced

The weekly series on steel production is compiled by the American Iron and Steel Institute. It includes steel for ingots and castings produced by open-hearth, Bessemer, basic oxygen, and electric-furnace

processes, except for the small amount of steel for castings produced in foundries operated by companies which do not produce ingots. The small quantity of crucible steel now produced is included with the production of electric furnaces.

The series is based on current reports received from more than 95 percent of the industry, giving actual production for the preceding week and advance estimates of production for the coming week. The production for the 5 percent of the industry not reporting weekly is estimated on the basis of the reported previous months' production of the companies included in this group.

The Institute publishes the weekly series each Monday, showing production for the preceding week and estimated production for the coming week. It also publishes each month detailed production of steel by types of furnaces, whether ingots or castings, and volume of alloy steel. Monthly production of blast furnaces shows volume of pig iron and ferroalloys produced. Both series are supplemented with statistics showing States in which the steel and iron were



## Weekly Indicators of Production

[Weekly averages]

Year	Steel produced <sup>1</sup>		Electric power distributed (millions of kilowatt hours)	Bituminous coal mined (thousands of short tons) <sup>2</sup>	Freight loaded (thousands of cars)	Paperboard produced (thousands of tons)	Cars and trucks assembled (thousands) <sup>3</sup>		
	Thousands of net tons	Index (1947-49=100)					Total	Cars	Trucks
1929.....	1,184	73.7	1,733	1,740	1,016	82	103.0	83.2	14.8
1930.....	855	53.2	1,714	1,522	882	76	64.5	53.5	11.0
1931.....	549	34.2	1,646	1,243	714	73	45.9	37.9	8.0
1932.....	289	18.0	1,488	1,007	542	64	26.3	21.8	4.5
1933.....	493	30.7	1,544	1,090	562	76	37.0	30.3	6.7
1934.....	560	34.9	1,655	1,173	593	76	52.9	41.8	11.1
1935.....	732	45.6	1,793	1,217	606	88	75.9	62.5	13.4
1936.....	1,023	63.7	2,037	1,432	694	103	85.7	70.6	15.1
1937.....	1,086	67.6	2,256	1,456	724	107	92.5	75.3	17.2
1938.....	609	37.9	2,148	1,139	586	95	47.9	38.5	9.4
1939.....	1,013	63.1	2,398	1,293	652	114	69.5	55.7	13.8
1940.....	1,281	79.7	2,684	1,503	699	122	86.8	71.7	15.1
1941.....	1,589	98.9	3,142	1,695	814	152	93.4	72.3	21.0
1942.....	1,650	102.7	3,552	1,909	823	138	20.8	4.0	16.9
1943.....	1,704	106.1	4,155	1,907	816	147	14.5	( <sup>4</sup> )	14.5
1944.....	1,715	106.8	4,385	2,009	835	153	15.2	( <sup>4</sup> )	15.2
1945.....	1,529	95.2	4,244	1,891	806	153	15.1	1.6	13.5
1946.....	1,277	79.5	4,235	1,745	795	163	59.6	41.5	18.1
1947.....	1,628	101.4	4,821	2,058	856	180	92.2	68.4	23.8
1948.....	1,695	105.5	5,313	1,948	822	184	101.5	75.2	26.3
1949.....	1,496	93.1	5,498	1,427	691	177	120.4	98.6	21.8
1950.....	1,857	115.6	6,183	1,687	748	214	154.2	128.4	25.9
1951.....	2,018	125.6	6,958	1,772	779	229	129.8	102.7	27.2
1952.....	1,782	110.9	7,455	1,548	730	213	106.8	83.4	23.4
1953.....	2,141	133.3	8,246	1,521	735	241	141.1	118.0	23.2
1954.....	1,694	105.5	8,883	1,303	652	236	125.6	106.0	19.7
1955.....	2,245	139.8	10,318	1,542	724	269	176.7	152.7	24.0
1956.....	2,204	137.2	11,292	1,693	728	274	132.8	111.6	21.2
1957.....	2,162	134.6	11,873	1,644	683	272	138.6	117.6	21.0
1958.....	1,635	101.8	12,076	1,380	581	275	98.4	81.6	16.8
1959.....	1,792	111.6	13,206	1,380	596	308	129.5	107.6	21.9

<sup>1</sup> Weekly capacities (net tons as of January 1 are: 2,455,300 (1956), 2,550,631 (1957), 2,609,320 (1958), 2,831,486 (1959).

<sup>2</sup> Daily average.

<sup>3</sup> Production figures for 1929-50.

<sup>4</sup> Less than 500.

NOTE.—Detail will not necessarily add to totals because of rounding.

Sources: American Iron and Steel Institute, Edison Electric Institute, Department of the Interior, Association of American Railroads, National Paperboard Association, and Ward's Automotive Reports.

produced. Annual statistics in similar detail are presented in the Institute's *Annual Statistical Report*.

With its weekly, monthly, and annual figures on production, the Institute publishes a series on "Percent of theoretical capacity" and an "Index of ingot production, 1947-49=100." The figures on percent of capacity are the ratio of the weekly production to average weekly capacity on the first of the year. This series, which measures the operating rate in re-

lation to full capacity, is useful as an indicator of the general economic level but cannot be used for year-to-year comparisons of the volume of steel production. The index, on the other hand, provides an accurate comparative measure of the volume of steel production from one period to another, regardless of changes in capacity.

The weekly series was initiated in October 1933. Comparable annual data on steel production are available from 1867.

## Electric Power Distributed

The weekly series on electric power distributed is compiled by the Edison Electric Institute. It may be defined as the energy sold to ultimate consumers plus line losses and unaccounted for losses; or as net generation plus net import over international boundaries, less energy used by the producer and the distributor. It includes operations of all private, municipal, cooperative, and governmental enterprises engaged in the production or distribution of electricity for the use of the public; it does not include energy generated by captive plants of industrial establishments.

The weekly figures are collected by the Institute by telegraph from approximately 105 reporting utilities (either companies or groups of interconnected companies) representing about 95 percent of the total energy available for public consumption. The estimated 100-percent production is obtained by applying the ratio of the monthly output of all utilities as collected and presented by the Edison Electric Institute for the previous month.

The weekly series is useful in economic analysis, because it is available promptly and is a reliable measure of net energy distribution to the public supply. It is not a sensitive measure of important changes in industrial activity, however, since it includes energy used for nonindustrial purposes, such as air-conditioning loads, requirements of the Atomic Energy Commission, and sales to residential and rural consumers.

The weekly series is issued each Wednesday by the Edison Electric Institute. The Institute also publishes monthly research statistics, including additional data on source and disposal of energy, for which the data on generation are obtained from the Federal Power Commission. The Federal Power Commission issues a monthly bulletin on *Electric Power Statistics*, with monthly and annual data on production, fuel consumption, requirements, and supply.

The weekly series was initiated in 1928. Annual data on the production of electrical energy are available from 1902.

## Bituminous Coal Mined

The series on production of bituminous coal is compiled weekly by the Bureau of Mines, Department of the Interior. It includes bituminous coal

and lignite, and is a very close approximation of total production in the United States.

The figures are estimated on the basis of carloadings and river shipments. The method of estimation consists of raising the rail and river shipment figures by factors to represent the coal that is not transported by rail or river, such as truck shipments, local sales, colliery fuel, and coal produced by small mines for local use. The weekly estimates are adjusted annually by the actual figures on production of coal and lignite collected each year from all producers by the Bureau of Mines. The correction is negligible—within less than one-half of 1 percent. The daily average for the week is obtained by dividing the weekly production by the maximum number of working days (not days actually worked) in that week.

Although bituminous coal is still an important industrial fuel, its importance has decreased in recent years. In 1920 it accounted for 67.4 percent of the total supply of energy from mineral fuels, in 1940 for 47.2 percent, and in 1959 for 22.4 percent. The series on production of bituminous coal and lignite has other weaknesses as an indicator of industrial activity. Coal mines normally operate at a fraction of their capacity—about 3 days a week—and the coal-using industries carry considerable stocks to allow for changes in industrial activity, with resultant changes in coal consumption, without regard to the ups and downs in coal output. The figures on coal production should therefore be analyzed in conjunction with related series, also compiled by the Bureau of Mines, on the consumption of coal by industries and deliveries to retail dealers, and on stocks of coal held by industries and retail dealers.

The weekly estimates of total production and average production per working day and series on consumption and consumers' stocks are published in the Bureau of Mines multilithed *Weekly Coal Report*. Detailed annual data and monthly data for the current and preceding years, as well as a description of the method used in making the estimates, are published in the Bureau of Mines *Minerals Yearbook*. Prior to publication of the bound volumes of the *Yearbook*, this information is also available in the annual Mineral Market Report on bituminous coal and lignite, and in the "preprint" of the *Yearbook* chapter distributed as a separate publication.

Weekly data on production of bituminous coal and lignite are available from 1917, annual from 1807.

## Freight Loaded

The weekly revenue freight loaded series, compiled by the Association of American Railroads, was initiated in 1919 as an operations report for railroad officers. The published data are totals of weekly reports received by the AAR from all class I railroads. Revisions in the data are necessary in only a very few cases, usually when a preliminary estimate is filed to meet the reporting deadline and then is corrected when a final figure is available. The weekly revenue freight loaded report to the AAR contains information on revenue freight by eight broad commodity groups and on total loads received from connections by railroad geographical districts and by individual class I railroads. Comparisons are shown for the corresponding weeks of each of the two preceding years.

The weekly revenue freight loaded series is widely used by business analysts as one of the indicators of general business activity. It should be remembered, however, that long-term changes in the series inadequately reflect business activity, especially because of the increased importance of competing means of transportation (primarily truck).

The detailed freight loaded data are published by the AAR in its CS-54A report, "Revenue Freight Loaded and Received from Connections." The report is published weekly on the Thursday following the week to which the data relate.

The freight loaded data are available from 1919.

## Paperboard Produced

The weekly series on production of paperboard, compiled by the National Paperboard Association, measures the production of container board, bending board, nonbending board, special paperboard stock, cardboard, and other miscellaneous types of paperboard. The data are obtained from weekly reports which the Association collects from member companies, currently accounting for about 87 percent of total production. The estimated 100 percent production is calculated on the basis of the ratio of the annual production of the companies which submit weekly reports to total production for the previous year. The figures on total annual production are a summation of annual data reported to the Association by practically all mills. Because of the extensive use of paperboard in the manufacture of containers and

boxes for packaging and shipping numerous products, the production of paperboard moves closely with general economic activity.

The weekly data are issued by the Association in a one-page release on Wednesday of the week following that to which the figures relate. More detailed statistics are presented in the Association's annual *Paperboard Industry Statistics*. The Association also publishes a series on "percent of activity" based on industry reports of the time in use of the machines on an inch-hour basis (1 inch of machine width operated for 1 hour).

Comprehensive monthly and annual data on pulp, paper, and paperboard are collected by the Bureau of the Census and published in its *Current Industrial Reports* series. The paperboard component of the Census series is not completely comparable with the Association series, though the differences are not large.

The Association's weekly data on paperboard production were initiated in 1933. Comparable annual data are available from 1925.

## Cars and Trucks Assembled

The weekly series on output of cars and trucks is compiled by Ward's Reports, Inc., and is based on information received from each of the individual producers in the United States. It is published each Monday in *Ward's Automotive Reports*, which shows a breakdown of the weekly total by cars and trucks and by makes, current and cumulative monthly totals, and corresponding figures for the previous year, with similar data for Canada. Summary data are presented in *Ward's Automotive Yearbook*.

Monthly and annual data on factory sales are compiled and published by the Automobile Manufacturers Association. The sales figures differ somewhat from the production figures, principally because they include some units produced in earlier periods and exclude some units produced in the current month.

In the accompanying historical table, data for the years 1929 through 1958 are average weekly production figures derived from annual totals in Ward's yearbooks; and data for 1959 are derived from the weekly reports.

The weekly production figures have been published by Ward's since 1925. Annual data on factory sales of cars and trucks are available from 1900.

## NEW CONSTRUCTION

### Value of New Construction Put-in-Place

*Description of series.*—The series on the value of new construction put-in-place are compiled monthly and represent estimates of the dollar value of construction work installed or erected on the site during each month. Effective July 1959, responsibility for compilation of new construction estimates was transferred from the Business and Defense Services Administration of the Department of Commerce and the Bureau of Labor Statistics of the Department of Labor to the Bureau of the Census of the Department of Commerce. Pending revisions of concepts and methods, the Bureau of the Census is continuing the existing series. Annual data for recent years and seasonally adjusted annual rates of the data for recent months are published in current issues of *Economic Indicators*.

New construction covers the erection or installation of, and additions and alterations to, immobile buildings, structures, and utilities, together with the necessary service facilities, such as plumbing, heating, and elevators. Construction also covers certain types of immobile equipment which are primarily assembled or erected on the site, such as blast furnaces and fractionating towers. New construction does not include maintenance and repair, drilling of oil, gas, and water wells, digging and shoring of mines, and operations which are an integral part of farming such as plowing, terracing, and digging drainage ditches.

The distinction between private and public (Federal, State, and local) construction is made on the basis of ownership, not source of funds. Residential construction includes housekeeping units and nonhousekeeping facilities such as hotels, motels, and dormitories.

#### HISTORICAL REVISIONS IN THE SERIES

Since the publication of the 1957 *Historical and Descriptive Supplement to Economic Indicators* there have been a number of revisions in the historical series on new construction. Revisions for some series have been introduced only as far back as January 1959 and for other series the estimates have been revised back to January 1946.

In May 1960, a new series on housing starts was introduced beginning with January 1959, representing a more complete coverage of residential con-

struction in the 48 States plus the addition of estimates for Alaska and Hawaii. To reflect this new higher level of housing starts, the value put-in-place estimates for residential construction have been revised back to January 1959. As a result of these revisions, the 1959 value put-in-place estimates for new private nonfarm dwelling units have been raised by about 12 percent. The total of private residential nonfarm construction, which includes—besides new dwellings—additions and alterations and nonhousekeeping residential building, was thereby increased by about 10 percent.

The surveys which resulted in the revised housing starts series also yielded new information on farm housing in all 50 States. Because of this information, the farm housing value put-in-place estimates were revised back to January 1959. These new estimates reduced the level of total farm construction expenditures in 1959 by about 23 percent.

Estimates for Alaska and Hawaii were also introduced in the value put-in-place series for all other types of construction back to January 1959. This resulted in increases of about one-half of one percent over the original 1959 estimates.

In making comparisons of current data with those for years prior to 1959, these revisions should be taken into account. For a more complete discussion of these revisions, see Technical Note in the Bureau of the Census release, *Construction Report C30-13*.

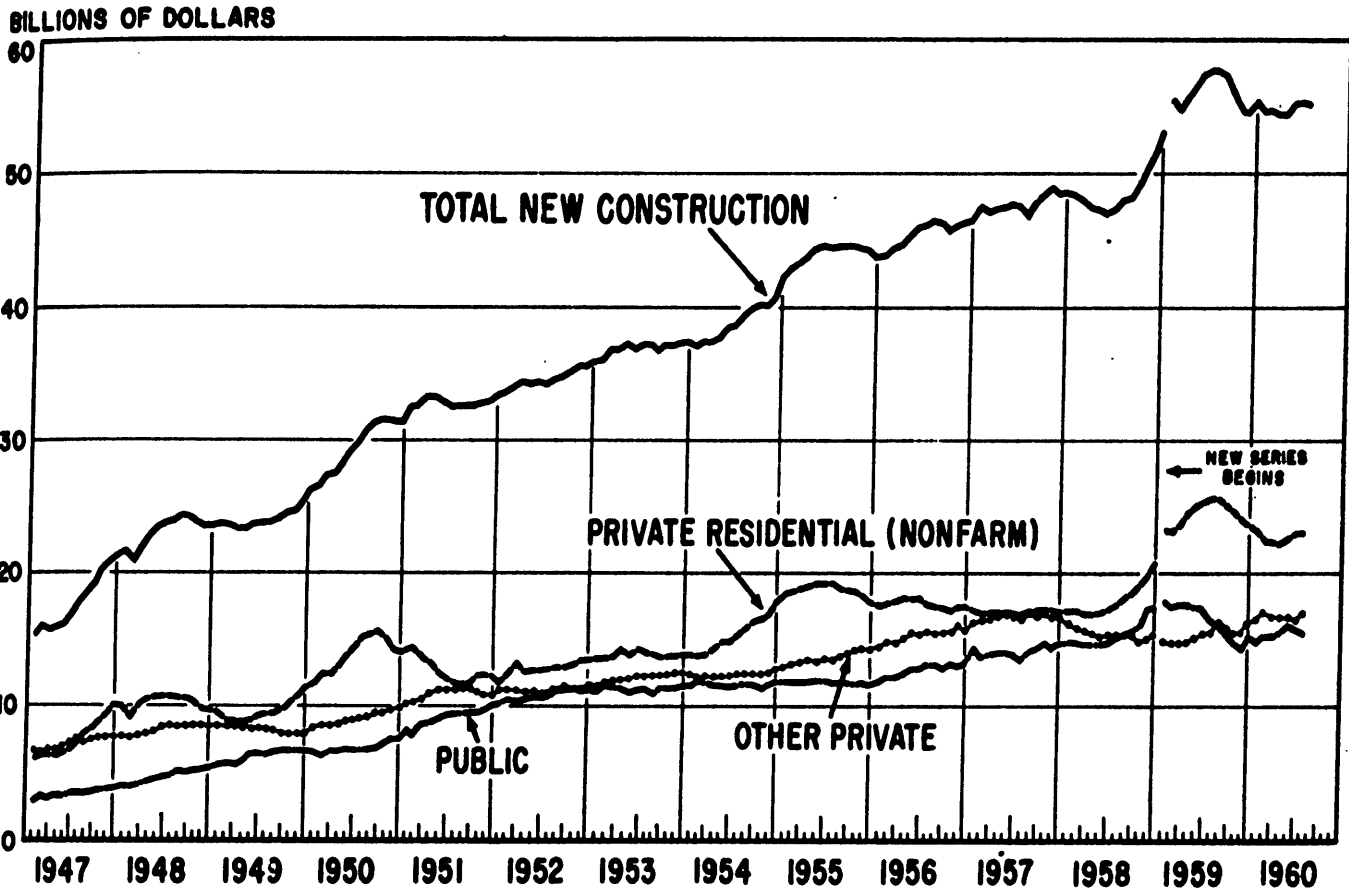
The revisions which have been introduced back to January 1946 involved the following categories of construction: highways, office buildings, public hospitals, and petroleum pipelines. In addition, the series on construction of military facilities was revised back through 1952.

*Statistical procedures.*—Three general methods are used by the Bureau of the Census in making the estimates of new construction activity, depending on the kind of data available for the different types of construction.

The first method.—This method is used for most types of private and non-Federal public construction. It involves the derivation of estimates of the value of work started and the translation of these estimates into value of work put-in-place by the application of phasing patterns. Phasing patterns are estimates of the monthly rate at which the total value of construction work is put-in-place from the start to the

## New Construction, 1947-60

(Monthly data. Seasonally adjusted annual rates)



Source of data: Department of Commerce.

completion of construction. Separate patterns have been developed which vary by type of construction, project valuation, and month in which the work is started. The estimates of value of work started are derived by three separate procedures, as follows: (1) For new housing units, an estimate of the value of work started is obtained by multiplying the number of units reported in the "new nonfarm housing starts series" (p. 62) by average valuation figures derived from building permit data and from surveys in non-permit areas. The building permit valuations are first adjusted to reflect the relationship between permit valuation figures and construction costs; (2) The estimate of the value of work started on additions and alterations to private residential units is derived from building permit data, adjusted for underreporting in permit areas, undervaluation, and for work started in nonpermit areas; (3) For the remaining categories for which the first method is used, data representing the value of contracts awarded in the 37 Eastern States, are compiled by the F. W. Dodge Corporation. Contract awards for State and locally owned projects in the Western States, includ-

ing Alaska and Hawaii, are compiled by the Bureau of the Census from various construction publications. An estimate of the value of contracts awarded for privately owned projects in the 13 Western States is obtained by applying a factor derived from building permit statistics to the Dodge contract award data. The factor represents the ratio of the value of building permits issued in the 37 States to the valuation of permits issued in all 50 States, for each of the major types of construction involved. The sum of these data, which represents the estimated value of contracts awarded in the 50 States, is adjusted for undercoverage—chiefly small projects and work done by force account—and for architectural and engineering fees. The resulting adjusted value of contracts awarded each month is assumed to represent the value of work started in the following month.

The second method.—This method is used for most Federally owned programs and for some public utility construction. The Census Bureau obtains monthly reports of construction expenditures made, or of the estimated value of physical progress, on Feder-

## New Construction

Year	Total new construction expenditures	Private expenditures				Federal, State, and local expenditures <sup>1</sup>	Construction contracts <sup>2</sup>	
		Total	Residential non-farm	Commercial and industrial	Other		Total value (index 1947-49=100)	Commercial and industrial floor space
Billions of dollars								Millions of square feet
1929.....	10.8	8.3	3.6	2.1	2.6	2.5	( <sup>3</sup> )	267
1930.....	8.7	5.9	2.1	1.4	2.4	2.9	( <sup>3</sup> )	145
1931.....	6.4	3.8	1.6	.7	1.5	2.7	( <sup>3</sup> )	70
1932.....	3.5	1.7	.6	.3	.7	1.9	( <sup>3</sup> )	33
1933.....	2.9	1.2	.5	.3	.5	1.6	( <sup>3</sup> )	42
1934.....	3.7	1.5	.6	.4	.5	2.2	( <sup>3</sup> )	46
1935.....	4.2	2.0	1.0	.4	.6	2.2	( <sup>3</sup> )	56
1936.....	6.5	3.0	1.6	.6	.9	3.5	( <sup>3</sup> )	97
1937.....	7.0	3.9	1.9	.9	1.1	3.1	( <sup>3</sup> )	123
1938.....	7.0	3.6	2.0	.5	1.1	3.4	( <sup>3</sup> )	67
1939.....	8.2	4.4	2.7	.5	1.2	3.8	( <sup>3</sup> )	93
1940.....	8.7	5.1	3.0	.8	1.3	3.6	( <sup>3</sup> )	162
1941.....	12.0	6.2	3.5	1.2	1.5	5.8	( <sup>3</sup> )	294
1942.....	14.1	3.4	1.7	.5	1.2	10.7	( <sup>3</sup> )	520
1943.....	8.3	2.0	.9	.2	.9	6.3	( <sup>3</sup> )	128
1944.....	5.3	2.2	.8	.3	1.1	3.1	( <sup>3</sup> )	96
1945.....	5.8	3.4	1.3	.8	1.3	2.4	( <sup>3</sup> )	221
1946.....	12.6	10.4	4.8	2.8	2.8	2.2	( <sup>3</sup> )	354
1947.....	17.9	14.6	7.5	2.7	4.4	3.3	85.7	243
1948.....	23.2	18.5	10.1	2.8	5.6	4.7	103.9	211
1949.....	24.2	17.9	9.6	2.2	6.1	6.3	110.4	147
1950.....	29.9	23.1	14.1	2.5	6.5	6.9	155.0	237
1951.....	32.7	23.4	12.5	3.6	7.3	9.3	160.2	<sup>4</sup> 225
1952.....	34.7	23.9	12.8	3.5	7.6	10.8	168.8	<sup>4</sup> 197
1953.....	37.0	25.8	13.8	4.0	8.0	11.2	175.6	<sup>4</sup> 235
1954.....	39.4	27.7	15.4	4.2	8.1	11.7	192.4	238
1955.....	44.2	32.4	18.7	5.6	8.1	11.7	230.0	298
1956.....	45.8	33.1	17.7	6.7	8.7	12.7	231.3	<sup>4</sup> 436
1957.....	47.8	33.8	17.0	7.1	9.6	14.0	235.4	421
1958.....	48.9	33.5	18.0	6.0	9.5	15.4	256.8	356
1959 <sup>5</sup> .....	54.3	38.1	22.3	6.0	9.8	16.2	265.4	439
1959 (new series).....	56.1	39.8	24.5	6.0	9.3	16.3	-----	-----

<sup>1</sup> Includes public residential construction.

<sup>2</sup> Compiled by F. W. Dodge Corporation. Omits small contracts and covers rural areas less fully than urban.

<sup>3</sup> Not available.

<sup>4</sup> Excludes floor space of Atomic Energy Commission projects, because of security reasons. Valuation of projects for which floor space was omitted (in millions): 1951, \$930; 1952, \$223; 1953, \$479.

<sup>5</sup> Revised series beginning January 1956; not comparable with earlier data.

<sup>6</sup> Old series, revised.

Source: Department of Commerce and F. W. Dodge Corporation.

ally owned construction from the Federal agencies administering the various programs. Monthly estimates of construction by railroads are obtained from the Interstate Commerce Commission. Monthly estimates of construction by telephone and telegraph companies are obtained from the American Telephone and Telegraph Company and Western Union Telegraph Company, respectively.

The third method.—This method is used for farm service buildings, some highway construction, and most public utility construction. As a first step, this involves obtaining annual estimates and fitting a trend line to the estimates of the value of construction expenditures in successive years. Monthly value put-in-place estimates are then derived by applying appropriate seasonal indexes to the monthly values

described by the annual trend line. The annual estimates for the current year are based on forecasts of construction expenditures and are later revised to reflect estimates of construction actually accomplished.

The annual forecasts and estimates are prepared by: The U. S. Department of Agriculture for farm service buildings construction; the Bureau of Public Roads for highway construction; the Edison Electric Institute for electric light and power construction; the American Gas Association for construction of gas lines and gas plants; the Interstate Commerce Commission for construction of interstate petroleum pipelines, inflated to include an estimate for intrastate companies on the basis of data prepared by the Chase Manhattan Bank, on the ratio of gross investment in carrier properties by interstate companies to gross investment in all carrier properties.

*Relation to other series.*—The new construction activity series is one of the components in the gross national product series (see p. 4) and in the gross private domestic investment series (see p. 22). The series differ in one respect, however: gas and oil well drilling is included in the new construction series in the national accounts, but not in the series shown here.

The definition of construction used in the new construction series is more inclusive than that in some of the series pertaining to labor. The nonagricultural employment series contains a component for employment in contract construction only, excluding employment on construction performed by force account. (For a fuller discussion of noncomparability of these data, see the Technical Note in the March 1955 issue of *Construction Review*.) The series on average weekly hours and average hourly and weekly earnings cover contract construction of buildings only.

*Uses and limitations.*—Although the new construction series indicates the current volume of this segment of economic activity, it does not serve the same purpose as would a series on new work started. The future trend in the series is determined to a considerable extent by past commitments made.

The new construction figures cannot be used as an indicator of the physical volume of construction without extensive adjustment for changes in price and wage rates, technological advances, and other relevant factors. Also, since the series does not include maintenance and repair, it cannot be related directly to the total use of construction labor and

materials. Seasonally adjusted annual rates of new construction in 1947–49 dollars, which reflect some of these adjustments, are published monthly in *Construction Report C30* and in *Construction Review*. In addition, annual estimates of the value of maintenance and repairs are published in *Construction Review*.

While extensive adjustments are made for undercoverage of the source data now used, there is no satisfactory factual basis for making these adjustments, and much reliance is placed on judgment and opinion. The construction patterns used in translating work started into work put-in-place may be obsolete and do not reflect short-run changes due to such factors as weather or the labor and materials supply situation. The Bureau of the Census is developing plans for improvements in concepts and methods for estimating the value put-in-place data. Pending the introduction of such improvements, the existing series are being continued.

Because of these limitations resulting from the many different sources of data and the kinds of estimating procedures used, the error in the estimates cannot be statistically measured. Caution should be exercised in drawing conclusions from relatively small month-to-month or year-to-year changes.

*References.*—Data on construction value put-in-place are published in more detail by type of construction and ownership in *Construction Report C30, Value of New Construction Put-in-Place*, a monthly publication of the Bureau of the Census. This publication also presents data on a seasonally adjusted annual rate basis, both in current dollars and in constant (1947–49) dollars. *Construction Review*, a monthly publication of the Business and Defense Services Administration, U.S. Department of Commerce, publishes value put-in-place data for new public construction, by source of funds, in addition to the value put-in-place data shown in *Construction Report C30*.

Historical monthly data for 1939–44 are published in *Construction Volume and Costs, 1915–1956*, a statistical supplement to *Construction Review* and for 1945–57 in a pamphlet prepared jointly by the U.S. Department of Commerce and the U.S. Department of Labor titled, *Value of New Construction Put-in-Place, 1945–58*. The latter publication is available upon request to the Bureau of the Census. Data for 1958 and 1959 are published in *Construction Report C30*, issue numbers 4 and 13, respectively.



More detailed descriptions of the sources of data and the methods of compiling the estimates are published in *Construction Volume and Costs, 1915-1956*.

### **F. W. Dodge Construction Contracts Series**

*Description of series.*—The total value index on construction contracts compiled by the F. W. Dodge Corporation covers private and public ownership for residential buildings, nonresidential buildings, public works, and utilities construction. The series includes additions and alterations, but not maintenance and repair. Coverage is not complete, particularly for force-account work and smaller construction projects. Farm construction is excluded, and rural nonfarm construction is probably covered less fully than urban. Prior to 1956, Dodge construction statistics covered only the 37 Eastern States. Beginning in January 1956, coverage was expanded to 48 States and the value index, together with its 1947-49 base, was adjusted back to 1947. Current issues of *Economic Indicators* show the annual index for recent years and seasonally adjusted data for recent months.

The major segments of the Dodge index of construction contracts are compiled by several methods. Data on privately owned one-family houses are based upon a combination of building permits in the most active building permit areas and a sample in all other areas. Permit costs are adjusted to reflect estimated actual construction costs. In the 37 Eastern States,

data for all other project types in the Dodge series are based upon the Corporation's news reporting service: interviews with architects, contractors, owners, real estate brokers and others, to obtain information on construction jobs being planned and the awarding of construction contracts. In the 11 Western States, the corresponding segment of the series is based predominantly upon information from building permits in a sample of geographic areas, adjusted to reflect actual construction costs. This information is supplemented with data from secondary sources and field reports on public construction and on private construction in nonpermit portions of the sample areas.

In the series showing square feet of commercial and industrial construction, the Dodge category of "Commercial" includes store buildings, restaurant buildings, office and bank buildings, nonindustrial warehouses and storage structures, and commercial garages and service stations. The category of "Industrial" includes the manufacturing facilities (less cost of processing equipment) and warehouses built by companies classified by the Bureau of the Budget in their Standard Industrial Classification as "Manufacturing" and covered by the major group codes 19 through 39.

Data on construction contracts are available monthly in more detail by type of construction, geographic location, and ownership in F. W. Dodge Corporation's several subscription statistical services.

## **HOUSING STARTS AND APPLICATIONS FOR FINANCING**

*Description of series.*—The "new series" of housing starts, containing data starting with January 1959, on both the total number and the number of nonfarm new housing units on which construction is started in the United States each month, with the breakdown by public and private ownership, is compiled by the Bureau of the Census. The old series was prepared by the BLS until June 1959 at which time the Census Bureau assumed responsibility for construction statistics, and continued the old series until April 1960. Consequently, data are available for both the old and new series for the 16-month period January 1959 to April 1960, although the *Economic Indicators* show the overlap only for 1959. The description which follows refers to the new series. Differences from the old series will be found later. Independently of the Census (or BLS) com-

pilation, the Federal Housing Administration and the Veterans' Administration provide reports on the number of units involved in their respective programs.

The new series is designed as a comprehensive measure of the number of new housing units in housekeeping residential buildings on which construction has started in the entire United States each month. Start of construction is defined as the beginning of excavation for the foundation of the building. A housing unit is defined as a single room or group of rooms intended for occupancy as separate living quarters by a family, a group of unrelated individuals living together, or by a person living alone. A housekeeping residential building is a building consisting primarily of housing units. Housing starts exclude the construction of group quarters



(such as dormitories, fraternity houses, nurses' homes, rooming houses, etc.), transient accommodations (such as transient hotels and motels) and units in primarily nonresidential buildings. Also excluded is the production of mobile homes (or house trailers) which is not classified as construction.

Housing units are classified as public or private on the basis of ownership. They are classified as farm or nonfarm on the basis of responses of the builders, in a sample of units, to questions regarding the intended use of the land on which the building is located.

*Statistical procedures.*—Four steps are involved in preparing the monthly estimates.

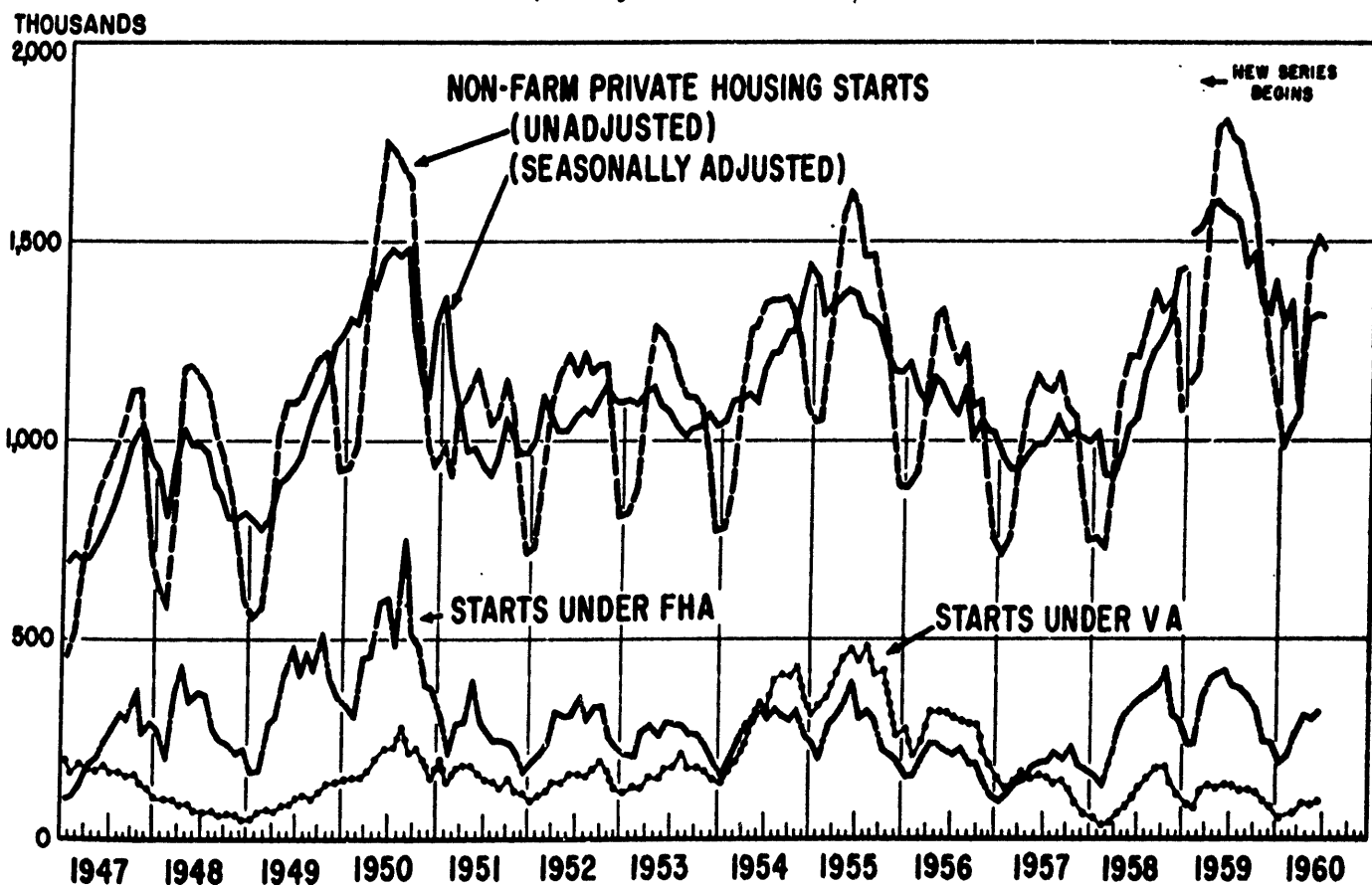
(a) Each month the Census Bureau mails a questionnaire to some 3,500 local government officials who issue building permits for authorized construction in incorporated places or in counties and townships throughout the country. These 3,500 places are a sample of the approximately 10,000 places identified in 1959 as issuing permits and account for over 90 percent of all permits issued. Information is requested, among other things, on the number of pri-

vately owned housing units authorized by building permits issued during the month.

(b) The second step is to convert the permit estimates to starts. The information required for this conversion is obtained through a continuing, monthly, sample survey of building permits, conducted in a sample of about 225 places. In the first half of 1960, the monthly sample ranged from 6,000 to 12,000 housing units for which permits were issued. For each permit in the sample, information is obtained on the month in which construction started, establishing it as either prior to the month the permit was issued, during the month of permit issuance, the following month, the second following month, etc. The number of starts in any given month is then calculated by applying the proportion of actual starts of units authorized during the month, the proportion of units started during the given month but authorized in the previous month, etc., to the estimates of the total number of permits authorized during these months in all 10,000 places, as estimated from the 3,500 place sample. This is done separately for each of the four major regions of the

### Nonfarm Private Housing Starts, 1947-60

(Monthly data. Annual rates)



SOURCE OF DATA: DEPARTMENTS OF COMMERCE AND LABOR

# Housing Starts and Applications for Financing

[Thousands of units]

Year	Nonfarm housing starts					Proposed home construction <sup>2</sup>	
	Total private and public <sup>1</sup>	Total	Private			Applications for FHA commitments	Requests for VA appraisals
			Government programs				
			Total	FHA	VA		
1929.....	509.0	509.0					
1930.....	330.0	330.0					
1931.....	254.0	254.0					
1932.....	134.0	134.0					
1933.....	93.0	93.0					
1934.....	126.0	126.0					
1935.....	221.0	215.7	14.0	14.0		20.6	
1936.....	319.0	304.2	49.4	49.4		47.8	
1937.....	336.0	332.4	60.0	60.0		49.8	
1938.....	406.0	399.3	118.7	118.7		125.1	
1939.....	515.0	458.4	158.1	158.1		167.8	
1940.....	602.6	529.6	180.1	180.1		217.9	
1941.....	706.1	619.5	220.4	220.4		277.7	
1942.....	356.0	301.2	165.7	165.7		234.8	
1943.....	191.0	183.7	146.2	146.2		144.4	
1944.....	141.8	138.7	93.3	93.3		62.9	
1945.....	209.3	208.1	( <sup>3</sup> )	41.2	( <sup>3</sup> )	56.6	( <sup>3</sup> )
1946.....	670.5	662.5	( <sup>3</sup> )	69.0	( <sup>3</sup> )	121.7	( <sup>3</sup> )
1947.....	849.0	845.6	( <sup>3</sup> )	229.0	( <sup>3</sup> )	286.4	( <sup>3</sup> )
1948.....	931.6	913.5	( <sup>3</sup> )	294.1	( <sup>3</sup> )	293.2	( <sup>3</sup> )
1949.....	1,025.1	988.8	( <sup>3</sup> )	363.8	( <sup>3</sup> )	327.0	( <sup>3</sup> )
1950.....	1,396.0	1,352.2	686.7	486.7	200.0	397.7	( <sup>3</sup> )
1951.....	1,091.3	1,020.1	412.2	263.5	148.6	192.8	164.4
1952.....	1,127.0	1,068.5	421.2	279.9	141.3	267.9	226.3
1953.....	1,103.8	1,068.3	408.6	252.0	156.6	253.7	251.4
1954.....	1,220.4	1,201.7	583.3	276.3	307.0	338.6	535.4
1955.....	1,328.9	1,309.5	669.6	276.7	392.9	306.2	620.8
1956.....	1,118.1	1,093.9	460.0	189.3	270.7	197.7	401.5
1957.....	1,041.9	992.8	296.7	168.4	128.3	198.8	159.4
1958.....	1,209.4	1,141.5	397.5	295.4	102.1	341.7	234.2
1959 (old series).....	1,378.5	1,342.8	441.8	332.5	109.3	369.7	234.0
1959 (new series).....	1,531.3	1,494.6	441.8	332.5	109.3	369.7	234.0

<sup>1</sup> Military housing starts, including those financed with mortgages insured by FHA under Section 803 of the National Housing Act, are included in publicly financed starts but excluded from the privately financed starts for FHA and Government programs.

<sup>2</sup> Units in mortgage applications for new home construction.

<sup>3</sup> Not available.

<sup>4</sup> Partly estimated.

Note.—Monthly data on new nonfarm housing starts available beginning 1939; annual from 1899. In May 1960 the Bureau of the Census issued a new housing starts series which provided an overlap with the old series to January 1959. The new series is issued monthly and covers farm as well as nonfarm housing starts. For the year 1959, according to the new series, total housing starts, farm and nonfarm, public and private, were 1,553,500, of which 1,316,800 were private.

Sources: Department of Labor prior to June, 1959, Department of Commerce, Federal Housing Administration (FHA), Veterans' Administration (VA).

United States, and within each region by inside or outside Standard Metropolitan Statistical Areas. Finally, an adjustment is added to take account of the estimated 4.7 percent of construction in permit areas which is started without the issuance of a permit. This factor is based primarily on information from

the 1956 National Housing Inventory and, if necessary, will be modified as current survey information now being collected becomes available.

(c) Information on new private housing starts in areas not covered by building permits is obtained from field surveys in a sample of 56 large areas

(Standard Metropolitan Statistical Areas, or individual counties or groups of counties). In the survey, data on starts are first obtained through contacts with previously identified individuals or organizations familiar with construction activity in these areas. This information is then checked by field visits to the sites of reported construction. As a final step, estimates of starts not provided by the sources are prepared on the basis of an intensive canvass by enumerators of a subsample of land areas within the 56 primary areas. The separate estimates for permit-issuing areas and for nonpermit areas are added to produce the figures for privately-owned housing.

(d) Information on the number of public units started is obtained directly from the sponsoring Federal, State, and local agencies. This figure, added to the estimate for private units, gives the estimate of the total number of housing units started each month.

The seasonally adjusted annual rate of starts of private units, published in current issues of *Economic Indicators*, is based upon seasonal indexes calculated from the prior BLS series for housing starts. It is obtained by making a separate seasonal adjustment of permit starts in each of the four regions using the standard Census method (Univac No. II, see reference on p. 64) for seasonal adjustment, and of total nonpermit starts and then adding the five individual adjusted series. The implicit seasonal factors for total private nonfarm housing starts for 1959 are as follows:

January.....	75.4	July.....	112.6
February.....	78.9	August.....	114.4
March.....	96.0	September.....	108.2
April.....	111.9	October.....	104.5
May.....	114.6	November.....	90.8
June.....	112.5	December.....	79.5

A preliminary estimate is issued 15 to 20 days following the end of the month. This preliminary estimate will differ somewhat from the final figures for the following reasons: (a) the estimate of the number of housing units authorized by permits during the month is based on a smaller sample of about 1,700 places; (b) not all the results of the field survey used to convert permit authorizations to starts are received in time to be used; and (c) housing units started prior to the issuance of permits may not be adequately accounted for. Final revisions are made within the next two months.

The figures for the FHA and VA programs under

"New nonfarm housing starts" are based on administrative reports of the number of units on which first compliance inspections have been made by those agencies. The first inspection is usually made after the footings are in—normally only a slight lag from the time construction is considered started in the Census series. The FHA and VA figures for "Proposed home construction" are also based on administrative reports of the two agencies. The number of units for which FHA has received applications is limited to those for commitments on 1- to 4-family home mortgages, thus making it more nearly comparable with the VA series since the VA program covers only homes to be built for occupancy by veteran owners.

*Relation to other series.*—The "new series" on housing starts is not directly comparable with the series issued previously for several reasons. The major definitional change is the inclusion of farm construction in the new series (although nonfarm figures are shown separately, as well as total) whereas the old series was intended to cover only nonfarm housing. The new series also includes some seasonal, low-valued and possibly temporary units, formerly excluded. In addition, it includes data for Alaska and Hawaii not covered by the old series. Another reason for the difference in the level of the two series results from the more nearly complete coverage of the new series, arising mostly from the more intensive coverage of new construction in areas formerly classified as nonpermit. There are also major differences between the two series arising from the nature of the measurement processes. Beginning with 1960, the new series undertakes to make direct measurements of housing units started within each month. The old series represented more nearly a measurement of the amount of construction which would have been started in a particular month if the time lag between permits and the actual start of construction found in some past survey period had prevailed in the particular month.

The series on new housing starts has a limited relationship to Census of Housing figures. Units started should not be added to housing inventory figures without an adjustment to allow time for completion. Also, although new construction usually accounts for the greater part of the difference in inventory reported in successive housing censuses, there are other changes too, such as demolition, disaster losses, and additions and losses due to conversions or mergers. The magnitudes of these factors are in-

licated in the National Housing Inventory of 1956. The census also includes certain types of places where people live which are not counted in the new series, such as living quarters in institutions or primarily nonresidential or transient structures.

The Census Bureau also publishes data on the number of housing units authorized by building permits each month. These figures differ from housing starts in that the units are reported in the month of permit issuance, rather than start, and that they exclude units in nonpermit areas.

Data compiled for the housing starts series are used in the preparation of estimates for the series on value of new construction put-in-place described in the preceding section.

*Uses and limitations.*—The series on housing starts serves as an important guide in the formulation of national housing policy and as an indicator of residential building activity. The fact that current data are not directly comparable to those for years prior to 1959, for the reasons stated above, may limit their usefulness in some circumstances. Statistics for 1959 on both bases are published as a bridge between the two series. In addition, the estimates for the new series are subject to a number of factors affecting their quality. First, both the level of the estimates and the measures of month-to-month change are subject to sampling error. Calculations of the sampling variability have not been completed; such estimates will be published at a later date. Secondly, although the new series is at a higher level than the old one, it is possible that there is still some understatement of starts, due to the difficulty of locating and identifying construction projects in nonpermit areas. A third limitation is in the seasonal adjustment factors which are based on the old series for which the seasonal movements may have been somewhat different.

The FHA and VA series indicate the importance of these government programs in the field of new home construction. Certain limitations in these series should be observed, however, particularly in their relation to other data. Although FHA and VA may make inspections during construction and the units may be counted as FHA or VA "starts," the perma-

nent financing after completion may not be underwritten. Also, some applications for FHA commitments or requests for VA appraisals lapse. There is some duplication of units in applications for FHA commitments and requests for VA appraisals. In cases where both agencies issue valuation commitments, FHA makes the compliance inspection and the unit is reported as an FHA start, even though the mortgage may finally be underwritten by VA or by neither agency. As mentioned above, the FHA series on housing starts includes rental housing, whereas the FHA applications series covers only 1- to 4-family homes.

*References.*—Monthly data on housing starts are published in somewhat greater detail in *Construction Reports, Housing Starts (Census series C-20)*. Related information on residential housing units authorized by permits is published in *Construction Reports, Building Permits, New Residential Construction Authorized in Permit-Issuing Places (Census series C-42)*. Much of this information is reprinted in *Construction Review* published monthly by the Department of Commerce. Historical data for 1899 to 1958 may be found in: *Construction During Five Decades, Historical Statistics 1907-1958 (BLS Bulletin 1146)*; *Trends in Building Permit Activity (BLS Bulletin 1243)*; *Nonfarm Housing Starts 1889-1958 (BLS Bulletin 1260)*. A more detailed technical description of the methods used to prepare the new series of housing starts may be found in the *Census Report C-20 No. 11 (Supplement)*, May 1960. A description of the old series is given in *Techniques of Preparing Major BLS Statistical Series (BLS Bulletin 1168)*, December 1954.

For the government programs, monthly data from 1952 on starts and on proposed home construction are given in current issues of *Housing Statistics*, a monthly publication of the Housing and Home Finance Agency.

For the Census Univac II method of seasonal adjustment see *Electronic Computers and Business Indicators* by Julius Shiskin, published as Occasional Paper No. 57 by the National Bureau of Economic Research, especially Appendix A.

# TRADE SALES AND INVENTORIES

## Wholesale Trade

*Description of series.*—The series on wholesale sales and inventories represent sales and inventories of all establishments classified in wholesale trade and are based on the definitions and classifications of the Standard Industrial Classification, which are used in the Censuses of Business, except that: (1) operations of manufacturers' sales branches and offices and marketing stations of petroleum refiners have been excluded, since sales and inventories of these establishments are covered in the manufacturing series, and (2) sales of agents and brokers are included on the basis of actual receipts of the agents and brokers rather than as the total value of goods sold as reported in the Censuses of Business. The term "sales" as used here signifies essentially sales or shipments, although some respondents probably report orders (bookings) as sales. Sales are net, i.e., less discounts, returns and allowances, and include all business receipts of the reporting establishments, not just receipts from sales of merchandise. The inven-

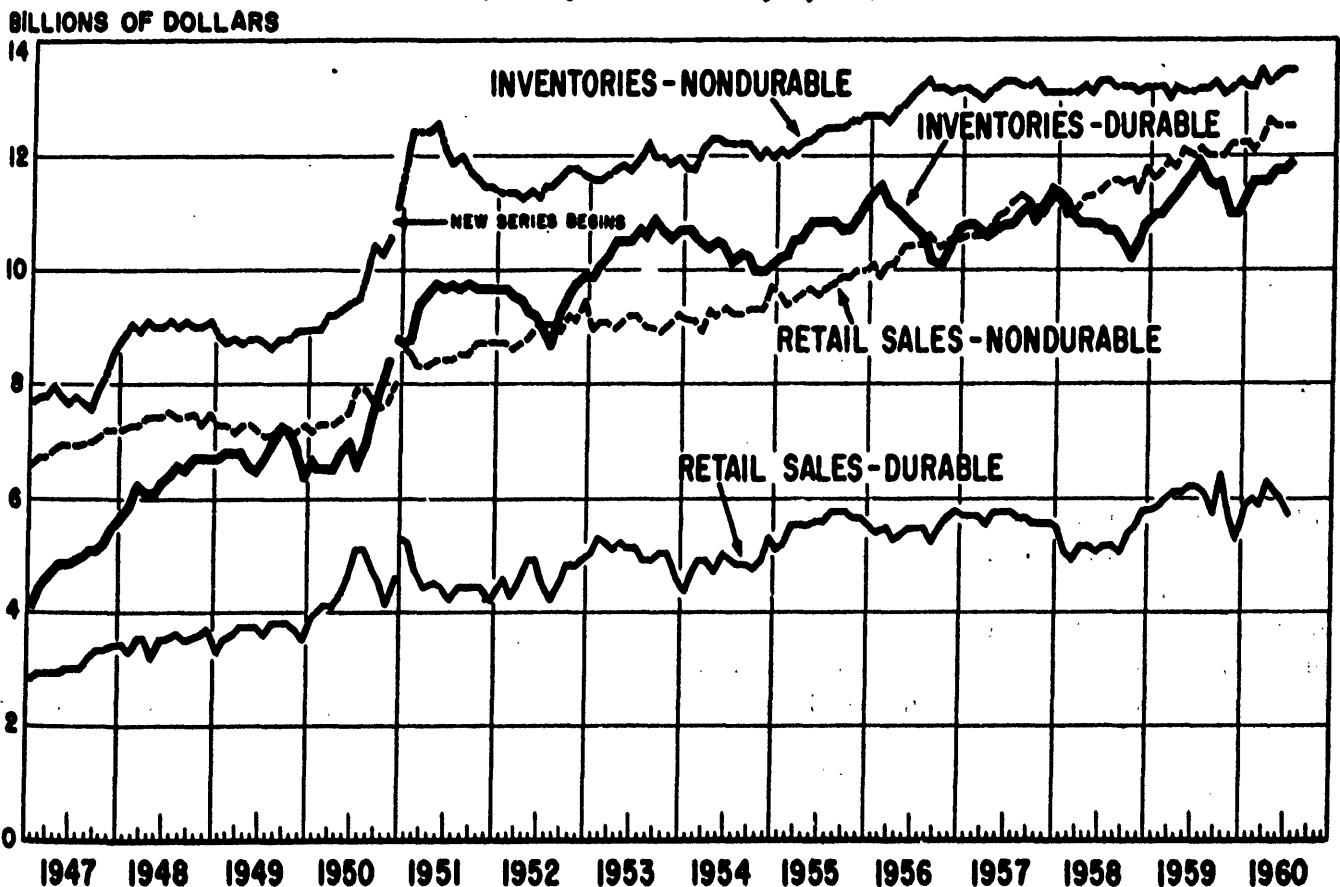
tory estimates are based on the values carried on the books of the reporting establishments, usually the cost of merchandise on hand.

Both the sales and inventories series were revised beginning with data for January 1948; these new series are not comparable with the old series for the period 1939 through 1948, primarily because the data for the later years exclude wholesale establishments with no paid employees. These establishments accounted for less than two percent of total wholesalers' sales in 1948.

*Statistical procedures.*—The revised series which begin with data for January 1948 were introduced in August 1957. They incorporate benchmark data from the 1954 Census of Business, with 1948 data adjusted to the scope of the 1954 Census, e.g., to exclude data for establishments with no paid employees and to take into account certain changes in classification. The current series are derived by extrapolating modified 1954 Census of Business data on the basis of monthly reports to the Bureau of the Census.

## Retail Sales and Inventories, 1947-60

(Monthly data. Seasonally adjusted)



SOURCE OF DATA: DEPARTMENT OF COMMERCE

## Trade Sales and Inventories

Year	Wholesale		Retail						Department stores	
	Sales <sup>1</sup>	Inventories <sup>2</sup>	Sales <sup>1</sup>			Inventories <sup>2</sup>			Sales <sup>1</sup>	Inventories <sup>1</sup>
			Total	Durable goods stores	Non-durable goods stores	Total	Durable goods stores	Non-durable goods stores		
Billions of dollars									Index, 1947-49=100	
1929.....	(4)	(4)	4.0	1.3	2.7	-----	(4)	(4)	38	48
1939.....	2.2	3.1	3.5	.9	2.6	5.5	2.1	3.4	35	36
1940.....	2.4	3.2	3.9	1.1	2.7	6.1	2.5	3.6	37	38
1941.....	3.0	4.0	4.6	1.4	3.2	7.8	3.2	4.6	44	46
1942.....	3.4	3.8	4.8	1.0	3.7	8.0	2.8	5.3	49	64
1943.....	3.8	3.7	5.3	1.0	4.3	7.6	2.2	5.4	58	55
1944.....	4.2	3.9	5.9	1.2	4.7	7.6	2.2	5.4	62	58
1945.....	4.5	4.6	6.5	1.3	5.2	7.9	2.4	5.5	70	60
1946.....	6.0	6.6	8.5	2.3	6.2	11.8	3.9	7.9	90	78
1947.....	7.3	7.6	10.0	3.1	6.9	14.1	5.5	8.6	98	94
1948.....	7.5	7.9	10.9	3.5	7.4	15.8	6.7	9.1	104	107
1949.....	7.2	7.6	10.9	3.7	7.2	15.3	6.4	8.9	99	100
1950.....	8.4	9.1	12.0	4.4	7.6	19.9	8.8	11.1	107	110
1951.....	9.4	9.7	13.0	4.5	8.5	21.2	9.7	11.5	112	131
1952.....	9.6	10.0	13.5	4.6	8.9	21.6	9.9	11.7	114	121
1953.....	9.8	10.5	14.1	5.0	9.1	22.7	10.7	12.0	118	131
1954.....	9.7	10.4	14.1	4.8	9.2	22.1	10.1	12.0	118	128
1955.....	10.6	11.4	15.3	5.6	9.7	23.9	11.2	12.7	128	136
1956.....	11.3	13.0	15.8	5.5	10.3	23.9	10.7	13.2	135	148
1957.....	11.3	12.7	16.7	5.7	11.0	24.5	11.4	13.1	135	152
1958.....	11.1	12.0	16.7	5.3	11.4	24.0	10.8	13.2	136	148
1959.....	12.3	12.6	18.0	6.0	4.0	24.3	11.0	13.3	144	156

<sup>1</sup> Monthly average for year.

<sup>2</sup> Book value, end of period, seasonally adjusted.

<sup>3</sup> Retail value, monthly average for year.

<sup>4</sup> Not available.

<sup>5</sup> Data for wholesale trade sales and inventories for 1948 and later years are not strictly comparable with earlier data. The estimates were revised in 1957 to conform to the 1954 Census of Wholesale Trade, with 1948 data adjusted to the scope of the 1954 Census.

<sup>6</sup> In 1951, a basic change in the method of estimating retail sales directly from sample data (rather than linked to a Census of Retail Trade) was introduced. The "new" series is not comparable with the sales figures for earlier periods.

<sup>7</sup> Retail inventory estimates beginning with the year-end 1950 utilize as benchmarks the 1952 *Annual Survey of Retail Trade* of the Bureau of the Census. The "old" estimates for 1938 through 1950 are based on the Censuses of Business for 1939 and 1948 and are not comparable with the "new" series.

Source: Department of Commerce and Board of Governors of the Federal Reserve System.

Sales and inventories of merchant wholesalers are compiled and released by the Bureau of the Census, on the basis of dollar estimates reported monthly by its probability sample of merchant wholesalers representing all kinds of business. Sales and stocks of all other types of wholesalers, i.e., farm assemblers, agents and brokers, and petroleum bulk stations other than refiner-marketers, are derived by OBE by

extrapolating the sales reported by these segments in the 1954 Census of Business on the basis of the current movements as reported to the Bureau of the Census by the merchant wholesalers.

The sales and inventories data are seasonally adjusted by the Office of Business Economics, using the ratio-to-moving-average method with appropriate modifications. The magnitudes of the seasonal ad-

adjustments are suggested by the following comparisons of unadjusted and seasonally adjusted data for 1959.

	Unadjusted		Seasonally adjusted		Implicit seasonal adjustment factors	
	Sales	Inventories (Billions of dollars)	Sales	Inventories	Sales	Inventories
Jan....	11.1	11.8	11.8	11.9	94.1	99.2
Feb....	10.7	11.9	11.9	11.9	89.9	100.0
March..	11.9	12.0	12.2	12.0	97.5	100.0
April..	12.2	12.0	12.4	12.1	98.4	99.2
May....	12.3	12.2	12.5	12.2	98.4	100.0
June... 12.8	12.4	12.6	12.4	101.6	100.0	
July... 12.7	12.4	12.5	12.5	101.6	99.2	
Aug.... 12.2	12.4	12.2	12.6	100.0	98.4	
Sept... 13.0	12.6	12.5	12.5	104.0	100.8	
Oct.... 13.0	12.8	12.0	12.5	108.3	102.4	
Nov.... 12.5	12.9	12.3	12.6	101.6	102.4	
Dec... 13.0	12.6	12.7	12.6	102.4	100.0	

*Relation to other series.*—The wholesale sales and inventories series are most similar to, and are largely based upon, the monthly merchant wholesale trade series of the Bureau of the Census. They differ in that the coverage of the series that appear in *Economic Indicators* is greater, including as they do wholesalers other than merchant wholesalers. Because of the position of wholesale trade in the distribution system of our economy, wholesale sales and inventories data are most meaningful when used together with similar data for manufacturing and retail trade. The wholesale, retail, and manufacturing sales and inventories series can be summed to obtain consistent aggregate series for total business, although there is a considerable amount of duplication in the sales total.

*Uses and limitations.*—The monthly wholesale trade series are important economic indicators which reflect the level of economic activity at an intermediate stage of the distributive process. The importance of wholesalers in our economy varies by industry, and this fact should be recognized when using the data, especially since the operations of manufacturers' sales branches and offices and marketing stations of petroleum refiners are excluded entirely from the estimates for wholesalers.

The monthly estimates of sales and inventories are based upon a sample and are therefore subject to sampling variability. In addition, they are subject to nonsampling errors, such as the failure of respondents to submit reports in time for tabulation, to submit correct figures, or to respond at all. The estimates of sales are more accurate than the estimates of inventories. The statistics on inventories are based on estimates by respondents or imputations due to

nonresponse to a greater extent than are sales statistics, reflecting the fact that wholesalers do not keep inventory records on a monthly basis to the same extent that they keep monthly sales records. Comparisons of the monthly estimates of both sales and inventories with the Census of Wholesale Trade when those data become available have shown the monthly estimates to be well within acceptable standards of reliability. Those differences shown by such comparisons that are statistically significant stem from factors that are relatively constant over time and, consequently, affect only to a slight degree the reliability of the series as a measure of cyclical change.

*References.*—Sales and inventories data for wholesale trade, seasonally adjusted as in current issues of *Economic Indicators*, are issued first as monthly press releases by OBE and are published shortly thereafter in the *Survey of Current Business*. Comparable monthly data from 1948 are available on request to OBE. Unadjusted sales and inventories data for merchant wholesalers are published by the Census Bureau in the *Monthly Wholesale Trade Report*.

More complete descriptions of these series have been published in the following issues of the *Survey of Current Business*: August 1948, October 1951, October 1952, December 1953, and August 1957, and in the biennial *Business Statistics*, a supplement to the Survey. The *Monthly Wholesale Trade Report* contains a detailed description of the Census Bureau's monthly series covering merchant wholesalers.

## Retail Trade

*Description of series.*—The series on retail sales and inventories represent sales and inventories of all establishments classified in retail trade. Sales are net, i.e., less discounts, returns and allowances, and include all business receipts of the reporting establishments, not just receipts from sales of merchandise, as well as sales and excise taxes. Inventories are valued at the cost of merchandise on hand. The separation of estimates into "durable goods" and "nondurable goods" is based upon classifications of stores according to the durability of the commodities accounting for the major portion of their sales.

In 1951 a basic change in the method of estimating retail sales was introduced. As a result, the



"new" series which starts in January 1951 is not comparable with the sales figures for earlier periods. In early 1957 the new series was again revised back to January 1951 to exclude data for milk dealers engaged in processing on the premises; this exclusion conforms to a change made in the Standard Industrial Classification. A "new" series on inventories, comparable in concept and coverage to the new series on sales begins with December 1950. The new series is not comparable with the series for earlier periods.

*Statistical procedures.*—Census of Retail Trade data for the years 1929, 1933, 1935, 1939, and 1948 were used as benchmarks for the sales series for the period 1929–1951. Sales estimates for the intercensal years between 1935 and 1951 were based in large part on changes in sales tax collections of 20 States, whose sales accounted for 40 percent of total retail sales, supplemented by data from special Internal Revenue Service tabulations, Federal Reserve System data on department stores and data on the taxable quantity and average price of gasoline. Monthly estimates of sales were derived from data reported to the Bureau of the Census by a constant sample of large independent retailers and chain stores.

Beginning with January 1951 monthly estimates have been prepared by the Census Bureau directly from sample data. The new estimates are not linked to a Census of Business benchmark, a factor that accounts for most of the difference in level between the sales estimates for 1951 indicated by the old and new series. The new estimates from the probability sample of reporting firms are derived essentially by weighting the reported sales of each firm or store in the sample by a value dependent upon its probability of selection.

The year-end estimates of inventories prior to 1950 were based on the Censuses of Retail Trade for 1939 and 1948, the Internal Revenue Service's *Statistics of Income*, Part 2, and Federal Reserve data on department store inventories. Retail inventories estimates beginning with December 1950 utilize as benchmarks the data in the *1952 Annual Retail Trade Report* of the Bureau of the Census. Monthly estimates are made by the Office of Business Economics and are based on sample data reported to the Bureau of the Census and on the Federal Reserve System's monthly data on inventories of department stores.

The sales and inventories data are seasonally adjusted by the Office of Business Economics, using the ratio-to-moving-average method, modified where ap-

propriate. The magnitude of the seasonal adjustments are indicated by the following comparison of unadjusted and seasonally adjusted data for 1959.

	Unadjusted		Seasonally adjusted		Implicit seasonal adjustment factors	
	Sales	Inventories (Billions of dollars)	Sales	Inventories	Sales	Inventories
Jan....	16.2	23.4	17.5	24.2	92.6	96.7
Feb....	15.0	24.0	17.6	24.1	85.2	99.6
March..	17.2	24.7	17.9	24.2	96.1	102.1
April... 17.6	25.3	18.0	24.5	97.8	103.3	
May....	18.6	25.0	18.2	24.5	102.2	102.0
June... 18.7	24.6	18.2	24.8	102.7	99.2	
July... 18.3	24.6	18.3	25.1	100.0	98.0	
Aug... 18.1	24.5	18.1	24.8	100.0	98.8	
Sept... 17.6	24.3	17.8	24.8	98.9	98.0	
Oct.... 19.1	25.1	18.3	24.7	104.4	101.6	
Nov... 17.6	25.2	17.8	24.2	98.9	104.1	
Dec... 21.5	23.4	17.5	24.3	122.9	96.3	

*Relation to other series.*—Retail sales data reflect a substantial portion of personal consumption expenditures and are, therefore, related to the personal consumption expenditure estimates that appear in the national accounts. They are different from personal consumption expenditures in that they include purchases by others than households and exclude such major expenditures as household expenditures for personal services, rent, medical services, etc. Retail sales and inventories data are closely related to wholesale trade and manufacturers' sales and inventories data, reflecting as they do the activities of the final stage of distribution in our economy.

*Uses and limitations.*—The monthly retail trade series reflect the trend of a major part of personal consumption expenditures well in advance of the availability of more comprehensive data. They and the inventories series are useful indicators of probable future economic activity at the manufacturing and other earlier stages of production and distribution.

The monthly retail sales estimates are based on a probability sample and are, therefore, subject to sampling variability, as well as such biases as non-response or reporting errors. The monthly sales estimates are compared with Census of Business data, when those statistics become available. Although differences for individual kinds of business occur reflecting, among other things, differences in classification due to differences in data collection methods, measures of total retail sales from these two sources have not differed significantly. To illustrate, the sum of the twelve monthly estimates of total retail sales were within one-half of one percent of the 1958 annual estimate of retail sales shown by the 1958 Census of Business.



The monthly retail inventories statistics are less accurate than the sales statistics. Fewer retailers maintain monthly records of their inventories than monthly records of sales, and, consequently, the sources of data on current inventories are not as good.

*References.*—Sales and inventories data for retail trade, seasonally adjusted as in current issues of *Economic Indicators*, are issued first as monthly press releases by OBE and are published shortly thereafter in the *Survey of Current Business*. Sales data are also published by the Bureau of the Census in the *Monthly Retail Trade Report*. Advance estimates are published ten days after the report month in *Advance Report of Retail Sales*.

More complete descriptions of these series have been published in the following issues of the *Survey of Current Business*: June 1948, October 1951, September and November 1952, January 1954, and June 1957, and in the biennial *Business Statistics*, a supplement to the Survey. The *Monthly Retail Trade Report* contains a detailed description of the Census Bureau's monthly retail trade series. A description of the sample and estimating procedure used for that series and additional information on the reliability of the estimates are available in a Bureau of the Census pamphlet entitled *Description of the Sample for the Monthly Retail Trade Report*.

## Department Stores

*Description of series.*—Monthly indexes of department store sales and inventories are prepared by the Board of Governors of the Federal Reserve System, based on data collected and published by the twelve Federal Reserve Banks. The sales index relates to the average daily sales of the department stores, including sales of services as well as of merchandise. The inventory index relates to end-of-month inventories at retail value. The selection of the department stores from which the data are collected is made by the individual district banks, in order to provide data for some cities or areas within the districts, as well as an index for each district as a whole.

*Statistical procedures.*—Reports from the individual department stores are mailed directly to the appropriate district bank. The U.S. indexes of department store sales and inventories are computed by weighting each of the district indexes according to

the relationship of total department store sales or inventories in the district to the total for the United States for the years 1947-49. The method of seasonal adjustment used is a variant of the ratio-to-moving-average method. It allows for changes in the seasonal pattern over time and relies less on mathematical formulae as the final determinants of the seasonal adjustment factors than do most other methods.

*Relation to other series.*—The Federal Reserve indexes of department store sales and inventories and the Census-OBE dollar estimates of retail trade sales and inventories, including the separate dollar estimates of department store sales and inventories, are not entirely comparable conceptually. The Census-OBE sales data include retail sales taxes and retail excise taxes, whereas the Federal Reserve series exclude both. Inventories are valued at cost for the Census-OBE series, at retail value in the Federal Reserve series. Both the Census-OBE and the Federal Reserve monthly series are adjusted for seasonal variation and, in the case of sales, for the number of trading days in the month. The latter adjustment also is made in the unadjusted Federal Reserve series.

*Uses and limitations.*—Considerable use is made of the Federal Reserve indexes of department store sales and inventories, especially at the local level. While they are valuable indicators of the relative sales and inventory positions of this limited but important segment of retail trade, they do not reflect the characteristics of all retail trade. The month-to-month changes in the "retail" and "department store" series have on occasion moved in opposite directions, and even when the movements have been in the same direction the magnitudes of the changes may be substantially different.

*References.*—The indexes of department store sales and inventories for the United States and for each of the Federal Reserve districts are published monthly in the *Federal Reserve Bulletin*. Monthly data for periods prior to those shown in *Economic Indicators* are available from the Board of Governors of the Federal Reserve System. A detailed description of the series was presented in the December 1957 issue of the *Bulletin*. A description of the method of seasonal adjustment used by Federal Reserve was in the June 1941 issue of the *Bulletin*.

## MANUFACTURERS' SALES, INVENTORIES, AND NEW ORDERS

*Description of series.*—Manufacturers' sales, inventories, and new orders are estimated monthly in a program conducted jointly by the Office of Business Economics and the Bureau of the Census. The term "sales" as used here represents manufacturers' receipts, billings or the value of shipments to customers. Sales are net, i.e., less discounts, returns and allowances, and were adjusted for renegotiation of war contracts in the relevant years. In general, the figures represent sales and receipts involved in any activity of companies classified as manufacturers, including nonmanufacturing activities. Recently, efforts have been initiated to obtain "divisional" reports from large multi-industry firms in order to produce, in time, more detailed industry statistics. Sales for export as well as those for domestic use are included. Sales of foreign subsidiaries are excluded, but sales to a foreign subsidiary by a domestic firm are included.

Inventory data are book values of stocks on hand at the end of the period and include purchased materials, goods-in-process, and finished goods. All inventories owned by a company are covered, including those in warehouses, manufacturers' sales branches, etc., as well as in factories. In general, inventories are valued at the lower of cost or market price. About 15 percent of manufacturers' inventories are valued on a last-in, first-out (LIFO) basis.

The new orders series represents new orders (net of cancellations) received during the period.

*Statistical procedures.*—Current estimates of manufacturers' sales and inventories are made on the basis of reports received in the Monthly Industry Survey program, under which information on sales, inventories, and new orders is collected from a sample of manufacturing companies. Collection and tabulation of this survey were transferred in March 1957 from OBE to the Bureau of the Census, and the sample design and other aspects of the survey are being reviewed preparatory to some revision and expansion. The collection of "divisional" reports, referred to above, has already been initiated, as has been expansion of the number of companies in the sample. Information from the survey is used by OBE to extrapolate benchmark estimates based on annual corporate data through 1954 published by the Internal Revenue Service in *Statistics of Income*, Part 2, and on Internal Revenue Service noncorpo-

rate data for alternate years 1945 through 1953 and 1954.

New orders estimates are obtained indirectly. Unfilled orders estimates as of the end of the years 1947, 1952, and 1954 were made, and movements from these points were computed. To derive estimates of levels, the reporting sample was stratified by industry and size; and in each stratum, the sample ratio of unfilled orders on December 31 to annual sales was applied to total sales for that year. The month-to-month percentage changes in unfilled orders shown by the sample are used to obtain the monthly movements of total backlogs in each stratum. Net new orders are then computed by adding the estimated monthly sales to the change in unfilled orders.

The series are seasonally adjusted by the Office of Business Economics, using the ratio-to-moving-average method, modified when necessary. The magnitudes of the seasonal adjustments are suggested by the following comparison of unadjusted and adjusted sales and inventories data for 1959.

	Unadjusted		Seasonally adjusted		Implicit seasonal adjustment factors	
	Sales	Inventories	Sales	Inventories	Sales	Inventories
	[Billions of dollars]					
Jan....	27.3	49.8	28.1	49.5	97.2	100.6
Feb....	27.5	50.2	28.5	49.9	96.5	100.6
March..	30.6	50.6	29.1	50.5	105.2	100.2
April..	30.9	51.1	30.3	51.1	102.0	100.0
May... 30.7	51.4	30.7	51.6	100.0	99.6	
June... 32.0	52.0	31.2	52.1	102.6	99.8	
July... 29.2	51.8	30.9	52.2	94.5	99.2	
Aug... 28.6	51.5	29.3	52.1	97.6	98.8	
Sept... 30.0	51.6	29.8	51.9	100.7	99.4	
Oct... 30.8	51.4	29.4	51.5	104.8	99.8	
Nov... 28.5	51.8	29.0	51.6	98.3	100.4	
Dec... 30.6	52.9	30.8	52.4	99.4	101.0	

*Relation to other series.*—The manufacturers' sales and inventories series are closely related to the sales and inventories series for wholesale trade and retail trade. When summed these series constitute consistent series for total nonfarm business. The sales and inventories series are similar to the sales and inventories items in the FTC-SEC Quarterly Financial Report for Manufacturing Corporations. The two series are not entirely comparable, especially for specific industries, because of differences in coverage (e.g., the Quarterly Financial Report covers only corporations) and differences in consolidation of the reporting units.

The inventories data are the basic data used in computing estimates of changes in the book value of

# Manufacturers' Sales, Inventories, and New Orders

[Billions of dollars]

Year	Sales <sup>1</sup>			Inventories <sup>2</sup>			New orders, net <sup>1</sup>			
	Total	Durable goods	Nondurable goods	Total	Durable goods	Nondurable goods	Total	Durable goods		Nondurable goods
								Total	Machinery and transportation equipment	
1929	5.9	2.3	3.5	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1930	4.8	1.7	3.1	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1931	3.6	1.1	2.5	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1932	2.6	.7	1.9	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1933	2.9	.8	2.1	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1934	3.6	1.1	2.5	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1935	4.2	1.4	2.8	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1936	5.0	1.8	3.2	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1937	5.5	2.1	3.4	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1938	4.5	1.5	3.0	10.8	5.0	5.7	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1939	5.1	1.9	3.2	11.5	5.3	6.1	5.4	2.2	1.0	3.2
1940	5.9	2.5	3.4	12.8	6.3	6.5	6.8	3.4	1.8	3.4
1941	8.2	3.8	4.4	17.0	8.6	8.4	9.8	5.3	2.9	4.5
1942	10.4	5.2	5.3	19.3	10.4	8.8	13.3	8.0	5.2	5.3
1943	12.8	6.9	6.0	20.1	11.2	8.9	12.7	6.8	3.6	5.9
1944	13.8	7.3	6.4	19.5	10.4	9.1	11.9	5.5	2.9	6.4
1945	12.9	6.3	6.6	18.4	8.8	9.6	10.5	3.9	1.3	6.6
1946	12.6	5.0	7.6	24.5	12.0	12.5	13.7	5.9	2.7	7.8
1947	15.9	6.7	9.2	28.9	14.3	14.6	15.6	6.4	2.9	9.3
1948	17.6	7.6	10.0	31.7	15.7	16.0	17.4	7.5	3.4	9.9
1949	16.4	7.1	9.3	28.9	14.0	14.9	15.9	6.6	3.1	9.3
1950	19.3	8.8	10.5	34.3	16.8	17.5	21.0	10.3	5.1	10.7
1951	22.3	10.4	11.9	42.8	22.8	20.0	24.5	12.7	6.9	11.8
1952	22.8	10.9	11.9	43.8	24.4	19.4	23.6	11.7	6.4	11.9
1953	24.5	12.4	12.1	45.4	26.2	19.2	23.1	11.0	5.6	12.1
1954	23.5	11.2	12.3	43.0	24.1	18.9	22.5	10.2	5.0	12.3
1955	26.3	13.1	13.3	46.4	26.7	19.7	27.2	13.9	7.1	13.3
1956	27.7	13.8	13.9	52.3	30.7	21.6	28.3	14.4	7.5	13.9
1957	28.4	14.2	14.2	53.5	31.1	22.4	27.3	13.1	6.8	14.2
1958	26.2	12.4	13.8	49.2	27.9	21.3	25.9	12.0	6.3	13.9
1959	29.7	14.5	15.2	52.4	30.1	22.3	30.1	14.9	7.9	15.3

<sup>1</sup> Monthly average for year.

<sup>2</sup> Book value, end of period, seasonally adjusted.

<sup>3</sup> Not available.

Source: Department of Commerce.

business inventories, which reflect changes in replacement costs as well as changes in physical volume. In measuring inventory investment as part of the gross national product, the book value inventory change data are adjusted to remove the effect of changes in replacement costs.

The new orders estimates are most closely related to the Census-OBE unfilled orders series, although they are also akin to other anticipatory series, such

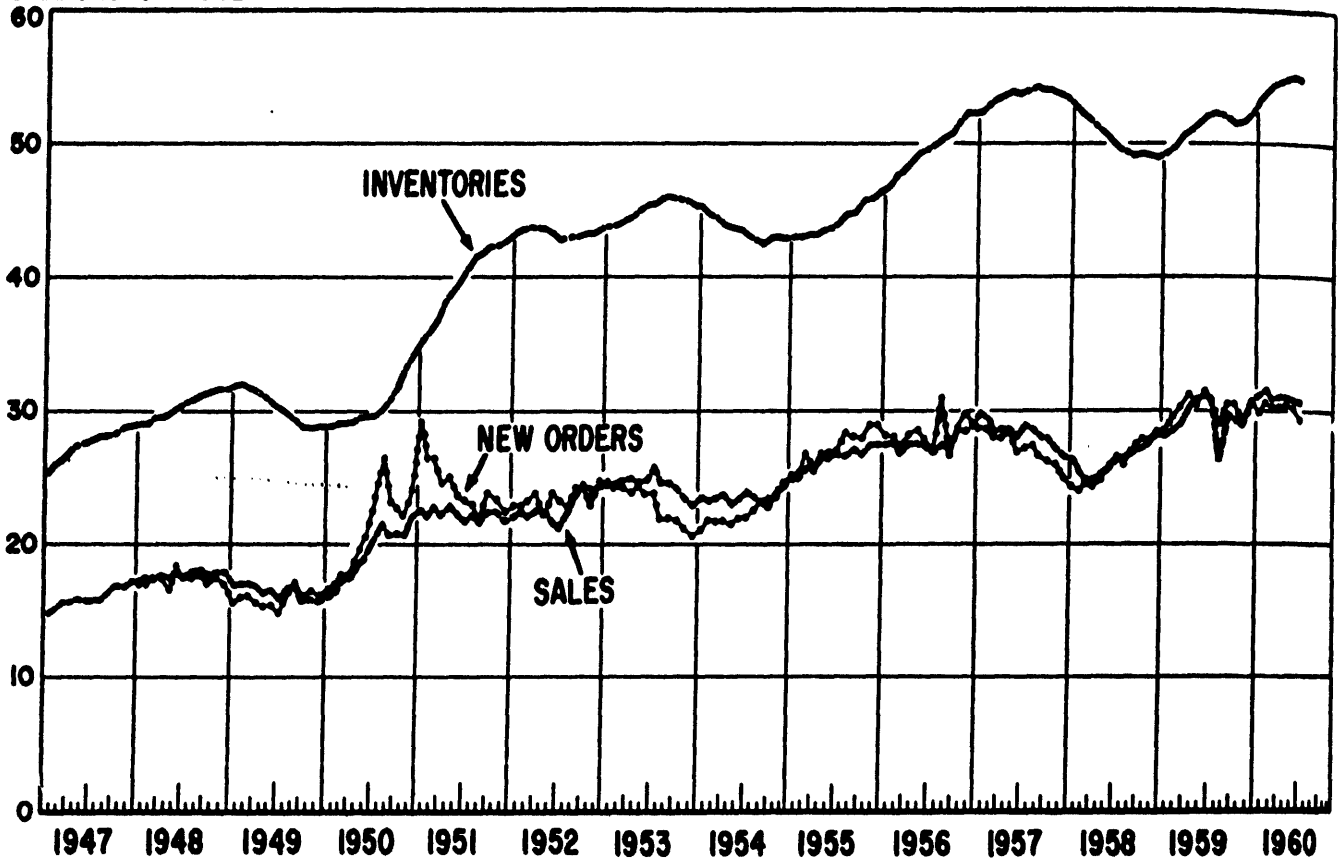
as new plant and equipment expenditures, construction contracts, etc.

*Uses and limitations.*—The manufacturers' sales, inventories, and orders series reflect present and prospective conditions in this vital sector of the economy. The sales series reflect the demand for the goods and services of manufacturers; trends in the inventories and changes in inventories series reflect the difference between production and shipments (or

## Manufacturers' Sales, Inventories, and New Orders, 1947-60

(Monthly data. Seasonally adjusted)

BILLIONS OF DOLLARS



SOURCE OF DATA: DEPARTMENT OF COMMERCE

sales) of manufacturers; the new orders series indicates the probable course of manufacturers' sales in some industries in the immediate future.

The estimates for such aggregates as total manufacturers' sales and inventories, and estimates for many industry groups, have proved generally accurate when compared against more comprehensive data available at a later time. Occasionally in the past, preliminary estimates, especially for some of the industries, have been changed appreciably by later data. Improvements in the series will result from improvements in the data collection procedures that are introduced as conditions permit. For example, the industry estimates will be brought closer to product measures as more and more "divisional" reports are obtained from large, multi-industry corporations that have reported aggregate data for all their operations in the past.

Production on order is not characteristic of some industries (especially some of the nondurable goods industries), and the new orders series for them consists almost entirely of sales. Analysis on the unfilled orders series for those industries in which production on order is characteristic should, therefore, be a useful supplement to analysis of the new orders series published in *Economic Indicators*.

*References.*—Manufacturers' sales, inventories, and orders series are published by OBE in the monthly *Industrial Survey* and in the *Survey of Current Business*. More complete descriptions of these series are contained in the following issues of the *Survey of Current Business*: October 1951, October 1952, December 1953, and May 1955, and in the biennial *Business Statistics*, a supplement to the *Survey*.

## MERCHANDISE EXPORTS AND IMPORTS

*Description of series.*—The several export series cover exports of merchandise (except in-transit merchandise) from the United States to foreign countries. The larger aggregate, total exports (including re-exports), includes exports of domestic merchandise and re-exports of foreign merchandise, defined to cover commodities of foreign origin which have entered the United States as imports and which at the time of exportation are in the same condition as when imported. Imported foreign merchandise which has undergone some change in form in the United States is included under exports of domestic merchandise. The smaller aggregate, for total exports of domestic merchandise, shown also by economic class, is exclusive of re-exports. Both series as presented here are sometimes designated "commercial" because of the exclusion of data on Department of Defense shipments of grant-aid military equipment and supplies under the Mutual Security Program (referred to below as D.O.D. military aid shipments), but are not strictly "commercial" because they include other government sponsored shipments as noted in the table. Shipments to United States armed forces and diplomatic missions abroad for their own use are also excluded.

Export series cover all exports from within the customs area of the United States, which includes all of the States and Puerto Rico (and included the Territories of Alaska and Hawaii prior to their admission to statehood). Other possessions are not included in the customs area, nor are shipments between the United States and these possessions included in the export series.

Excluded are certain special types of shipments as follows: gold and silver, oil and coal bunkers laden in the United States on vessels engaged in foreign trade, and some items of relatively small importance such as low valued or noncommercial shipments by mail and gifts valued at less than \$100.

Export shipments are valued at the time and place of export—that is actual selling price, or cost if not sold, including inland freight, insurance, and other charges to the place of export. Transportation and other costs beyond the United States port of exportation are excluded.

Imports are shown on two bases, "general imports" and "imports for consumption." Both series cover merchandise which is released from customs custody

immediately upon arrival. They differ in their treatment of merchandise which enters into customs bonded warehouses. Such merchandise is included in "general imports" when it enters such warehouses on arrival. It enters into imports for consumption only when withdrawn from the warehouse for consumption. Governmental imports are included. Import coverage is in terms of the customs area (as explained above) and, as in the case of exports, in-transit shipments, gold and silver, and items of small importance are excluded.

Imports are valued in accordance with the Tariff Act of 1930, as amended, which defines the value of imports of merchandise generally as the market value in the foreign country and should exclude United States import duties, ocean freight, and marine insurance. In actual practice only the values reported for imports subject to an ad valorem rate of duty (a percentage of the value) will tend to conform precisely to the valuation definition. Imports subject to an ad valorem rate of duty account for only 10–20 percent of the total value of imports. For merchandise not subject to an ad valorem rate of duty (80–90 percent of imports), the reported values may not be in accordance with the above definition. For example, ocean freight may be included inadvertently in the values, values for shipments between allied firms may reflect arbitrary values, etc. In general, import values approximate an f.o.b. exporting country basis.

*Statistical procedures.*—Export statistics (except for D.O.D. military aid shipments, as explained below) are obtained from the Shipper's Export Declaration which exporters are required to file with the collectors of customs, giving a description of the merchandise, its classification under the prescribed commodity classification for exports (Schedule B), quantity, value, and other essential information. These declarations, after a preliminary review for accuracy and completeness, are transmitted by the Bureau of Customs to the Bureau of the Census, where they are sorted and coded prior to further processing. Data for smaller valued shipments, accounting for a considerable proportion of the volume of documents but a relatively small proportion of total value, are based on estimating procedures. Currently, shipments valued at from \$100 to \$499 are sampled at a ratio of 50 percent, except for exports to Canada, which are sampled at a ratio

## Merchandise Exports and Imports

[Monthly average, millions of dollars]

Year	Exports excluding Mutual Security Program shipments <sup>1</sup>					Imports				
	Total (including re-exports)	Domestic exports <sup>2</sup>				General imports	Imports for consumption <sup>3</sup>			
		Total	Food-stuffs	Industrial materials	Finished manufactures		Total	Food-stuffs	Industrial materials	Finished manufactures
1929.....	437	430	63	156	211	367	367	80	204	83
1930.....	320	315	45	112	158	255	255	58	134	63
1931.....	202	198	31	74	93	174	174	44	85	46
1932.....	134	131	20	59	52	110	110	34	48	28
1933.....	140	137	17	69	51	121	119	35	59	27
1934.....	178	175	19	83	73	138	136	43	64	29
1935.....	190	187	18	86	83	171	170	53	83	34
1936.....	205	202	17	89	96	202	202	61	102	39
1937.....	279	275	24	117	135	257	251	71	134	46
1938.....	258	255	36	92	127	163	163	48	80	35
1939.....	265	260	26	95	139	193	190	50	103	37
1940.....	335	328	20	114	194	219	212	47	131	34
1941.....	429	418	42	94	281	279	268	58	175	35
1942.....	673	667	83	111	472	230	232	52	142	38
1943.....	1,080	1,070	140	146	784	282	283	84	143	56
1944.....	1,188	1,180	150	138	892	327	324	114	149	62
1945.....	817	799	143	138	518	347	342	96	176	69
1946.....	812	792	184	193	415	412	402	110	222	71
1947.....	1,203	1,188	192	276	719	480	472	139	251	82
1948.....	1,054	1,044	219	238	587	594	591	167	315	109
1949.....	1,004	995	187	261	546	552	549	173	273	104
1950.....	833	822	116	251	455	738	729	221	383	125
1951.....	1,164	1,151	190	345	616	914	901	258	485	158
1952.....	1,100	1,088	175	300	612	893	896	263	459	174
1953.....	1,022	1,012	143	254	614	906	898	274	441	183
1954.....	1,071	1,060	131	310	620	851	853	276	394	183
1955.....	1,191	1,180	162	351	667	949	945	260	468	217
1956.....	1,444	1,432	216	441	775	1,051	1,043	267	508	268
1957.....	1,625	1,610	208	529	872	1,082	1,079	274	511	294
1958.....	1,362	1,349	198	368	782	1,070	1,062	287	450	325
1959.....	1,362	1,348	210	365	772	1,268	1,249	285	533	431

<sup>1</sup> Starting with 1950, figures shown exclude Department of Defense shipments of grant-aid military equipment and supplies under the Mutual Security Program. For 1941 and subsequent years, figures include shipments under special programs, including I.C.A. and predecessor programs, UNRRA, Lend-Lease (1941-1947), Greek-Turkish AM (1947-1953), interim aid (1947-1948), and United States foreign relief (1947-1948). Figures for 1948 and subsequent years also include Department of the Army civilian supply shipments.

<sup>2</sup> The grant-aid military shipments excluded beginning with 1950 (see note 1 above) have been deducted entirely from "Finished manufactures." Private relief shipments of foodstuffs are included in "Finished manufactures" prior to 1941 and in "Foodstuffs" thereafter.

<sup>3</sup> "General imports" through 1952, "Imports for consumption" thereafter.

Source: Department of Commerce.

of 10 percent. Shipments valued at below \$100, accounting in 1959 for about 1 percent of total exports by value, are estimated as to value and shown in this table under "finished manufactures."

For exports made by the Department of Defense of grant-aid military equipment and supplies under the Mutual Security Program (excluded from the series in this table) and for other Department of Defense shipments such as those under the civilian

supply program, information is compiled by the Bureau of the Census from the records of the Department of Defense. In most instances, these records show values f.o.b. point of origin. These are adjusted to show value at the United States port of exportation.

Import information is derived from the import entry form prescribed by the Customs Bureau to be filed by the importer for each shipment arriving in

the United States, and on which importers report value, country of origin, type of commodity, classified in accordance with the prescribed import commodity classification (Schedule A), and other essential information. After a preliminary review by Customs, the statistical copy of the entry form is transmitted to the Bureau of the Census, where it is put through several sorting and coding operations prior to further processing. Statistics covering low valued import shipments have been estimated on the basis of sampling. The sampling procedures have varied. Currently a 1 percent sample is taken of all imports valued at less than \$100 on formal entries and of all imports reported on informal entries (which may include shipments valued at not more than \$250). Sampled shipments (estimated for 1959 at about 0.8 percent of total imports) are distributed by country and allocated to the commodity class "finished manufactures."

With respect to both exports and imports, coverage for a given calendar month approximates fairly closely all shipments departing or entering during the calendar month. Documents arriving too late for inclusion, as well as those rejected for verification, are included in the total for a subsequent month, usually the following month.

The seasonally adjusted series have been adjusted for working days as well as seasonal variation. The seasonal adjustment factors are derived by a ratio-to-moving-average method. The seasonal adjustment factors for 1959 are:

	<i>Imports</i>	<i>Exports excluding MSP</i>
January.....	100. 4	95. 4
February.....	94. 5	92. 3
March.....	106. 4	108. 5
April.....	98. 7	103. 2
May.....	102. 0	107. 4
June.....	100. 8	100. 4
July.....	97. 0	94. 2
August.....	95. 8	94. 9
September.....	96. 5	93. 7
October.....	101. 4	102. 4
November.....	100. 1	102. 5
December.....	106. 2	105. 0

*Relation to other series.*—Statistics of exports and imports are available in Census and other government publications on bases varying with respect to the treatment of re-exports, of D.O.D. military aid shipments, of goods entering into or withdrawn from Customs bonded warehouses and other matters, depending on the purpose of the presentation. The series here shown are among those presented in monthly Census releases, with certain qualifications.

Census export tables have emphasized military aid shipments, which amounted to somewhat less than 7 percent of total exports in 1959. Thus, monthly Census data for exports by economic classes are for total exports of domestic merchandise, in contrast with the series shown here exclusive of D.O.D. military aid shipments; however, this affects only the category of "finished manufactures," since all D.O.D. military aid shipments are allocated to this class. The seasonally adjusted series is published for the first time in 1960.

The economic classes as presented here are derived from the five Census classes of "crude foodstuffs" and "manufactured foodstuffs" (combined as "foodstuffs"), "crude materials" and "semimanufactures" (combined as "industrial materials"), and "finished manufactures." The indexes of quantum, value, and unit value for foreign trade, prepared by the Bureau of Foreign Commerce, Department of Commerce, are available by economic class for exports of domestic merchandise on the same basis as the corresponding series shown here (i.e., net of D.O.D. military aid shipments) and for imports for consumption. The indexes are also available for *total* domestic exports inclusive of such D.O.D. shipments.

Series for merchandise exports and imports appear as major components of the balance of international payments. They are combined with series covering various other current transactions to form the larger aggregates for exports and imports of "goods and services." The merchandise series used are based on, and roughly equivalent to, the series shown here for total exports (including re-exports) net of D.O.D. military aid shipments and for general imports. The series are further adjusted by exclusion of other military shipments and by other adjustments, with respect to coverage, valuation, and timing, for consistency with balance of payments concepts. The seasonally adjusted quarterly figures for merchandise exports and imports will not necessarily agree precisely with corresponding quarterly totals compiled from the seasonally adjusted monthly series shown here because they differ in content and are seasonally adjusted by a different procedure within the context of the balance of payments.

*Uses and limitations.*—These summary series provide useful monthly indicators of the movement of merchandise exports and imports. As a measure of cyclical or long-term movement, monthly foreign



trade data, even after seasonal adjustment, are erratic. While these data will necessarily be followed by users from month to month, judgments as to trend are more properly based on derived series for longer periods such as quarterly or three-month moving totals.

Although merchandise trade bulks large among the sources of international payments, the balance of payments can be comprehended only in terms of the full range of merchandise, service, capital, unilateral and other transactions. Undue importance should not be attached to the trade figures alone or to the surplus or deficit in merchandise trade.

Because of the variety of bases on which foreign trade data are presented the user must be attentive to the precise specifications of particular series, especially when they are to be used with or compared with other series. Similarly, when U.S. trade statistics are compared with those of other countries, special attention is due to the extent to which the series differ as to valuation and coverage.

*References.*—Totals for exports of domestic and foreign merchandise, general imports and imports for consumption are published monthly in the Census Bureau's *United States Foreign Trade* summary reports (FT 900E and I, 980E and I, 960E and I, and 970E and I). These reports give monthly data for

the current and preceding years. Separate data on Department of Defense shipments of grant-aid military equipment and supplies are provided monthly. FT 900E, *Total Export Trade*. Cumulative totals are provided in the *Quarterly Summary of Foreign Commerce of the United States*, which also contain index numbers for several export and import series. Detailed commodity by country data are also published by the Census Bureau. A monthly pamphlet, *Foreign Trade Statistics Notes*, contains supplementary information on such items as unusual transactions appearing in the statistics, changes in the types of shipments included in the statistics, and special problems of valuation, commodity classification, and the like.

Summary explanations of the export and import series appear in the introductory notes of Census monthly bulletins FT 410 and 420 (exports) and FT 110 and 120 (imports). Detailed technical notes appear currently in *Foreign Trade Statistics Notes*. The last comprehensive discussion of the series appeared in the 1946 edition of *Foreign Commerce and Navigation of the United States* and is still generally applicable. A complete list of all Census publications in the field of foreign trade is available in the *Catalog of United States Foreign Trade Statistical Publications*.

## UNITED STATES BALANCE OF PAYMENTS

*Description of series.*—The balance of payments of the United States is a summary of the economic transactions between residents of the United States and residents of the rest of the world. The table here presented is derived from the more detailed regular quarterly presentation published by the Office of Business Economics, Department of Commerce.

All transactions known to the compilers through reports or records, or capable of reasonable estimation on the basis of sample data, are summarized under the general headings "U.S. receipts (recorded)," "U.S. payments (recorded)," and "Increase in foreign gold and recorded liquid dollar assets through transactions with the U.S." The above categories are so defined that if all transactions could be accurately measured or estimated, the balance between recorded "receipts" and "payments" would be exactly equal to the increase (or decrease)

in foreign gold and liquid dollar assets. Since this is not possible, a discrepancy regularly appears, which is designated "Unrecorded transactions (errors and omissions)."

Receipts due to exports of goods and services arise mainly from merchandise trade but include also receipts arising from transportation services, income on United States investments abroad, travel expenditures of foreign visitors in the United States, certain military transactions, and miscellaneous private and Governmental services. Payments due to imports of goods and services similarly arise mainly from merchandise trade, but also from other categories of transactions analogous to those listed above.

Foreign long-term capital covers foreign investments in the United States with a maturity of one year or more and includes investment in branches and subsidiaries, securities (other than U.S. Government), and other credits. Movements of foreign



long-term capital are summarized here as a net figure under "receipts;" in the past, they have usually resulted in net receipts, but do not necessarily do so.

U.S. Government grants and capital includes Government aid, other than military, under the various aid programs, and the net outflow of long-term capital through various foreign lending programs. Direct private U.S. capital refers to investment in foreign branches and subsidiaries. The aggregate for total private capital includes also portfolio investments and short-term claims. The comprehensive total for U.S. capital and grants includes, in addition to the above, the net outflow of private gifts and other unilateral payments.

The increase in foreign gold and liquid dollar holdings measures the net effect of recorded transactions in U.S. monetary gold and of changes in liquid dollar holdings by foreign countries and international institutions in the form of deposits, U.S. Government securities, bankers acceptances and commercial paper, and other short-term claims of the United States.

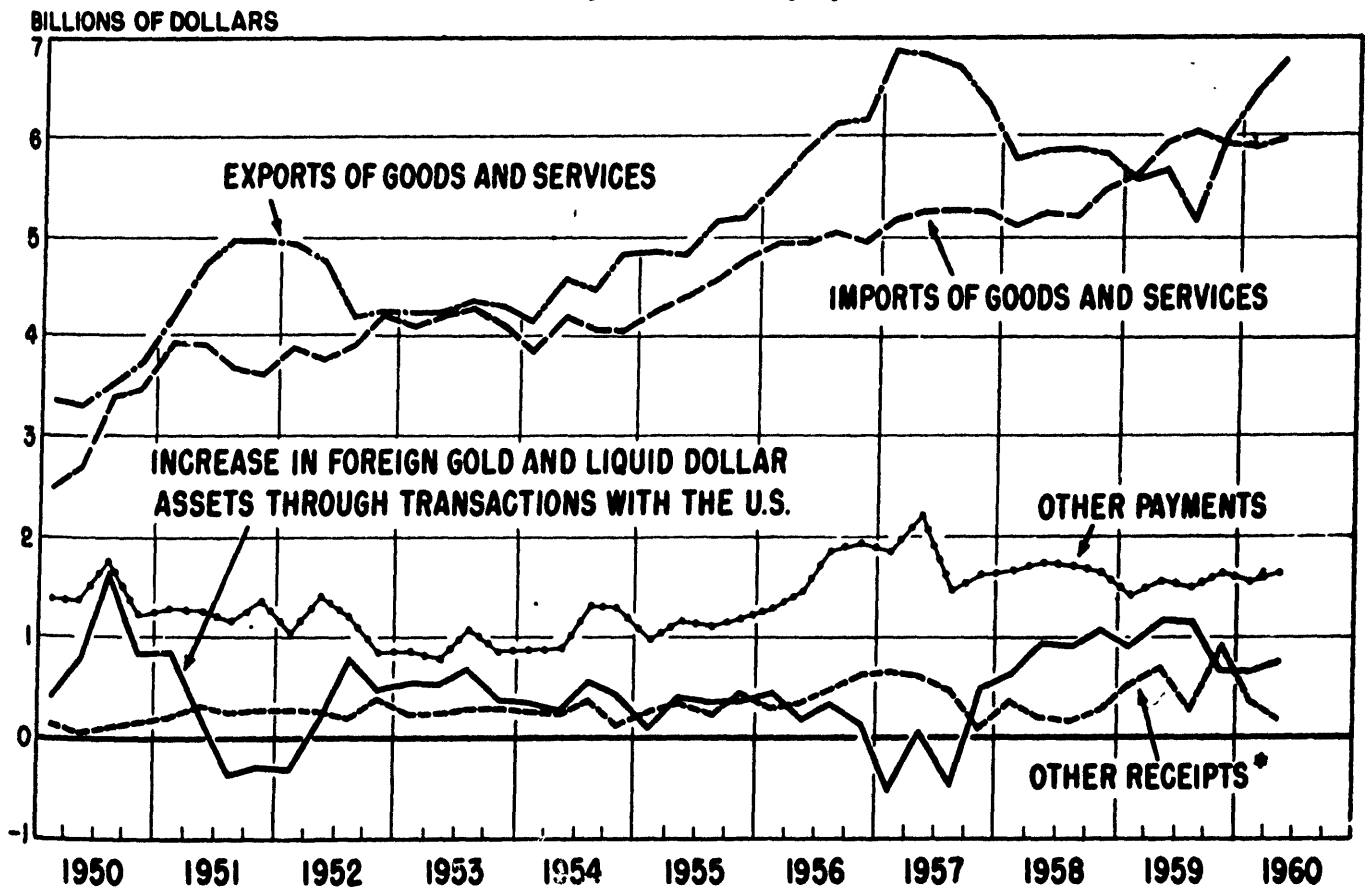
Seasonally adjusted quarterly data are shown in

terms of annual rates. The underlying series for U.S. capital and unilateral payments are adjusted by the Office of Business Economics but not in such a manner as to permit presentation of adjusted series for the aggregates presented in this table. However the adjusted capital series are the basis for the derivation of the adjusted series for the balance on recorded transactions and increase in foreign gold and dollar assets.

*Statistical procedures.*—The preparation of the balance of payments involves the bringing together, and adjustment to balance of payments concepts, of data from a variety of sources, including direct reports to the Office of Business Economics. The largest components are those for merchandise imports and exports, as published by the Bureau of the Census, subject to certain adjustments for coverage, valuation, and timing. Other sources include quarterly reports by U.S. companies with branches or subsidiaries abroad and U.S. branches and subsidiaries of foreign companies; occasional "benchmark" surveys of U.S. investments abroad and of foreign investments in the United States; reports from U.S.

### Balance of Payments, 1950-60

(Quarterly data. Seasonally adjusted)



SOURCE OF DATA: DEPARTMENT OF COMMERCE

\* Including unrecorded transactions

## United States Balance of Payments

[Millions of dollars]

Year	U.S. Receipts (recorded)		U.S. Payments (recorded)					Balance on recorded transactions [net payments (-) or receipts (+)]	Unrecorded transactions (errors and omissions), (net receipts)	Increase in foreign gold and recorded liquid dollar assets through transactions with the U.S.
	Exports of goods and services	Foreign long-term capital (net)	Imports of goods and services	U.S. Grants and capital (net)						
				Total <sup>1</sup>	U.S. Government grants and capital	Private capital				
						Total	Direct			
1929	7,034	358	5,886	1,175	-38	836	602	331	-384	53
1930	5,448	66	4,416	820	-77	555	294	278	320	-598
1931	3,641	66	3,125	-451	-14	-756	222	1,033	99	-1,132
1932	2,474	-26	2,067	-266	-26	-478	16	647	79	-726
1933	2,402	<sup>2</sup> 125	2,044	221	7	6	-32	262	61	-323
1934	2,975	<sup>2</sup> 15	2,374	-112	5	-289	17	728	412	-1,140
1935	3,265	320	3,137	-362	-1	-543	-34	810	364	-1,174
1936	3,539	600	3,424	-24	-3	-229	12	739	157	-806
1937	4,553	245	4,256	-86	-2	-319	-35	628	475	-1,053
1938	4,336	57	3,045	115	9	-76	-16	1,253	219	-1,482
1939	4,432	-86	3,366	-147	14	-339	-9	1,127	788	-1,915
1940	5,355	-90	3,636	16	51	-245	-32	1,313	1,277	-2,890
1941	6,896	-327	4,486	1,440	1,323	-87	-47	643	476	-1,119
1942	11,769	-84	5,356	6,526	6,525	-31	-19	-197	-8	205
1943	19,134	-63	8,096	12,988	12,847	-28	-98	-2,013	34	1,979
1944	21,438	175	8,986	14,449	14,077	76	-71	-1,822	-37	1,859
1945	16,273	-104	10,232	8,682	7,561	550	100	-2,745	8	2,737
1946	14,735	-347	6,991	<sup>3</sup> 6,013	<sup>3</sup> 4,975	413	230	1,384	195	-1,579
1947	19,737	-98	8,208	<sup>3</sup> 7,506	<sup>3</sup> 5,804	987	749	3,925	936	-4,861
1948	16,789	-172	10,349	6,441	4,918	906	721	-173	1,179	-1,006
1949	15,851	119	9,702	6,832	5,649	553	660	-564	775	-211
1950	13,901	53	12,098	5,428	3,640	1,265	621	-3,572	-30	3,602
1951	18,863	182	15,142	4,716	3,191	1,068	528	-813	470	343
1952	18,105	141	15,760	4,083	2,380	1,158	850	-1,597	505	1,092
1953	17,081	206	16,644	3,041	2,055	369	721	-2,398	296	2,102
1954	17,949	244	16,088	3,788	1,554	1,619	664	-1,683	167	1,516
1955	20,003	346	17,937	4,007	2,211	1,211	779	-1,595	446	1,149
1956	23,705	530	19,829	<sup>3</sup> 5,982	<sup>3</sup> 2,327	2,990	1,859	-1,576	643	933
1957	26,733	361	20,923	6,451	2,574	3,175	2,058	-280	748	-468
1958	23,325	24	21,053	6,153	2,587	2,844	1,094	-3,857	380	3,477
1959	23,464	548	23,560	<sup>3</sup> 5,061	<sup>3</sup> 1,981	2,301	1,310	-4,609	783	3,826

<sup>1</sup> Includes remittances and pensions not shown separately.

<sup>2</sup> 1933 figure includes a net outflow of \$40 million and 1934, a net inflow of \$30 million, representing the net transfer of funds in security arbitrage. These transactions cannot be divided between domestic and foreign securities.

<sup>3</sup> Excludes subscriptions to international financial institutions.

NOTE.—Military grants are excluded beginning with 1946.

Source: Department of Commerce.

Government agencies on their foreign transactions, including grants, loans, and purchases and sales; reports from U.S. and foreign shipping lines and financial data from the Maritime Administration; reports from U.S. travelers on their expenditures abroad and from foreign travelers on their expenditures in the U.S., together with travel statistics of the Immigration and Naturalization Service; reports to the Treas-

ury Department on international claims and liabilities; and a variety of other sources including Government administrative data, direct reports to the Office of Business Economics and press reports.

Individual series of the more detailed balance of payments statement are seasonally adjusted separately, according to varying techniques as deemed appropriate. Major items, including merchandise

trade, are adjusted by means of a regression technique involving derivation of an equation expressing the relationship between quarterly aggregates and a trend line established on the basis of moving averages. The series for "errors and omissions" is independently adjusted, while the "adjusted" series for the balance on recorded transactions and for gold and foreign dollar reserves are both derived from the other adjusted series. Individual series are balanced to annual totals.

The magnitude of the seasonal adjustments for different series varies widely. The greatest range in recent years is from 1.48 for the first quarter to 0.685 for the third quarter of the series on travel expenditures.

*Relation to other series.*—Since the balance of payments is a synthesis of data from a variety of sources, a close relationship exists between various components of the balance of payments and certain other bodies of published data. Because of technical adjustments to balance of payments concepts, which cannot be detailed here, the components will ordinarily differ somewhat from the related sources. Among the important bodies of related data are: data on merchandise exports and imports published by the Bureau of the Census (see p. 73); data on U.S. Government aid as published in the Office of Business Economics quarterly bulletin *Foreign Grants and Credits of the United States*; annual estimates of the international debtor-creditor position of the United States as published in the *Survey of Current Business*; and data on international capital transactions of the United States as published by the Treasury Department in the *Treasury Bulletin*. Balance of payments data are used as a component of the national income and products account, summarized under the categories of exports and imports.

The regular quarterly balance of payments presentation in the *Survey of Current Business* shows transactions with major areas of the world, and gives a more detailed classification of transactions by type.

*Uses and limitations.*—The balance of payments presents an integrated summary of international transactions and their net effect on the international financial position of the United States. A major contribution is to present individual components in their proper context, avoiding such misleading con-

clusions as may be drawn by concentrating attention, for example, on merchandise exports and imports alone, without attention to the "invisible" items of trade. The interrelationships within the balance of payments are complex and no discussion of analytical technique can be attempted here.

The balance of payments lends itself to more than one form of presentation. The regular, and more detailed, table of the quarterly presentation shows a balance on account of goods and services, against which can be offset the net financial results of unilateral transactions, capital movements, and gold transactions. The presentation in *Economic Indicators* balances all "recorded" receipts against all "recorded" payments, other than those resulting from purchases or sales of gold or from changes in recorded short-term and other liquid foreign assets in the U.S. The net surplus or deficit measures the net change in foreign gold and recorded liquid dollar assets. Since this measure is arrived at independently also through reported data on gold and foreign assets, and since the two results show a significant and fluctuating difference, some caution is needed in interpreting movements in the net figure, as indicated in the current textual discussions of the Office of Business Economics. The reduction of the "errors and omissions" through more complete reporting presents considerable difficulty because of the elusiveness of many international transactions.

*References.*—The most complete discussion of balance of payments concepts used and of statistical sources and techniques is contained in the 1952 Supplement to the *Survey of Current Business* entitled *Balance of Payments of the United States: 1949-51*, although there have been subsequent developments in sources and technique. Later briefer statements of sources may be found in *Business Statistics 1959 Edition*, and in the Census publication *Historical Statistics of the United States: Colonial Times to 1957*. A *Balance of Payments Statistical Supplement* (to the *Survey of Current Business*) of 1958 gives detailed global figures by quarters for the period 1919-1956 and by areas for 1946-1956. *Historical Statistics* gives available, but fragmentary, data back to 1790. The *Survey of Current Business* carries balance of payments data regularly, with quarterly and annual detailed tables and explanatory text.

# PRICES

## CONSUMER PRICES

*Description of series.*—The Consumer Price Index, compiled by the Bureau of Labor Statistics, is a measure of changes in prices of goods and services purchased by families of wage earners and salaried clerical workers in cities. The goods and services included in the index are those required to maintain the level of living characteristics of such families in the year ending June 1952. These families represented about 64 percent of all people living in urban places, and about 40 percent of the total United States population in 1950.

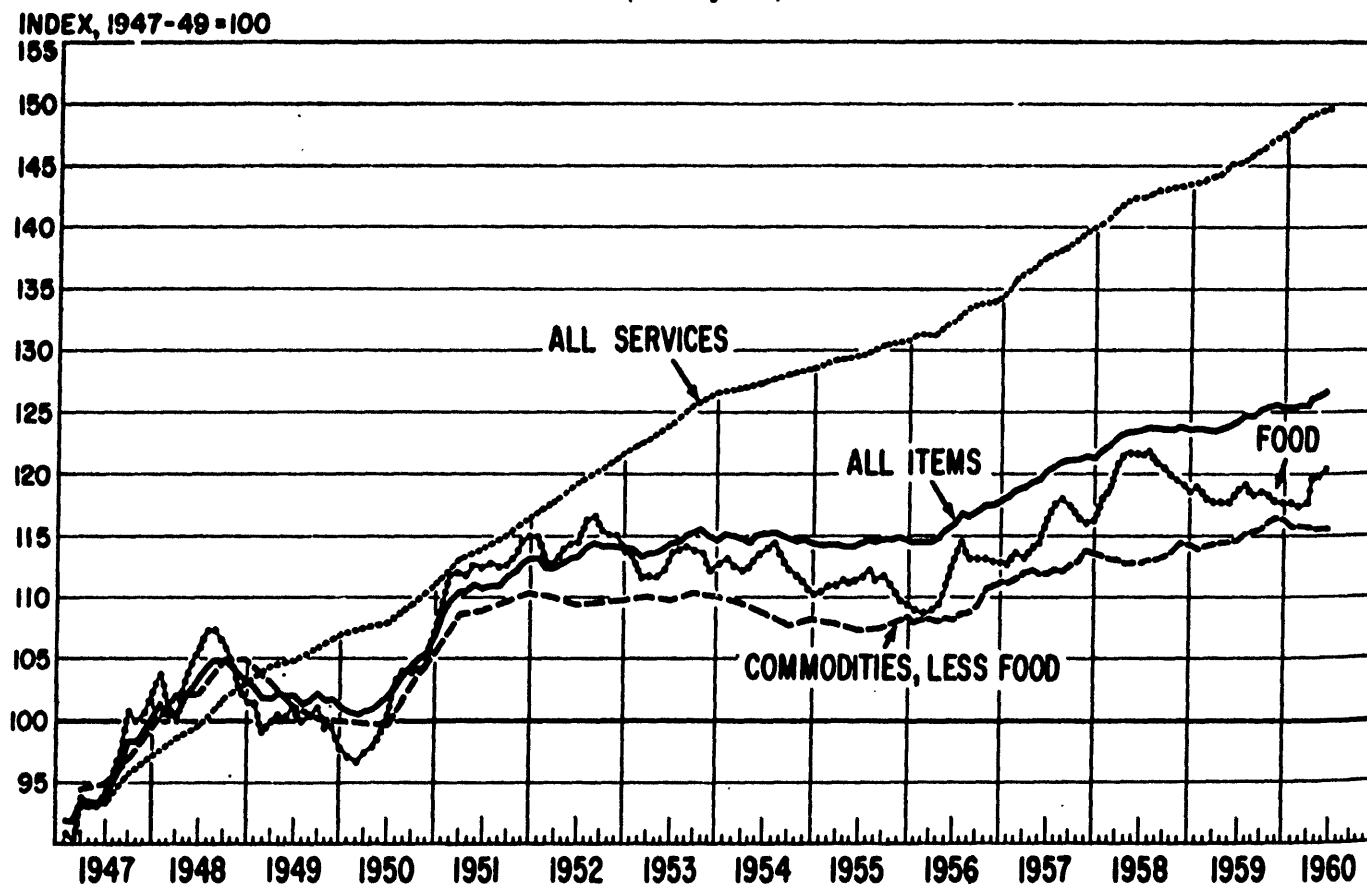
The index is based upon prices collected on about 300 items in 46 cities. The 300 items were selected by the BLS as representative of the thousands of commodities and services purchased by families of

wage earners and salaried clerical workers, as reported in a survey conducted in 91 cities. Detailed specifications are used for the 300 items so that, insofar as possible, prices are obtained for articles of the same quality in successive price periods. Revisions in the individual specifications are made from time to time as descriptions become obsolete.

Current prices for the 300 items are collected regularly from a list of stores and service establishments in the 46 cities. This list includes chain stores, independent stores, department stores, specialty stores, and public utilities, selected by BLS as representative of the types of outlets in which wage-earner and clerical-worker families make their purchases. Prices are also collected on such items as physicians'

### Consumer Prices, 1947-60

(Monthly data)



SOURCE OF DATA: DEPARTMENT OF LABOR

## Consumer Prices

[1947-49=100]

Year	All items	Commodities					Services		
		All commodities	Food	Commodities less food			All services	Rent	Services less rent
				All	Durable	Nondurable			
1929.....	73.3	( <sup>1</sup> )	65.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	117.4	( <sup>1</sup> )
1930.....	71.4	( <sup>1</sup> )	62.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	114.2	( <sup>1</sup> )
1931.....	65.0	( <sup>1</sup> )	51.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	108.2	( <sup>1</sup> )
1932.....	58.4	( <sup>1</sup> )	42.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	97.1	( <sup>1</sup> )
1933.....	55.3	( <sup>1</sup> )	41.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	83.6	( <sup>1</sup> )
1934.....	57.2	( <sup>1</sup> )	46.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	78.4	( <sup>1</sup> )
1935.....	58.7	52.0	49.7	57.3	53.3	57.1	75.6	78.2	72.6
1936.....	59.3	52.7	50.1	57.9	54.1	57.6	76.4	80.1	72.2
1937.....	61.4	54.7	52.1	60.4	57.5	59.9	78.7	83.8	72.9
1938.....	60.3	52.7	48.4	60.4	58.5	59.6	80.3	86.5	73.5
1939.....	59.4	51.6	47.1	59.4	57.3	58.7	80.4	86.6	73.5
1940.....	59.9	52.1	47.8	59.8	56.8	59.3	80.6	86.9	73.6
1941.....	62.9	55.7	52.2	62.7	60.7	61.8	81.6	88.4	74.5
1942.....	69.7	63.8	61.3	69.8	68.9	68.4	84.2	90.4	77.8
1943.....	74.0	69.4	68.3	72.7	71.2	71.3	85.8	90.3	81.3
1944.....	75.2	70.2	67.4	76.7	77.8	74.9	87.9	90.6	85.2
1945.....	76.9	72.3	68.9	79.7	83.7	77.6	89.0	90.9	87.0
1946.....	83.4	80.1	79.0	84.7	87.5	83.3	90.8	91.4	90.2
1947.....	95.5	96.3	95.9	95.7	94.9	95.7	94.5	94.4	94.7
1948.....	102.8	103.2	104.1	102.9	101.8	103.1	100.4	100.7	100.1
1949.....	101.8	100.6	100.0	101.5	103.3	101.1	105.1	105.0	105.2
1950.....	103.8	101.2	101.2	101.3	104.4	100.9	108.5	108.8	108.1
1951.....	111.0	110.3	112.6	108.9	112.4	108.5	114.1	113.1	114.6
1952.....	113.5	111.7	114.6	109.8	113.8	109.1	119.3	117.9	120.1
1953.....	114.4	111.3	112.8	110.0	112.6	110.1	124.2	124.1	124.6
1954.....	114.8	110.2	112.6	108.6	108.3	110.6	127.5	128.5	127.7
1955.....	114.5	109.0	110.9	107.5	105.1	110.6	129.8	130.3	130.1
1956.....	116.2	110.1	111.7	108.9	105.1	113.0	132.6	132.7	133.0
1957.....	120.2	113.6	115.4	112.3	108.8	116.1	137.7	135.2	138.6
1958.....	123.5	116.3	120.3	113.4	110.5	116.9	142.4	137.7	143.8
1959.....	124.6	116.6	118.3	115.1	113.0	118.3	145.8	139.7	147.5

<sup>1</sup> Not available.

NOTE.—The "all items" and "food" indexes are available monthly from 1913; "rent," annually from 1913 through 1916, for varied intervals (generally semiannually or quarterly) from 1919 through September 1940, monthly from October 1940 through September 1944, quarterly from December 1944 through January 1947, and monthly from February 1947 to date; all other groups, selected months for 1935 and 1936, quarterly from 1937 through 1955, and monthly from 1956 to date.

Source: Department of Labor.

and dentists' fees, hospital rates, and beauty-parlor services. Sales and excise taxes are included in the retail prices for commodities on which they are imposed. Property taxes are included in the cost of homeownership, and implicitly included in rental costs. The index does not include income taxes or social security taxes.

Prices are collected at intervals ranging from every month to every third month. In the 5 largest cities all goods and services are priced every month except rent which is priced every second month. In the

remaining 41 cities prices for some goods and services—such as foods, fuels, used cars, streetcar and bus fares and a few other important items—are collected every month; for other goods and services prices are collected every third month. Pricing of these goods and services in the 41 cities is on a rotating cycle, so that several cities of each size group are priced each month. Between the periodic pricing periods in a given city, the price change for unpriced groups of items is estimated for use in the computation of the monthly national index.

Prices for practically all of the commodities and most of the services are collected by personal interview. A few prices (e.g., public utility rates and fuel prices) are collected by mail.

In addition to the national index, separate indexes are computed for the 20 largest of the 46 cities—monthly for the 5 largest and quarterly for the other 15.

A major revision of this series was introduced with the release of the January 1953 index. The principal changes from the old series were: (1) change in the weighting pattern to reflect current purchasing habits; (2) change in the list of items priced to reflect current purchasing habits; (3) increase in the number of items priced from about 225 to about 300, including for the first time used cars, home purchase and maintenance, and restaurant meals; (4) revision and expansion of the list of cities in which prices are collected, to reflect price changes affecting wage-earner and clerical-worker families in all urban areas; and (5) change of the reference base period of the index from 1935-39 to 1947-49.

For the years shown in the accompanying table, for 1929 the weights used are averages representing 1917-19 and 1934-36 expenditures; for 1930-49 the weights used are 1934-36 expenditures; for 1950-52, estimates of 1950 expenditure patterns; and from 1953 to date, estimated expenditure patterns for the year ending June 1952. With the introduction of the 1934-36 weighting pattern in 1940, a modified weighting pattern was carried back to smooth the transition, but this was not done when the 1950 weighting pattern was introduced in 1951 or when the fiscal year 1952 weighting pattern was introduced in January 1953. In these instances the new weights were linked into the index as of a single month.

The relative importance of the various groups shown in the table for January 1950 and for December 1959 can be seen in the following table:

*Relative Importance of Specified Groups in the CPI, After Adjustment, January 1950 and December 1959*

Specified group	Jan. 1950	Dec. 1959
All items.....	100. 0	100. 0
All Commodities.....	68. 7	64. 1
All Food.....	33. 3	28. 0
All Commodities less food.....	35. 4	36. 1
All durable Commodities.....	10. 8	13. 6
All nondurable Commodities less food.....	24. 6	22. 5
All Services.....	31. 3	35. 9
Rent.....	11. 6	6. 2
Services less rent.....	19. 7	29. 7

*Statistical procedures.*—The purpose of the index is to show how much more or less it would cost to purchase the same quantities and qualities of goods and services in one period than in an earlier period. The first step in the index computation is to calculate, for each city, a price relative for each item by comparing the sum of the prices reported for that particular item from the same retail outlets in the current and preceding periods. This relative change for the item is next multiplied by the estimated cost in the preceding period for a fixed quantity of the item. (The fixed quantity, or weight, for each item is determined by the average annual quantities of that item purchased by urban wage-earner and clerical-worker families in the year ending June 1952, plus the purchases of those unpriced commodities it represents in the index.) These calculations are then totaled for all items in a group—all food items, for example, are combined into a total showing the food cost for the fixed quantities in the current period. This total is compared with the food total for the preceding period to give a measure of the average price change for all foods, from which the index number of food for each city is computed. Similar calculations are made for apparel, rent, and all other groups of items priced.

The national index is calculated by combining the city totals, with weights based on the 1950 population of urban wage-earner and clerical-worker families. Two-fifths of the weight is carried by the 12 largest cities; one-fifth by the 9 cities selected to represent the 42 cities with populations of 240,000 to 1,000,000; one-fifth by the 9 cities selected to represent the 216 cities with populations of 30,500 to 240,000; and one-fifth by the 16 small cities selected to represent the 2,527 towns with populations ranging from 2,500 to 30,500.

*Uses and limitations.*—The index is designed to measure only those changes in the spending of urban families which result from changes in prices, not those which result from changes in purchasing habits or standards of living. Also, it measures price changes for only a limited population group: the families of wage earners and salaried clerical workers living in urban areas. Other qualities of commodities and weights would have to be used to measure price changes for other groups, such as farm families, single workers, retired people, etc. The “fixed market basket” represents the average quantities bought by all wage-earner and clerical-worker

families, and is not necessarily representative of the purchases made by any single family.

The city indexes indicate the difference in the rate of price movement in the various cities, but should not be used to compare price levels in one city with those in another. For instance, if the index for city A is 113 and that for city B is 115, it does not necessarily follow that prices are higher in city B than in city A, since the base-period prices may have been higher in city A. These indexes do show that prices have increased more rapidly since the base period in city B than in city A.

Although efforts are made to minimize the effects of quality changes on the "fixed market basket," it is impossible in any index to measure these effects very accurately.

*References.*—The basic release of the index is the report entitled "Consumer Price Index," issued by the Bureau of Labor Statistics toward the end of the

month following the month to which the figures relate. The periodic indexes—semiannual, quarterly, or monthly—for periods earlier than those shown in current issues of *Economic Indicators* are available from the Bureau of Labor Statistics upon request. Quarterly indexes are available upon request for selected groups of items and for individual commodities and services (except foods and fuels); monthly indexes and average prices are available for individual food and fuel items. Descriptions of the procedures, uses, and limitations of the index are presented in varying degrees of technical detail in *The Consumer Price Index—A Layman's Guide* (BLS Bulletin 1140); in *Techniques of Preparing Major BLS Statistical Series* (BLS Bulletin 1168); and in an article in the February 1953 issue of the *Monthly Labor Review*. Upon request, the Bureau of Labor Statistics will furnish "The Consumer Price Index, A Short Description."

## WHOLESALE PRICES

*Description of series.*—The Wholesale Price Index, compiled by the Bureau of Labor Statistics, is a measure of the general rate and direction of the composite of price movements in primary markets, and of the specific rates and directions of price movements for individual commodities and groups of commodities.

The index is based on price quotations for approximately 2,000 commodities selected to represent all commodities sold on primary markets in the United States. All types of commodities, from raw materials to fabricated products, are included in the index. For commodities traded on organized exchanges, such as livestock and grains, the quotations are furnished by the exchanges or Government agencies, or are taken from published sources. For some standardized commodities, such as certain chemicals and specified constructions of cotton gray goods, quotations are taken from authoritative trade publications. For the majority of fabricated products, prices are reported to the Bureau of Labor Statistics by producers.

Initial contacts with manufacturers to solicit their cooperation in reporting prices on specified commodities are made by personal interview; subsequent price reports are mailed to Washington by the reporting firm.

Prices are quoted at the level of the first commercial transaction, and, for each commodity, the

reporter is requested to quote the price which he charges to the channel of distribution to which he sells the largest volume of this particular commodity. The prices relate to a particular day of the month—usually Tuesday of the week containing the 15th.

Insofar as possible, identical qualities of the commodities are priced from period to period so that the index will measure only real price changes, not changes due to differences in qualities or terms of sales. When commodities of identical qualities are not available for pricing in successive periods, it is sometimes possible to obtain information on the cost of the features added to or removed from the original article. This can frequently be done, for example, when new models of machinery are introduced. In such cases it is possible to estimate the true price change, excluding the effect of changes due to specification modifications. When adequate estimates of the true price change cannot be made, the new commodity is substituted for the original in such a way that the level of the index is not affected by the difference in their prices. To the extent that identical qualities are not available in successive periods and no adjustment can be made, the index may not precisely measure price changes.

A major revision of this index was introduced with release of the January 1952 index. The principal changes from the old series were: (1) increase in the number of items priced, from approximately 900 to

about 2,000; (2) change in the basis for weights from average value of shipments for sale in 1929-31 to 1947 averages; (3) change of the base period from 1926 to 1947-49; and (4) modification of the classification system. Weights based upon the industrial censuses for 1947 are used in the index from January 1947 through December 1954. Adjustments were made in January 1955 to bring the major groups weight totals into agreement with the 1952-53 average shipment values. New weights were introduced in January 1958 based upon the industrial censuses for 1954. Weights based upon the 1958 Censuses will be introduced early in 1961.

The relative importance of the groups, subgroups, and items in the index at any one period depends on the relationship among value aggregates as of that period. As of December 1954, using the 1952-53 weights, the relative importance of "Farm products" was 10.8 percent, of "Processed foods" 13.7 percent, and of "Other than farm products and foods" (machinery, nonmetallic minerals, fuels, etc.) 75.5 percent. Following introduction of the 1954 weights in December 1957 the corresponding percents giving the

relative importance of the three groups named were 10.7, 12.7, and 76.6 respectively.

The following table indicates the relative importance of the chief economic-sector components in 1947 and in December 1957, the effective date of the most recent revision.

*Relative Importance of Components of the Wholesale Price Index, 1947-49 and December 1957*

Commodity grouping	1947-49 (1947 weights)	December 1957 (1954 weights)
All commodities.....	100.00	100.00
Farm products.....	14.61	10.69
Processed foods.....	15.45	12.73
All industrials <sup>1</sup> .....	69.94	76.58
Industrial crude materials.....	3.88	2.96
Industrial intermediate materials <sup>2</sup> .....	35.30	40.33
Producer finished goods.....	8.96	11.23
Consumer finished goods excluding food.....	20.71	21.35
Durables.....	6.11	7.69
Nondurables.....	14.60	13.66

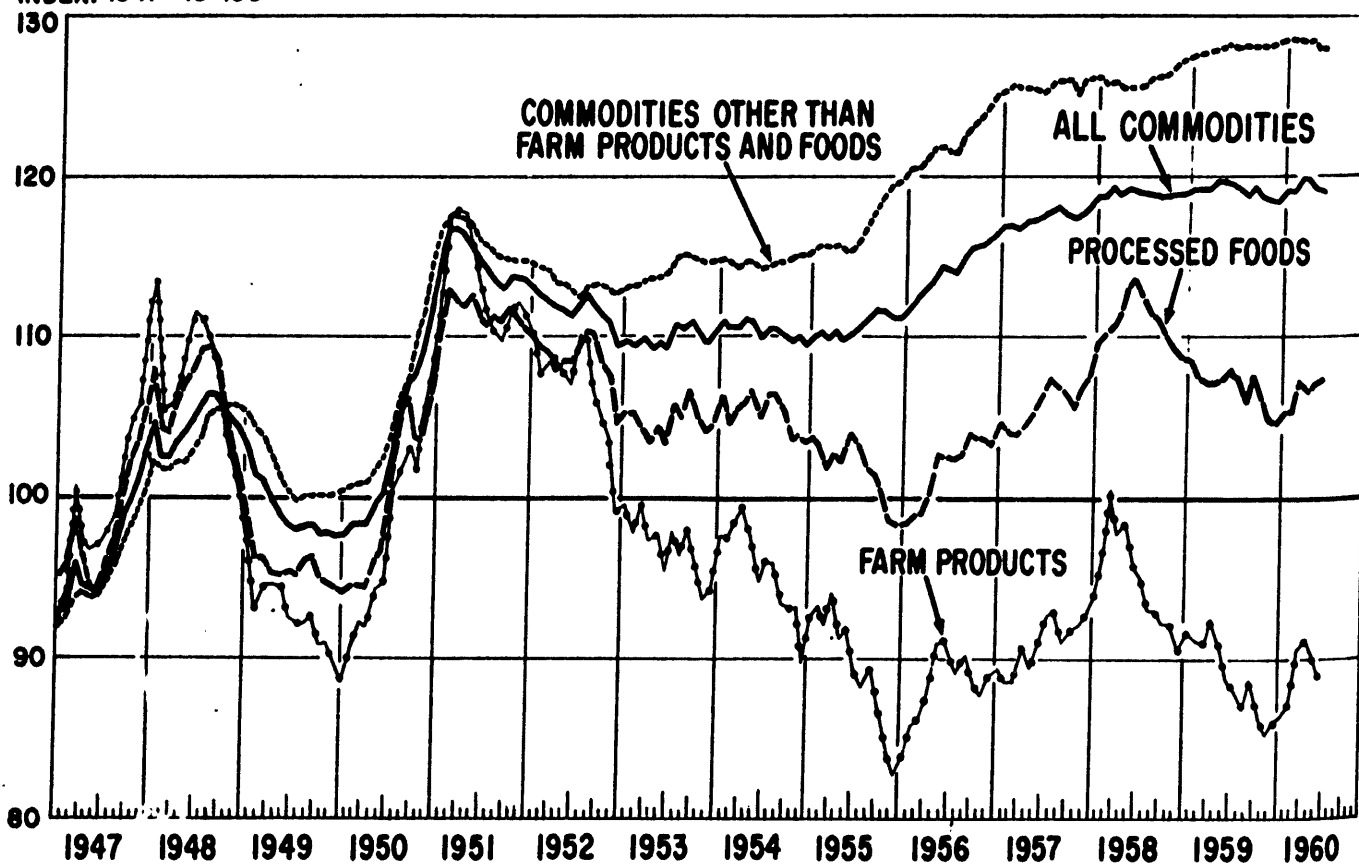
<sup>1</sup> Excludes all farm products and foods; coverage of the subgroups does not correspond exactly to coverage of this index.

<sup>2</sup> Excludes intermediate materials for food manufacturing and manufactured animal feeds; includes, in part, grain products for further processing.

### Wholesale Prices, 1947-60

(Monthly data)

INDEX: 1947-49=100



SOURCE OF DATA: DEPARTMENT OF LABOR



# Wholesale Prices

[1947-49=100]

Year	All commodities	Farm products	Processed foods	Commodities other than farm products and foods (industrials)					
				All industrials <sup>1</sup>	Industrial crude materials	Industrial intermediate materials <sup>2</sup>	Producer finished goods	Consumer finished goods excluding food	
								Durable	Nondurables
1929.....	61.9	58.6	58.5	65.5	(?)	(?)	(?)	(?)	(?)
1930.....	56.1	49.3	53.3	60.9	(?)	(?)	(?)	(?)	(?)
1931.....	47.4	36.2	44.8	53.6	(?)	(?)	(?)	(?)	(?)
1932.....	42.1	26.9	36.5	50.2	(?)	(?)	(?)	(?)	(?)
1933.....	42.8	28.7	36.3	50.9	(?)	(?)	(?)	(?)	(?)
1934.....	48.7	36.5	42.6	56.0	(?)	(?)	(?)	(?)	(?)
1935.....	52.0	44.0	52.1	55.7	(?)	(?)	(?)	(?)	(?)
1936.....	52.5	45.2	50.1	56.9	(?)	(?)	(?)	(?)	(?)
1937.....	56.1	48.3	52.4	61.0	(?)	(?)	(?)	(?)	(?)
1938.....	51.1	38.3	45.6	58.4	(?)	(?)	(?)	(?)	(?)
1939.....	50.1	36.5	43.3	58.1	(?)	(?)	(?)	(?)	(?)
1940.....	51.1	37.8	43.6	59.4	(?)	(?)	(?)	(?)	(?)
1941.....	56.8	46.0	50.5	63.7	(?)	(?)	(?)	(?)	(?)
1942.....	64.2	59.2	59.1	68.3	(?)	(?)	(?)	(?)	(?)
1943.....	67.0	68.5	61.6	69.3	(?)	(?)	(?)	(?)	(?)
1944.....	67.6	68.9	60.4	70.4	(?)	(?)	(?)	(?)	(?)
1945.....	68.8	71.6	60.8	71.3	(?)	(?)	(?)	(?)	(?)
1946.....	78.7	83.2	77.6	78.3	(?)	(?)	(?)	(?)	(?)
1947.....	96.4	100.0	98.2	95.3	92.9	95.3	92.8	94.8	97.4
1948.....	104.4	107.3	106.1	103.4	108.5	103.7	101.1	101.3	103.5
1949.....	99.2	92.8	95.7	101.3	98.6	101.0	106.1	104.0	99.2
1950.....	103.1	97.5	99.8	105.0	109.9	105.7	108.7	105.0	100.8
1951.....	114.8	113.4	111.4	115.9	120.8	118.5	119.3	112.1	108.5
1952.....	111.6	107.0	108.8	113.2	109.3	114.7	121.3	113.0	105.9
1953.....	110.1	97.0	104.6	114.0	108.5	116.2	123.1	113.8	106.9
1954.....	110.3	95.6	105.3	114.5	103.3	116.7	124.7	114.7	107.2
1955.....	110.7	89.6	101.7	117.0	113.4	120.1	128.5	115.9	107.8
1956.....	114.3	88.4	101.7	122.2	120.0	126.0	138.1	119.7	109.9
1957.....	117.6	90.9	105.6	125.6	118.3	129.3	146.7	123.3	112.4
1958.....	119.2	94.9	110.9	126.0	113.7	129.1	150.3	125.0	111.7
1959.....	119.5	89.1	107.0	128.2	120.0	131.2	153.2	126.5	113.4

<sup>1</sup> Excludes all farm products and foods; coverage of the subgroups does not correspond exactly to coverage of this index.

<sup>2</sup> Excludes intermediate materials for food manufacturing and manufactured animal feeds; includes, in part, grain products for further processing.

<sup>3</sup> Not available for this classification prior to 1947.

NOTE.—Monthly indexes available for most groups from January 1926 on the 1947-49=100 base. Monthly indexes available for "all commodities" and major groups from 1890 and for subgroups from 1913 on the 1926=100 base.

Source: Department of Labor.

In addition to the comprehensive index, BLS publishes a large number of subindexes in varying degrees of detail. One series (see table) describes price changes at various stages of production. Commodities are first divided by stage of processing among three categories: (1) crude materials for further processing; (2) intermediate materials, supplies, and components; and (3) finished goods. Each of these is further subdivided according to end-use and dura-

bility. Another series consists of separate indexes for durable and nondurable goods which are published each month for all commodities, total manufactures, and total raw or slightly processed goods. Indexes by commodity groupings are given each month for 15 major groups, such as farm products and processed foods; 84 subgroups such as grains and cotton products; 261 product classes; and many individual product series. In addition to the above,

indexes for 26 other special commodity groups are regularly issued, including an index of prices of construction materials.

*Statistical procedures.*—Basically, the same statistical method is used in computing the Wholesale Price Index and the Consumer Price Index. The individual price series are combined into the index by multiplying the value weight assigned each item by its current price relative, and summing to obtain the current aggregate. The current aggregates are totaled by product classes, subgroups, groups, and all commodities. The current index for each of these is obtained by dividing the current aggregate by the appropriate value weight in the base period.

Each commodity price series in the index, as representative of prices for a group of commodities, is assigned its own direct weight (the value of the shipments for sale of that individual commodity), plus the weight of other commodities it was selected to represent in the index. Weights for commodities not priced for the index are assigned to commodities which are priced on the basis of available information on similarity of price movements. Statistical studies and the advice of experts in industry and elsewhere are utilized in making these determinations.

*Relation to other series.*—The BLS publishes a weekly index of wholesale prices based on that week's prices for a small sample (about 250) of the commodities included in the monthly index and an estimate of prices for all other commodities. The weekly index is calculated as an estimated percentage change from the latest published monthly comprehensive index. The weekly index is not maintained as a continuous series.

*Uses and limitations.*—The index is based for the most part on producers' prices; therefore, it should not be used as a measure of price change at the wholesale market level. "Wholesale" as used in the title of this index refers to sales in large lots, not to prices paid or received by wholesalers, jobbers, or distributors.

A comparison of the movement of the subgroup indexes of the Wholesale Price Index and the Consumer Price Index should not be used as a measure of the change in retailers' margins for the specified groups of commodities, mainly because the two indexes are based on different weighting patterns and the lists of commodities priced are not identical.

The index is designed to measure real price changes, that is, changes which are not occasioned by changes in quality, quantity, terms of sale, etc. It is not designed to measure changes in manufacturers' average realized prices which are affected by product mix and terms of sale as well as by price movements.

*References.*—The basic release of the index is the report entitled *Wholesale (Primary Market) Price Index*, issued by the Bureau of Labor Statistics during the second week of the month following the month to which the figures relate. Monthly indexes for periods earlier than those shown in current issues of *Economic Indicators* are available from the Bureau of Labor Statistics upon request. A detailed description of the index and its uses and limitations is presented in the February 1952 *Monthly Labor Review* (Reprint No. R. 2067) and in *Techniques of Preparing Major BLS Statistical Series* (Bulletin 1168), December 1954. In addition, statistical series and summaries as well as descriptions of the procedures, uses, and limitations of the Wholesale Price Index and of the various special indexes are in a series of annual bulletins *Wholesale Prices and Price Indexes, 1954-56* (Bulletin 1214) which contains a description of the stage of processing series and the construction materials index, *Wholesale Prices and Price Indexes, 1957* (Bulletin 1235) which describes the indexes on durability of product, and *Wholesale Prices and Price Indexes, 1958* (Bulletin 1257) which supplies information on the January 1958 revision of the weighting structure and the most recent change in procedures for the construction materials index.

# PRICES RECEIVED AND PAID BY FARMERS

## Prices Received by Farmers

*Description of series.*—The Index of Prices Received by Farmers is computed by the Agricultural Marketing Service (AMS) of the Department of Agriculture as a measure of the change from month to month in average prices of farm products. It is based on estimates of the average prices received for all grades and qualities of the important agricultural commodities at the point of first sale—generally the local market—about the middle of the month.

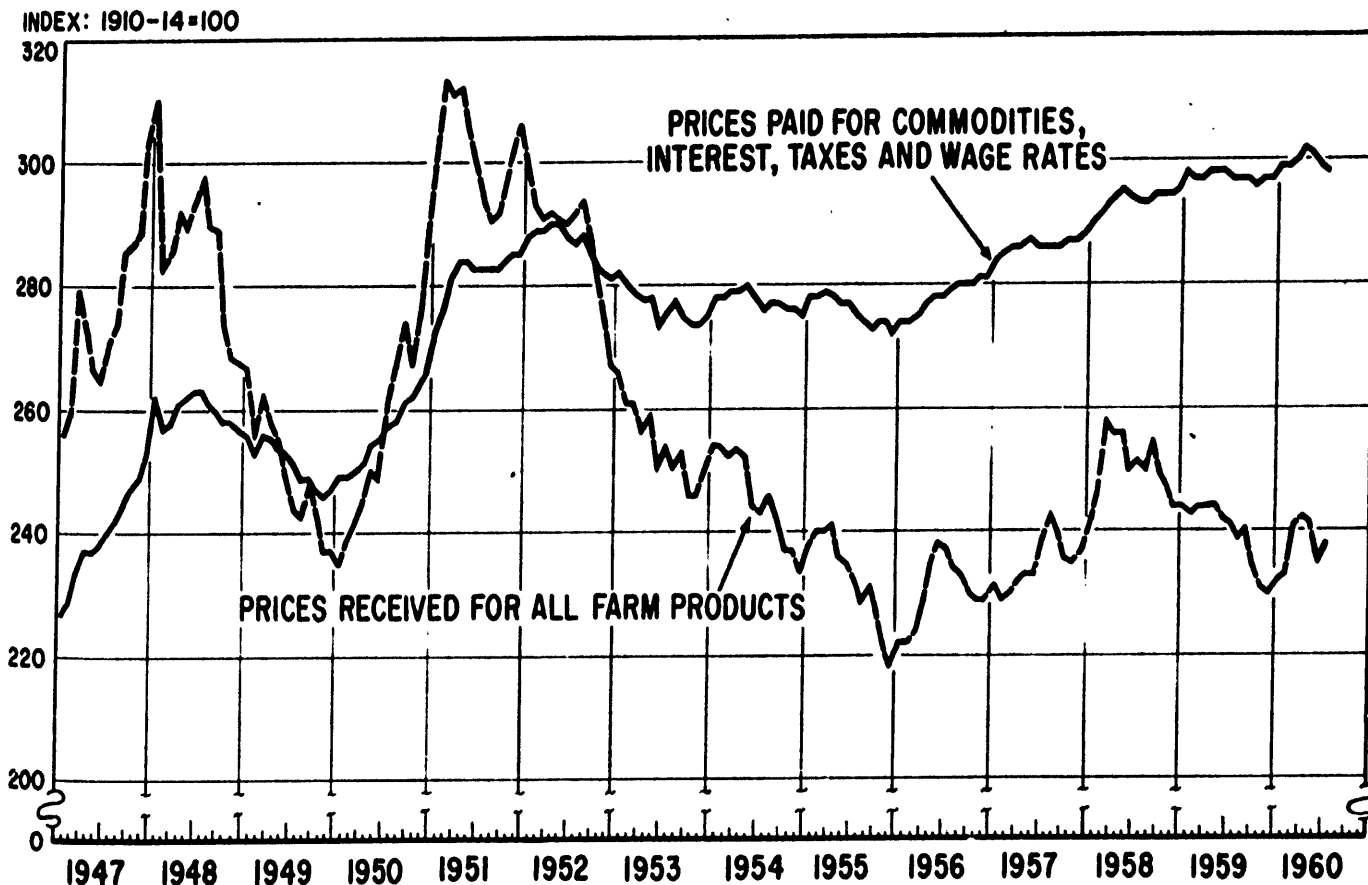
The index is based on prices for 55 commodities which accounted for about 93 percent of the total cash receipts from marketings of all farm commodities in the years 1953–57. The price data are obtained chiefly by mail on a voluntary basis from buyers of farm products (e.g., country elevators, creameries and milk plants, cooperative marketing organizations, and local dealers) and other persons with a knowledge of farm product prices (for example, local bankers and farmers).

In addition to the index for “all farm products,” indexes are prepared for “all crops,” with 11 subgroups, and for “livestock and products,” with 4 subgroups. Five of these subgroup indexes (fresh fruit; fresh vegetables; potatoes, sweetpotatoes, and dry edible beans; dairy products; and poultry and eggs) are published also on a seasonally adjusted basis.

*Statistical procedures.*—Weights based on average quantities sold during 1953–57 have been used since September 1952 to combine the United States average prices for individual commodities into subgroup indexes. In combining the subgroup indexes into group and all-commodity indexes, the index numbers are weighted by the percentages that cash receipts from marketings for the particular commodity subgroups bear to total cash receipts for the same period—1953–57. The subgroups and group indexes are then converted from the 1953–57 to a 1910–14=100 base for publication purposes, as required by law.

## Prices Received and Paid by Farmers, 1947–60

(Monthly data)



SOURCE OF DATA: DEPARTMENT OF AGRICULTURE

*Prices Received and Paid by Farmers*

Year	Prices received by farmers			Prices paid by farmers			Parity ratio <sup>1</sup>	
	All farm products	Crops	Livestock and products	All items, interest, taxes, and wage rates (parity index)	Family living items	Production items		
	Index, 1910-14=100							
1929.....	148	135	159	160	154	146	92	
1930.....	125	115	134	151	144	135	83	
1931.....	87	75	98	130	124	113	67	
1932.....	65	57	72	112	106	99	58	
1933.....	70	71	70	109	108	99	64	
1934.....	90	98	81	120	122	114	75	
1935.....	109	103	114	124	124	122	88	
1936.....	114	108	119	124	124	122	92	
1937.....	122	118	126	131	128	132	93	
1938.....	97	80	112	124	122	122	78	
1939.....	95	82	107	123	120	121	77	
1940.....	100	90	109	124	121	123	81	
1941.....	124	108	138	133	130	130	93	
1942.....	159	145	171	152	149	148	105	
1943.....	<sup>2</sup> 193	187	<sup>2</sup> 198	171	166	164	113	
1944.....	<sup>2</sup> 197	199	<sup>2</sup> 196	182	175	173	108	
1945.....	<sup>2</sup> 207	202	<sup>2</sup> 211	190	182	176	109	
1946.....	<sup>2</sup> 236	228	<sup>2</sup> 242	208	202	191	113	
1947.....	276	263	288	240	237	224	115	
1948.....	287	255	315	260	251	250	110	
1949.....	250	224	272	251	243	238	100	
1950.....	258	233	280	256	246	246	101	
1951.....	302	265	336	282	268	273	107	
1952.....	288	267	306	287	271	274	100	
1953.....	255	240	268	277	269	256	92	
1954.....	246	242	249	277	270	255	89	
1955.....	232	231	234	276	270	251	84	
1956.....	230	235	226	278	274	250	83	
1957.....	235	225	244	286	282	257	82	
1958.....	250	223	273	293	287	264	85	
1959.....	240	221	256	297	288	266	81	

<sup>1</sup> Percentage ratio of Index of Prices Received by Farmers to Index of Prices Paid, Including Interest, Taxes, and Wage Rates.

<sup>2</sup> Includes wartime subsidies paid on beef cattle, sheep, lambs, milk, and butterfat between October 1943 and June 1946.

NOTE.—For the Index of Prices Received by Farmers, monthly and annual data available from January 1910; for the Indexes of Prices Paid, annual data available from 1910, quarterly from 1923, and monthly from January 1937.

Source: Department of Agriculture.

Revisions have been made in the index series from time to time, mainly involving revisions in basic price series or changes in weights. A major revision in January 1950 put the index on a basis more consistent with that of the Parity Index, improved the weighting structure, and made minor changes in commodity coverage. Minor revisions in January 1954 incorporated revisions in component price series and reflected

some revisions in the 1937-41 weight data. The latest major revision was made in January 1959 at which time the weight base period was shifted from 1937-41 to 1953-57, and improvements were made in the weighting and pricing system for vegetables and for noncitrus fruits. The new weighting structure was made effective as of September 1952. The following table shows the percent weights for important cate-

gories for the three periods 1924-29, 1937-41, and 1953-57:

*Relative Weights for Index of Prices Received by Farmers*

Commodity group	1924-29	1937-41	1953-57
All farm products.....	100.0	100.0	100.0
Crops.....	48.0	42.2	45.2
Food grains.....	8.9	7.0	7.9
Feed grains and hay.....	7.5	6.7	9.1
Cotton.....	13.9	8.3	8.4
Tobacco.....	2.6	3.7	4.1
Oil-bearing crops.....	2.3	3.1	4.9
Fruit.....	6.0	5.8	4.7
Commercial vegetables.....	3.5	4.8	4.2
Other vegetables.....	3.3	2.8	1.9
Livestock and products.....	52.0	57.8	54.8
Meat animals.....	26.1	28.6	29.1
Dairy products.....	15.1	17.7	14.6
Poultry and eggs.....	9.9	10.2	10.7
Wool.....	.9	1.3	.4

*Relation to other series.*—This index should not be confused with the farm-product component of the Wholesale Price Index. There are significant differences. The Index of Prices Received by Farmers measures changes in prices at the point of first sale, and is based on average prices for all grades of a given commodity. The Wholesale Price Index, on the other hand, in general measures prices in selected central markets, and is based on prices of specific grades or qualities. Finally, there are differences in the weights and base periods used in the two indexes.

*Uses and limitations.*—The index is widely used as a measure of changes in average prices received by farmers for commodities sold in local markets. It is a close approximation to a measure of the price component of receipts by farmers from the sale of farm products. It is used in the computation of adjusted base-period prices, which are necessary for calculating parity prices under the formula prescribed by the Agricultural Adjustment Act of 1938, as amended.

The Index of Prices Received by Farmers is designed to measure the change in average prices for all grades and qualities of the products sold by farmers. Hence, the price changes it shows do not result wholly from price changes for specific grades, but may also reflect changes in the relative proportion of the various grades or qualities of commodities sold.

As noted above, the index is based on commodities which account for about 93 percent of the total value of farmers' sales. Adequate marketing and price data are not available for most of the other 7 percent (timber and other forest products, greenhouse products, and a number of miscellaneous and minor commodities), but these omissions are probably not significant with respect to the index as a whole.

*References.*—See below, under Prices Paid by Farmers.

### Prices Paid by Farmers

*Description of series.*—The Index of Prices Paid by Farmers for Commodities and Services, Including Interest, Taxes, and Farm Wage Rates (commonly called the Parity Index) is computed by the Agricultural Marketing Service (AMS) of the Department of Agriculture. It is a measure of the changes in prices paid by farm families for a list of commodities and services used for family living and farm production.

The index is composed of five major groups: (1) prices paid for items used in family living, (2) prices for items used in farm production, (3) interest on indebtedness secured by farm mortgages, (4) taxes on farm real estate, and (5) rates of wages paid hired farm labor. The percents of the total weight which are accounted for by the groups and their principal components at different periods are given in the following table. Those utilized in the indexes subsequent to September 1952 are shown in the last column of the table.

The most recent revision of the index was in January 1959. The revised indexes are of the same general form as those of the preceding revision in 1950. There were two major changes in the revised series: (1) a weighting pattern based on farmers' expenditures during 1955 was adopted for the period subsequent to September 1952, in place of the previous weighting pattern which related to 1937-41; and (2) the commodity content of the various groups was modernized and expanded. As of August 1960, the index of prices paid for items used in family living included price series for 227 commodities and services, and the index for items used in farm production included 240, with 39 series being used in both indexes.

*Relative Weights for the Index of Prices Paid by Farmers, Including Interest, Taxes, and Wage Rates*

Item	Weight base period		
	1924-29 <sup>1</sup>	1937-41 <sup>2</sup>	1955 <sup>3</sup>
Commodities, interest, taxes, and cash wage rates.....	100.0	100.0	100.00
Living.....	41.2	44.0	39.50
Food (including tobacco <sup>4</sup> ).....	14.8	16.7	13.40
Clothing.....	12.5	8.6	6.34
Autos and auto supplies.....	4.5	6.9	5.63
Household operations.....	3.9	5.9	5.77
Household furnishings.....	2.4	4.0	3.99
Building materials, house.....	3.1	1.9	4.37
Production.....	36.4	41.2	50.90
Feed.....	10.1	10.2	12.80
Livestock.....	4.4	5.3	4.60
Motor supplies.....	3.9	5.2	8.39
Motor vehicles.....	3.9	5.2	4.38
Farm machinery.....	3.4	4.5	5.21
Building and fencing materials.....	3.7	2.7	5.20
Fertilizer and lime.....	2.7	3.1	4.11
Equipment and supplies.....	3.3	3.3	3.66
Seeds.....	1.0	1.7	2.55
Total commodities.....	77.6	85.2	90.40
Taxes.....	5.7	3.8	2.04
Interest.....	6.5	3.0	.96
Cash wage rates.....	10.2	8.0	6.60

<sup>1</sup> 1910 to March 1935.

<sup>2</sup> March 1935 to September 1952, inclusive.

<sup>3</sup> Subsequent to September 1952.

<sup>4</sup> June 1935 forward.

**Statistical procedures.**—The index of prices paid by farmers for commodities and services is based upon prices of commodities reported by chain and independent stores and costs of electricity and telephone services reported by farmers. Beginning in March 1958 the index has been based primarily on price information collected monthly from chain stores and quarterly from independent stores. Price changes for the independent stores in interquarterly months are estimated largely from changes in chain-store prices. Information on average costs of electricity and telephone services is obtained in an annual survey of about 25,000 farmers. The index base period 1910-14 is set by law.

Price reports from independent dealers are received in the AMS State offices, where average prices for the State are calculated for each item. Chain store prices and farm utility costs are reported directly to the Washington office of AMS. Where appropriate, they are combined with State averages of independent store prices. Final estimates by States and commodities are combined into national averages for each item by weighting each State price estimate by an estimate of the amount of that commodity purchased by farmers in that State. These estimates of purchases are based upon the distribution of farm

population, farm income, and other available information.

From the national averages for each item the AMS computes subgroup indexes for 15 types of expenditures. Six subgroup indexes (food and tobacco, clothing, autos and auto supplies, household operations, household furnishings, and building materials for farm homes) are combined into the index of prices paid by farmers for items used in family living; and 9 subgroup indexes (feed, livestock, motor supplies, motor vehicles, farm machinery, building and fencing materials, fertilizer and lime, equipment and supplies, and seed) are combined into the index of prices paid for items used in farm production.

These two group indexes of prices paid for items used in family living and farm production are then combined with the indexes for interest, taxes, and wage rates to form the Parity Index. The index of interest charges is developed annually on the basis of data obtained from lending agencies and special surveys. The tax index is developed annually from data obtained in special surveys. The wage-rate index is based on information collected in a quarterly mail survey of farmers.

**Relation to other series.**—The Index of Prices Paid by Farmers for family-living items is frequently used with the Consumer Price Index (CPI) to compare the movements of retail prices as they affect farmers and urban workers, respectively. Even though in some periods the movements of the two indexes have been quite similar, there are important differences between the two indexes which on occasion give rise to differences in movements. Some of the principal differences are:

1. The lists of commodities included in the two indexes are not identical, and different weights are used for individual commodities, since the CPI is based on the purchasing habits of urban families and the farm family-living index on those of farm families.

2. Expenditures for all major commodity and service groups purchased by urban families are represented in the weights for the CPI. It has not been possible to include in the family living component of the Parity Index price series for certain types of farm family-living expenditures. For example, medical care, utilities, public transportation, and personal care are directly represented in the CPI; but of these only telephone and electricity costs are rep-

resented in the farm family-living index. Since few farmers rent homes other than those that are rented with the farm, the farm family-living index does not include residential rents. The CPI price series represent various costs of homeownership—purchase, repairs and maintenance, and insurance; whereas the prices of building materials for houses comprise the only representation of this expenditure group which it has been possible to include in the farm family-living index.

3. Although both the CPI and the farm family-living index are composed of a fixed list of items for any two successive dates, the CPI measures price changes in successive periods for narrowly specified descriptions of the items, whereas the Index of Prices Paid by Farmers is designed to measure average price changes for those qualities of each item which are currently purchased in greatest volume by farmers. These qualities may change in response to (a) changes, resulting from technological developments and other causes, in the quality or types of commodity stocked by merchants, or (b) changing levels of farm income.

*Uses and limitations.*—The Index of Prices Paid by Farmers for Commodities and Services, including Interest, Taxes and Wage Rates is based for the most part upon data relating to the middle of a given month. For certain uses, in accordance with statutory formulae, it constitutes the Parity Index for the following month; that is, the Index and parity prices of individual commodities computed from it are the legally applicable index and parity prices for the month following that to which the prices-paid

data relate. Agricultural support programs are in many cases based on these parity prices.

The Index of Prices Paid by Farmers including Interest, Taxes and Wage Rates is a close approximation to a measure of the price component of aggregate expenditures by farmers for living and production purposes.

*References.*—The Parity Index and the Index of Prices Received by Farmers are published monthly by AMS in *Agricultural Prices*. Supplements to *Agricultural Prices* in January and February 1959 present the revised Indexes of Prices Received by Farmers, the Parity Index, and subgroup indexes for both prices received and prices paid. A comprehensive discussion of the January 1959 revision of the price indexes is presented in the April–July 1959 issue of *Agricultural Economics Research*. A detailed description of the price series is presented in *The Agricultural Estimating and Reporting Services of the United States Department of Agriculture* (Miscellaneous publication No. 703 of the Department of Agriculture).

### **Parity Ratio**

The Parity Ratio is computed by dividing the Index of Prices Received by Farmers by the Index of Prices Paid, Including Interest, Taxes, and Farm Wage Rates. It measures the extent to which prices farmers receive for farm products are on the average higher or lower in relation to the prices they pay for goods and services than they were in the base period, 1910–14.

# MONEY, CREDIT, AND SECURITY MARKETS

## MONEY SUPPLY

*Description of series.*—"Money supply" is shown here as the total of the public's holdings of coin, currency, and demand deposits. The currency component is the total of coin and currency in circulation outside the Treasury and Federal Reserve Banks, from which has been deducted the vault cash holdings of commercial banks (but not that of other financial institutions). The deposit component includes demand deposit liabilities to nonbank financial institutions, mutual savings banks, foreign banks, and State and local governments, but excludes those to other commercial banks and to the Federal government.

Whereas the demand deposit component of the money supply series relates to all commercial banks, the demand deposit series for "member" banks excludes a fraction of the commercial banks, while including the time deposits of a small number of member mutual savings banks. (For a discussion of these categories of banks see the section on bank loans and investments, p. 94 ff.) The demand deposit series for member banks is otherwise consistent with, and a component of, the total demand deposit series, unadjusted.

All monthly data are shown as averages of daily figures while annual data are averages of daily figures for December. In general the series cover all banks in the United States, with upward adjustments (amounting to approximately \$400 million for demand deposits) during 1959 for the admission of Alaska and Hawaii to statehood.

*Statistical procedures.*—The total of demand deposits is derived, on the basis of daily figures reported by member banks, as follows: from the total of reported demand deposits of member banks (excluding interbank deposits of domestic commercial banks) are deducted cash items in process of collection and U.S. Government demand deposits. To this is added an estimate of deposits in nonmember

banks based on reported daily figures from "country" member banks (those outside the larger centers) in conjunction with "call report" data from non-member banks. From this aggregate is deducted the Federal Reserve float, the resulting figure being the estimate for demand deposits. The member bank series are based on daily figures reported by member banks.

The component for currency is derived from daily Treasury figures for money "in circulation" (i.e., outside Treasury and the Federal Reserve Banks) from which is deducted an estimate of vault holdings of commercial banks, based on reported member bank data and an estimate for nonmember banks prepared by a method similar to that for estimating deposits.

Seasonal adjustment is made separately for the two components, on a semimonthly basis, using a ratio-to-moving-average procedure. Adjustment factors applied to the 24 semimonthly periods for 1959 are as follows:

*Seasonal Adjustment Factors for Money Supply Series: 1959*

Period	Deposit Component	Currency Component
Jan. 1.....	103.3	100.7
2.....	102.5	98.8
Feb. 1.....	100.9	99.1
2.....	99.4	98.5
Mar. 1.....	99.6	99.0
2.....	98.8	98.7
Apr. 1.....	99.3	99.3
2.....	100.6	98.6
May 1.....	99.1	99.2
2.....	97.9	99.2
June 1.....	98.9	100.2
2.....	98.8	99.7
July 1.....	98.4	101.1
2.....	99.4	100.1
Aug. 1.....	99.6	100.7
2.....	98.5	100.3
Sept. 1.....	99.4	100.8
2.....	99.2	99.9
Oct. 1.....	99.5	100.5
2.....	100.2	99.9
Nov. 1.....	100.8	100.7
2.....	100.8	101.1
Dec. 1.....	102.1	102.0
2.....	103.0	102.0



## Money Supply

(Averages of daily figures, billions of dollars)

Period	Money supply						Deposits at member banks (unadjusted) <sup>2</sup>		
	Seasonally adjusted			Unadjusted			De- mand	Time	U.S. Government
	Total	Currency outside banks	Demand deposits <sup>1</sup>	Total	Currency outside banks	Demand deposits <sup>1</sup>			
1947: December.....	112.3	26.5	85.0	115.0	26.8	88.2	74.6	28.2	0.8
1948: December.....	110.7	25.9	84.9	113.3	26.1	87.2	73.9	28.6	1.6
1949: December.....	110.1	25.2	85.0	112.7	25.5	87.3	74.2	29.1	2.5
1950: December.....	115.3	25.0	90.3	118.1	25.4	92.7	79.0	29.4	2.1
1951: December.....	122.0	26.2	95.8	125.1	26.6	98.5	83.6	30.7	2.5
1952: December.....	126.5	27.4	99.1	129.8	27.8	102.0	86.2	33.1	4.5
1953: December.....	128.2	27.8	100.4	131.4	28.2	103.2	86.9	35.8	3.5
1954: December.....	131.8	27.4	104.4	135.0	27.9	107.1	90.5	39.1	4.6
1955: December.....	134.7	27.8	106.9	137.9	28.3	109.6	92.4	40.3	3.0
1956: December.....	136.5	28.3	108.3	139.7	28.7	111.0	93.2	41.7	3.0
1957: December.....	135.5	28.3	107.2	138.7	28.9	109.9	92.1	45.9	3.1
1958: December.....	140.9	28.7	112.2	144.3	29.2	115.1	96.0	52.7	3.4
1959: December.....	141.5	28.9	112.6	144.9	29.5	115.5	95.7	53.7	4.4

<sup>1</sup> Demand deposits at all commercial banks (member and nonmember).

<sup>2</sup> For definition of member banks, see text, p. 95.

Source: Board of Governors of the Federal Reserve System.

*Relation to other series.*—There is no single accepted definition of money supply. Since 1948, Federal Reserve has published monthly a "Consolidated Condition Statement for Banks and the Monetary System" showing various components of the total of deposits and currency (including some not covered by the definition of money supply explained above) and alternative aggregates, allowing the analyst some flexibility in his choice of data for monetary analysis.

The series here shown for money supply (first published in October 1960) differ from the similar aggregate shown in the consolidated statement for "demand deposits and currency adjusted" as follows: they are averages of daily figures, whereas the older series is for the last Wednesday of the month or a corresponding "call date"; the deduction of the Federal Reserve float has been introduced as a further adjustment to eliminate double counting; and deposit balances due mutual savings banks and foreign banks, previously deducted from commercial bank demand deposits, are included in the current money supply series. The new series is less erratic than the old and is consistently higher. Thus the current

money supply figure seasonally adjusted for the last half of June 1960, is \$139.4 billion; the corresponding figure in the consolidated statement for "demand deposits adjusted and currency" is \$138 billion.

For the convenience of readers desiring a measure of deposits and currency over a longer period, the older comparable series for the total of demand deposits and currency, without seasonal adjustment, on a year-end basis, is as follows:

[Billions of dollars]

1929.....	26.4	1945.....	102.3
		1946.....	110.0
1930.....	24.6	1947.....	113.6
1931.....	21.9	1948.....	111.6
1932.....	20.4	1949.....	111.2
1933.....	19.8		
1934.....	23.1	1950.....	117.7
		1951.....	124.5
1935.....	27.0	1952.....	129.0
1936.....	31.0	1953.....	130.5
1937.....	29.6	1954.....	134.4
1938.....	31.8		
1939.....	36.2	1955.....	138.2
		1956.....	139.7
1940.....	42.8	1957.....	138.6
1941.....	48.6	1958.....	144.2
1942.....	62.9	1959.....	144.8
1943.....	79.6		
1944.....	90.4		

The measure of money supply presented here is to be distinguished sharply from the well known Treasury figure for money "in circulation." The latter is a much smaller aggregate covering only paper money and coin outside the Treasury and Federal Reserve Banks, and does not include the much larger volume of demand deposits as a component of the money supply. Nor is the Treasury figure identical with the currency component of the money supply figure, since the latter excludes from the total "in circulation" the relatively small amount held as vault cash by commercial banks.

*Uses and limitations.*—Changes in the total of deposits and currency, whether regarded as causative or symptomatic, are important factors in the analysis of economic change and of monetary policy. The definition of money supply here used has been chosen from among alternative definitions as one closely related to the mechanism through which money is created or extinguished. The money supply series permit a reasonably adequate measurement of the level and movement of this aggregate. They should be considered in the light of changes in the use of

deposits as measured in the series on bank debits shown in the table on p. 96.

For analytical uses requiring attention to a broader group of highly liquid assets possessing some of the attributes of money, the reader may turn to the memorandum items and to the consolidated statement, still available monthly, for information on other series not included in money supply including U.S. Government deposits and time deposits.

*References.*—The new money supply series are issued semimonthly by Federal Reserve, and appear monthly in the *Federal Reserve Bulletin*. An article in the October 1960 *Bulletin* presents semimonthly figures beginning with 1947, with a technical discussion of the derivation of the series. The related Consolidated Condition Statement continues to appear in the monthly release G.7 and in the *Bulletin*, with data for most component series for selected years to 1929. Historical data on deposits and currency are available in *Banking and Monetary Statistics* back to 1892 and in *Historical Statistics of the United States* back to 1867.

## BANK LOANS, INVESTMENTS, DEBITS, AND RESERVES

*Description of series.*—Major loan and investment categories are shown for all commercial banks in the United States. Commercial banks are in general distinguished from other lending institutions by the fact that they accept deposits subject to check or withdrawal on demand. They number approximately 13,500. Mutual savings banks are not included, nor are savings and loan associations or, in general, any other "banking" institutions which do not receive demand deposits. The all commercial bank series has been increased by the addition of banks in Alaska and Hawaii in January, April, and August 1959, with an increase in total loans and investments of approximately \$659 million.

The "weekly reporting member banks" for which "business loans" are shown comprise approximately 350 banks which are members of the Federal Reserve System (see below) and are located in (or with head offices in) approximately 100 cities. They account currently for over half of the total commercial bank-

ing loans and investments. The cities are the more important banking centers within each Federal Reserve district, and within each city the reporting banks constitute a voluntary sample, usually accounting for over 90 percent of member bank resources. The weekly reporting member bank series has been revised from time to time, most recently in July 1959, with significant expansion in coverage.

The category of "business loans" is a major component of total loans. In general, it includes all commercial and industrial loans (and agricultural loans prior to 1956) except those secured by real estate or for the purpose of purchasing or carrying securities, and loans to financial institutions. The exclusion of the latter category was accomplished by the revision of July 1959, when such loans were reclassified, with a reduction of approximately 14 percent in the total of commercial and industrial loans. Data prior to July 1959 are not available on the revised basis. Monthly estimates for "business loans" of all com-

mercial banks are not available, but the weekly reporting banks currently account for about 70 percent of all such loans.

The series on bank debits outside New York City covers debits to demand deposit accounts, except interbank and U.S. Government accounts. They are aggregates for approximately 1,700 reporting banks in the 343 leading centers and cover substantially all debits in those centers.

Data on reserves and borrowings are reported for all member banks of the Federal Reserve System. With few exceptions these are commercial banks, and comprise approximately 4,600 nationally chartered banks ("National banks") plus about 1,700 State chartered banks which have chosen, and have been found eligible, to join the Federal Reserve System. Member banks account currently for about 85 percent of the total loans and investments and total deposits of commercial banks. Required reserves are mini-

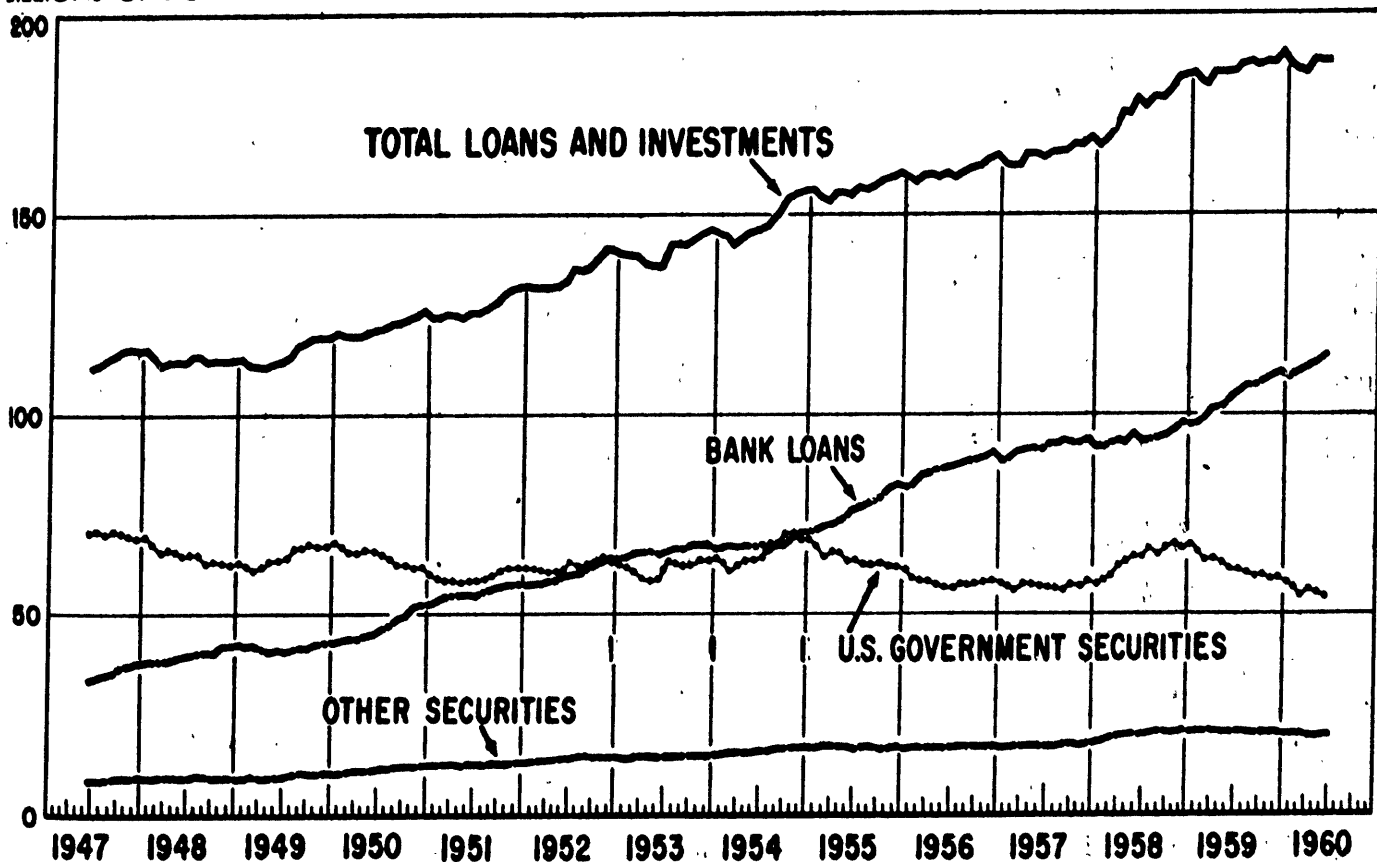
imum balances required to be maintained by member banks pursuant to Federal Reserve regulations, measured as a percent of deposit liabilities and varying with the type of deposits and the classification of the bank; these reserve requirements vary from time to time. Prior to December 1959, the only permissible legal reserves were balances with the Federal Reserve Banks; since then, the inclusion of vault cash has been allowable at first in limited amounts, and beginning with November 24, 1960 all such cash. Excess reserves are member bank balances of these types maintained in excess of the required minimum. Member bank figures have been affected as have those for all commercial banks by the inclusion of banks in Alaska and Hawaii.

Monthly figures shown for commercial banks and weekly reporting member banks are as of the last Wednesday of the month, except that final December figures for "all commercial banks" are as of the last

### Loans and Investments at All Commercial Banks, 1947-60

(Monthly data)

BILLIONS OF DOLLARS



SOURCE OF DATA: BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

*Bank Loans, Investments, Debits, and Reserves*

Year	All commercial banks				Weekly reporting member banks <sup>1</sup>	Bank debits outside New York City <sup>2</sup>	All member banks		
	Total loans and investments	Loans	Investments				Reserves <sup>3</sup>		Borrowings at Federal Reserve Banks <sup>4</sup>
			U.S. Government securities	Other securities	Business loans		Required	Excess	
	Billions of dollars					Millions of dollars			
1929	49.4	35.7	4.9	8.7	( <sup>5</sup> )	379.4	2,347	48	801
1930	48.9	34.5	5.0	9.4	( <sup>5</sup> )	318.3	2,342	73	337
1931	44.9	29.2	6.0	9.7	( <sup>5</sup> )	251.5	2,009	60	763
1932	36.1	21.8	6.2	8.1	( <sup>5</sup> )	179.3	1,909	526	281
1933	30.4	16.3	7.5	6.5	( <sup>5</sup> )	154.8	1,850	766	95
1934	32.7	15.7	10.3	6.7	( <sup>5</sup> )	190.7	2,289	1,748	10
1935	36.1	15.2	13.8	7.1	( <sup>5</sup> )	218.7	2,733	2,983	6
1936	39.6	16.4	15.3	7.9	( <sup>5</sup> )	253.0	4,619	2,046	7
1937	38.4	17.2	14.2	7.0	4.6	271.6	5,808	1,071	16
1938	38.7	16.4	15.1	7.2	3.8	237.2	5,519	3,226	7
1939	40.7	17.2	16.3	7.1	4.4	252.6	6,462	5,011	3
1940	43.9	18.8	17.8	7.4	5.0	274.3	7,403	6,646	3
1941	50.7	21.7	21.8	7.2	6.7	339.6	9,422	3,390	5
1942	67.4	19.2	41.4	6.8	6.1	396.1	10,776	2,376	4
1943	85.1	19.1	59.8	6.1	6.4	476.3	11,701	1,048	90
1944	105.5	21.6	77.6	6.3	6.5	521.1	12,884	1,284	265
1945	124.0	26.1	90.6	7.3	7.3	541.7	14,536	1,491	334
1946	114.0	31.1	74.8	8.1	11.3	610.3	15,617	900	157
1947	116.3	38.1	69.2	9.0	14.7	705.3	16,275	986	224
1948	114.3	42.5	62.6	9.2	15.6	784.3	19,193	797	134
1949	120.2	43.0	67.0	10.2	13.9	760.1	15,488	803	118
1950	126.7	52.2	62.0	12.4	17.8	870.8	16,364	1,027	142
1951	132.6	57.7	61.5	13.3	21.6	998.2	19,484	826	657
1952	141.6	64.2	63.3	14.1	23.4	1,045.0	20,457	723	1,593
1953	145.7	67.6	63.4	14.7	23.4	1,126.3	19,227	693	441
1954	155.9	70.6	69.0	16.3	22.4	1,148.4	18,576	703	246
1955	160.9	82.6	61.6	16.7	26.7	1,276.7	18,646	594	839
1956	165.1	90.3	58.6	16.3	30.8	1,384.8	18,883	652	688
1957	170.1	93.9	58.2	17.9	31.8	1,468.3	18,843	577	710
1958	185.2	98.2	66.4	20.6	31.7	1,481.0	18,383	516	557
1959	190.3	110.8	58.9	20.5	30.5	1,655.6	18,450	482	906

<sup>1</sup> Weekly reporting banks include approximately 350 banks in leading cities. Business loans include commercial and industrial loans and, prior to 1956, agricultural loans. Series revised beginning July 1946, January 1952, July 1958, and July 1959.

<sup>2</sup> Currently 343 centers reporting. This number has varied, beginning with 268 in 1929.

<sup>3</sup> Averages of daily figures on balances and borrowings during December.

<sup>4</sup> June data. Complete end-of-year data are not available prior to 1935 for U.S. Government obligations and other securities.

<sup>5</sup> Not available.

<sup>6</sup> Figures for 11 months because of bank holiday in March.

<sup>7</sup> Data from March 1933 through April 1934 are for licensed banks only.

<sup>8</sup> Revised series beginning in 1943.

<sup>9</sup> Series revised to extend coverage; previous figures not entirely comparable. Old series data are \$10.3 billion for 1946, \$23.2 billion for 1952, and \$30.8 billion for 1958.

<sup>10</sup> Series revised to exclude loans to nonbank financial institutions; previous figures not entirely comparable. Revised figure not available.

Note.—Between January and August 1960, these series (except that for weekly reporting member banks) were expanded to include data for all banks in Alaska and Hawaii.

Source: Board of Governors of the Federal Reserve System.

day of the month. The same is true of final June figures when a "call date" falls on or near the last day of June. Reserves and borrowings are shown as averages of daily figures during the period.

*Statistical procedures.*—The "All commercial banks" and "Weekly reporting member banks" series are closely related. The weekly series is based on weekly reports filed with Federal Reserve Banks and

compiled cooperatively by these banks and the Board of Governors. Published figures are simple aggregates for the reporting banks. The monthly estimates for all commercial banks are prepared, also by the Federal Reserve System, on the basis of the weekly series, monthly reports from all other member banks, and other information. Estimates are made for nonmember banks, accounting currently for about 17 percent of commercial bank credit, on the basis of the relationship between the movement of "country" member banks (those outside the major cities) and that of the nonmember banks, as determined semiannually when complete reports for the banking system are available. The December (and when appropriate the June) estimates are later replaced by "benchmark" figures for all commercial banks. These benchmarks are compiled by the Federal Deposit Insurance Corporation on the basis of compulsory "call reports" filed by all banks subject to Federal supervision (national banks, State member banks, and nonmember insured banks) with one or another of the Federal bank supervisory agencies, and of information obtained from State banking authorities and other sources for the relatively few uninsured banks. Interim monthly estimates are revised only when some substantial error of estimate is suggested by the benchmarks.

The debits series is a simple aggregate of the reports of reporting banks. Monthly data are seasonally adjusted by means of a modified ratio-to-moving-average procedure. The series shown is a composite of adjusted series derived separately for each of six major centers and for the aggregate of the other centers.

The series on required and excess reserves and member bank borrowing is based on reports of deposits, reserves, and borrowing from all member banks, filed biweekly or more frequently, depending on the class of bank.

*Relation to other series.*—The Federal Government publishes a variety of statistical series covering all or part of the banking system. For purposes of general analysis, these will not necessarily lead to significantly different conclusions, but the differences should be kept in mind. Thus, the all-commercial-bank series should be distinguished from the somewhat larger "all-bank" series which includes some 500 mutual savings banks; and from smaller aggregates such as those for national banks and insured commercial banks. The all-commercial-bank aggregate

here are for the United States, exclusive of possessions, and may differ slightly from totals which include banks in the possessions, published by the Comptroller of the Currency and the FDIC.

The weekly series includes most of the larger banks in larger cities and covers a substantial segment of total commercial bank resources. Although the series is not identical in coverage with any published call report aggregate, it is similar in coverage to the aggregate for all member banks other than "country" banks. The "business loans" series is shown in Federal Reserve publication as "commercial and industrial loans." A more recently developed Federal Reserve series showing changes in commercial and industrial loans by type of business of borrower, weekly from 1951, is based on a subsample of the weekly reporting banks and ties in with the aggregate commercial and industrial loan figure.

The series on reserves and member bank borrowings, being averages of daily figures, are not directly comparable with week-end or month-end member bank or Reserve bank statistics.

*Uses and limitations.*—The all-commercial-bank figures are useful indicators of business activity and trends in bank credit use. Data for the weekly reporting member banks are more frequent and more prompt than those for all commercial banks and provide the more detailed category of "business loans." The weekly series also is a more sensitive indicator of developments in the short-term money market, because it covers the larger banks in the more important centers.

The series on reserves and borrowing are a partial reflection of the credit potential of the banking system. Excess reserves are available, to the banks holding them, for further credit expansion. Member bank borrowing from the Reserve banks reflects the extent to which some banks (not holding excess reserves) have borrowed temporarily to meet minimum reserve requirements. A measure known as "free reserves" may be computed by subtracting borrowings from excess reserves. The series on required and excess reserves forms an integral part of the significant weekly and monthly Federal Reserve tabulation entitled "Member Bank Reserves, Reserve Bank Credit and Related Items," which shows interrelationships among various sources and uses of reserve funds. Users should recognize that there is a seasonal movement in the data on loans and reserves.

*References.*—The monthly estimates for all com-

mercial banks appear initially about two weeks after the last Wednesday of the month in a Federal Reserve release G.7, showing the major balance sheet items and changes during the past month and year for all banks, all commercial banks, and member banks. The *Federal Reserve Bulletin* also carries the estimates for recent months, with call report data for selected years back to 1941. Historical data to 1914 and explanatory technical footnotes are presented in *Banking and Monetary Statistics*.

The Wednesday data for the weekly reporting member banks appear initially on the following Wednesday in a Federal Reserve release (H. 4.2), showing also changes in assets and liabilities over the last week and year. The *Federal Reserve Bulletin* carries the weekly data for the last two months and for the comparable month a year ago. Historical data from 1919 appear in *Banking and Monetary Statistics*. The most recent revision of the weekly series is discussed in the August 1959 *Federal Reserve Bulletin*.

Debits figures appear in an advance monthly release (G. 6), showing aggregates for all centers, for Federal Reserve districts, and for individual centers, and in an annual summary release, G.5. A sum-

mary table appears monthly in the *Federal Reserve Bulletin*, with annual data for about eight years. The last major revision of the debits series is discussed in the April 1953 *Bulletin*. Back data may be traced in current and past issues of the *Federal Reserve Bulletin*, and historical data, though not wholly comparable, are presented in *Banking and Monetary Statistics* back to 1919.

Figures for member bank reserves and borrowings appear first in the weekly release H.4.1, showing weekly averages of daily figures, available the day following the end of the weekly period. The bi-weekly release J.1 gives similar data for biweekly periods (semimonthly periods prior to 1959) available with a lag of about twenty days. Weekly and monthly data appear in the *Bulletin*, and back data may be traced in current and past issues and in *Banking and Monetary Statistics* back to 1914.

*Banking and Monetary Statistics*, published by the Federal Reserve Board in 1943, contains technical discussions of the general banking series, the weekly reporting member bank series, and the data on reserves. *Historical Statistics of the United States, Colonial Times to 1957* presents earlier banking series, in part back to 1834.

## CONSUMER CREDIT

*Description of series.*—These series are estimates of short- and intermediate-term consumer credit, in total and for major types. "Consumer credit" is defined as all credit used to finance the purchase of commodities and services for personal consumption or to refinance debts originally incurred for such purposes. Credit covers both loans and sales involving deferred payment. Personal consumption is defined so as to exclude consumption not only by businesses but by nonprofit organizations. The estimates exclude home mortgage credit, traditionally considered separately.

Instalment credit, accounting for the bulk of consumer credit, is that scheduled to be repaid in two or more payments. Instalment credit classified as "Automobile paper" includes credit for the purchase of automobiles regardless of whether originating as loans or as credit sales, and regardless of whether the paper is held by a merchant or a financial institution. Other components of total instalment credit are "other consumer goods paper," defined analogously to automobile paper; "repair and modernization loans" held by financial institutions (but not those

held by retail outlets, which are included instead in other consumer goods paper); and so-called "personal loans" comprising loans by financial institutions for all other consumer purposes, such as to consolidate debts, to pay medical expenses, or for education. "Noninstalment credit" comprises three major types: charge accounts (including service station and miscellaneous credit-card accounts and home heating-oil accounts); single-payment loans; and service credit (including that extended by a variety of creditors including hospitals, doctors, utilities, and service establishments).

The above definition is followed generally but not rigidly in the construction of the series. In the absence of sufficiently refined data, certain arbitrary decisions have been made. For example, all bank credit to farmers is excluded even though an undetermined part is for consumption. All credit for the purchase of passenger automobiles *by individuals* is included even though an undetermined (but presumably very small) part of the use is for business purposes.

The several series on instalment credit extended and

repaid measure the gross flows of lending and repayment which explain changes in the level of instalment credit outstanding. The monthly series, as shown in *Economic Indicators*, are adjusted for trading day and seasonal variation.

Data for Alaska were added in January, and for Hawaii in August, of 1959, with an increase in total consumer credit of approximately \$180 million.

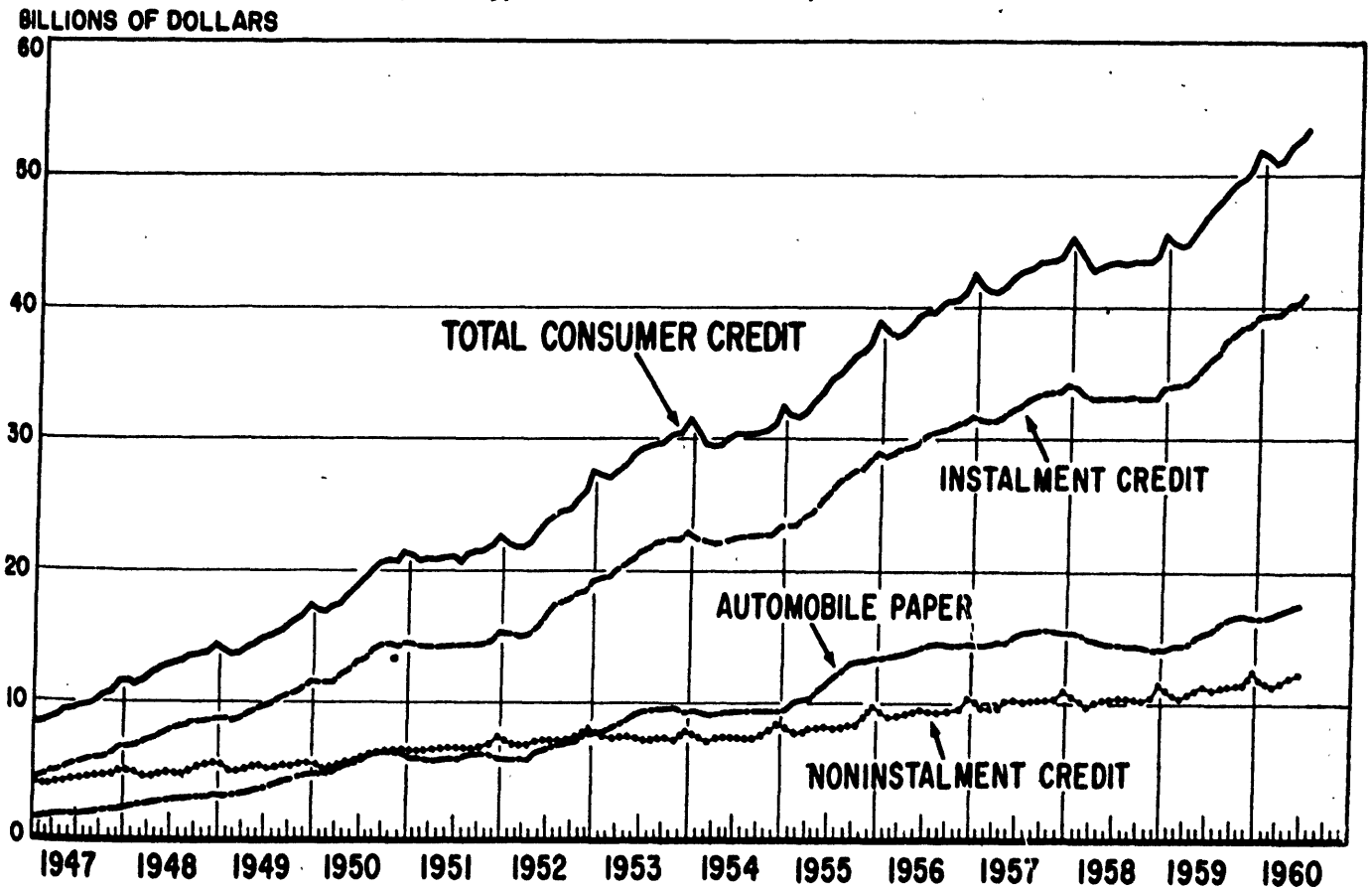
*Statistical procedures.*—The several series are, in general, aggregates of separate estimates of the credit held (or extended and repaid) by various types of creditors—financial institutions, retail and service establishments, and others. The procedures vary but in general involve estimates based on a benchmark and moved by monthly sample data. The 1948 Census of Business and subsequent annual surveys provide benchmarks for credit held by the various retail lines. For the more important credit-granting lines there are monthly and annual sample data on receivables. For some lines monthly receivables are estimated on the basis of weight sales adjusted annually to survey benchmark data. Monthly data on receivables are available from the more im-

portant financial institutions engaged in consumer lending. Benchmarks for credit outstanding are provided for certain holders by annual or more frequent reports with complete coverage, and for others by occasional special surveys. In process, as of this writing, is a benchmark survey of sales and consumer finance companies (or finance companies) as of 1960, to update the benchmark derived from a similar previous survey in 1955. Estimates of service credit vary but in general must rely on less substantial data. The largest component, medical debt, is based on periodic (usually annual) data collected in a sample survey of consumers and an estimated seasonal pattern. However, virtually complete reports on certain utility receivables are available monthly or semi-annually.

Estimates of instalment credit extended and repaid are derived from currently reporting samples of lending and instalment-selling groups covering either collections or credit extended. These data as shown currently on a monthly basis have been adjusted by type of credit and major holder groups, for both trading day and seasonal variation, by means of

### Consumer Credit Outstanding, 1947-60

(Short- and intermediate-term. End-of-month data)



SOURCE OF DATA: BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

## Consumer Credit

[Millions of dollars]

Year	Consumer credit outstanding, end of year				Instalment credit extended and repaid			
	Total	Instalment		Non-in- stalment	Total		Automobile paper	
		Total	Automobile paper		Extended	Repaid	Extended	Repaid
1929	6,444	3,151	1,384	3,293	5,799	5,350	2,584	2,334
1930	5,767	2,687	986	3,080	4,814	5,278	1,869	2,267
1931	4,760	2,207	684	2,553	3,866	4,346	1,282	1,584
1932	3,567	1,521	356	2,046	2,435	3,121	640	968
1933	3,482	1,588	493	1,894	2,480	2,413	817	680
1934	3,904	1,871	614	2,033	3,125	2,842	1,039	918
1935	4,911	2,694	992	2,217	4,189	3,366	1,630	1,252
1936	6,135	3,623	1,372	2,512	5,617	4,688	2,226	1,846
1937	6,689	4,015	1,494	2,674	6,308	5,916	2,393	2,271
1938	6,338	3,691	1,099	2,647	5,406	5,730	1,594	1,989
1939	7,222	4,503	1,497	2,719	6,872	6,060	2,338	1,940
1940	8,338	5,514	2,071	2,824	8,219	7,208	3,086	2,512
1941	9,172	6,085	2,458	3,087	9,425	8,854	3,823	3,436
1942	5,983	3,166	742	2,817	5,239	8,158	1,022	2,738
1943	4,901	2,136	355	2,765	4,587	5,617	762	1,149
1944	5,111	2,176	397	2,935	4,894	4,854	930	888
1945	5,665	2,462	455	3,203	5,379	5,093	999	941
1946	8,384	4,172	981	4,212	8,495	6,785	1,969	1,443
1947	11,598	6,695	1,924	4,903	12,713	10,190	3,692	2,749
1948	14,447	8,996	3,018	5,451	15,585	13,284	5,217	4,123
1949	17,364	11,590	4,555	5,774	18,108	15,514	6,967	5,430
1950	21,471	14,703	6,074	6,768	21,558	18,445	8,530	7,011
1951	22,712	15,294	5,972	7,418	23,576	22,985	8,956	9,058
1952	27,520	19,403	7,733	8,117	29,514	25,405	11,764	10,003
1953	31,393	23,005	9,835	8,388	31,558	27,956	12,981	10,879
1954	32,464	23,568	9,809	8,896	31,051	30,488	11,807	11,833
1955	38,882	28,958	13,472	9,924	39,039	33,649	16,745	13,082
1956	42,511	31,897	14,459	10,614	40,175	37,236	15,563	14,576
1957	45,286	34,183	15,409	11,103	42,545	40,259	16,545	15,595
1958	45,586	34,080	14,237	11,506	40,818	40,921	14,316	15,488
1959	52,046	39,482	16,590	12,564	48,476	43,239	18,001	15,715

NOTE.—Data for Alaska and Hawaii included beginning January and August 1950, respectively.

Source: Board of Governors of the Federal Reserve System.

a ratio-to-moving-average procedure. The imputed adjustment factors for total instalment credit for the 12 months of 1959 are as follows:

	Credit extended	Credit repaid
January	87	100
February	85	94
March	101	105
April	102	100
May	100	96
June	111	104
July	104	102
August	102	98
September	97	99
October	99	101
November	96	98
December	116	104

*Relation to other series.*—The series shown here are selected from a more comprehensive body of consumer credit data prepared by Federal Reserve, showing consumer credit outstanding by major types in greater detail; instalment credit outstanding by type of holder; and supplementary tabulations of instalment credit of commercial banks, sales finance companies, and other financial institutions, and of noninstalment credit by type of holder. Instalment credit extended and repaid for major types, with changes in outstanding credit, are shown on both an adjusted and an unadjusted basis. Related series



may also be found as components of the separate statistics published for banks, and other financial institutions.

*Uses and limitations.*—The widespread interest in consumer credit is due in part to its importance as a source of consumer purchasing power and especially its significance in the market for consumer goods frequently bought on the instalment plan. In part it is due to the fact that consumer credit reflects one aspect of the financial position of consumers. Consumer credit is also an important element in the demand for funds in the financial community.

Because of the difficulty of adapting available data to the precise definition of consumer credit adopted, Federal Reserve faces problems of both over- and under-coverage, the net effect of which is probably some understatement of the true total of consumer credit outstanding.

## BOND YIELDS AND INTEREST RATES

### 3-Month Treasury Bills

Treasury bills are issued weekly. An average discount rate is computed for each weekly issuance, on the basis of the varying prices at which portions of the issue are awarded, in order, to the highest bidders. The monthly series presented in *Economic Indicators* is a simple average of the average rates for the 4 or 5 issues during the month.

The series is useful as a measure of a short-term rate on relatively riskless borrowing. Issuance or "auction" rates are related to but not typically identical with average "market" rates, also published by Federal Reserve, which are averages based on daily trading quotations for the issue of longest maturity.

The monthly averages are issued in an advance Federal Reserve release, G. 13, and are published in the *Federal Reserve Bulletin*. Fuller information on the individual issues appears in the *Treasury Bulletin*. Textual discussion appears in *Banking and Monetary Statistics*, with yield data back to 1929.

### Taxable Bonds

Fully taxable bonds were first issued in 1941, and the series on average yields on fully taxable long-term bonds began in October 1941. The series includes, for October 1941 to March 1952, bonds due or

*References.*—General discussions of concepts and sources and estimating techniques appeared in the *Federal Reserve Bulletin* for April 1953 and October 1956. A more complete treatment is available on request from Federal Reserve. Consumer credit estimates appear originally in several monthly Federal Reserve releases of which the basic one is "Consumer Credit (Short and Intermediate Term)." Current data with selected historical data appear in detail in monthly issues of the *Bulletin* supplemented by occasional comprehensive revisions. For consumer credit outstanding the most recent revision, covering 1947-58, appeared in the November 1959 *Bulletin*. The same issue contains revised data for credit extended and repaid for 1956-58, with references to earlier revisions for previous years. *Historical Statistics of the United States, Colonial Times to 1957* contains selected data back to 1929.

callable after 15 years; April 1952 to March 1953, bonds due or callable after 12 years; and April 1953 to date, bonds due or callable after 10 years.

In December 1959 the series included the following bonds: 3 $\frac{7}{8}$  percent of 1974, 3 $\frac{1}{4}$  percent of 1978-83, 4 percent of 1980, 3 $\frac{1}{4}$  percent of 1985, 3 $\frac{1}{2}$  percent of 1990, and 3 percent of 1995. The maturity distribution of the bonds entering into the computation will vary with the passage of time and as new bonds are added or old bonds removed.

The series is based on daily closing-bid quotations in the over-the-counter market as reported to the Federal Reserve Bank of New York by leading dealers in New York City, for the period April 1953 to date. Prior to this period the yields were computed on the basis of the mean of closing bid and ask quotations. The table shows averages of daily figures, each of which is an unweighted average of yields on the individual bonds.

The series is published monthly in the *Treasury Bulletin*. A similar series is published in the *Federal Reserve Bulletin*, and in the Federal Reserve release G. 13, Open Market Money Rates. The two series differ only in that the series in the *Treasury Bulletin* includes yields based on "when issued" prices for new issues. The difference is generally very small and is limited to those months in which new securities appear in the market.

## High-Grade Municipal Bonds

This series, compiled by Standard & Poor's Corporation, is an arithmetic average of the yield to maturity of 15 high-grade domestic municipal bonds, each with approximately 20 years to maturity. The issues are selected on the basis of quality, trading activity, and geographic representation. The yields are based on Wednesday's closing prices, and the monthly figures are averages of the four or five weekly figures for the month. Prior to 1929 the monthly figures were based on an average of the high and low prices for the month. The series is available back to 1929 on a weekly, and 1900 on a monthly basis.

The series is published weekly in Standard & Poor's *Outlook* and *Bond Outlook*. Monthly and annual average figures back to 1900 and a description of the series and list of the issues used appear in the 1960 edition of Standard & Poor's *Security Price Index Record*.

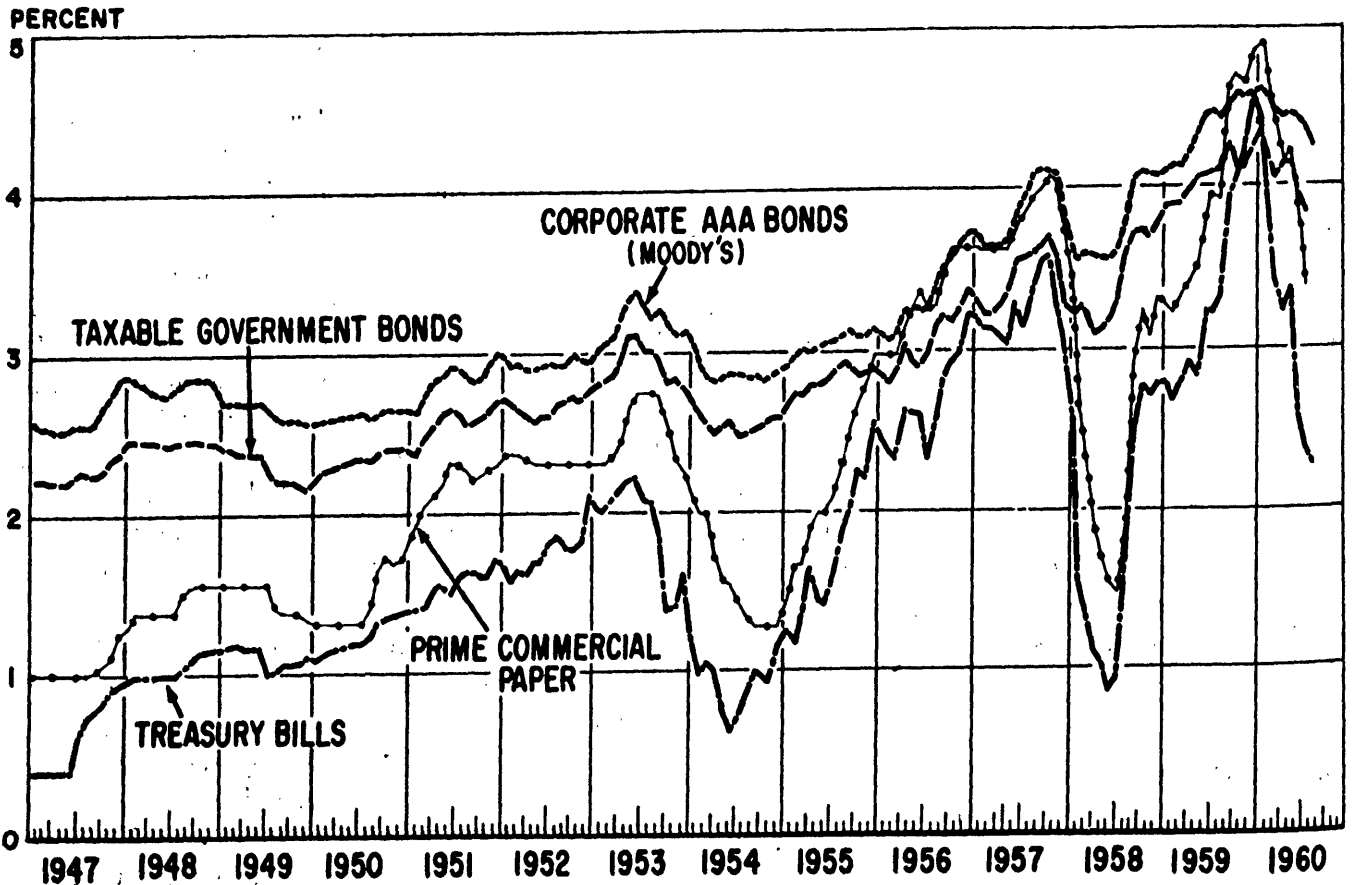
## Corporate Aaa and Baa Bonds

These series measure the currently prevailing maturity yields on long-term corporate bonds of the highest quality and of "lower medium grade," as reflected in the yields of selected bonds rated Aaa and Baa by Moody's Investors Service. The series shown here are 2 of a group of similar series computed by Moody's, covering bonds classified by 4 rating groups (Aaa, Aa, A, Baa) and by 3 industrial groups. The formula for these series was established in 1928 to include for each rating 10 industrial, 10 railroad, and 10 public utility bonds. Since 1935, however, there have not always been 10 suitable bonds for each classification. The Aaa series currently includes 8 industrials, 7 railroads, and 10 public utilities; and the Baa 10 industrials, 10 railroads, and 10 public utilities.

The series were calculated on a monthly basis from 1919 through 1931, and have been calculated daily beginning in 1932. Weekly and monthly fig-

Bond Yields and Interest Rates, 1947-60

(Monthly data. Percent per annum)



SOURCE: MOODY'S INVESTORS SERVICE, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, AND TREASURY DEPARTMENT

## Bond Yields and Interest Rates

[Percent per annum]

Year	U.S. Government security yields		High-grade municipal bonds (Standard & Poor's)	Corporate bonds (Moody's)		Prime commercial paper, 4-6 months
	3-month Treasury bills <sup>1</sup>	Taxable bonds <sup>2</sup>		Aaa	Baa	
1929			4.27	4.73	5.90	5.85
1930			4.07	4.55	5.90	3.59
1931	1.402		4.01	4.58	7.62	2.64
1932	.879		4.65	5.01	9.30	2.73
1933	.515		4.71	4.49	7.76	1.73
1934	.256		4.03	4.00	6.32	1.02
1935	.137		3.40	3.60	5.75	.75
1936	.143		3.07	3.24	4.77	.75
1937	.447		3.10	3.26	5.03	.94
1938	.053		2.91	3.19	5.80	.81
1939	.023		2.76	3.01	4.96	.59
1940	.014		2.50	2.84	4.75	.56
1941	.103		2.10	2.77	4.33	.53
1942	.326	2.46	2.36	2.83	4.28	.66
1943	.373	2.47	2.06	2.73	3.91	.69
1944	.375	2.48	1.86	2.72	3.61	.73
1945	.375	2.37	1.67	2.62	3.29	.75
1946	.375	2.19	1.64	2.53	3.05	.81
1947	.594	2.25	2.01	2.61	3.24	1.03
1948	1.040	2.44	2.40	2.82	3.47	1.44
1949	1.102	2.31	2.21	2.66	3.42	1.49
1950	1.218	2.32	1.98	2.62	3.24	1.45
1951	1.552	2.57	2.00	2.86	3.41	2.16
1952	1.766	2.68	2.19	2.96	3.52	2.33
1953	1.931	2.94	2.72	3.20	3.74	2.52
1954	.953	2.55	2.37	2.90	3.51	1.58
1955	1.753	2.84	2.53	3.06	3.53	2.18
1956	2.658	3.08	2.93	3.36	3.88	3.31
1957	3.267	3.47	3.60	3.89	4.71	3.81
1958	1.839	3.43	3.56	3.79	4.73	2.46
1959	3.405	4.08	3.95	4.38	5.05	3.97

<sup>1</sup> Rate on new issues within period.

<sup>2</sup> Bonds in this classification were first issued in March 1941.

NOTE.—Monthly data available beginning 1931 (scattered issues beginning December 1929) for 3-month Treasury bills; 1941 for taxable bonds; 1900 for high-grade municipal bonds (Standard & Poor's); 1929 for corporate Aaa and Baa bonds (Moody's); and 1890 for prime commercial paper, 4-6 months.

Sources: Board of Governors of the Federal Reserve System, Treasury Department, Standard & Poor's Corporation, Moody's Investors Service.

ures are averages of daily figures; annual figures are averages of 12 monthly figures.

The daily yield for each selected bond is computed on the basis of closing price, as reported in dealers' quotations. For each of the rating classifications the 10 (or fewer) individual yields for each industrial group are averaged, without weighting; and the corporate index is computed as the un-weighted average of the 3 industrial-group averages.

Issues included in each average are selected to represent typical long-term bonds in each rating

group. Occasional substitutions in the bond list have been made when ratings have been changed, when a bond has been called or sells too high above its call price, or because of approaching maturity. Suitable adjustments (usually small), which are gradually amortized, are introduced to prevent such substitutions from impairing the comparability of the series.

These series are useful general indicators of the level and movement of average yields of selected bonds of the respective grades with sufficiently long

maturities and other features to afford adequate measures of long-term interest rates. They are not a measure of average yields of all Aaa or all Baa bonds available to the investor; nor do they reflect changes in qualitative terms of borrowing such as call provisions.

The daily corporate bond yield averages are published weekly in *Moody's Bond Survey*, which includes from time to time the list of bonds. Historical monthly data and annual averages for these two series are available back to 1919, and are published in *Moody's Industrial Manual*.

### Prime Commercial Paper

This series measures the prevailing rate on prime 4 to 6 months' commercial paper. It is useful as a measure of the cost of open-market short-term credit

available to large business borrowers of the highest credit standing.

The prevailing daily selling quotation is determined by the Federal Reserve Bank of New York on the basis of information obtained through continuing contacts with New York City dealers handling the bulk of the volume of commercial paper of the inventory type, and less frequent reports concerning rates outside New York. Monthly and weekly figures are averages of daily prevailing rates.

Annual, monthly, and weekly figures for the period since 1941 are available in the *Federal Reserve Bulletin*, and the most recent data are shown in the advance Federal Reserve monthly release, G. 13. Annual and monthly data, 1890-1941, and weekly data, 1919-41, may be found in *Banking and Monetary Statistics*.

## STOCK PRICES

*Description of series.*—These indexes measure average price movement of 300 of the more active common stocks listed on the New York Stock Exchange. The indexes, as presently constituted, are based upon the average weekly market prices in the years 1957-1959. The stocks, classified in *Economic Indicators* only by broad categories, are also classified in the basic releases under 32 selected industry groups. These groups and the individual stocks in them were selected on the basis of common stock trading activity on the Exchange in 1959. Each year the entire common stock list is reviewed and newly active stocks substituted for the less active issues in the indexes when appropriate. The selected groups correspond in general to classifications in the Standard Industrial Classification. The stocks thus selected from a total of approximately 1,100 listed common stocks accounted for about two-thirds of the value of common-stock trading activity on the New York Stock Exchange in 1959.

The prices reflected in the indexes are for the last sales of the respective stocks during the week as reported in the financial press. Monthly and annual figures are averages of weekly figures.

*Statistical procedures.*—The index for each of the 32 industry groups measures the total current market value of the included issues (i.e., number of shares outstanding times price) as a percentage of their average weekly total market value in the years 1957

through 1959. (The indexes were formerly related to a 1939 base year but were revised to the present 1957-1959 base in October 1960.) Each industry is weighted in the larger aggregates according to the value of the selected issues, and not necessarily according to the value of all listed issues in the industry.

When the number of outstanding shares of an issue is changed an adjustment of the index is made only if such change involves a change in the invested capital. The base value of the issue is then revised in the ratio of the new to the old capitalization so that the index will reflect only price movement.

*Uses and limitations.*—This is a moderately sensitive weekly index presented in terms of categories comparable with the Standard Industrial Classification—a feature which facilitates use in conjunction with other series so presented.

The indexes will not necessarily reflect weekly price movements of stocks not listed on the New York Stock Exchange, of the less active stocks so listed, or of those from industries excluded from the sample because of low volume of trading activity. This selectivity of industries should be borne in mind when using the indexes for the broader industrial categories presented in *Economic Indicators*.

*References.*—The SEC data are first published in a release issued each Monday entitled "SEC Indexes of Weekly Closing Prices of Common Stocks on the New

## Stock Prices

[Weekly average: 1957-59=100]

Year	Composite index <sup>1</sup>	Manufacturing			Transportation	Utilities	Trade, finance and service	Mining
		Total	Durable goods	Nondurable goods				
1939	26.8	21.2	22.3	20.3	33.8	55.4	29.3	29.3
1940	25.3	19.8	20.6	19.1	33.5	55.4	26.5	22.1
1941	23.0	18.0	18.2	17.9	32.6	49.4	24.1	20.8
1942	20.1	16.0	16.4	15.7	30.7	38.7	20.9	17.5
1943	26.6	21.0	21.1	21.0	42.3	50.2	29.6	24.4
1944	29.0	22.7	23.4	22.2	47.6	54.9	34.4	27.3
1945	35.2	27.4	28.8	26.3	64.2	62.6	43.8	33.5
1946	40.1	31.1	30.9	31.4	68.4	67.1	59.9	36.7
1947	35.1	28.1	26.8	29.4	50.4	58.5	47.8	34.3
1948	35.6	29.1	27.7	30.2	53.4	55.0	46.0	38.9
1949	34.3	28.1	25.9	29.9	46.0	54.4	47.1	37.9
1950	41.4	35.2	33.5	36.6	54.1	60.4	53.9	42.0
1951	49.6	43.9	39.8	47.4	67.3	62.4	61.0	60.0
1952	52.3	46.8	42.1	50.7	74.6	65.4	60.4	80.7
1953	51.9	46.7	43.0	49.8	73.9	67.3	60.8	70.4
1954	61.7	57.6	54.7	60.0	78.6	75.3	69.1	78.2
1955	81.8	79.5	78.7	80.1	108.2	84.8	87.1	91.6
1956	92.6	93.2	91.5	94.5	110.6	86.4	89.9	104.6
1957	89.8	90.7	88.5	92.8	93.2	86.3	82.2	107.2
1958	93.2	92.5	90.4	94.4	91.0	95.8	95.1	97.9
1959	116.7	116.5	120.8	112.6	115.6	117.6	122.3	95.0

<sup>1</sup> Includes 300 common stocks; 108 for durable goods manufacturing, 85 for nondurable goods manufacturing, 18 for transportation, 34 for utilities, 45 for trade, finance and service, and 10 for mining. Indexes are for weekly closing prices.

Note.—Monthly and weekly data available beginning with 1939.

Source: Securities and Exchange Commission.

York Stock Exchange," showing data for the 2 previous weeks, with percent change. The monthly SEC *Statistical Bulletin* shows price and change data for the 4 or 5 latest weeks. Data back to 1939 on a weekly

and monthly basis are available on request. A release entitled "Computation of SEC Index," which includes a list of the selected stocks, may be obtained from SEC.

# FEDERAL FINANCE

## BUDGET RECEIPTS AND EXPENDITURES

*Description of series.*—Budget receipts and expenditures measure the financial transactions of all wholly-owned Government funds. Budget receipts are derived mostly from various kinds of internal revenue (taxes), but also from customs duties and from miscellaneous sources such as rents, fines, fees, sales of products and services, and collections on certain loans and investments. Budget expenditures primarily include purchases of goods and services (including capital outlays), transfer payments to individuals, grants to States, loans, purchases of financial and other existing assets, and Government contributions as employer to civilian retirement and social security trust funds. Transactions of trust funds, representing moneys held in trust by the Government for specific purposes, are excluded from budget receipts and expenditures.

“Budget receipts” represent the total revenues collected for the general fund accounts and for special funds whose receipts are earmarked under law for specific purposes, less (a) refunds of receipts, (b) transfers to trust fund receipts in those cases where the law provides an indefinite appropriation to a trust fund in an amount based on certain tax receipts, and (c) those general or special fund receipts which are also expenditures of a Government-owned fund. Budget receipts do not include money obtained from borrowing; nor do they include receipts of public enterprise revolving funds (such as the postal fund and most Government corporations) or of intragovernmental revolving and management funds, since these funds are included on a net basis in the expenditure figures.

“Budget expenditures” cover Government-owned funds; namely, the general fund, the special funds, the public enterprise funds, and the intragovernmental revolving and management funds. Expenditures for the public enterprise funds and for the intragovernmental funds are included in the totals on a net basis—that is, their collections are deducted from gross expenditures and the net results are the

budget expenditures. Certain interfund transactions (namely, general or special fund receipts which are also expenditures of a Government-owned fund) are deducted to avoid double counting. Interest paid to Treasury by such funds is the major category of this kind. Payments to the general fund of earnings and dividends on capital of revolving funds, and the return of such capital to the general fund, are also excluded to avoid double counting. Net budget expenditures do not include retirement of Government debt, nor do they include investments of Government enterprises in United States securities.

“Major national security” is a classification of budget expenditures which is currently used in the budget document. It comprises: (1) military activities of the Department of Defense including military functions and the military assistance portion of the Mutual Security Program; (2) development and control of atomic energy; and (3) stockpiling and defense production expansion.

“Budget surplus or deficit” represents the difference between budget receipts and budget expenditures.

The “public debt” figures shown consist of the outstanding gross borrowings of the United States Treasury (“gross public debt”) and also the guaranteed obligations of other Government agencies held by other than the Treasury. The budget surplus or deficit is not the only factor which affects the size of the public debt, although it is generally the major factor. The other factors affecting the size of the debt are: (1) changes in Government cash balances; (2) the results of trust fund transactions; (3) the use of Government corporation borrowing directly from the public as a means of financing the corporation’s budget expenditures (or the utilization of their net receipts to repay such borrowing); and (4) changes in the amount of checks outstanding and other items in the process of clearing through the accounts.

*Statistical procedures.*—Data on budget receipts

## Budget Receipts and Expenditures

[Billions of dollars]

Fiscal year	Net budget receipts	Net budget expenditures			Budget surplus (+) or deficit (-)	Public debt (end of period) <sup>3</sup>
		Total	Major national security <sup>1</sup>			
			Total	Department of Defense military <sup>2</sup>		
1929.....	3.9	3.1	0.7	0.7	+0.7	16.9
1930.....	4.1	3.3	.7	.7	+.7	16.2
1931.....	3.1	3.6	.7	.7	-.5	16.8
1932.....	1.9	4.7	.7	.7	-2.7	19.5
1933.....	2.0	4.6	.6	.6	-2.6	22.5
1934.....	3.1	6.7	.5	.5	-3.6	27.7
1935.....	3.7	6.5	.7	.7	-2.8	32.8
1936.....	4.1	8.5	.9	.9	-4.4	38.5
1937.....	5.0	7.8	.9	.9	-2.8	41.1
1938.....	5.6	6.8	1.0	1.0	-1.2	42.0
1939.....	5.0	8.9	1.1	1.1	-3.9	45.9
1940.....	5.1	9.1	1.5	1.5	-3.9	48.5
1941.....	7.1	13.3	6.0	6.0	-6.2	55.3
1942.....	12.6	34.0	23.9	23.9	-21.5	77.0
1943.....	22.0	79.4	63.2	63.2	-57.4	140.8
1944.....	43.6	95.1	76.7	76.7	-51.4	202.6
1945.....	44.5	98.4	81.2	81.2	-53.9	259.1
1946.....	39.8	60.4	43.2	43.2	-20.7	269.9
1947.....	39.8	39.0	14.4	14.2	+.8	258.4
1948 <sup>4</sup> .....	41.4	33.0	11.8	11.2	+8.4	252.4
1949.....	37.7	39.5	12.9	12.0	-1.8	252.8
1950.....	36.4	39.5	13.0	12.0	-3.1	257.4
1951.....	47.5	44.0	22.4	20.8	+3.5	255.3
1952.....	61.3	65.3	44.0	41.3	-4.0	259.2
1953.....	64.7	74.1	50.4	47.6	-9.4	266.1
1954.....	64.4	67.5	46.9	44.0	-3.1	271.3
1955.....	60.2	64.4	40.6	37.8	-4.2	274.4
1956.....	67.8	66.2	40.6	38.4	+1.6	272.8
1957.....	70.6	69.0	43.3	40.8	+1.6	270.6
1958.....	68.5	71.4	44.1	41.2	-2.8	276.4
1959.....	67.9	80.3	46.4	43.6	-12.4	284.8
1960 <sup>5</sup> .....	77.7	76.6	45.6	42.8	+1.1	286.5

<sup>1</sup> Includes military functions of Department of Defense, military assistance portion of the Mutual Security Program, Atomic Energy Commission, stockpiling and defense production expansion. For 1942-46, also includes Coast Guard.

<sup>2</sup> Military functions and military assistance.

<sup>3</sup> Includes guaranteed securities held outside the Treasury. Not all of total shown is subject to statutory debt limitation.

<sup>4</sup> Startline in 1948, total budget receipts and expenditures have been adjusted to exclude certain intragovernmental transactions.

<sup>5</sup> Preliminary.

NOTE.—Detail will not necessarily add to totals due to rounding.

Sources: Treasury Department and Bureau of the Budget.

and expenditures for actual past periods are derived for the most part from accounting records rather than statistical estimating procedures. Budget receipts and expenditures are published each month by the Treasury Department in the *Monthly Statement of Receipts and Expenditures of the United States Government*.

Under a reporting procedure instituted in February 1954 (which also covers comparative data for part of fiscal 1953), budget expenditures are reported on the basis of checks issued by Government disbursing officers. Modifications in this basis are made as follows: (a) where payment is made in cash instead of by check, the cash payment is an expendi-

ture; (b) where payment is made by the issuance of bonds or by an increase in their redemption value, instead of by the issuance of checks, such an issuance or increase is an expenditure; and (c) since June 1955, interest on the public debt has been reported on an accrual basis. Internal revenue and customs receipts are stated on the basis of collections reported by collecting officers. Other receipts are reported on the basis of confirmed deposits.

Data for fiscal 1952 and earlier were reported on a different basis under which receipt and expenditure totals were derived from a variety of sources but primarily from daily telegraphic reports from Federal Reserve Banks reporting deposits and withdrawals clearing through the accounts of the Treasurer of the United States.

The public debt is compiled daily from records of the United States Treasury and is published in the *Daily Statement of the United States Treasury* (with details at the end of each month) as well as in the *Monthly Statement*.

*Relation to other series.*—Budget receipts and expenditures are one of the five major series dealing with Federal Government income and outgo. The others are:

1. Federal Government receipts from and payments to the public.
2. Cash deposits in and withdrawals from the Account of the Treasurer of the United States.
3. Federal receipts and expenditures in the national income accounts.
4. Federal revenue and expenditures as reported by the Bureau of the Census.

The differences among these various measures are mainly ones of coverage and timing. Significant specific differences are:

#### COVERAGE

1. All four of the other measures are more comprehensive than budget receipts and expenditures, since they encompass, in addition to budget amounts, the very sizable transactions of the trust funds administered by the Federal Government (after eliminating transactions between the budget and trust funds).

2. Transactions of four so-called Government-sponsored enterprises not included in the budget are included (on a net basis) in Federal Government payments to the public and (to the extent such transactions affect the Treasurer's cash position) in cash withdrawals.

3. Cash withdrawals, payments to the public, and Federal expenditure as reported by the Census include actual disbursements for interest rather than interest accruals.

4. Federal receipts and expenditures in the national income accounts and Federal revenue and expenditure as reported by Census exclude loans, loan repayments, and related financial investments from both receipts and expenditures.

5. Federal expenditures in the national income accounts exclude purchases of existing physical assets.

6. Census figures record transactions of some public enterprises such as the Post Office on a gross rather than a net basis—that is, enterprise receipts are counted in the total of Government revenue rather than as offsets on the expenditure side.

#### TIMING

7. Federal receipts in the national income accounts record tax revenues mainly on an accrual rather than a cash basis.

8. Payments to the public and Treasury cash withdrawals are recorded on a checks paid basis, rather than checks issued.

9. That portion of Federal expenditures in the national income accounts which consists of purchases of goods and services is reported, to the maximum extent feasible, on the basis of time of delivery rather than time of payment.

*Uses and limitations.*—The main use for data on budget receipts and expenditures and the main reason for interest in these data as a time series is as an indicator of executive and legislative budget and tax policy. Budget receipts and expenditures figure prominently in the annual budget process, involving the projection of fund requirements by Government agencies, preparation of an integrated executive budget including estimates under both existing law and proposed changes in laws and programs, congressional review and enactment of annual appropriation bills, and agency financial management, and also in the periodic consideration of tax legislation. Moreover, the relationship between the totals of budget receipts and budget expenditures usually serves as the major determinant of increases or decreases in the public debt. Finally, since this series is prepared in detail based on the Government's financial accounts, it is a basic source of data for various other series on Federal financial transactions which are more important for economic analysis.



For purposes of appraising the effect of Federal financial transactions on the economy, however, this series has important limitations. For example, business activity may be influenced by Government financial operations long before such operations are reflected in the figures on budget expenditures or receipts; some of the economic impact is reflected at the stage when contracts for goods and services are let, i.e., when obligations are incurred, or when tax liabilities are changed by a new tax measure. Moreover, Federal guaranties and insurance of private loans also influence the economy, although they have a relatively minor effect on budget receipts or expenditures. In addition, the operations of the trust funds and Government-sponsored enterprises play an important role in the economy which is not reflected in the budget figures.

*References.*—The basic release of the budget re-

ceipts and expenditures data is made in the *Monthly Statement of Receipts and Expenditures of the United States Government* issued by the Treasury Department. A description of the basis for this statement is summarized in current issues of the *Treasury Bulletin*, page II. Annual data are available in the Budgets of the United States Government issued by the Bureau of the Budget, and are also reported in the *Combined Statement of Receipts, Expenditures, and Balances of the United States Government*, issued by the Treasury Department. Data beginning with 1789 are published in the *Annual Report of the Secretary of the Treasury on the State of the Finances*. For further detail on the relation of Federal Government receipts and expenditures in the national income accounts to the Budget, see table III-10 in the *U.S. Income and Output*.

## CASH RECEIPTS FROM AND PAYMENTS TO THE PUBLIC

*Description of series.*—This series presents information on the flow of money between the public and the Federal Government as a whole, representing in effect a consolidated cash statement of Federal transactions—other than borrowing—with the public. The public is defined to include individuals, banks, other private corporations and associations, unincorporated businesses, the Federal Reserve System, the Postal Savings System, State and local governments, foreign governments, and international organizations.

Federal cash receipts from and payments to the public include the transactions of trust and deposit funds (which are not owned by the Federal Government) as well as the Federal funds included in budget receipts and expenditures. They also include certain transactions of Government-sponsored enterprises which are not considered a part of the Government in the conventional budget data—i.e., the Federal Deposit Insurance Corporation, Federal land banks, Federal home loan banks, banks for cooperatives, and (after January 1, 1959) the Federal intermediate credit banks. Major intragovernmental and non-cash transactions are excluded in the consolidation of Federal financial transactions.

The excess of Federal cash receipts or payments is sometimes referred to as the cash surplus or deficit.

*Statistical procedures.*—Annual totals and unad-

justed monthly and quarterly cash receipts and payments to the public are taken from accounting records rather than statistical estimates. These series are based on data published in the *Daily Statement of the United States Treasury* and the *Monthly Statement of Receipts and Expenditures of the United States Government*.

To derive the figures on Federal cash receipts from and payments to the public, several adjustments are made to budget receipts and expenditures. The following items are added: (1) transactions of trust and deposit funds; (2) net expenditures of Government-sponsored enterprises as measured by the sales and redemptions of their own obligations and of the United States securities held by them; and (3) changes in the clearing accounts of the United States Treasurer to adjust for checks outstanding and other items. The following items are eliminated: (1) intragovernmental transactions, such as interest paid on securities held by trust funds (which is both a budget expenditure and a trust receipt); (2) noncash expenditures in the form of debt issuances or other increases in the public debt which represent obligations of the Government to make cash payments in the future—eliminated in the year of the debt increase but added to expenditures in subsequent years as actual cash payments are made (for example, the semiannual increase in the redemption value of Series E savings bonds, which is

## Cash Receipts from and Payments to the Public

[Billions of dollars]

Year	Cash receipts from the public	Cash pay- ments to the public	Excess of receipts (+) or payments (-)
<b>Fiscal year:</b>			
1929.....	3.8	2.9	+0.8
1930.....	4.0	3.1	+.9
1931.....	3.2	4.1	-1.0
1932.....	2.0	4.8	-2.7
1933.....	2.1	4.7	-2.6
1934.....	3.1	6.4	-3.3
1935.....	3.8	6.3	-2.4
1936.....	4.2	7.6	-3.5
1937.....	5.6	8.4	-2.8
1938.....	7.0	7.2	-.1
1939.....	6.6	9.4	-2.9
1940.....	6.9	9.6	-2.7
1941.....	9.2	14.0	-4.8
1942.....	15.1	34.5	-19.4
1943.....	25.1	78.9	-53.8
1944 <sup>1</sup> .....	47.8	94.0	-46.1
1945.....	50.2	95.2	-45.0
1946.....	43.5	61.7	-18.2
1947.....	43.5	36.9	+6.6
1948.....	45.4	36.5	+8.9
1949.....	41.6	40.6	+1.0
1950.....	40.9	43.1	-2.2
1951.....	53.4	45.8	+7.6
1952.....	68.0	68.0	(2)
1953.....	71.5	76.8	-5.3
1954.....	71.6	71.9	-.3
1955.....	67.8	70.5	-2.7
1956.....	77.1	72.6	+4.5
1957.....	82.1	80.0	+2.1
1958.....	81.9	83.4	-1.5
1959.....	81.7	94.8	-13.1
1960 <sup>3</sup> .....	95.0	94.3	+.7
<b>Calendar year:</b>			
1943 <sup>4</sup> .....	37.9	89.0	-51.1
1944.....	48.1	94.8	-46.7
1945.....	49.4	86.1	-36.7
1946.....	41.4	41.4	(2)
1947.....	44.3	38.6	+5.7
1948.....	44.9	36.9	+8.0
1949.....	41.3	42.6	-1.3
1950.....	42.4	42.0	+.5
1951.....	59.3	58.0	+1.2
1952.....	71.3	72.0	-.6
1953.....	70.2	77.4	-7.2
1954.....	68.6	69.7	-1.1
1955.....	71.4	72.2	-.7
1956.....	80.3	74.8	+5.5
1957.....	84.5	83.3	+1.2
1958.....	81.7	86.0	-7.3
1959.....	87.6	95.6	-8.0

<sup>1</sup> Data for fiscal years prior to 1944 are not exactly comparable with those for later years in that only major intragovernmental transactions have been eliminated in the earlier years.

<sup>2</sup> \$50 million or less.

<sup>3</sup> Preliminary.

<sup>4</sup> First calendar year for which data are available.

Note.—Detail will not necessarily add to totals because of rounding.

Sources: Treasury Department and Bureau of the Budget.

a part of budget expenditures, is deducted, while interest actually paid to the public on savings bonds redeemed during the year is added); and (3) receipts of the Government from exercise of the monetary authority (currently consisting mostly of seigniorage on silver).

Historical data have been adjusted wherever possible for conceptual and statistical revisions of this series made in 1947 and for a few changes made since then to reflect similar changes in the concept of budget receipts and expenditures, such as the change in reporting of tax refunds as offsets to receipts rather than as expenditures. Data beginning with fiscal year 1953 and calendar year 1954 are on the reporting basis instituted in February 1954 and discussed on page — in connection with budget receipts and expenditures.

Seasonally adjusted data published in *Economic Indicators* have been seasonally adjusted by applying a variant of the Census Bureau's Univac II method to the two totals—cash receipts and cash payments. (See p. 64.) Experimental work is currently underway to seasonally adjust major individual receipt and expenditure components separately, the aggregates of seasonally adjusted components giving the seasonally adjusted totals.

*Relation to other series.*—The major differences between “cash receipts and payments” and “budget receipts and expenditures” were enumerated above under “Statistical procedures.” This series, on the other hand, is very similar in general concept to the series on Treasury cash deposits and withdrawals published in the *Daily Statement of the United States Treasury*. The following are the significant differences between the two: (1) receipts from the exercise of monetary authority (mainly seigniorage on coinage) are excluded from the cash receipts series since they do not represent “cash received from the public,” but are included in “Treasury cash deposits;” and (2) receipts from and payments to include cash transactions from accounts which some Government agencies maintain directly with commercial banks as well as from the regular accounts of the United States Treasurer, while Treasury cash deposits and withdrawals record only the latter. Both series and the reconciliation between the two are published monthly in the *Treasury Bulletin*.

Principal differences between the cash receipts and payments series and the other major series dealing

with overall Federal Government transactions are as follows:

1. Federal Government receipts and expenditures in the national income accounts as reported by the Office of Business Economics, Department of Commerce, and Federal revenue and expenditure as reported by the Census exclude loans, loan repayments, mortgage purchases, and similar financial investments.

2. That part of Federal expenditures in the national income accounts consisting of purchases of goods and services is recorded to the maximum extent possible on the basis of time of delivery rather than time of payment.

3. Federal Government employer and employee contributions to employee retirement funds are considered intragovernmental transactions and are deducted from both receipts and payments in arriving at the consolidated cash totals, whereas in the national income accounts, payments of both employers and employees are counted both as receipts (“contributions for social insurance”) and expenditures (“purchases of goods and services—compensation of employees”). In Federal revenue and expenditure as recorded by the Census, the Federal Government's contribution as employer is deducted as an intragovernmental transaction, but not employee contributions.

4. Enterprise transactions such as the Post Office are recorded gross in the Census tabulation of Federal revenue and expenditure but net in Federal cash receipts from and payments to the public.

*Uses and limitations.*—For purposes of economic analysis, the series on receipts from and payments to the public is a more complete measure of the impact of Federal financial transactions on the economy than the series on budget receipts and expenditures. However, any series on overall Government transactions is necessarily an aggregation of many different kinds of transactions with widely varying economic effects. Government purchases of goods and services can hardly be expected to have the same impact as an equivalent sum expended for loans. Equivalent sums collected from income taxes and estate taxes may also be expected to vary in effect. In brief, details as well as totals must be considered in making any economic analysis. Further, it should be recognized that not only cash flows, but also many other Federal financial activities have important economic effects. For ex-

ample, an expansion in new appropriations and in Government orders can stimulate business activity before the authorized funds are paid to the public. Likewise, the enactment of a tax measure may affect business activity before the cash flows involved between the Federal Government and the public take place. Federal guaranties and insurance of private loans also influence the economy even though they normally have little or no immediate impact on Federal receipts from and payments to the public. Aside from the significance of interest payments to the public, the management of the public debt is also a factor which has particular impact in the money and credit markets of the economy.

*References.*—Unadjusted monthly data on Federal cash receipts from and payments to the public appear in the *Treasury Bulletin*, and quarterly data in *Economic Indicators*. Seasonally adjusted quarterly data also appear in *Economic Indicators*. Annual data by fiscal years back to 1929 are published in the *Statistical Abstract*. Starting with the 1944 budget each year the *Budget of the United States Government* has also presented data for the most recent fiscal year and estimates for the current and following fiscal years. The data have also been included in the an-

nual *Midyear Review* of the budget, prepared by Bureau of the Budget each summer or fall. A closely related series on Treasury cash deposits and withdrawals is published in the *Daily Statement of the United States Treasury*, and monthly in *Treasury Bulletin*.

Adjustments made in data on budget receipts and expenditures to arrive at Federal cash receipts from and payments to the public on a monthly basis are summarized in the *Treasury Bulletin*. The adjustments made in the annual figures are listed in detail in a release of the Bureau of the Budget entitled "Federal Government Receipts From and Payments to the Public, Supporting Tables." This release is issued in conjunction with the annual publication of the *Budget of the United States Government* and the *Midyear Review*. A summary reconciliation of the differences between this series and the Treasury cash deposits and withdrawals series is published monthly in the *Treasury Bulletin* and annually in the *Budget of the United States Government*. Further details on the relation of Federal Government receipts and expenditures in the national income accounts to cash receipts and expenditures are given in table III-10 in *U.S. Income and Output*.

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