BUSINESS CONDITIONS DIGEST

JANUARY 1989



U.S. DEPARTMENT OF COMMERCE **BUREAU OF ECONOMIC ANALYSIS**



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ABOUT THIS REPORT

BUSINESS CONDITIONS DIGEST (BCD) provides a monthly look at many of the economic time series found most useful by business analysts and forecasters.

The original **BCD**, which began publication in 1961 under the title Business Cycle Developments, emphasized the cyclical indicators approach to the analysis of business conditions and prospects. The report's contents were based largely on the list of leading, roughly coincident, and lagging indicators maintained by the National Bureau of Economic Research, Inc.

In 1968, BCD was expanded to increase its usefulness to analysts using other approaches to business conditions analysis. Principal additions to the report were series from the national income and product accounts and series based on surveys of businessmen's and consumers' anticipations and intentions. The composite indexes were added at that time, and the report's present title was adopted.

The dominant feature of the current BCD is the cyclical indicators section, in which each business cycle indicator is assigned a three-way timing classification according to its behavior at peaks, at troughs, and at all turns. This section is supplemented by a section containing other important economic measures. The method of presentation is explained in the introductory text which begins on page 1.

Most of the data contained in this report also are published by their source agencies. A series finding guide and a complete list of series titles and sources can be found at the back of the

Cyclical Indicators are economic time series which have been singled out as leaders, coinciders, or laggers based on their general conformity to cyclical movements in aggregate economic activity. In this report, cyclical indicators are classified both by economic process and by their average timing at business cycle peaks, at business cycle troughs, and at peaks and troughs combined. These indicators have been selected primarily on the basis of their cyclical behavior, but they also have proven useful in forecasting, measuring, and interpreting short-term fluctuations in aggregate economic activity.

Other Economic Measures provide additional information for the evaluation of current business conditions and prospects. They include selected components of the national income and product accounts; measures of prices, wages, and productivity; measures of the labor force, employment, and unemployment; economic data on Federal, State, and local government activities; measures of U.S. international transactions; and selected economic comparisons with major foreign countries.

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Address them to Business Conditions Digest, Statistical Indicators Division, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230

NEW FEATURES AND CHANGES FOR THIS ISSUE

REVISION OF THE COMPOSITE INDEXES

The composite indexes of leading, coincident, and lagging indicators will be revised beginning with the release of January 1989 data on March 3. The revision will incorporate changes in components, updated statistical factors, and historical revisions in component data. An article presenting the revision appears on pages 97-102 of this issue. The same article is published in the January 1989 SURVEY OF CURRENT BUSINESS.

Data for 1948 through June 1988 for the revised indexes and their components, plus revised statistical factors and a description of the changes in the indexes, are available on a diskette, on a printout, and on the Commerce Department's Economic Bulletin Board. To obtain an order form, technical specifications, and prices, write to the Statistical Indicators Division (BE-60), Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230 or call (202) 523-0800.

A limited number of changes are made from time to time to incorporate recent findings of economic research, newly available time series, and revisions made by source agencies in concept, composition, comparability, coverage, seasonal adjustment methods, benchmark data, etc. Changes may result in revisions of data, additions or deletions of series, changes in placement of series in relation to other series, changes in composition of indexes, etc.

Changes in this issue are as follows:

1. The series on employment and unemployment in the civilian labor force (series 37, 42-44, 90, 91, 441, 442, 444-448, and 451-453) have been revised by the source agency from 1984 forward. These revisions reflect the application of updated seasonal adjustment factors.

Further information concerning these revisions may be obtained from the U.S. Department of Labor, Bureau of Labor Statistics, Office of Employment and Unemployment Statistics, Division of Employment and Unemployment Analysis.

(Continued on page iv.)

The February issue of BUSINESS CONDITIONS DIGEST is scheduled for release on March 9.

2. The ratio of help-wanted advertising in newspapers to number of persons to unemployed (series 60) has been revised from 1984 forward to incorporate revised data for the unemployment component. (See item 1, above.)

Further information concerning this revision may be obtained from the U.S. Department of Commerce, Bureau of Economic Analysis, Statistical Indicators Division.

3. The diffusion index of newly approved capital appropriations (series 965) has been revised by the source agency from 1953 forward to reflect a change in the rounding procedure.

Further information concerning this revision may be obtained from The Conference Board, Inc., 845 Third Avenue, New York, NY 10022.

4. Appendix C contains historical data for series 73-76, 82, and 84.

COMPOSITE INDEXES OF LEADING, COINCIDENT, AND LAGGING INDICATORS: DECEMBER 1988

The composite index of leading indicators increased 0.6 percent in December to 194.6 (1967=100), according to preliminary estimates released February 1 by the Commerce Department's Bureau of Economic Analysis.

On the basis of more complete data, the index decreased 0.2 percent in November and increased 0.5 percent in October. A month ago, the Bureau reported estimates that showed the index decreased 0.2 percent in November and increased 0.4 percent in October. Change in inventories on hand and on order in 1982 dollars was the major contributor to the October revision.

Six of 9 indicators available for December contributed to the increase in the index. They were, ordered from the largest positive contributor to the smallest: manufacturers' new orders for consumer goods and materials in 1982 dollars, stock prices, contracts and orders for plant and equipment in 1982 dollars, change in sensitive materials prices, building permits, and money supply in 1982 dollars.

Two of 9 indicators made negative contributions. They were, ordered from the larger negative contributor to the smaller: average workweek and average weekly initial claims for state unemployment insurance.

One indicator was unchanged: vendor performance (i.e., companies receiving slower deliveries from vendors).

The composite index of coincident indicators, a monthly approximation of aggregate economic activity, increased 0.7 percent in December to 182.1 (1967=100). On the basis of more complete data, the index increased 0.1 percent in November and 1.0 percent in October.

The composite index of lagging indicators increased 0.8 percent in December to 150.5 (1967=100). On the basis of more complete data, the index increased 0.9 percent in November and decreased 0.1 percent in October.

The leading index is designed to predict monthly movements in aggregate economic activity, which is approximated by the coincident index. The lagging index is expected to move, after a time lag, in the same direction as the coincident index and thus to confirm the movements in the coincident index.

These concepts are explained more fully in the 1984 edition of <u>Handbook of Cyclical Indicators</u> (price \$5.50, stock number 003-010-00127-5), which is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

More data on the composite indexes can be found on pages 10, 60, and 107 of this issue of <u>Business Conditions Digest</u>.

A recorded telephone message on (202) 898-2450 provides information on the composite indexes and their components immediately upon their release. The message is updated weekly to include recently available data for composite index components that will be incorporated into the next release.

This and other news releases are available electronically at the time of public release through the Commerce Department's Economic Bulletin Board at a nominal charge to users. For information, call (202) 377-1986.

Next release date: March 3 for the January composite indexes.

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METHOD OF PRESENTATION

This report is organized into two major parts. Part 1, Cyclical Indicators, includes about 150 time series which have been found to conform well to broad fluctuations in comprehensive measures of economic activity. Nearly three-fourths of these are individual indicators, the rest are related analytical measures: Composite indexes, diffusion indexes, and rates of change. Part II, Other Important Economic Measures, covers over 140 series which are valuable to business analysts and forecasters but which do not conform well enough to business cycles to qualify as cyclical indicators. (There are a few exceptions: Four series which are included in part I are also shown in part II to complete the systematic presentation of certain sets of data. such as real GNP and unemployment.) The largest section of part II consists of quarterly series from the national income and product accounts; other sections relate to prices, labor force, government and defense-related activities, and international transactions and comparisons.

The two parts are further divided into sections (see table of contents), and each of these sections is described briefly in this introduction. Data are shown both in charts and in tables. Most charts begin with 1962, but those for the composite indexes and their components (part I, section A) begin with 1952, and a few charts use a two-panel format which covers only the period since 1977. Except for section F in part II, charts contain shading which indicates periods of recession in general business activity. The tables contain data for only the last few years. The historical data for the various time series are contained in the 1984 Handbook of Cyclical Indicators.

In addition to the charts and tables described above, each issue contains a summary table which shows the current behavior of many of the series. Appendixes present seasonal adjustment factors, measures of variability, specific cycle turning dates, cyclical comparison charts, and other information of analytical interest. An index appears at the back of each issue. It should be noted that the series numbers used are for identification purposes only and do not reflect precise relationships or order. However, all series considered as cyclical indicators are numbered in the range 1 to 199.

Seasonal Adjustments

Adjustments for average seasonal fluctuations are often necessary to bring out the underlying trends of time series. Such adjustments allow for the effects of repetitive intrayear variations resulting primarily from normal differences in weather conditions and from various institutional arrangements. Variations attributable to holidays are usually accounted for by the seasonal adjustment process; however, a separate holiday

adjustment is occasionally required for holidays with variable dates, such as Easter. An additional adjustment is sometimes necessary for series which contain considerable variation due to the number of working or trading days in each month. As used in this report, the term "seasonal adjustment" includes trading-day and holiday adjustments where they have been made.

Most of the series in this report are presented in seasonally adjusted form and, in most cases, these are the official figures released by the source agencies. However, for the special purposes of this report, a number of series not ordinarily published in seasonally adjusted form are shown here on a seasonally adjusted basis.

MCD Moving Averages

Month-to-month changes in a series are often dominated by erratic movements. MCD (months for cyclical dominance) is an estimate of the appropriate span over which to observe cyclical movements in a monthly series. (See appendix A.) It is the smallest span of months for which the average change in the cyclical factor is greater than that in the irregular factor. The more erratic a series is, the larger the MCD will be; thus, MCD is 1 for the smoothest series and 6 for the most erratic. MCD moving averages (that is, moving averages of the period equal to MCD) tend to have about the same degree of smoothness for all series. Thus, a 5-term moving average of a series with an MCD of 5 will show its cyclical movements about as clearly as the seasonally adjusted data for a series with an MCD of 1.

The charts in this report generally include centered MCD moving averages for those series with an MCD greater than 4. The seasonally adjusted data are also plotted to indicate their variation about the moving averages and to provide observations for the most recent months.

Reference Turning Dates

The historical business cycle turning dates used in this report are those designated by the National Bureau of Economic Research, Inc. (NBER). They mark the approximate dates when, according to NBER, aggregate economic activity reached its cyclical high or low levels. As a matter of general practice, neither new reference turning dates nor the shading for recessions will be entered on the charts until after both the new reference peak and the new reference trough bounding the shaded area have been designated.

The historical reference turning dates are subject to occasional reviews by NBER and may be changed as a result of revisions in important economic time series. The dates shown in this publication for the 1948-70 time period are those determined by a 1974 review. Since then, NBER has designated turning points for recessions in 1973-75, 1980, and 1981-82.

Part I. CYCLICAL INDICATORS

Business cycles have been defined as sequences of expansion and contraction in various economic processes that show up as major fluctuations in aggregate economic activity—that is, in comprehensive measures of production, employment, income, and trade. While recurrent and pervasive, business cycles of historical experience have been definitely nonperiodic and have varied greatly in duration and intensity, reflecting changes in economic systems, conditions, policies, and outside disturbances.

One of the techniques developed in business cycle research and widely used as a tool for analyzing current economic conditions and prospects is the cyclical indicators approach. This approach identifies certain economic time series as tending to lead, coincide with or lag behind the broad movements in aggregate economic activity. Such indicators have been selected and analyzed by NBER in a series of studies published between 1938 and 1967. During the 1972-75 period, a new comprehensive review of cyclical indicators was carried out by the Bureau of Economic Analysis (BEA) with the cooperation of the NBER research staff. The present format and content of part I of *BCD* are based on the results of that study.

Section A. Composite Indexes and Their Components

All cyclical indicators have been evaluated according to six major characteristics: Economic significance, statistical adequacy, consistency of timing at business cycle peaks and troughs, conformity to business expansions and contractions, smoothness, and prompt availability (currency). A formal, detailed weighting scheme was developed and used to assess each series by all of the above criteria. (See articles in the May and November 1975 issues of BCD.) The resulting scores relate to cyclical behavior of the series during the period 1947-70. This analysis produced a new list of indicators classified by economic process and typical timing at business cycle peaks and troughs. (See tables on page 2 and text below relating to section B.)

This information, particularly the scores relating to consistency of timing, served as a basis for the selection of series to be included in the composite indexes. The indexes incorporate the best-scoring series from many different economic-process groups and combine those with similar timing behavior, using their overall performance scores as weights. Because they use series of historically tested usefulness and given timing characteristics (for example, leading at both peaks and troughs), with diversified economic coverage and a minimum of duplication, composite indexes give more reliable signals over time than do any of the individual indicators. Furthermore, much of the

Cross-Classification of Cyclical Indicators by Economic Process and Cyclical Timing

A. Timing at Business Cycle Peaks

Economic Process Cyclical Timing	I. EMPLOYMENT AND UNEMPLOYMENT (15 series)	II. PRODUCTION AND INCOME (10 series)	III. CONSUMPTION, TRADE, ORDERS, AND DELIVERIES (13 series)	IV. FIXED CAPITAL INVESTMENT (19 series)	V. INVENTORIES AND INVENTORY INVESTMENT (9 series)	VI. PRICES, COSTS, AND PROFITS (18 series)	VII. MONEY AND CREDIT (28 series)
LEADING (L) INDICATORS (61 series)	Marginal employment adjustments (3 series) Job vacancies (2 series) Comprehensive employment (1 series) Comprehensive unemployment (3 series)	Capacity utilization (2 series)	Orders and deliveries (6 series) Consumption and trade (2 series)	Formation of business enterprises (2 series) Business investment commitments (5 series) Residential construction (3 series)	Inventory investment (4 series) Inventories on hand and on order (1 series)	Stock prices (1 series) Sensitive commodity prices (2 series) Profits and profit margins (7 series) Cash flows (2 series)	Money (5 series) Credit flows (5 series) Credit difficulties (2 series) Bank reserves (2 series) Interest rates (1 series)
ROUGHLY COINCIDENT (C) INDICATORS (24 series)	Comprehensive employment (1 series)	Comprehensive output and income (4 series) Industrial production (4 series)	Consumption and trade (4 series)	Business investment commitments (1 series) Business investment expenditures (6 series)			Velocity of money (2 series) Interest rates (2 series)
LAGGING (Lg) INDICATORS (19 series)	Comprehensive unemployment (2 series)			Business investment expenditures (1 series)	Inventories on hand and on order (4 series)	Unit labor costs and labor share (4 series)	Interest rates (4 series) Outstanding debt (4 series)
TIMING UNCLASSIFIED (U) (8 series)	Comprehensive employment (3 series)		Consumption and trade (1 series)	Business investment commitments (1 series)		Sensitive commodity prices (1 series) Profits and profit margins (1 series)	Interest rates (1 series)

B. Timing at Business Cycle Troughs

Economic Process Cyclical Timing	I. EMPLOYMENT AND UNEMPLOYMENT (15 series)	II. PRODUCTION AND INCOME (10 series)	III. CONSUMPTION, TRADE, ORDERS, AND DELIVERIES (13 series)	IV. FIXED CAPITAL INVESTMENT (19 series)	V. INVENTORIES AND INVENTORY INVESTMENT (9 series)	VI. PRICES, COSTS, AND PROFITS (18 series)	VII. MONEY AND CREDIT (28 series)
LEADING (L) INDICATORS (47 series)	Marginal employment adjustments (1 series)	Industrial production (1 series)	Orders and deliveries (5 series) Consumption and trade (4 series)	Formation of business enterprises (2 series) Business investment commitments (4 series) Residential construction (3 series)	Inventory investment (4 series)	Stock prices (1 series) Sensitive commodity prices (3 series) Profits and profit margins (6 series) Cash flows (2 series)	Money (4 series) Credit flows (5 series) Credit difficulties (2 series)
ROUGHLY COINCIDENT (C) INDICATORS (23 series)	Marginal employment adjustments (2 series) Comprehensive employment (4 series)	Comprehensive output and income (4 series) Industrial production (3 series) Capacity utilization (2 series)	Consumption and trade (3 series)	Business investment commitments (1 series)		Profits and profit margins (2 series)	Money (1 series) Velocity of money (1 series)
LAGGING (Lg) INDICATORS (41 series)	Job vacancies (2 series) Comprehensive employment (1 series) Comprehensive unemployment (5 series)		Orders and deliveries (1 series)	Business investment commitments (2 series) Business investment expenditures (7 series)	Inventories on hand and on order (5 series)	Unit labor costs and labor share (4 series)	Velocity of money (1 series) Bank reserves (1 series) Interest rates (8 series) Outstanding debt (4 series)
TIMING UNCLASSIFIED (U) (1 series)							Bank reserves (1 series)

independent measurement error and other "noise" in the included series are smoothed out in the index as a whole. The indexes include only monthly series that are acceptable in terms of relatively prompt availability and reasonable accuracy.

The main composite indexes are distinguished by their cyclical timing. Thus, there is an index of leading indicators, series which historically reached their cyclical peaks and troughs earlier than the corresponding business cycle turns. There is an index of roughly coincident indicators, consisting of series which historically reached their turning points at about the same time as the general economy, and an index of lagging indicators, which includes series that typically reached their peaks and troughs later than the corresponding business cycle turns.

The leading index contains series with long as well as short leads, but each series leads on the average over time and shows a frequency of leads at the individual turns exceeding that attributable to chance, given the historical distribution of cyclical timing. (An analogous statement applies to the components of the lagging index.) Since 1948, leads were generally more frequent and longer at peaks than at troughs of business cycles, while lags were generally more frequent and longer at troughs than at peaks. The adopted system of scoring and classifying the indicators takes into account these well-established differences in timing. Consequently, rough coincidences include short leads (-) and lags (+) as well as exact coincidences (0). (For monthly series, the range is from -3 through +1 at peaks and from -1 through +3 at troughs, where minus denotes leads and plus denotes lags in months.)

For purposes of constructing a composite index, each component series is standardized: The monthto-month percent changes in a given series are divided by the long-run average (without regard to sign) of those changes. Thus, the more volatile series are prevented from dominating the index. The coincident index is calculated so that its longterm trend (since 1948) equals the average of the trends of its four components. This trend, which is similar to that of GNP in constant dollars, can be viewed as a linear approximation to the secular movement (at an average growth rate) in aggregate economic activity. The indexes of leading and lagging indicators have been adjusted so that both their trends and their average month-to-month percent changes (without regard to sign) are approximately equal to those of the coincident index. (For a more detailed description of the method of constructing the composite indexes, see the 1984 Handbook of Cyclical Indicators.)

In addition to these principal composite indexes, differentiated according to cyclical timing, there are other indexes based on leading indicators that have been grouped by economic process. Taken together, these additional indexes include many component series of the overall leading index, plus a few related series. Also shown in this section is the ratio of the index of roughly coincident

indicators to the index of lagging indicators, a series known to have a useful pattern of early cyclical timing. Numbers entered on the charts of the composite indexes show the length, in months, of leads (-) and lags (+) at each of the reference turning dates covered.

The next set of data consists of series included in the principal composite indexes. These are the 11 components of the leading index, the 4 components of the coincident index, and the 6 components of the lagging index. Following the title of each series, its typical timing is identified by three letter symbols in a small box. The first of these letters refers to the timing of the given indicator at business cycle peaks, the second to its timing at business cycle troughs, and the third to its timing at all turns, i.e., at peaks and troughs combined. "L" denotes a tendency to lead, "C" a tendency to roughly coincide with the business cycle turns (as represented by the NBERdesignated reference dates), and "Lg" a tendency to lag. Since these series have been selected for the consistency of their timing at peaks and troughs, all but one component of the leading index are denoted "L,L,L," all components of the coincident index "C,C,C," and all components of the lagging index "Lg,Lg,Lg." It should be remembered that these classifications are based on limited evidence, namely the performance of the indicators during the business cycles of the 1948-70 period, which included five peaks and five troughs. While the timing classifications are expected to agree with the patterns prevailing in the near future, they will not necessarily hold invariably in every instance. The timing of the series in the period since 1970 can be determined by inspection of the charts. where the recessions of 1973-75, 1980, and 1981-82 are shaded according to the dates of the NBER reference cycle chronology.

Section B. Cyclical Indicators by Economic Process

This section covers 112 individual time series, including the 21 indicators used in the construction of the composite indexes. The peak and trough timing classifications are shown on the charts in the same manner as described above, but this section includes series with different timing at peaks and at troughs, as well as series where the timing is not sufficiently consistent to be classified as either L,C, or Lg according to the probabilistic measures and scoring criteria adopted. Such series are labeled U, i.e., unclassified as to timing at turning points of the given type. Eight series are unclassified at peaks, one series at troughs, and 18 series at all turns (of the 18, 14 have definite but different timing at peaks and at troughs). No series that is classified as U both at peaks and at troughs is included in the list of cyclical indicators.

The classification scheme which groups the indicators of this section by economic process and cyclical timing is summarized in the two tabulations on page 2. Cross-classification A is based on the observed behavior of the series at five business cycle peaks (November '48, July '53,

August '57, April '60, and December '69); cross-classification B, on their behavior at five business cycle troughs (October '49, May '54, April '58, February '61, and November '70). Each tabulation distinguishes seven major economic processes and four types of cyclical timing. The titles in the cells identify subgroups of the given economic process with the given timing characteristic. The number of series in each such group is given in parentheses following the title. Complete information on how individual indicators are classified by timing at peaks, troughs, and all turns, along with selected measures and scores, is provided in the 1984 Handbook of Cyclical Indicators.

Section C. Diffusion Indexes and Rates of Change

Many series in this report are aggregates compiled from numerous components. How the individual components of an aggregate move over a given timespan is summarized by a diffusion index which indicates the percentage of components that are rising (with half of the unchanged components considered rising). Cyclical changes in these diffusion indexes tend to lead those of the corresponding aggregates. Since diffusion indexes are highly erratic, they are computed from changes measured over 6- or 9-month (or 3- or 4-quarter) spans, as well as 1-month (or 1-quarter) spans. Longer spans help to highlight the trends underlying the shorter-term fluctuations. Diffusion indexes are shown for the component series included in each of the three composite indexes and for the components of some of the aggregate series shown in section B.

Diffusion measures can be derived not only from actual data but also from surveys of anticipations or intentions. Indexes based on responses of business executives about their plans and expectations for several operating variables are presented, along with the corresponding indexes based on actual data, as the last set of diffusion series.

This section also records rates of change for the three composite indexes (leading, coincident, and lagging) and for four indicators of aggregate economic activity: GNP in constant dollars (quarterly), industrial production, employee hours in nonagricultural establishments, and personal income less transfers in constant dollars. Rates of change are shown for 1- and 3-month spans or for 1-quarter spans.

Although movements in diffusion indexes and in rates of change for the same aggregates are generally positively correlated, these two measures present information about two related but distinct aspects of economic change. Diffusion indexes measure the prevailing direction or scope of change, while rates of change measure the degree as well as the overall direction. As is the case for diffusion indexes, cyclical movements in the rates of change tend to lead those of the corresponding indexes or aggregates, and thus, they tend to lead at the business cycle turns as well.

Part II. OTHER IMPORTANT ECONOMIC MEASURES

This part is divided into six sections which cover a wide range of quarterly and monthly time series measuring various aspects of economic activity. Some of these series are very comprehensive, pertaining to the U.S. economy as a whole, others have to do with particular sectors or markets, and still others relate to U.S. international transactions or to selected foreign countries. The represented variables include incomes, outputs, and expenditures; prices, earnings, and productivity; labor resources; government receipts, expenditures, and defense-related activities; exports and imports; and selected indicators for a few key foreign countries.

Section A. National Income and Product

The national income and product accounts, compiled by BEA, summarize both receipts and final expenditures for the personal, business, foreign, and government sectors of the economy.

Section A1 shows the gross national product, final sales, and personal and disposable personal income. The four major components of the gross national product—personal consumption expenditures, gross private domestic investment, government purchases of goods and services, and net exports of goods and services—are presented in sections A2 through A5. Most of the series in section A are presented in current as well as constant dollars. There are also a few per capita series. The national income and product accounts, briefly defined below, are described more fully in the *Survey of Current Business*, Part I, January 1976.

Gross national product (GNP) is the market value of final goods and services produced by the labor and property supplied by residents of the United States, before deduction of allowances for the consumption of fixed capital goods. It is the most comprehensive measure of aggregate economic output. Final sales is GNP less change in business inventories.

Personal income is the income received by persons (individuals, owners of unincorporated businesses, nonprofit institutions, private trust funds, and private noninsured welfare funds) from all sources. It is the sum of wage and salary disbursements, other labor income, proprietors' income, rental income of persons, dividends, personal interest income, and transfer payments, less personal contributions for social insurance.

Disposable personal income is the personal income available for spending or saving. It consists of personal income less personal taxes and nontax payments to government.

Personal consumption expenditures (A2) is goods and services purchased by individuals, operating expenses of nonprofit institutions, and the value of food, fuel, clothing, rent of dwellings, and financial services received in kind by individuals. Net purchases of used goods are also included.

Gross private domestic investment (A3) is fixed capital goods purchased by private business and nonprofit institutions and the value of the change in the physical volume of inventories held by private business. The former include all private purchases of dwellings, whether purchased for tenant or owner occupancy. Net purchases of used goods are also included.

Government purchases of goods and services (A4) is the compensation of government employees and purchases from business and from abroad. It excludes transfer payments, interest paid by government, and subsidies. It includes gross investment by government enterprises but excludes their current outlays. It includes net purchases of used goods and excludes sales and purchases of land and financial assets.

Net exports of goods and services (A5) is exports less imports of goods and services. Exports are part of the national production; imports are not, but are included in the components of GNP and are therefore deducted. More detail on U.S. international transactions is provided in section E.

National income (A6) is the incomes that originate in the production of goods and services attributable to labor and property supplied by residents of the United States. Thus, it measures the factor costs of the goods and services produced. It consists of the compensation of employees, proprietors' income, rental income of persons, corporate profits, and net interest.

Saving (A7) is the difference between income and expenditures during an accounting period. Total gross saving includes personal saving, business saving (mainly undistributed corporate profits and capital consumption allowances), and government surplus or deficit.

Shares of GNP and national income (A8).—The major expenditure components of GNP (consumption, investment, etc.) are expressed as percentages of GNP, and the major income components of national income (compensation of employees, corporate profits, etc.) are expressed as percentages of national income.

Section B. Prices, Wages, and Productivity

The important data on price movements include the monthly consumer and producer price indexes and their major components. Based largely on these series are the quarterly price indexes from the national income and product accounts, notably the GNP implicit price deflator (with weights reflecting the changing proportions of different expenditure categories in GNP) and the fixed-weighted price index for the gross business product. Data on both levels and percent changes are presented for the period since 1977

The group of series on wages and productivity consists of data on average hourly earnings and average hourly compensation (including earnings and other benefits) in current and constant dollars, output per hour of work in the business sector, and rates of change for most of these measures.

Section C. Labor Force, Employment, and Unemployment

This section contains measures of the civilian labor force and its major components: Total numbers of employed and unemployed persons. The number of unemployed is subdivided into selected categories defined by sex, age, and class of worker. Also included are data on participation rates for a few principal segments of the labor force.

Section D. Government Activities

Receipts, expenditures, and their balance (surplus or deficit) are shown quarterly on two levels: (1) Federal Government and (2) State and local government. Also shown is a selection of series from the discontinued Defense Indicators. These series measure defense activities which influence short-term changes in the national economy. Included are series relating to obligations, contracts, orders, production, shipments, inventories, outlays, and employment. These series are grouped according to the time at which the activities they measure occur in the defense order-production-delivery process. Series measuring activities which usually precede production, such as contract awards and new orders, are classified as "advance measures of defense activity." Series measuring activities which tend to coincide with production, such as employment, and activities which usually follow production, such as shipments, are classified as "intermediate and final measures of defense activity."

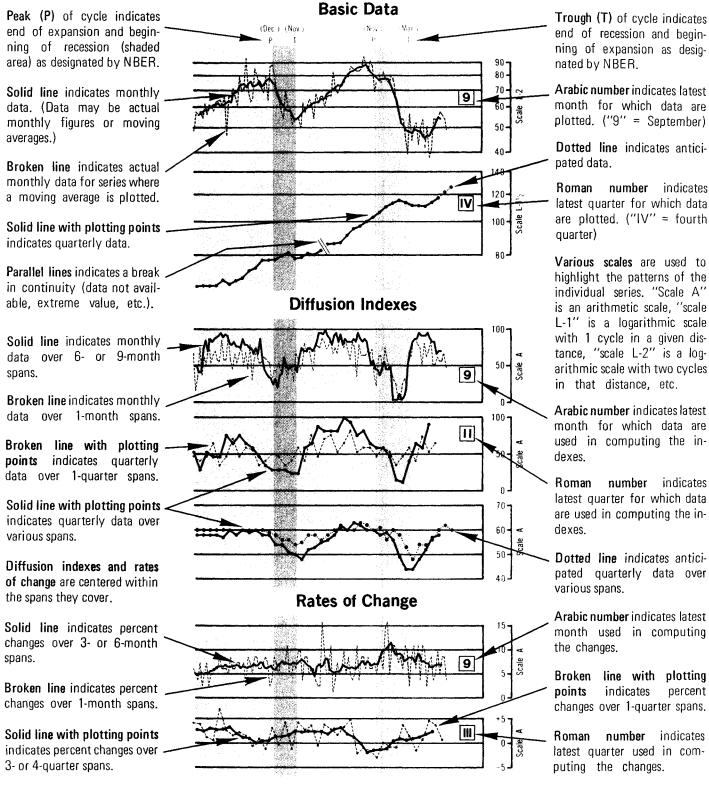
Section E. U.S. International Transactions

This group includes monthly series on exports (excluding military aid) and general imports, plus a few selected components of these aggregates. Also shown are the balances between receipts and expenditures for goods and services, merchandise, and investment income.

Section F. International Comparisons

This section is designed to facilitate a quick review of basic economic conditions in six of the nations with which we have important trade relationships. The U.S. business cycle shading has been omitted from these charts. Data on industrial production, consumer prices, and stock prices for Canada, the United Kingdom, France, West Germany, Japan, and Italy are compared with the corresponding U.S. series. Also included is an industrial production index for the European countries in the Organization for Economic Cooperation and Development (OECD). The industrial production series provide cyclically sensitive output measures for large parts of the economies covered. Changes in consumer price indexes (plotted for the period since 1977) provide important measures of the rates of inflation in the major industrialized countries. Stock prices (also shown beginning in 1977) tend to be significant as leading indicators.

HOW TO READ CHARTS



HOW TO LOCATE A SERIES

- See ALPHABETICAL INDEX—SERIES FINDING GUIDE at the back of the report where series are arranged alphabetically according to subject matter and key words and phrases of the series titles, or—
- 2. See TITLES AND SOURCES OF SERIES at the back of the report where series are listed numerically according to series numbers within each of the report's sections.

Table 1. Summary of Recent Data and Current Changes for Principal Indicators

	Unit	Basic data: Percent change								per				
Series title and timing classification	of measure	Annual 1987	average 1988	2d Q 1988	3d Q 1988	4th Q 1988	Oct. 1988	Nov. 1988	Dec. 1988	Oct. to Nov. 1988	Nov. to Dec. 1988	2d Q to 3d Q 1988	3d Q to 4th Q 1988	Series number
I. CYCLICAL INDICATORS A1. Composite Indexes														
910. Eleven leading indicators	dodo	189.4 169.7 142.4 119.2	192.5 177.9 147.2 120.8	176.7 146.7	192.8 178.7 147.8 120.9	193.9 181.2 149.2 121.4	193.7 180.7 147.9 122.2	193.4 180.8 149.3 121.1	194.6 182.1 150.5 121.0	-0.2 0.1 0.9 -0.9	0.6 0.7 0.8 -0.1	0.3 1.1 0.7 0.4	0.6 1.4 0.9 0.4	910 920 930 940
Leading Indicator Subgroups: 914. Capital investment commitments	dodo	NA 106.3 121.7 145.8	NA 105.8 NA NA	NA 105.7 119.5	NA 105.5 NA 149.3	NA 105.2 NA NA	NA 105.1 NA 146.9	NA 104.9 NA 146.6	NA 105.6 NA NA	NA -0.2 NA -0.2	NA 0.7 NA NA	NA - 0 • 2 NA - 1 • 3	NA -0.3 NA NA	914 915 916 917
B. Cyclical Indicators by Economic Process B1. Employment and Unemployment														
Marginal Employment Adjustments: *1. Average weekly hours, mfg	Hoursdo	41.0 3.7 320	41.1 3.9 305	41.1 3.9 298	41.1 3.9 302	41.1 3.9 293	41.2 4.0 282	41.2 3.9 291	41.0 3.9 305	0. -0.1 -3.2	-0.5 0. -4.8	0. 0. -1.3	0. 0. 3.0	1 21 5
Job Vacancies: 60. Ratio, help-wanted advertising to unemployment ³ L.L.g.U 46. Help-wanted advertising in newspapers L.L.g.U	Ratio 1967 = 100	0.615 153	0.701 158	0.704 158	0.701 157	0.727	0.735 161	0.716 158	0.731 161	-0.019 -1.9	0.015 1.9	-0.003 -0.6	0.026	6 0 46
Comprehensive Employment: 48. Employee hours in nonagricultural establishments	Millionsdo Thousands	109.23 102.31 24,784	197.16 111.80 106.04 25,564	111.55 105.61 25,498	112.08 106.48 25,650	112.62 107.34	112.34 106.97	112.71 107.38 25,844	112.82 107.66 25,893	-0.5 0.3 0.4 0.4	0.6 0.1 0.3 0.2	0.8 0.5 0.8 0.6	0.8 0.5 0.8 0.7	48 42 41 40
Comprehensive Unemployment: 37. Number of persons unemployed (inverted*) L.Lg.U 43. Unemployment rate (inverted*)** L.Lg.U 45. Avg. weekly insured unemployment rate (inv.*)** L.Lg.U *91. Average duration of unemployment (inverted*) Lg.Lg.Lg 44. Unemployment rate, 15 weeks and over (inv.*)** Lg.Lg.Lg	Thousands Percentdo	7,425 6.2 2.4 14.5 1.7	6,701 5.5 2.1		6,678 5.5 2.1 13.5 1.3	6,545 5.3 1.9 12.9	6,518 5.3 1.9 13.4 1.3	6,563 5.4 1.9	6,554 5.3 2.0 12.8 1.2	-0.7 -0.1 0. 6.0	0.1 0.1 -0.1 -1.6	-0.2 0. 0. 0.	2.0 0.2 0.2 4.4 0.1	
B2. Production and Income														
Comprehensive Output and Income: 50. Gross national product in 1982 dollars	do	3163.5	3995.0 3263.5 2792.8	3246.5	3269.0	3304.9		1		-0.4 -0.4	0.7 0.8	0.6 0.7 0.8	0.5 1.1 1.3	50 52 51
53. Wages and salaries in 1982 dollars, mining, mfg., and construction	1	544.8	l .		İ	567.6	570.0		566.1	-0.6	-0.1	0.7	1.0	53
Industrial Production: *47. Industrial production	dodo	129.8 133.1 136.8 1663.3	141.9	141.0 142.3	143.3 145.0	145.0 146.8	139.3 144.4 146.6		140.2 145.5 147.1	0.4 0.4 0.1	0.3 0.3 0.3	1.8 1.6 1.9 0.4	1.0 1.2 1.2 0.1	47 73 74 49
Capacity Utilization: 82. Capacity utilization rate, mfg'		81.0 80.5		83.2 83.0	84.0 84.3	84.3 84.8	84.3 84.5	84.3 85.0	84.4 85.0	0. 0.5	0.1 0.	0.8 1.3	0.3 0.5	82 84
B3. Consumption, Trade, Orders, and Deliveries]	}				,	1							
Orders and Deliveries: 6. Mfrs.' new orders, durable goods	do	98.26	119.40	105.15	104.20	108.39	106.59	106.08	112.51	[]	6.4	0.2	5.1 4.0	6 7
and materials. L.L.L. 25. Change in mfrs.' unfilled orders, durable goods'. L.L.L. 96. Mfrs.' unfilled orders, durable goods'. L.Lg.U. *32. Vendor performance, slower deliveries' ① L.L.L.	do Bil. dol., EOP	84.56 2.50 400.72 61	3.79 446.16	4.62 423.16	3.07 432.38	90.12 4.59 446.16 57	4.35 436.73	3.04 439.78	6.38 446.16	0.7	3.9 3.34 1.5 0	-1.55	3.7. 1.52 3.2 -9	8 25 96 32
Consumption and Trade: 56. Manufacturing and trade sales. *57. Manufacturing and trade sales in 1982 dollars. C,C,C. 75. Industrial production, consumer goods. CL,C. 54. Sales of retail stores. C,L.U. 59. Sales of retail stores in 1982 dollars. U,L,U. 55. Personal consumption expenditures, automobiles. L,C,C. 58. Index of consumer sentiment ① L,L,L.	dod	435.39 127.8 125.88 113.51	NA 133.8 134.33 117.45 138.3	449.78 132.5 132.72 117.11 139.8	117.42 139.2	NA 136.8 137.46	456.32 136.7 136.56 118.23	119.32	138.02	-0.1 0.9	NA NA 0.5 0.2 0.	0.4 1.7 1.3 0.3 -0.4	NA 1.6 2.2 1.3 0.9	75 54 59 55
B4. Fixed Capital Investment														
Formation of Business Enterprises: 12. Net business formation L,L,L 13. New business incorporations L,L,L	. 1967 = 100 Number	121.2 57,087			123.6 57,684			123.2 53,675		-1.1 -5.1	0.6 NA		0.2 NA	
Business Investment Commitments: 10. Contracts and orders for plant and equipment	do	38.66	44.39	43.66	46.32	44.85	43.35	44.40	46.79	2.4	8,1 5,4	6.1	-1.6 -3.2	20
Mfrs.' new orders, nondefense capital goods	do	29.66	34.93	33.58	36.63	36.33	34.62	35.78	l		7.8 4.9	1		1

Table 1. Summary of Recent Data and Current Changes for Principal Indicators—Continued

					Basic	data ²					Percent	chanze		
Series title and timing classification	Unit of	Annual	average							Oct.	Nov.	2d Q	3d Q	Series number
	measure	1987	1988	2d Q 1988	3d Q 1988	4th Q 1988	Oct. 1988	Nov. 1988	Dec. 1988	to Nov. 1988	to Dec. 1988	to 3d Q 1988	to 4th Q 1988	Series
I. CYCLICAL INDICATORS—Con. B4. Fixed Capital Investment—Con.														
Business Investment Commitments—Con.: 9. Construction contracts awarded for commercial and industrial buildings, floor space		80.73				73.33	69.59	68.60		-1.4	19.2	8.5	-5.8	9
11. Newly approved capital appropriations, mfg	Bil. dol Bil. dol., EOP	29.79 78.06	NA NA	40.69 87.46	39.09 92.55	AM AM	***	•••	•••	:::	• • •	-3.9 5.8	NA NA	11 97
Business Investment Expenditures: 61. Expenditures for new plant and equipment	A.r., bil. dol	389.67 404.67	430.17		436.01 457.93	445.73 NA	460.87				***	2.1	2.2 NA	61 69
76. Industrial production, business equipment	1977 = 100	144.5	157.4	156.5	160.1	160.6 490.4	159.9	160.9	NA 161.1	-0.4 0.6	0.1	2.3	0.3	76 86
Residential Construction Commitments and Investment: 28. New private housing units started		1,620		1,481 116.4		1,538 122.2	1,533 120.9	1,558 120.9	1,524 124.9	1.6	-2.2 3.3	-0.9 -2.3	4.8	28 29
89. Residential fixed investment in 1982 dollars L,L,L B5. Inventories and Inventory Investment		195.2	192.1	189.6	191.6	197.4	•••	•••	•••		•••	1.1	3.0	89
Inventory Investment: 30. Change in business inventories in 1982 dollars ¹ L.L.L	40	34.4	42 5	25.2	20.5	20.2								20
36. Change in mfg. and trade inventories on hand and on order in 1982 dollars (smoothed)	1	34.4	42.5 NA	35.3 19.61	39.5	29.2 NA	22.59	21.41	NA	-1.18	NA	4.2 -3.94	-10.3 NA	30 36
Change in mfg. and trade inventories	į.		NA NA	54.7 2.52	77.4 2.63	NA NA	3.9 1.90	35.7 -0.46	NA NA	31.8	NA NA	22.7	NA NA	31 38
Inventories on Hand and on Order: 71. Mfg. and trade inventories*	Bil. dol., EOP	707.33		730.92		AN	750.59	753.56	NA.	0.4	NA	2.6	N A	71
70. Mfg. and trade inventories in 1982 dollars ³ Lg,Lg,Lg	do	674.91		689.75 109.02	696.11 111.62	NA NA	697.55 112.07		NA NA	0.3 0.5	NA NA	0.9 2.4	NA NA	7 0 6 5
1982 dollars³Lg,Lg,Lg 78. Mfrs.' inventories, materials and supplies on hand		[NA	1.53		NA	1.53		NA	0.	NA	0.	NA	77
and on ordersL,Lg,Lg B6. Prices, Costs, and Profits	BII. doi., EUP	255.11	NA.	268.04	275.93	NA	277.82	277.36	NA	-0.2	AN	2.9	NA	78
Sensitive Commodity Prices: 98. Change in producer prices, sensitive materials ¹	Percent	1.37	0.26	-0.22	0.49	-0.02	-0.51	0.15	0.29	0.66	0.14	0.71	-0.51	98
23. Spot market prices, raw industrial materials ① U.I.L *99. Change in sensitive materials prices (smoothed ⁶) ³ L.L	1967 = 100	274.5 0.98	303.3	302.8 0.35		310.6	305.0 -0.07		317.2	1.5	2.4	1.8 0.12		23
Stock Prices: *19. Stock prices, 500 common stocks ① L.L,L	1941-43=10	286.83	265.79	263.14	266,92	274.98	277.40	271.02	276.51	-2.3	2.0	1.4	3.0	19
Profits and Profit Margins: 16. Corporate profits after taxL.L.L 18. Corporate profits after tax in 1982 dollarsL.L.L L.L.LL.L.L		142.9 127.1	160.9 NA	162.7 143.1		NA NA	:::				•••	3.9 3.4	NA NA	16 18
79. Corporate profits after tax with IVA and CCAdj	do	176.6	NA NA		185.2	NA NA		:::				1.1	NA NA	7 9 8 0
15. Profits after taxes per dollar of sales, mfg. ³		4.8 99.3	NA.	5.8	5.9	NA NA			:::		•••	0.1	NA NA	15 26
Cash Flows: 34. Corporate net cash flow		396.6 396.7	417.7 NA	420.8 418.7	425.7 423.7	NA NA	:::	:::	•••		•••	1.2 1.2	NA NA	34 35
Unit Labor Costs and Labor Share: 63. Unit labor cost, business sectorLg,Lg,Lg 68. Labor cost per unit of real gross domestic product,	1977 = 100	171.5	NA	177.1	179.1	NA						1.1	NA	63
nonfinancial corporations	Dollars	0.732	0.753		0.758	NA			•••		•••	1.5	N A	68
a) Actual data	ì	136.7 99.6	137.0 99.8	136.8 99.7		137.8	138.5 100.9	137.6 100.3	137.3	-0.6 -0.6	-0.2 -0.2	-0.2 -0.2	1.0 0.9	6 2 6 2
national income ³ Lg,Lg,Lg B7. Money and Credit	do	73.0	NA	73.2	73.3	NA	•••	•••	•••	•••	•••	0.1	NA	64
Money: 85. Change in money supply M1 ³ L,L,	do	0.29	0.40	0.59	0.26	0.23	0.14	0.03	0.52	-0.11	0.49	-0.33	-0.03	85
102. Change in money supply M2 ³ L,C,U	dodo	0.27 0.38	0.47 NA	0.55 0.69	0.20 0.52	0.36 NA	0.11 0.43	0.57 0.76	0.41 NA	0.46	-0.16 NA	-0.35 -0.17	0.16 NA	102 104
105. Money supply M1 in 1982 dollars		631.8 2430.3	632.4	633.5 2463.6	634.7 2458.5	630.0 2450.5	630.8 2445.7	629.0 2451.8	630.2	-0.3	0.2 0.1	0.2 -0.2	-0.7 -0.3	105 106
Velocity of Money: 107. Ratio, GNP to money supply M1 ²		6.084 1.321	6.272 1.351	6.246 1.339		6.357 1.371	1.376	1.365	1.372	-0.011	0.007	0.028 0.012	0.083 0.020	107 108
33. Net change in mortgage debt³		NA 9 72		NA 48 00		NA 50 72	NA 26 17	NA	NA	NA	NA 94 40	NA 46 34	NA	33
113. Net change in business loans'	do A.r., percent	8.73 41.19 5.9 541.13	NA NA	59.54 9.5	35.79	52.73 NA NA NA	26.17 46.87 7.9	23.77 53.75 6.4	108.26 NA NA	-2.40 6.88 -1.5	84.49 NA NA	-46.34 -23.75 -2.4 -7.5	50.17 NA NA NA	112 113 111 110
Credit Difficulties: 39. Delinquency rate. installment loans (inverted*) ^{3,5} L,L,L	Percent, EOP	2.47	NA	2.34	2.42	NA	NA	NA	NA	NA	NA	-0.08	NA	39

Table 1. Summary of Recent Data and Current Changes for Principal Indicators—Continued

		1			Basic	data ²					Percent	change		
Series title and timing classification ¹	Unit of measure	Annual	average	2d Q 1988	3d Q 1988	4th Q 1988	Oct. 1988	Nov. 1988	Dec. 1988	Oct. to	Nov.	2d Q to	3d Q to	Series number
		1987	1988	1900	1988	1300	1908	1980	1500	Nov. 1988	Dec. 1988	3d Q 1988	4th Q 1988	Ser
I. CYCLICAL INDICATORS—Con. B7. Money and Credit—Con.								, ,						
Bank Reserves: 93. Free reserves (inverted') ³ ①	Mil. doldo	241 756	-1,332 2,357	-1,956 2,885	-2,196 3,173				-676 1,716		-1,066 -1,145	240 288	-978 -881	93 94
Interest Rates: 119. Federal funds rate ³ ①	dododododododododododododododo	6.66 5.83 9.69 8.63 7.64 10.16 8.09 8.20	6.67 9.96 8.98 7.68 10.49 9.18		7.98 6.99 10.14 9.20 7.74 10.66 9.75 9.71	8.47 7.70 9.96 9.03 7.51 10.56 10.11	8.30 7.34 9.86 8.89 7.47 10.23	7.68 9.98 9.07 7.46 10.63	8.09 10.05 9.13 7.61 10.81	0.05 0.34 0.12 0.18 -0.01 0.40	0.41 0.07 0.06 0.15 0.18	0.82 0.76 0.06 0.14 -0.09 0.01 1.26 0.93	-0.17	114 116 115 117
Outstanding Debt: 66. Consumer installment credit outstanding' Lg,Lg,Lg 72. Commercial and industrial loans outstanding Lg,Lg,Lg		613.02	NA 389.34		653.32		657.23			0.7 0.5	NA 2.3	1.4	NA 1.4	66 72
*101. Commercial and industrial loans outstanding in 1982 dollarsLg,Lg,Lg		1			1	i	l .	1	[0.4		-0.7	0.9	101
*95. Ratio, consumer installment credit to personal income ³	Percent	15.64	NA	15.86	15.92	NA	15.73	15.87	NA	0.14	NA	0.06	NA	95
II. OTHER IMPORTANT ECONOMIC MEASURES B. Prices, Wages, and Productivity B1. Price Movements														
310. Implicit price deflator for gross national product	1982-84 = 100. 1982 = 100	117.7 113.6 0.4 113.5 102.8 102.6 93.7 101.5 111.7 103.6		117.5 0.3 117.1 106.5 106.0 96.4 106.4 113.7	108.0 106.9 97.1 108.3 114.9	123.8 120.3 0.3 120.9 108.5 107.5 96.2 109.2 115.7 107.9	120.2 0.4 120.7 108.2 107.1 97.1 108.7 115.4	0.3 120.8 108.3 107.4 94.1 109.2 115.7	120.5 0.3 121.2 109.0 108.1 97.4 109.7 116.1 108.2	0.1 -0.1 0.1 0.3 -3.1 0.5 0.3	0.3 0.6 0.7 3.5 0.5	1.2 1.4 0.1 2.2 1.4 0.8 0.7 1.8	1.1 1.0 -0.1 1.0 0.5 0.6 -0.9 0.8 0.7	320 322 330 335 331 332
B2. Wages and Productivity							1							
340. Average hourly earnings of production or nonsupervisory workers on private nonagricultural payrolls	do	173.5 94.0 188.5 100.6 111.0 109.0	179.0 93.3 NA NA NA NA	93.5 195.9 100.9	93.0 198.4 101.1	181.5 92.9 NA NA NA		181.4 92.9	92.7	-0.1	0.2	0.7 -0.5 1.3 0.2 0.4 0.5	1.0 -0.1 NA NA NA	340 341 345 346 370 358
C. Labor Force, Employment, and Unemployment														
441. Civilian labor force 442. Civilian employment	Thousands do do do	7.425	114.97 6,701 2,987 2,487	114.69 6,664 2,965 2,483	115.20 6,678 2,938 2,496	115.84 6,545 2,953 2,427	115.57 6.518	115.95 6,563 2,996 2,445 1,122	116.01 6,554 2,953 2,422 1,179	0.3 0.3 0.7 2.9 1.3 -6.0	-0.1 -1.4 -0.9	0.4 0.4 0.2 -0.9 0.5 2.3 0.5		444
Civilian Labor Force Participation Rates: 451. Males 20 years and over ³	do	78.0 56.2 54.7	77.9 56.8 55.3	78.0 56.6 55.1	77.9 56.8 56.0	77.8 57.2 55.2		57.4		0. 0.4 -0.1	0. -0.1 0.1	~0.1 0.2 0.9	-0.1 0.4 -0.8	451 452 453
D. Government Activities D1. Receipts and Expenditures								} i						
500. Federal Government surplus or deficit ¹	dodododododododododododo	916.5 1074.2 52.9 655.7	1116.1 53.9 701.3	983.0 1116.3 56.2 698.4	975.5 1099.0 56.0 708.0	NA NA 1143.0 NA NA 665.6	•••			• • •	•••	9.8 -0.8 -1.5 -0.2 1.4	NA NA 4.0 NA NA 2.1	501 502 510
D2. Defense Indicators	İ						1							
517. Defense Department gross obligations incurred	do do 1977 = 100 Thousands		NA	1,586	12,981 7,501 184.8 1,576	NA 9,749 183.5 NA 298.4	184.0	8,392 183.3		NA -21.5 -0.4 -0.1	NA NA 21.1 -0.1 NA	-15.0 -13.7 -29.5 -0.6 -0.6	NA NA 30.0 0.7 NA 1.4	525 548 557 570
E. U.S. International Transactions E1. Merchandise Trade							İ							
602. Exports, excluding military aid shipments 604. Exports of domestic agricultural products	dododododo	2,400 4,428 33,853	NA NA NA	36,168 3,363	3,397 5,704	NA NA NA	36,600 2,718	2,808 5,709 38,134	NA NA NA	-9.2 0.2	NA NA NA	6.4 6.9 1.2 -6.7	NA NA NA NA NA	604 606 612 614

Table 1. Summary of Recent Data and Current Changes for Principal Indicators—Continued

		<u> </u>	Basic data [*]						P	ercent chang		<u></u>		
Series title	Unit of measure	ŀ	\nnual averag	e		44.0	1.10				1st Q	2d Q	3d Q	Series number
	measure	1986	1987	1988	3d Q 1987	4th Q 1987	1st Q 1988	2d Q 1988	3d Q 1988	4th Q 1988	to 2d Q 1988	to 3d Q 1988	to 4th Q 1988	Series
II. OTHER IMPORTANT ECONOMIC MEASURES—Con. E2. Goods and Services Movements Except Transfers Under Military Grants													Ì	
667. Balance on goods and services: 668. Exports of goods and services 669. Imports of goods and services	do	93.76	-35.13 106.21 141.34	N A		119.25	121.12	123.00	-27.78 129.79 157.57		1.6	3.21 5.5 2.3	NA NA NA	668
622. Balance on merchandise trade ³	do	-36.14 55.99	-40.07 62.39		-39.66 64.90	-41.19 68.01	-35.18 75.30	-30.15 79.61	-28.53 82.31	NA NA	5.03		NA NA	622
620. Merchandise imports, adjusted	do		102.46 25.94	NA NA				109.76	110.84 26.83	NA NA	-0.7	1.0	NA NA	
652. Income on foreign investment in the United States	do	16.74	20.84	NA	22.22	20.71	25.40	25.37	27.17	NA	-0.1	7.1	NA	
A. National Income and Product A1. GNP and Personal Income]								19	
200. Gross national product	A.r., bil. dol	4240.3	4526.7	4861.8	4568.0	4662.8	4724.5	4823.8	4909.0	4989.9	2.1 0.7	1.8	1.6 0.5	200 50
50. Gross national product in 1982 dollars	A.r., dollars	15,401	15,770	16,231	15,826	16,022	16,126	16,213	16,283	16,301	0.5	0.4	0.1	217
224. Disposable personal income		3019.6	3209.7	3472.9	3224.9	3315.8	3375 6	3421 5	3507.5	3587 1	1.5 1.4	0.5 2.5	0.8 2.3	213 224
225. Disposable personal income in 1982 dollars	do A.r., dollars	2640.9 10,929	2686.3 11,012	2789.4	2683.9 10,989	2728.9 11,145	2762.3	2762.2 11.237	2800.4 11.362	2832.8	0. -0.2	1.4 1.1	1.2	225 227
A2. Personal Consumption Expenditures				,	,									
230. Total	A.r., bil. dol	2807.5	3012.1	3226.0	3058.2	3076.3	3128.1	3194.6	3261.2 2603.8	3320.1	2.1 0.8	2.1 1.0	1.8	230 231
231. Total in 1982 dollars	do	406.5	421.9	449.9	441.4	422.0	437.8	449.8	452.9	459.3	2.7	0.7	1.4	232
233. Durable goods in 1982 dollars		385.0 943.6			406.5				410.4 1060.8		2.4	0. 2.3	0.5 1.4	233 236
238 Nondurable goods in 1982 dollars	do	879.5	890.5	899.9	891.9	890.5	892 7	893 6	9045	908 7	0.1	1.2	0.5	
237. Services	do	1457.3	1592.3	1728.9	1610.2 1246.8	1641.9 1253.6	1674.1	1708.2	1747.5	1785.6	2.0	2.3 1.1	2.2 0.9	
A3. Gross Private Domestic Investment														
240. Total	do	665.9 643.5	712.9			764.9			772.5		-0.7	1.9	-0.6	
242. Fixed investment	do	650.4	674.8			724.7 692.9			726.1		-1.9 2.3	1.5	-1.2 1.6	
243. Fixed investment in 1982 dollars	do	628.1 15.5	640.4 39.2	679.3 48.1		657.6	662.9	679.7	686.6	687.9	2.5	1.0	0.2	243
30. Change in business inventories in 1982 dollars ¹	do	15.4	34.4	42.5		72.0 67.1			49.7 39.5	33.7	-21.6 -30.7	6.0 4.2	-16.0 -10.3	
A4. Government Purchases of Goods and Services			!											
260. Total			924.7	963.6	932.2	947.3	945.2	961.6	955.3	992.2	1.7	-0.7	3.9	260
261. Total in 1982 dollars			780.2 382.0			792.6				790.9	1.0	-1.3	2.2	
263. Federal Government in 1982 dollars	do	333.4				391.4 347.7				393.2 332.9	1.2	-3.8 -3.5	6.9 4.0	
266. State and local government		505.0 427.1				555.9 444.9			587.6 453.4	599.0 458.0	2.1 0.8	1.4	1.9	
A5. Foreign Trade		12,	74112	455.1	1 440.0	444.7	440.7	432.2	4/3.4	450.0	0.0	0.3	1.0	207
250. Net exports of goods and services	do	-104.4	-123.0	-93.2	-125.2	-125.7	-112.1	-90.4	-80.0	-90.3	21.7	10.4	-10.3	250
255. Net exports of goods and services in 1982 dollars ³	do	-137.5 378.4	-128.9 428.0	-99.1 518.7	-130.7 440.4	459.7	487.8	507.1	536.1	543.8	4.0	5.7	1.4	252
256. Exports of goods and services in 1982 dollars	do	378.4	427.8	503.7	440.9	459.2			514.0		2.2	3.4 3.1	0.7 2.9	
253. Imports of goods and services	do	482.8 515.9	551.1 556.7			585.4 585.2				618.3	-0.9	3.1	1.7	257
A6. National Income and Its Components			:											
220. National income	do	3437.1	3678.7	3964.3	3708.0	3802.0	3850.8	3928.8	4000.7	NA 2996.3	2.0	1.8	NA 2.2	
282. Proprietors' income with IVA and CCAdj	do	286.7	312.9	324.7	306.8	326.0	323.9	328.8	321.6	324.6	1.5	-2.2	0.9	282
284. Rental income of persons with CCAdj	dodo	12.4 298.9				20.5 316.1							-3.0 NA	
288. Net interest		331.9	353.6			369.5					1.8		4.8	288
A7. Saving 290. Gross saving	do	527 ^	560.4	6/2 0	554 0	602 4	627.0	634.1	665.4	NA.	1.1	4.9	NA.	290
295. Business saving	do	537.2 560.0	561.0		569.6	603.4 570.0	576.4	583.3	587.2	N A	1.2	0.7	NA	295
292. Personal saving	do	121.7	104.2			144.0 -110.7						14.0 9.6	13.0 NA	
293. Personal saving rate ¹	Percent	4.0	3.2	-87.9 4.2		4.3						0.5	0.4	
	<u> </u>	<u> </u>	L	l		L	<u> </u>	<u> </u>	<u> </u>	L	L	L	L	<u>L</u>

NOTE: Series are seasonally adjusted except for those, indicated by (1), that appear to contain no seasonal movement. Series indicated by an asterisk (*) are included in the major composite indexes. Dollar values are in current dollars unless otherwise specified for complete series titles and sources, see "Titles and Sources of Series" at the back of this issue. NA, not available, a, anticipated, EOP, end of period. Arr., annual rate. S/A, seasonally adjusted (used for special emphasis). IVA, inventory valuation adjustment. CCAdj. capital consumption adjustment.

The three-part timing code indicates the timing classification of the consumption adjustment.

The three-part timing code indicates the timing classification of the series at peaks, at troughs, and at all turns: £, leading: C, roughly coincident: Lg, lagging: U, unclassified.

[`]For a few series, data shown here are rounded to fewer digits than those shown elsewhere in **BCD**. Annual figures published by the source agencies are used if available.

Differences rather than percent changes are shown for this series.

Inverted Series. Since this series tends to move counter to movements in general business activity, signs of the changes are reversed.

the changes are reversed. **End-of-period series. The annual figures (and quarterly figures for monthly series) are the last figures for the period.

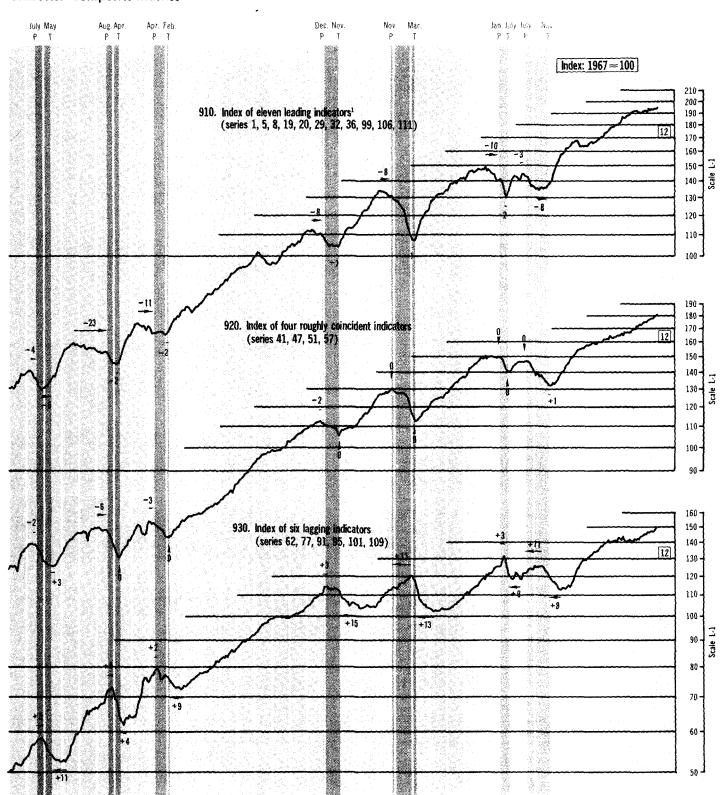
period.

This series is a weighted 4-term moving average (with weights 1, 2, 2, 1) placed on the terminal month of the span.



COMPOSITE INDEXES AND THEIR COMPONENTS

Chart A1. Composite Indexes



1952 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 881989

MQTE: Numbers entered on the chart indicate length of leads (-) and lags (+) in months from reference turning dates.

1 Values of this index prior to January 1984 include a twelfth component, series 12, which has been suspended from the current index. Current data for these series are shown on page 60.

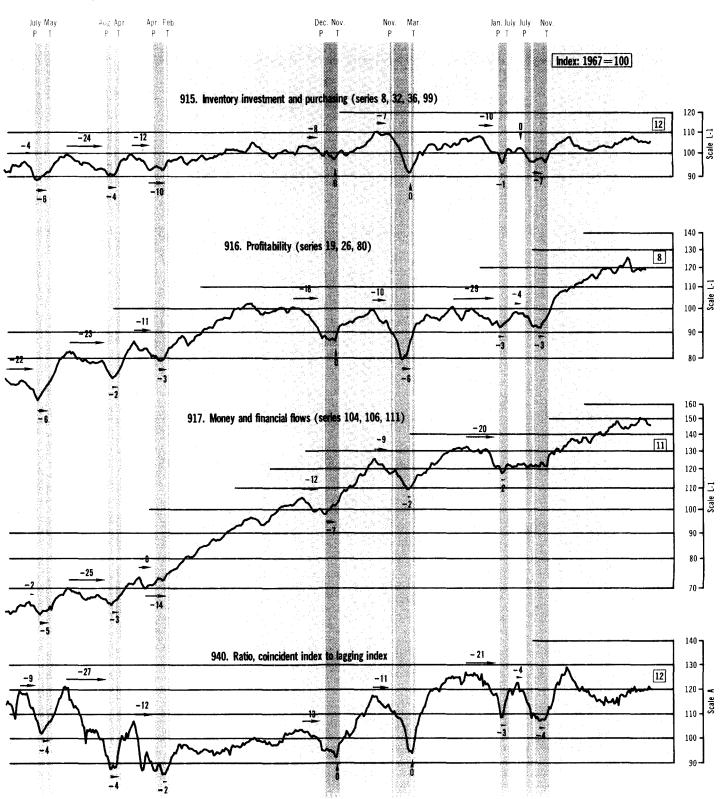
JANUARY 1989 BCD

I A

CYCLICAL INDICATORS

COMPOSITE INDEXES AND THEIR COMPONENTS—Continued

Chart A1. Composite Indexes—Continued



1952 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 881989

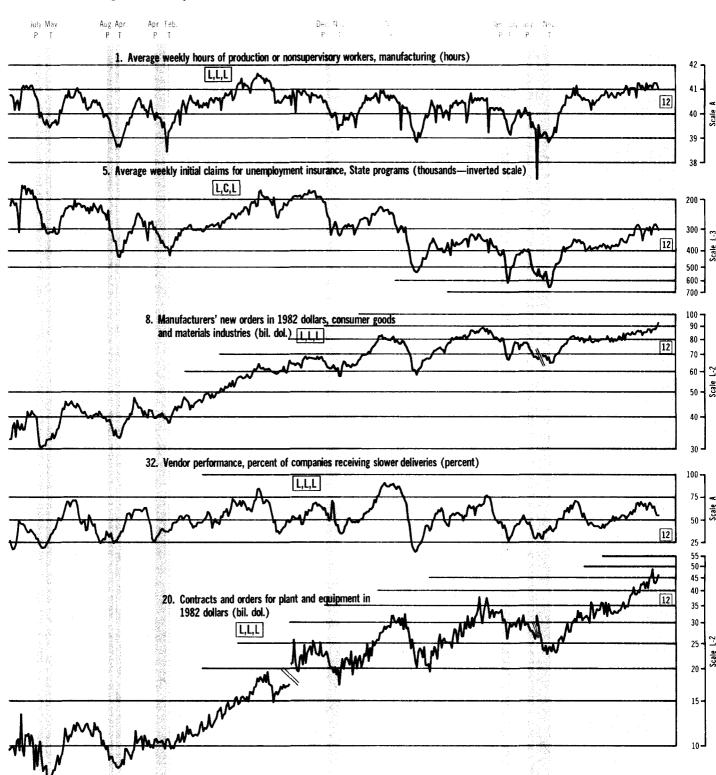
NOTE: Numbers entered on the chart indicate length of leads (-) and lags (+) in months from reference turning dates. Current data for these series are shown on page 60.



CYCLICAL INDICATORS A COMPOSITE INDEXES AND

COMPOSITE INDEXES AND THEIR COMPONENTS—Continued

Chart A2. Leading Index Components

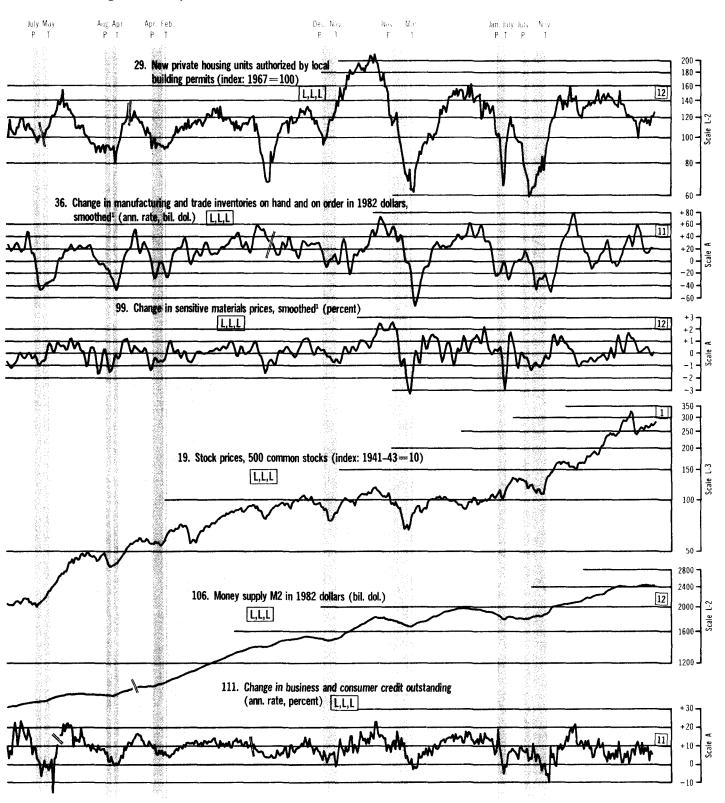


1952 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 72 72 73 78 79 80 81 82 83 84 85 86 87 881989 Current data for these series are shown on pages 61, 64, and 66.



COMPOSITE INDEXES AND THEIR COMPONENTS—Continued

Chart A2. Leading Index Components—Continued



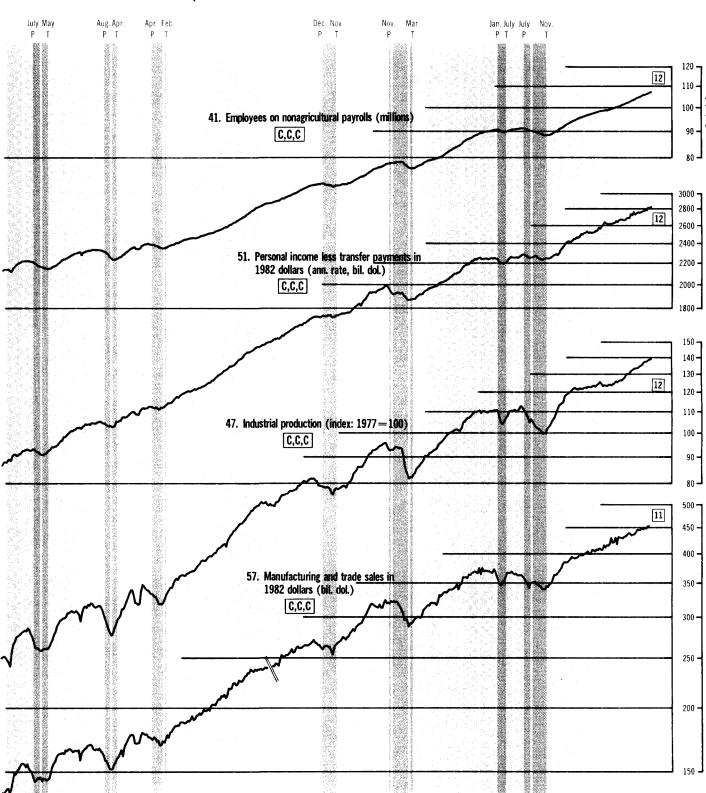
1952 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 881989

¹ This is a weighted 4-term moving average (with weights 1,2,2,1) placed on the terminal month of the span. Current data for these series are shown on pages 67, 68, 69, 71, and 72.



COMPOSITE INDEXES AND THEIR COMPONENTS—Continued

Chart A3. Coincident Index Components



1952 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 881989

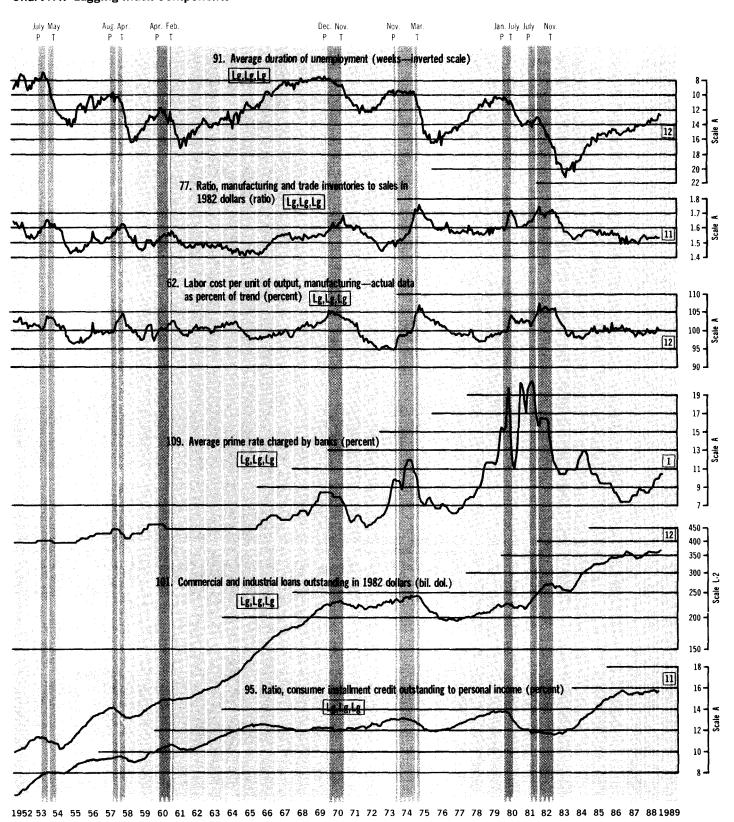
Current data for these series are shown on pages 62, 63, and 65.

I A

CYCLICAL INDICATORS

COMPOSITE INDEXES AND THEIR COMPONENTS—Continued

Chart A4. Lagging Index Components

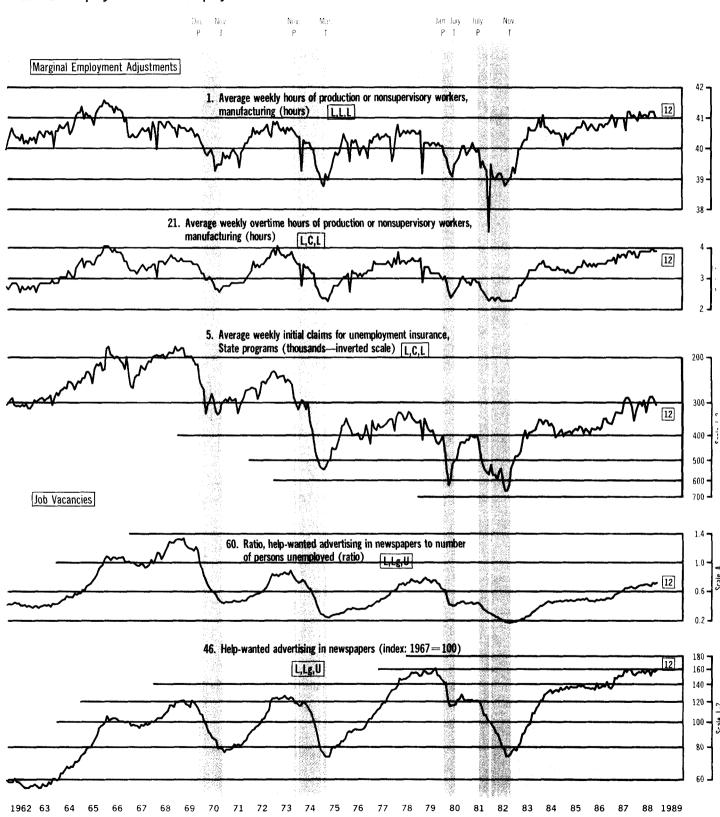


Current data for these series are shown on pages 62, 68, 70, and 73.





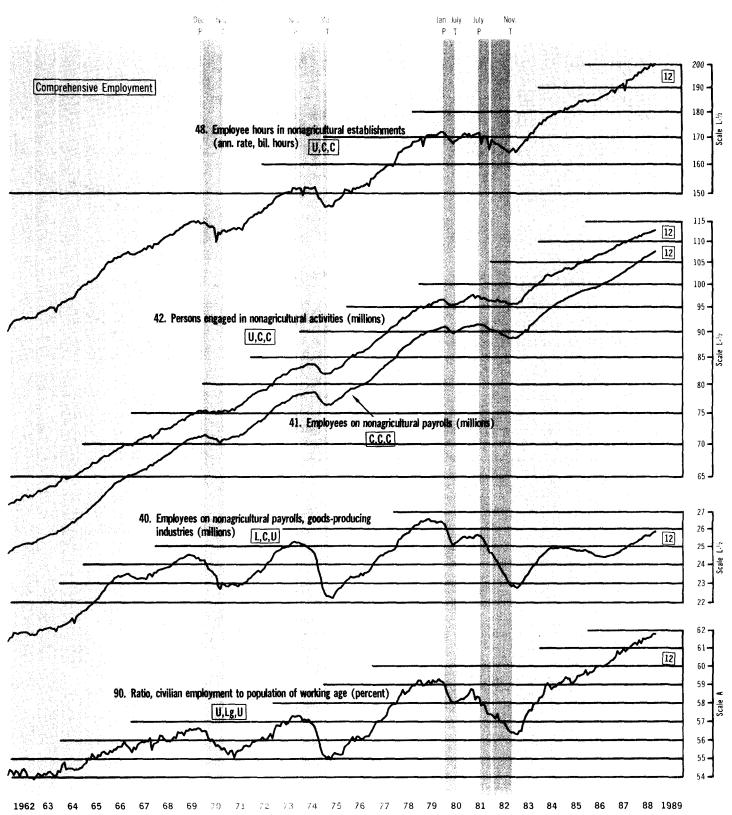
Chart B1. Employment and Unemployment



Current data for these series are shown on page 61.



Chart B1. Employment and Unemployment—Continued

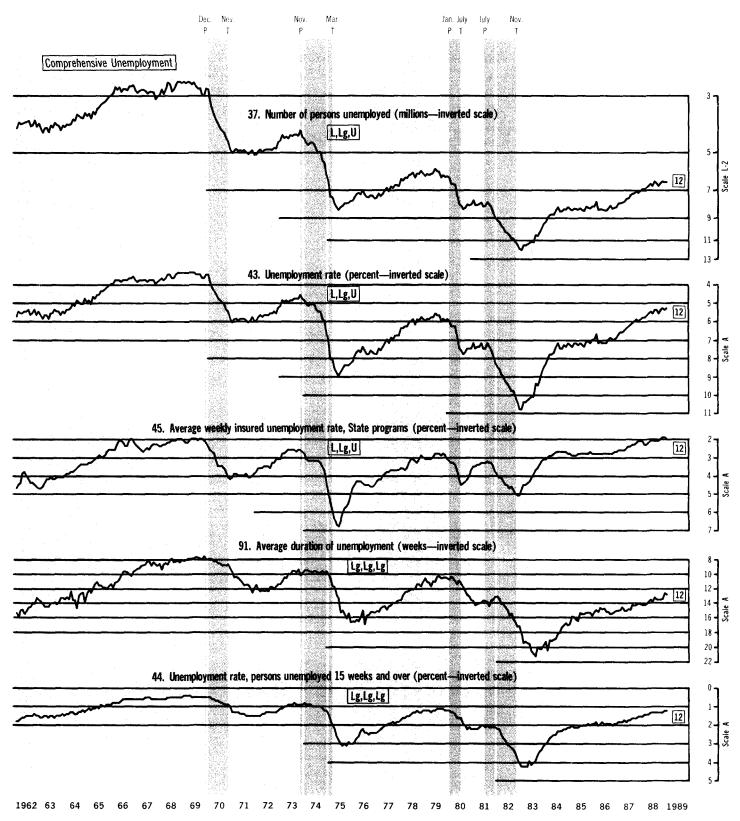


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Current data for these series are shown on pages 61 and 62.



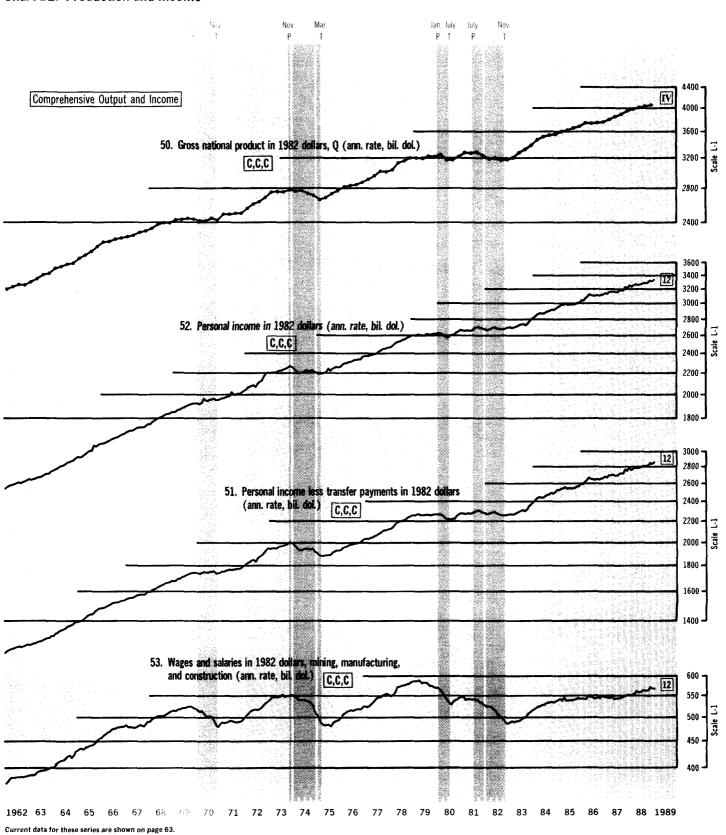
Chart B1. Employment and Unemployment—Continued



Current data for these series are shown on page 62.

CYCLICAL INDICATORS CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

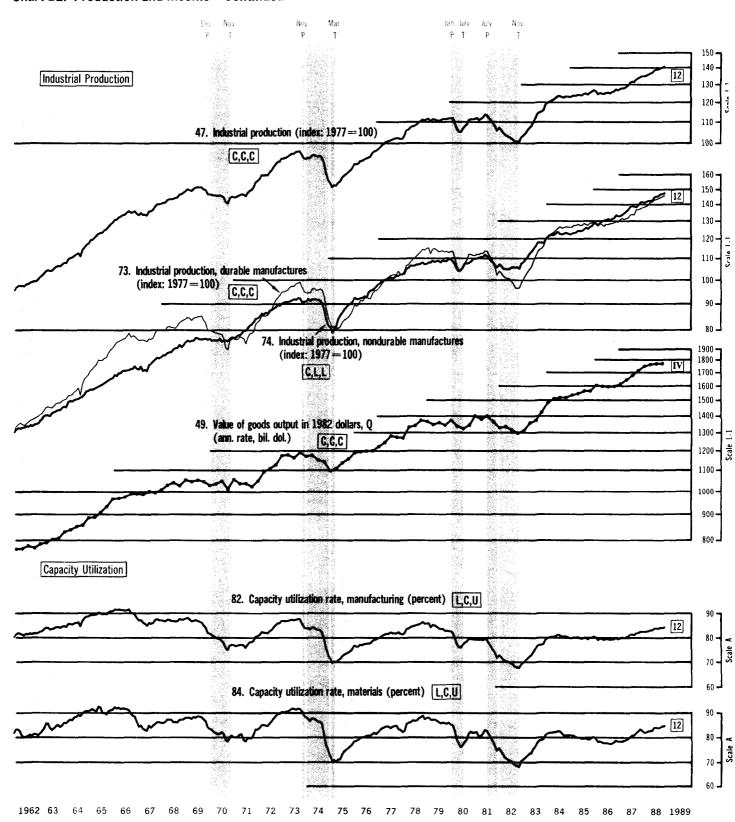
Chart B2. Production and Income



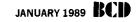


CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

Chart B2. Production and Income—Continued



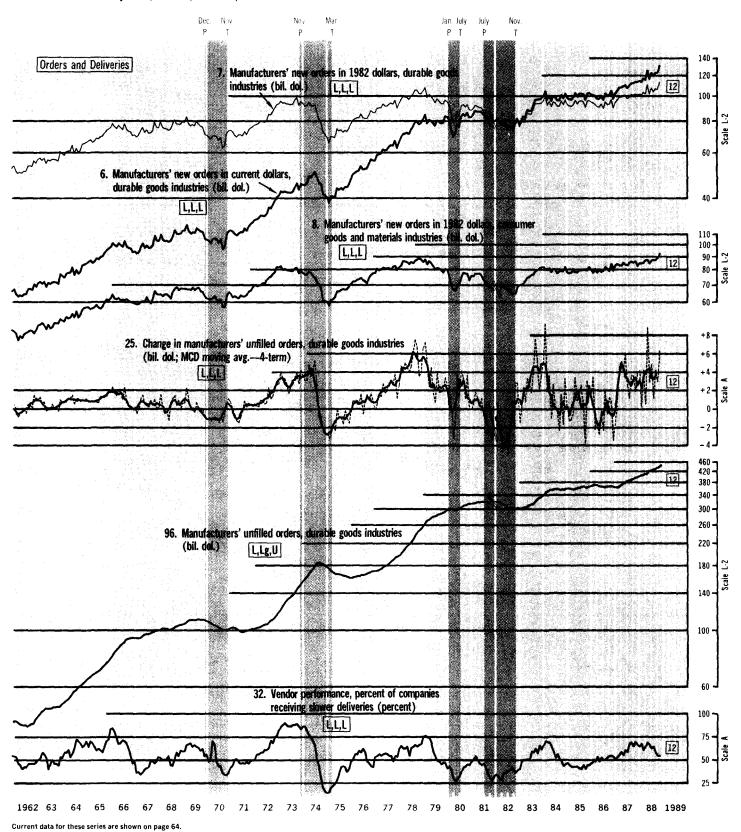
Current data for these series are shown on pages 63 and 64.





CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

Chart B3. Consumption, Trade, Orders, and Deliveries

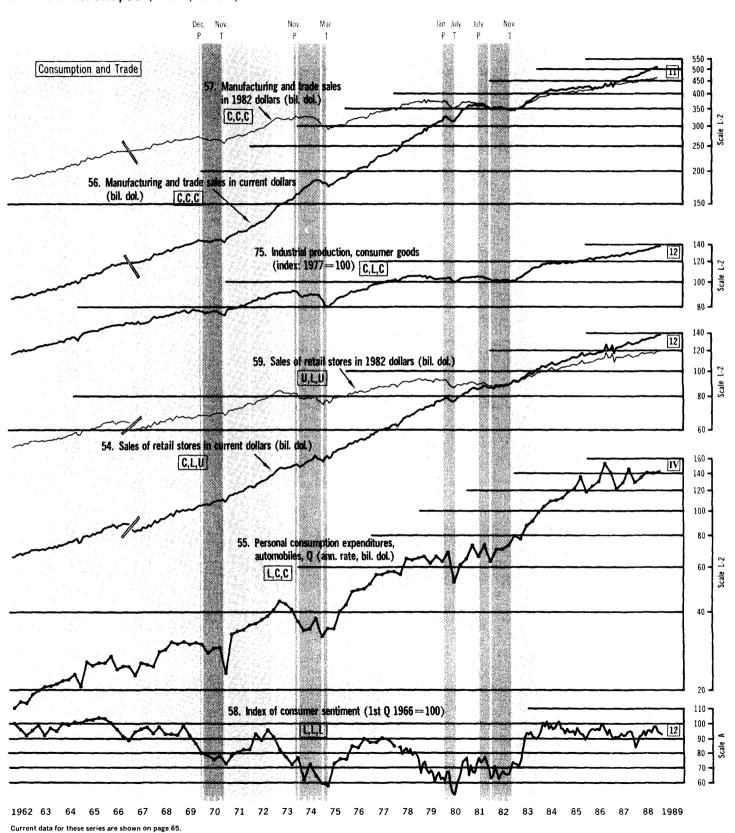


BCD JANUARY 1989



CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

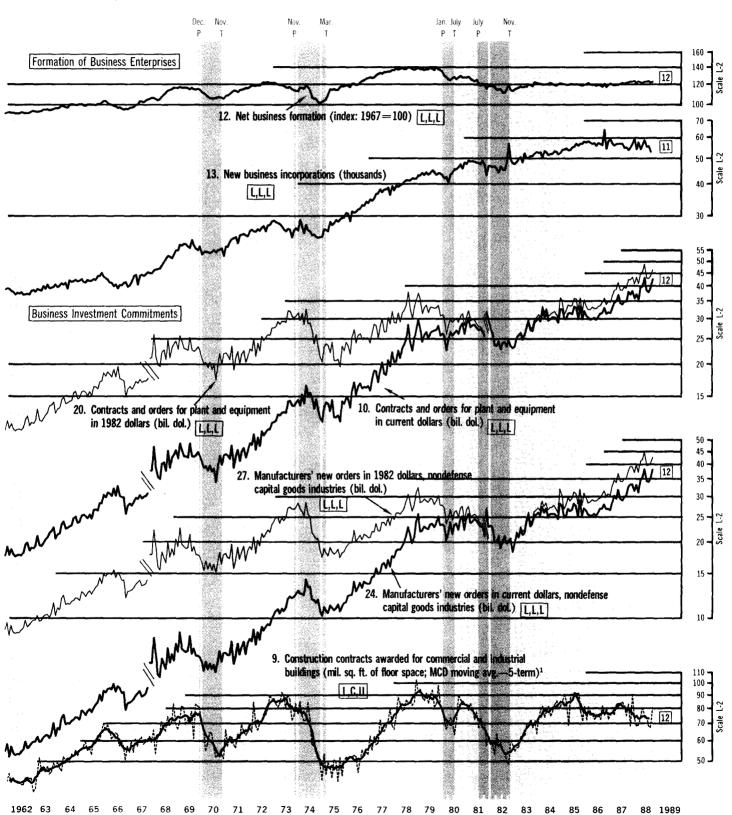
Chart B3. Consumption, Trade, Orders, and Deliveries-Continued





CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

Chart B4. Fixed Capital Investment

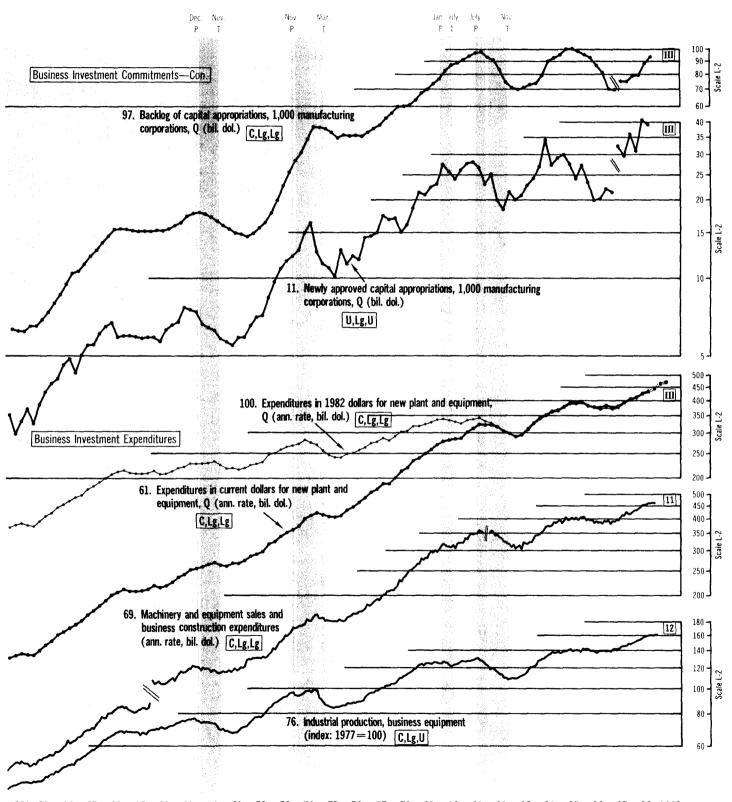


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CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

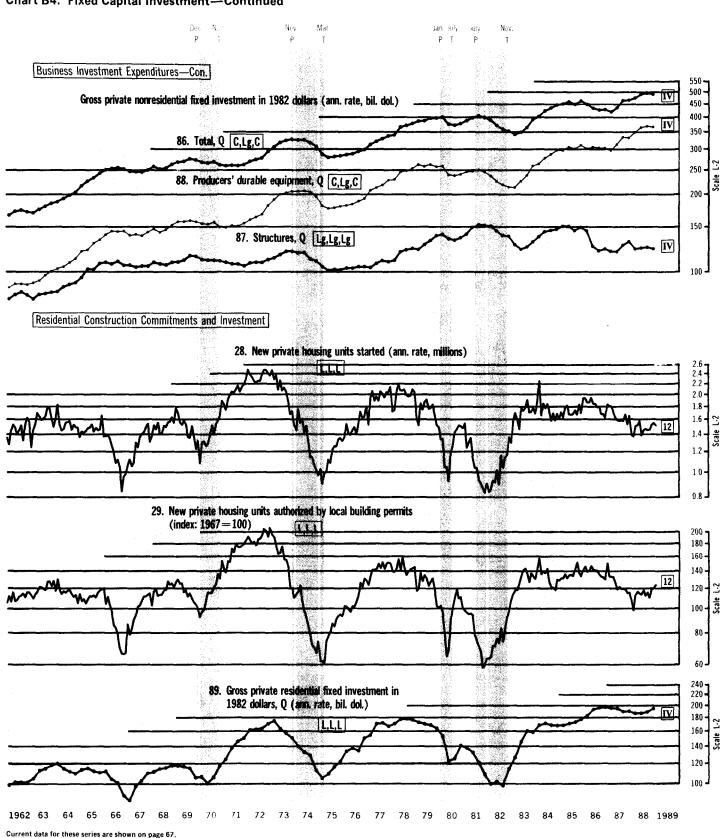
Chart B4. Fixed Capital Investment—Continued



1962 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 1989 Current data for these series are shown on pages 66 and 67.

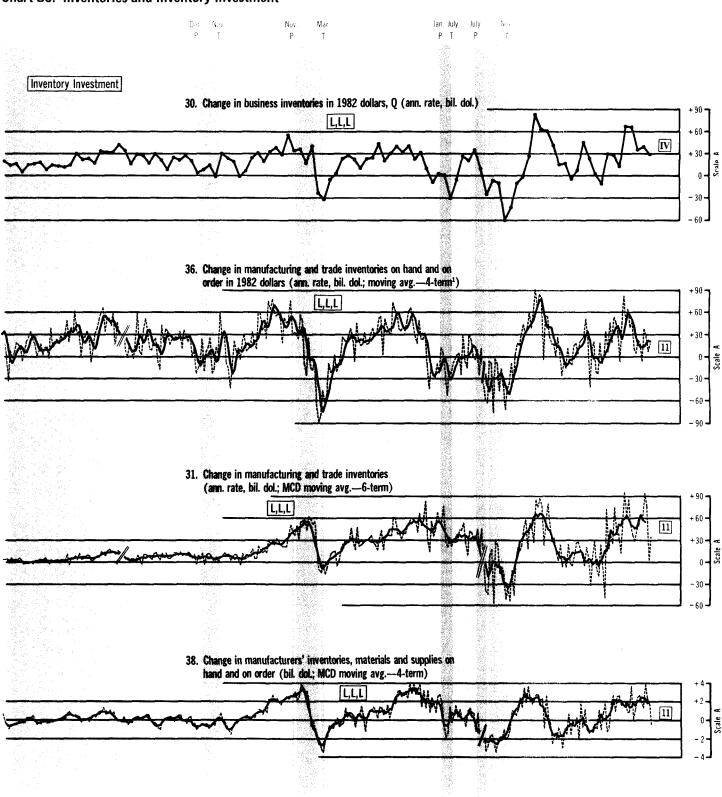
CYCLICAL INDICATORS CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

Chart B4. Fixed Capital Investment—Continued



CYCLICAL INDICATORS CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

Chart B5. Inventories and Inventory Investment



 $^{^1}$ This is a weighted 4-term moving average (with weights 1,2,2,1) placed on the terminal month of the span. Current data for these series are shown on page 68.

67 68

69 70

73

75

80 81

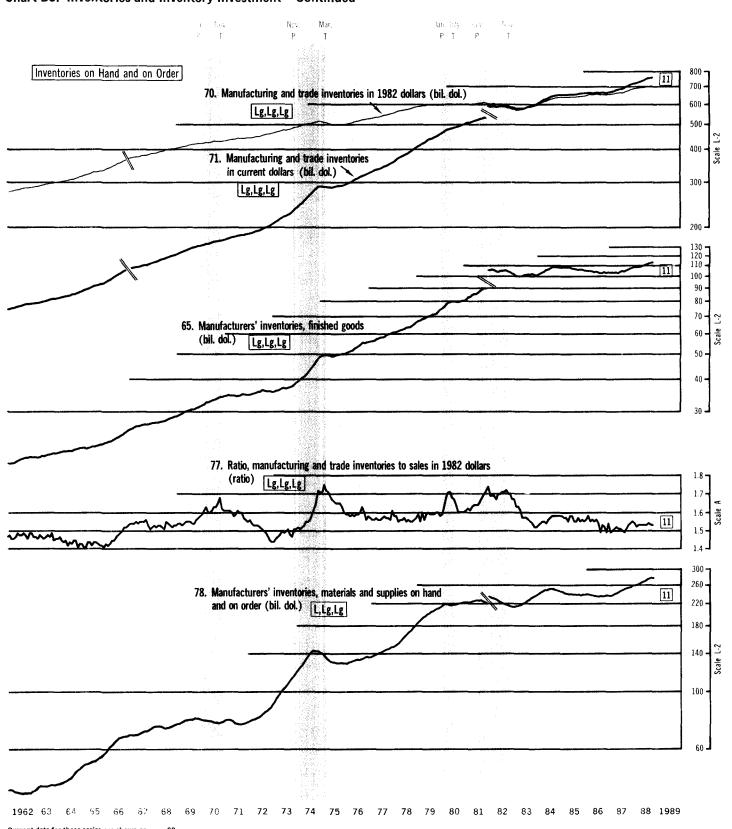


88 1989

1962 63 64

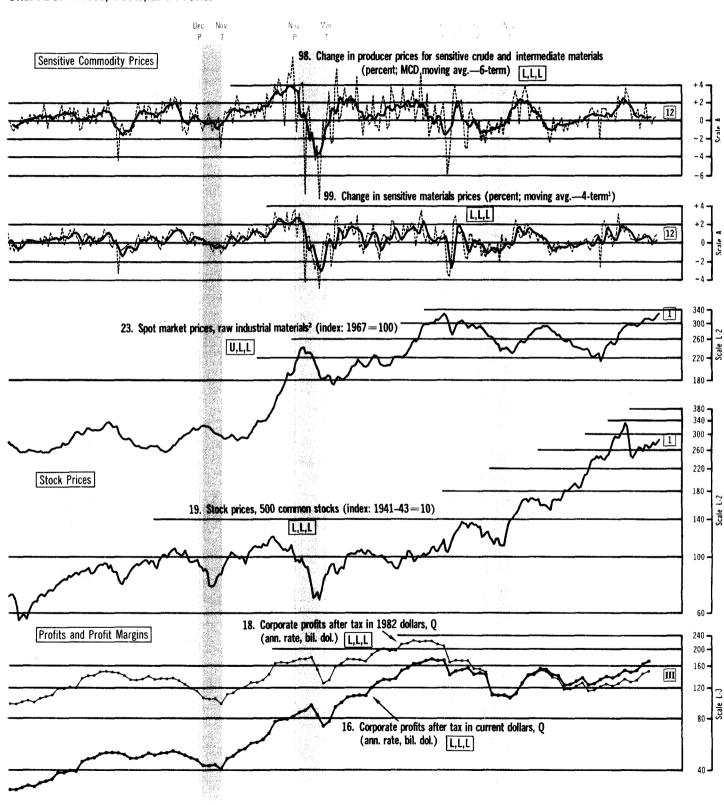


Chart B5. Inventories and Inventory Investment—Continued



CYCLICAL INDICATORS CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

Chart B6. Prices, Costs, and Profits



⁶⁹

70

71 72

68

66

75

73 74

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88 1989

83

1962 63

¹This is a weighted 4-term moving average (with weights 1,2,2,1) placed on the terminal month of the span.

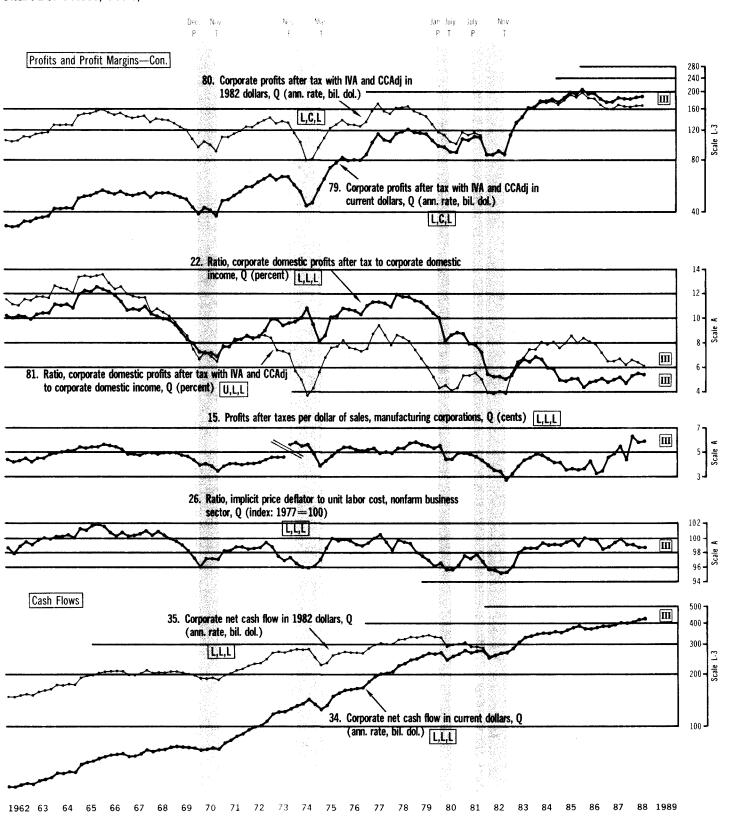
²Beginning with data for June 1981, this is a copyrighted series used by permission; it may not be reproduced without written permission from Commodity Research Bureau, Inc.

Current data for these series are shown on page 69.



CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

Chart B6. Prices, Costs, and Profits—Continued

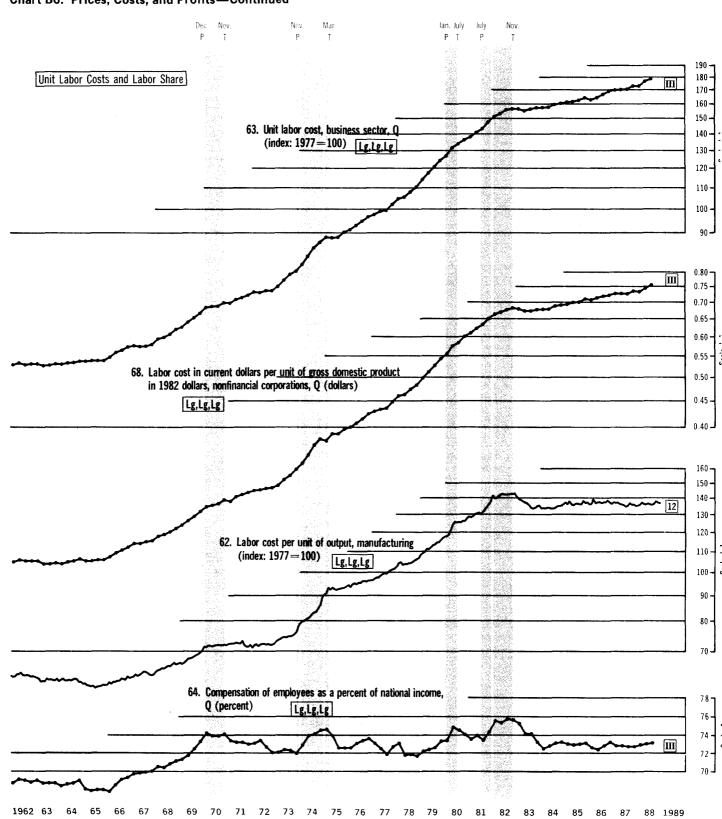


Current data for these series are shown on pages 69 and 70.

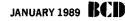


CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

Chart B6. Prices, Costs, and Profits—Continued



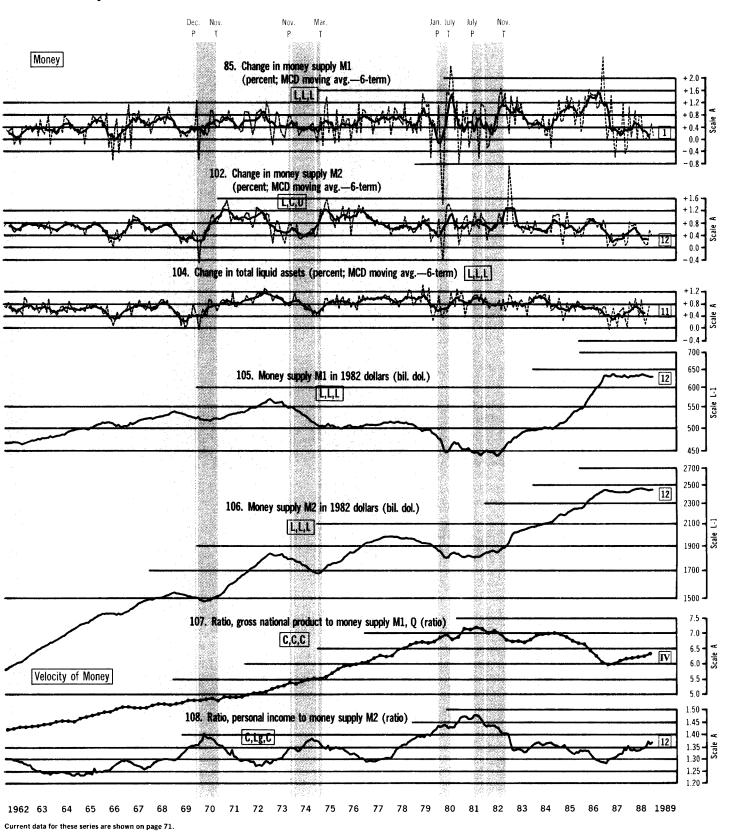
Current data for these series are shown on page 70.



CYCLICAL INDICATORS

CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

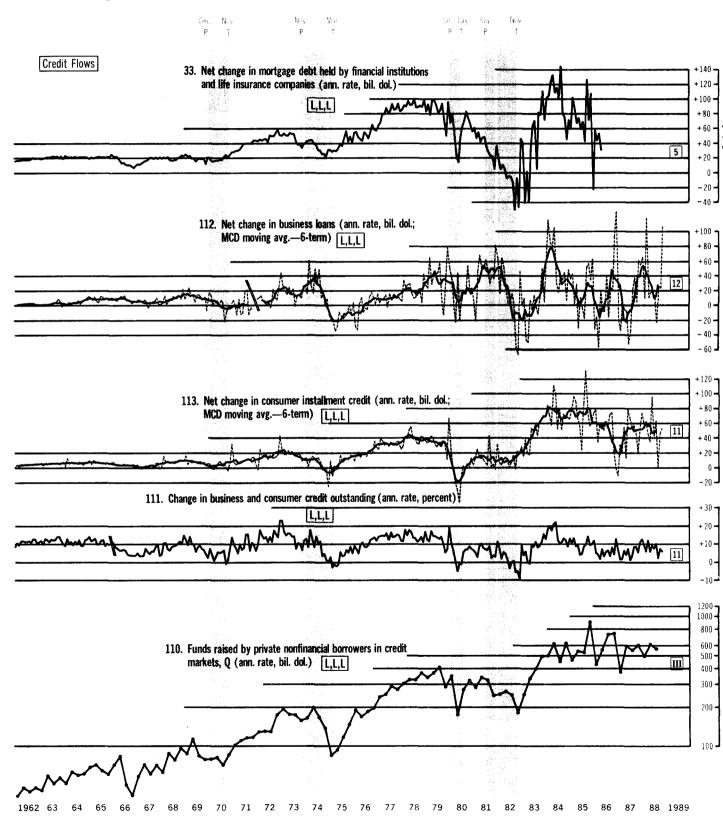
Chart B7. Money and Credit



CYCLICAL INDICATORS

CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

Chart B7. Money and Credit—Continued



27

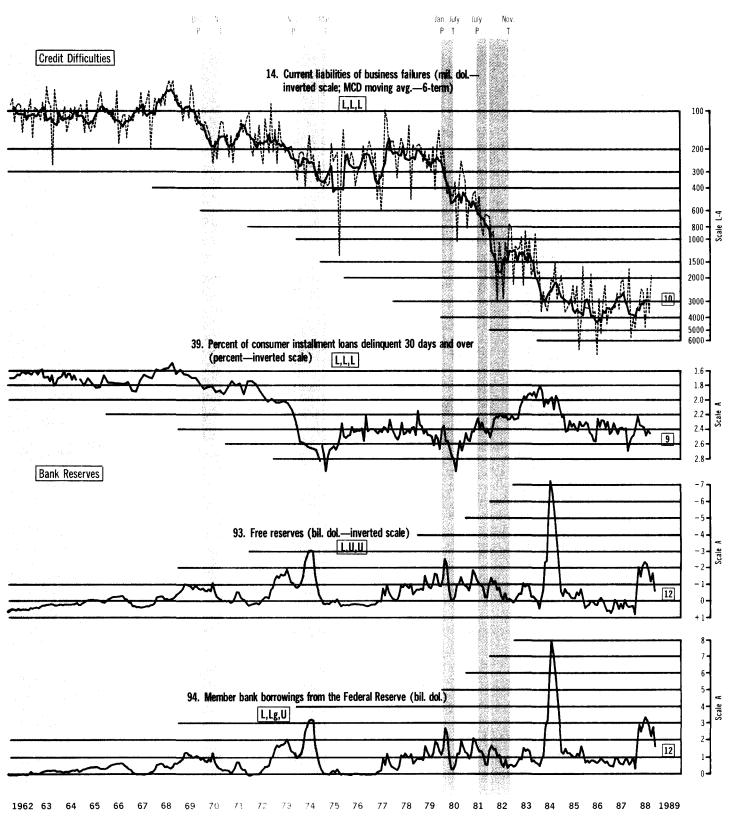
Current data for these series are shown on pages 71 and 72.

JANUARY 1989 BCI

CYCLICAL INDICATORS

CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

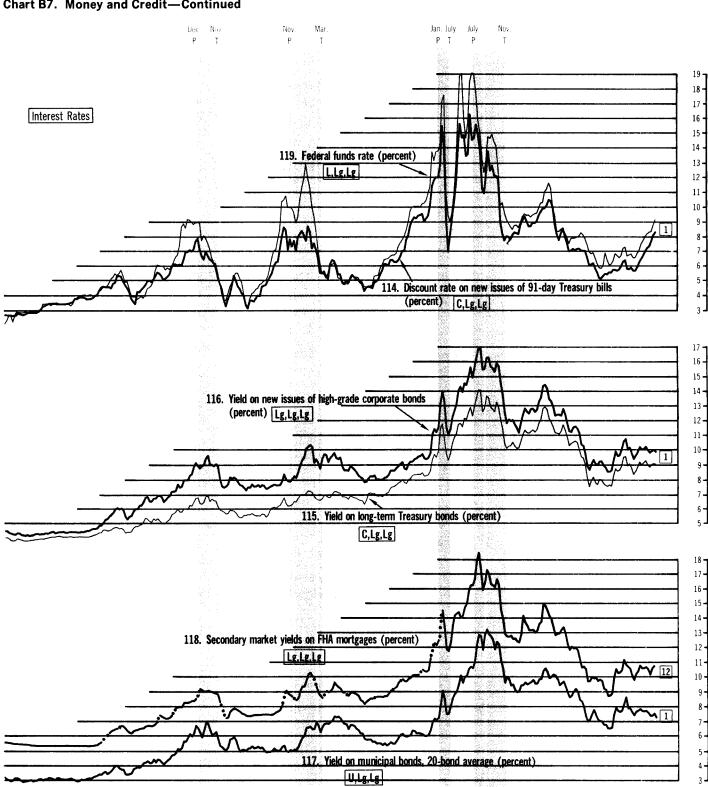
Chart B7. Money and Credit—Continued



Current data for these series are shown on page 72.

CYCLICAL INDICATORS CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

Chart B7. Money and Credit—Continued



1962 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 1989 Current data for these series are shown on pages 72 and 73.

CYCLICAL INDICATORS

CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

Chart B7. Money and Credit-Continued

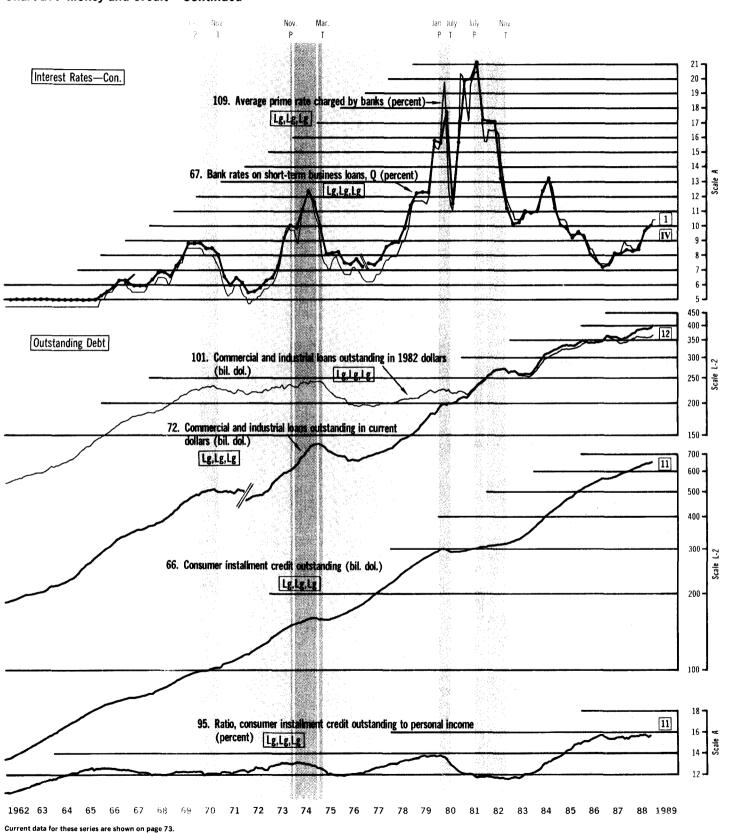
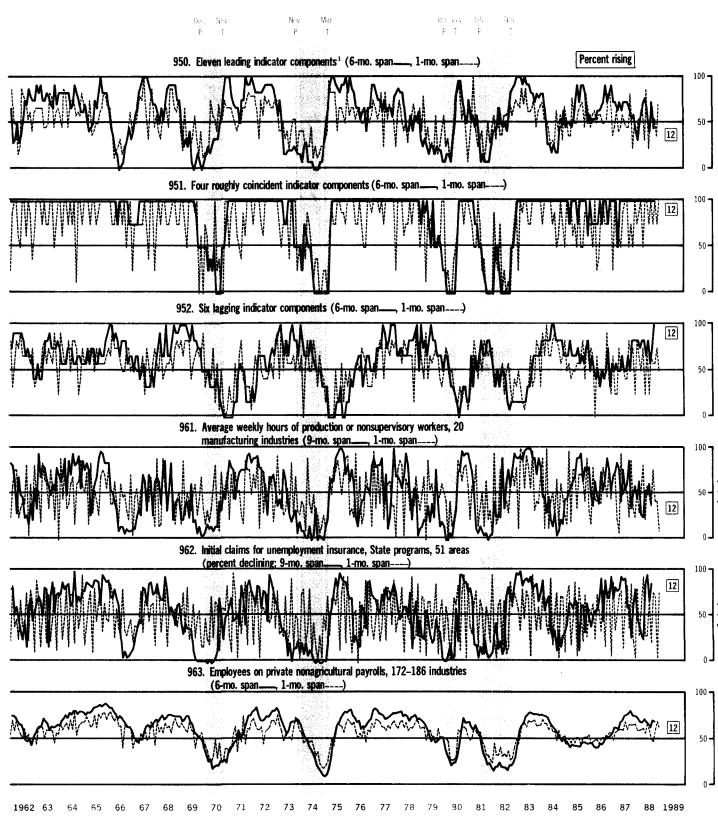




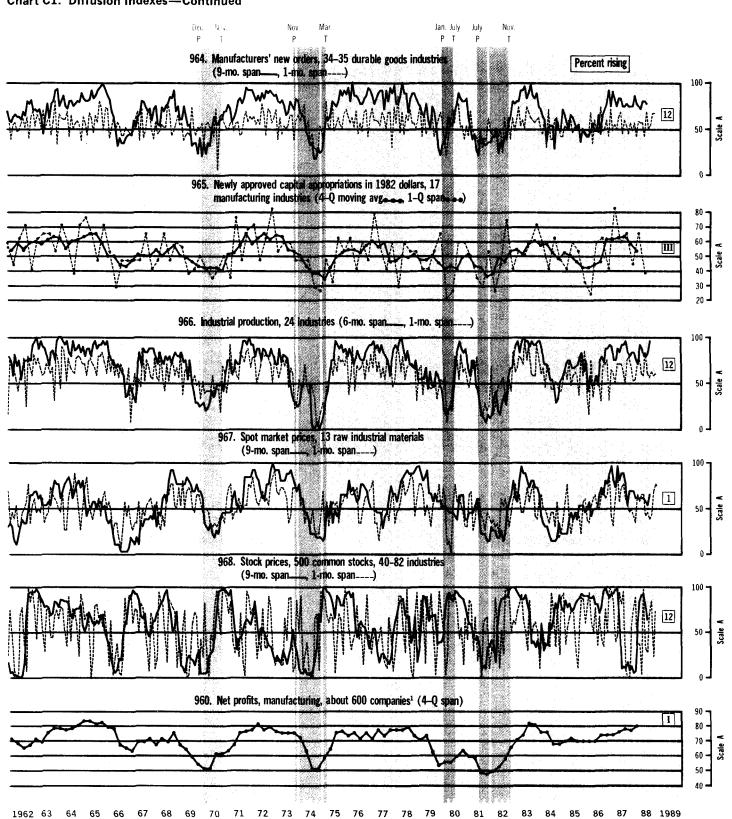
Chart C1. Diffusion Indexes



¹ Values of this index prior to January 1984 include a twelfth component, series 12, which has been suspended from the current index. Current data for these series are shown on page 74.

CYCLICAL INDICATORS DIFFUSION INDEXES AND RATES OF CHANGE—Continued

Chart C1. Diffusion Indexes—Continued

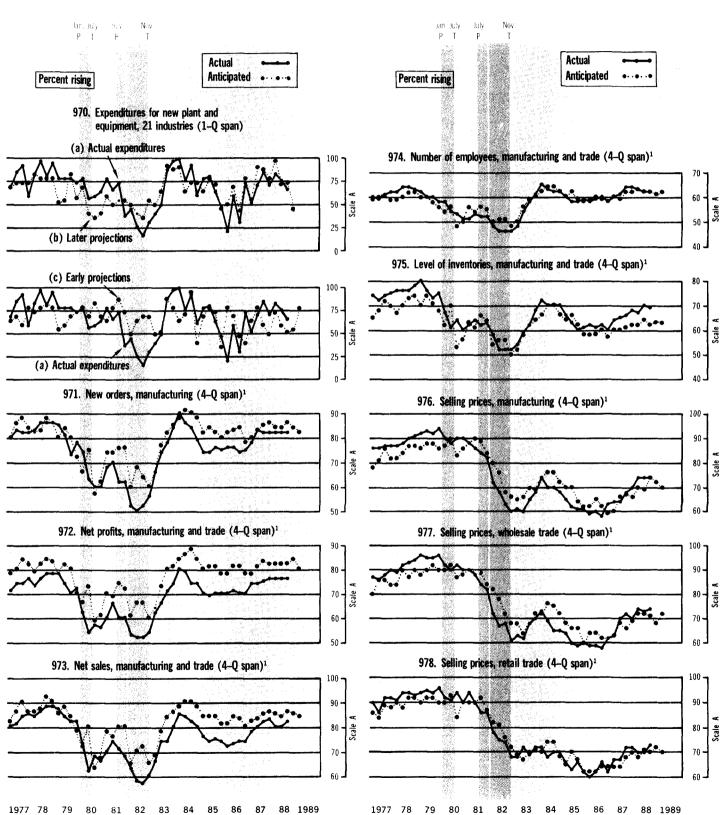


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Chart C1. Diffusion Indexes—Continued

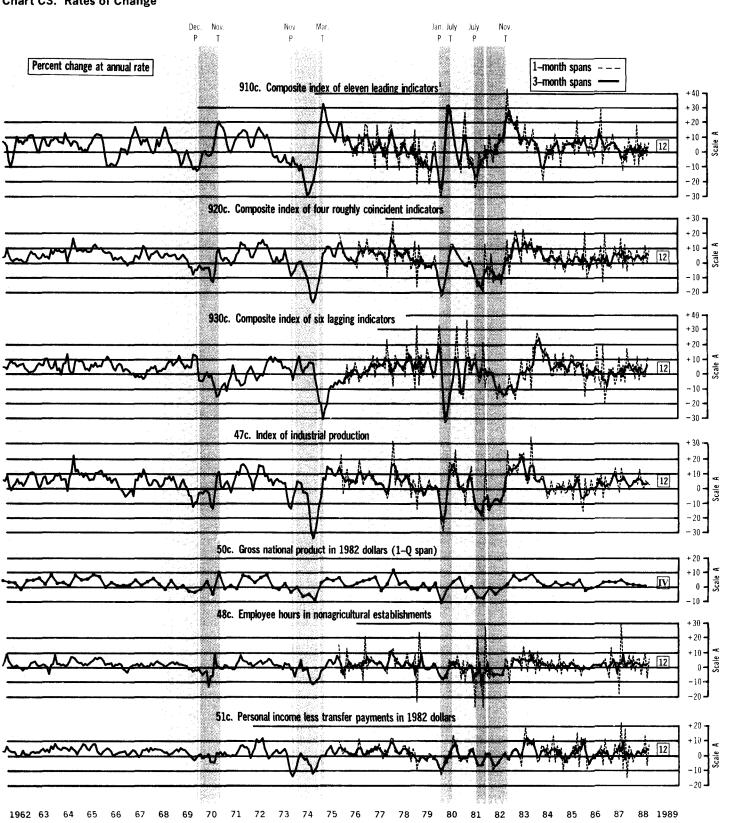


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Current data for these series are shown on page 76.

DIFFUSION INDEXES AND RATES OF CHANGE—Continued

Chart C3. Rates of Change



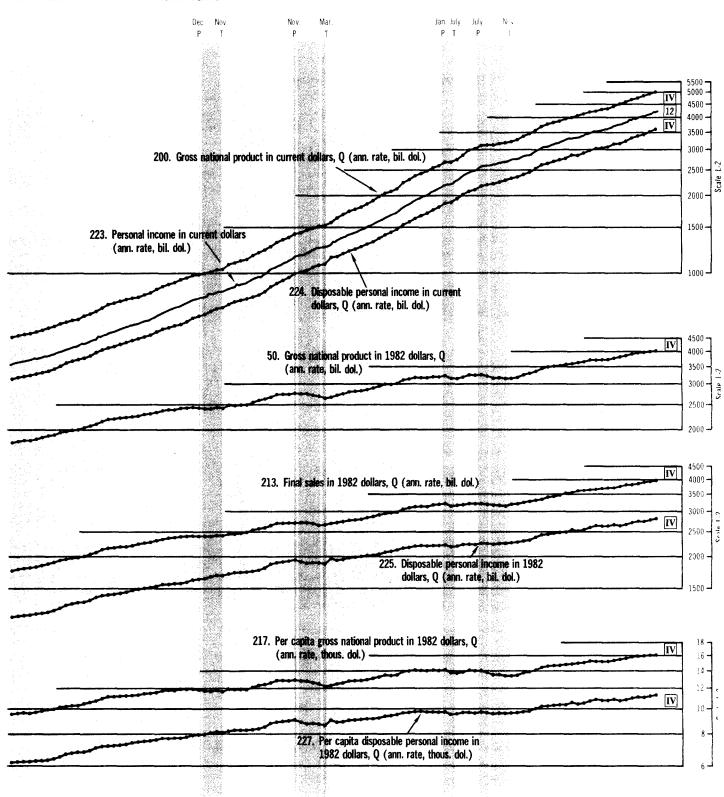
NOTE: Data for these percent changes are shown occasionally in appendix C. The "Alphabetical Index-- Series Finding Guide" indicates the latest issue in which the data for each series were published. 1 Values of this index prior to January 1984 include a twelfth component, series 12, which has been suspended from the current index.



Federal Reserve Bank of St. Louis



Chart A1. GNP and Personal Income



78 79

80 81 82 83

77

Current data for these series are shown on pages 63 and 80.

67 68

1962 63 64 65 66

70

69

72

88 1989

85

Chart A2. Personal Consumption Expenditures

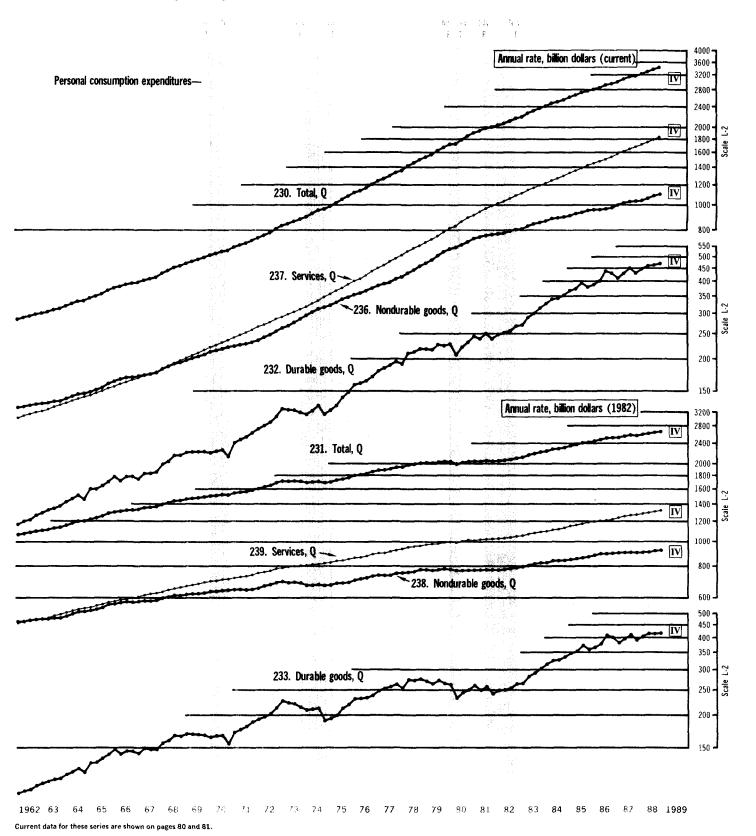
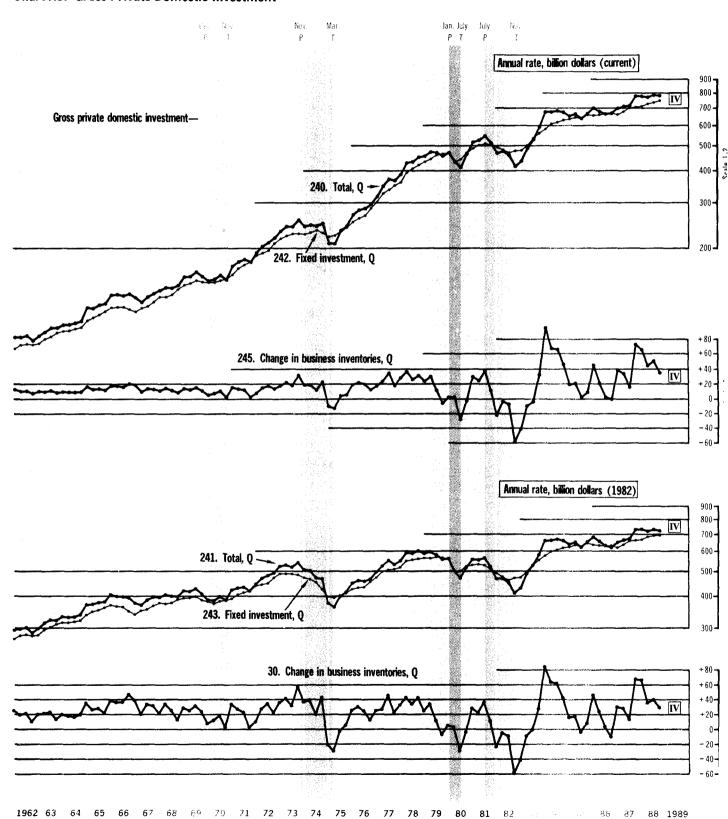
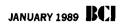




Chart A3. Gross Private Domestic Investment



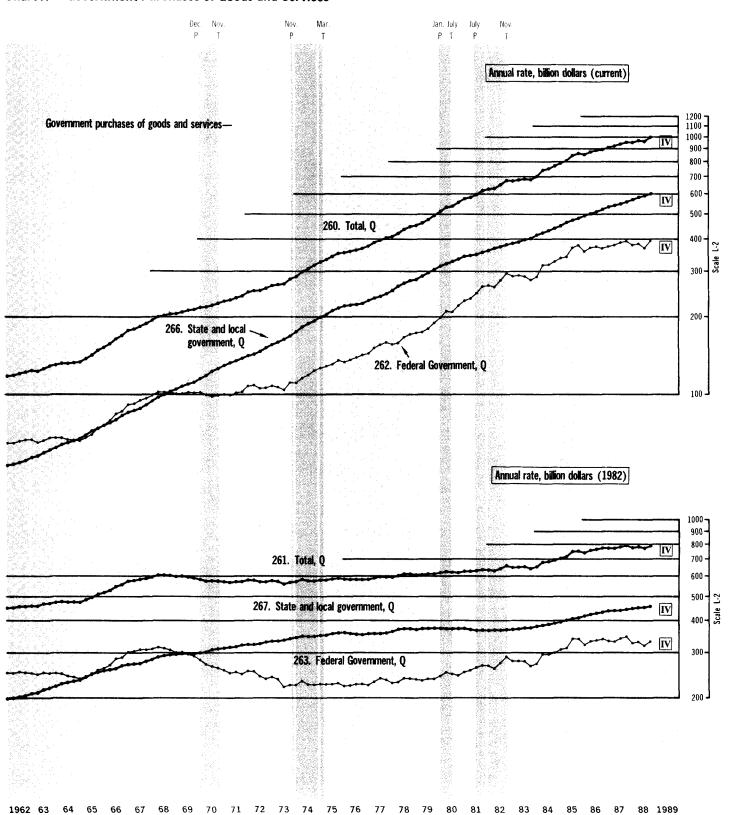
Current data for these series are shown on page 81.





NATIONAL INCOME AND PRODUCT—Continued

Chart A4. Government Purchases of Goods and Services

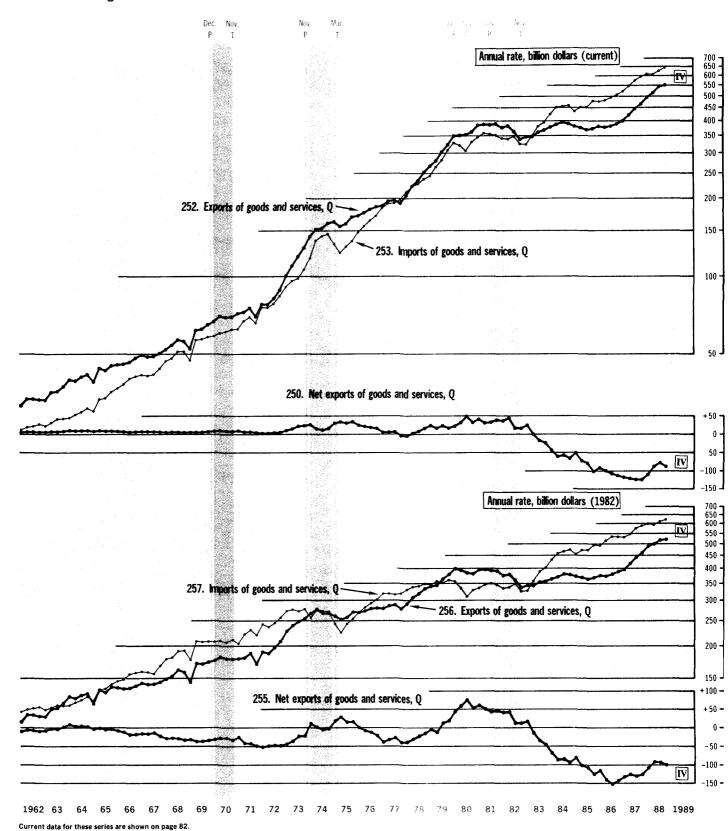


Surrent data for these series are shown on page 81.



NATIONAL INCOME AND PRODUCT—Continued

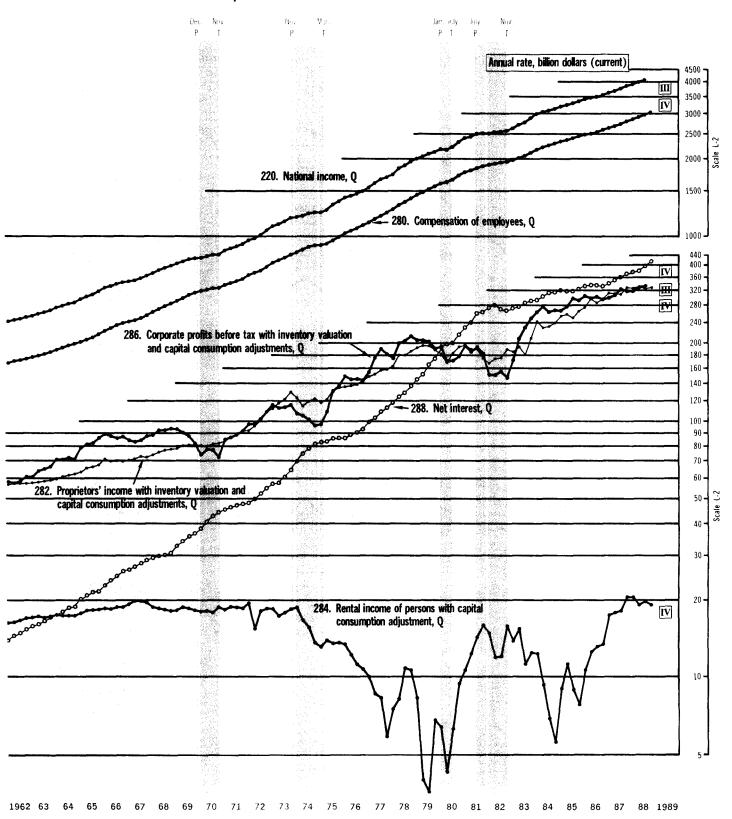
Chart A5. Foreign Trade





NATIONAL INCOME AND PRODUCT—Continued

Chart A6. National Income and Its Components



BCD JANUARY 1989 Digitized for FRASER http://fraser.stlouisfed.org/

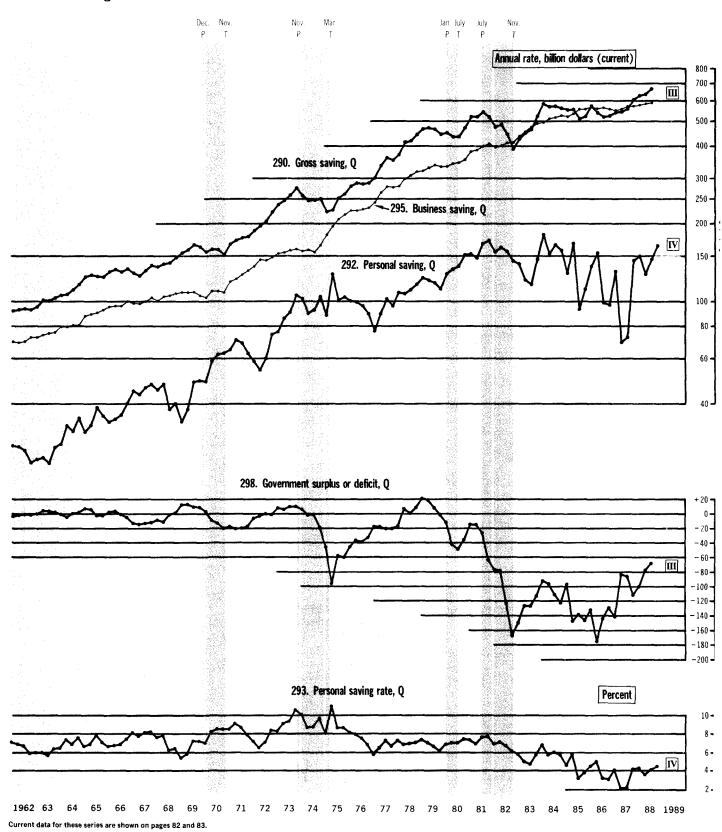
urrent data for these series are shown on page 82.

Federal Reserve Bank of St. Louis

45

OTHER IMPORTANT ECONOMIC MEASURES NATIONAL INCOME AND PRODUCT—Continued

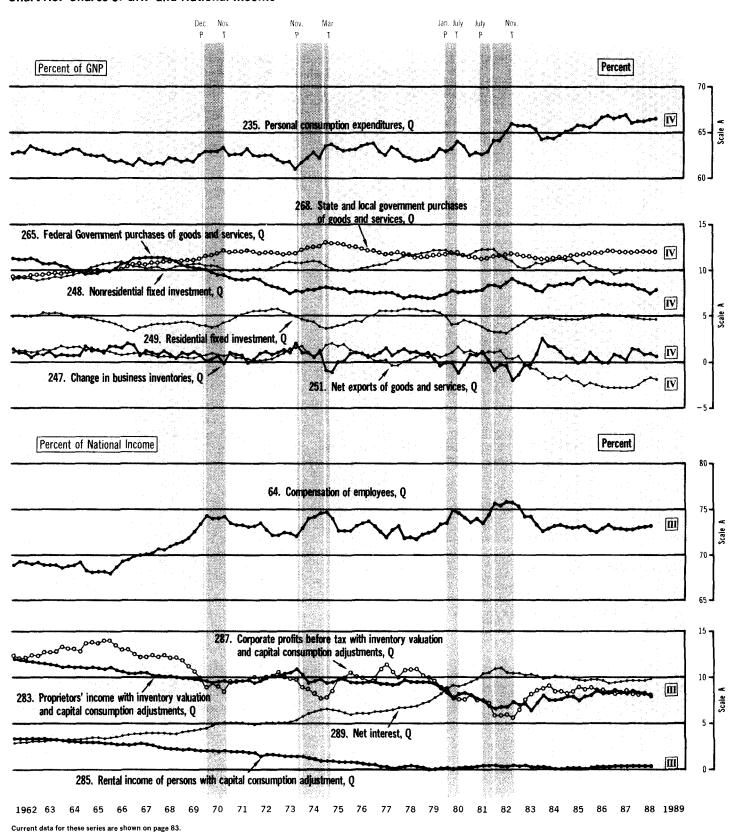
Chart A7. Saving





NATIONAL INCOME AND PRODUCT—Continued

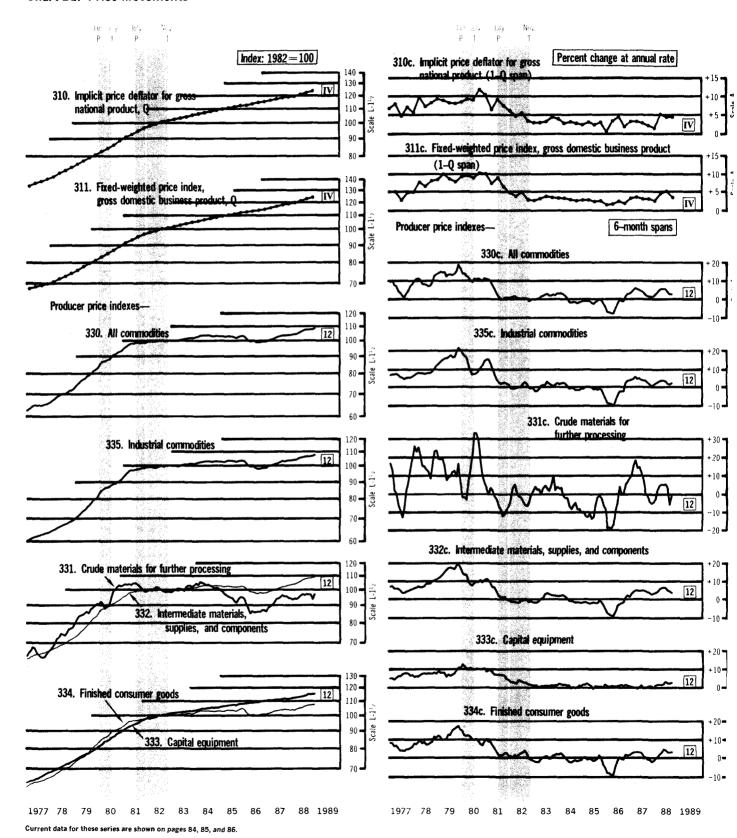
Chart A8. Shares of GNP and National Income





PRICES, WAGES, AND PRODUCTIVITY

Chart B1. Price Movements





PRICES, WAGES, AND PRODUCTIVITY—Continued

Chart B1. Price Movements—Continued

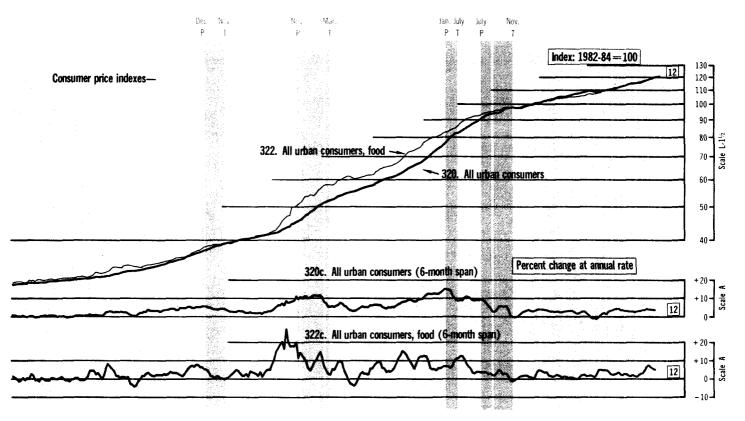
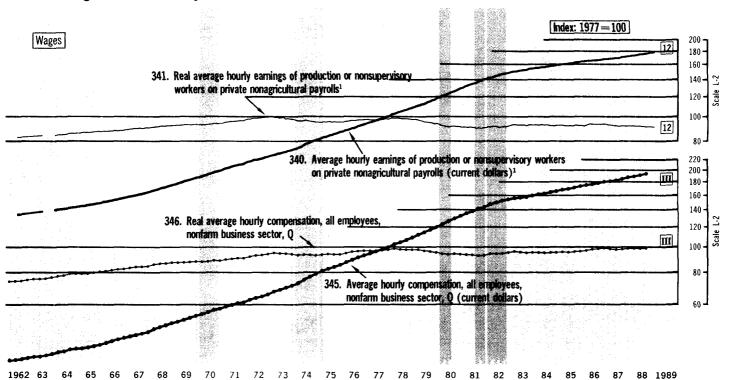


Chart B2. Wages and Productivity



1 Adjusted for overtime (in manufacturing only) and interindustry employment shifts and seasonality

Current data for these series are shown on pages 84, 87, and 88.

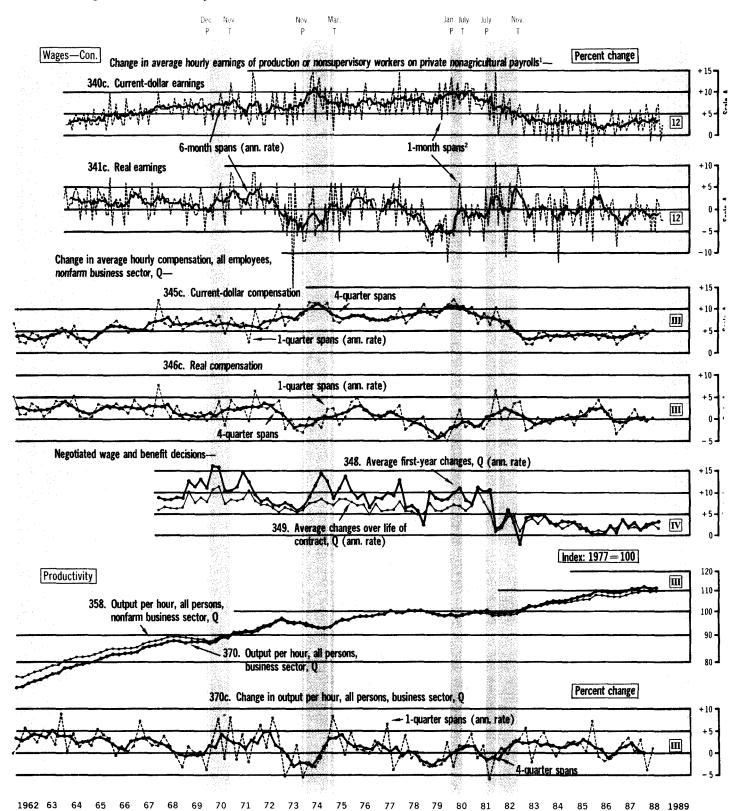


Federal Reserve Bank of St. Louis



PRICES, WAGES, AND PRODUCTIVITY—Continued

Chart B2. Wages and Productivity—Continued



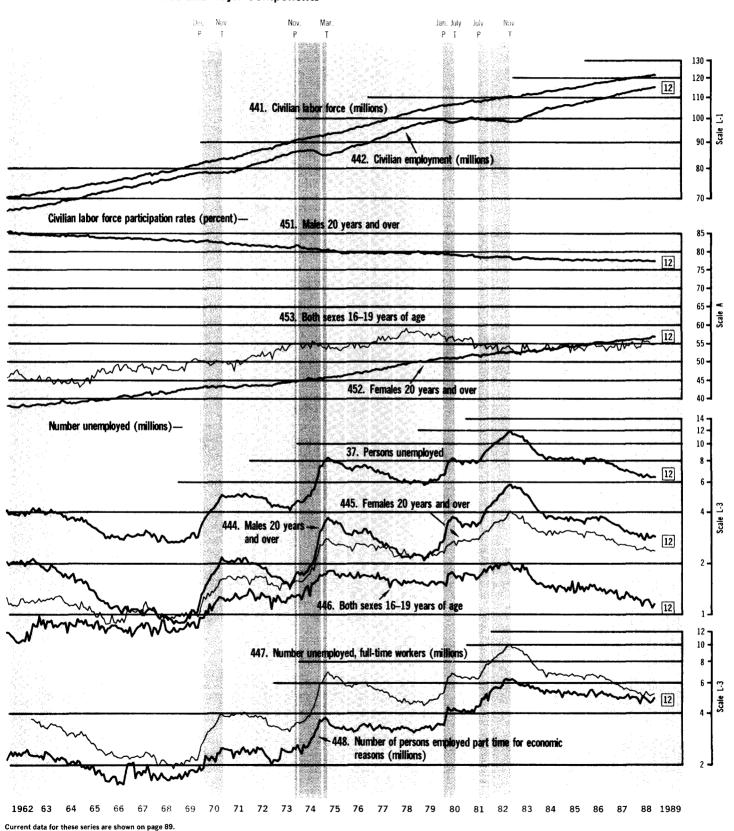
¹ Adjusted for overtime (in manufacturing only) and interindustry employment shifts and seasonality. ² One-month percent changes have been multiplied by a constant (12) to make them comparable with the annualized 6-month changes. See page 87 for actual 1-month percent changes. Current data for these series are shown on pages 87 and 88.

JANUARY 1989 BC



LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

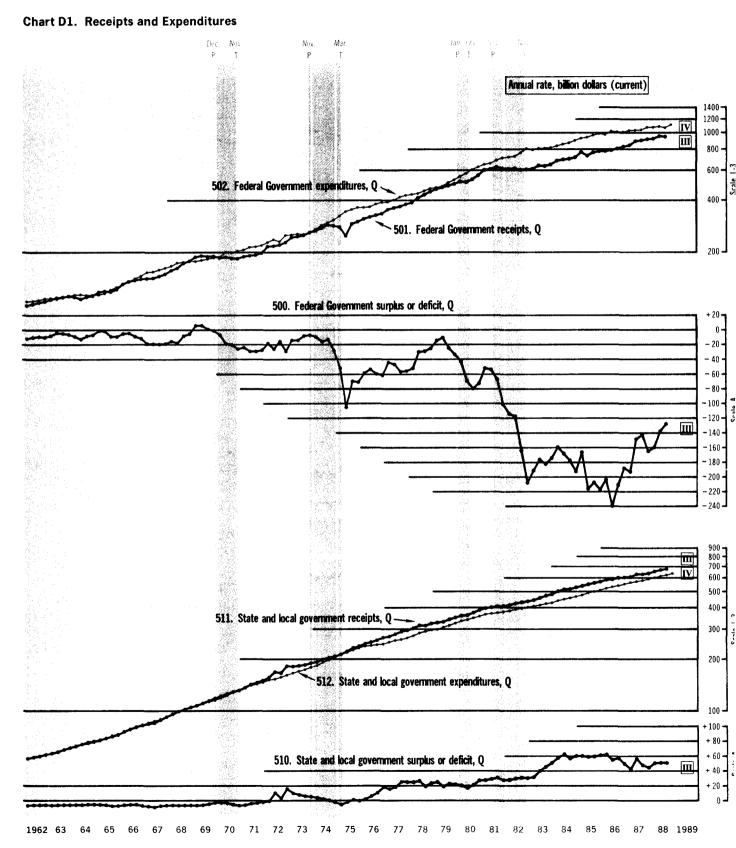
Chart C1. Civilian Labor Force and Major Components



III D

OTHER IMPORTANT ECONOMIC MEASURES

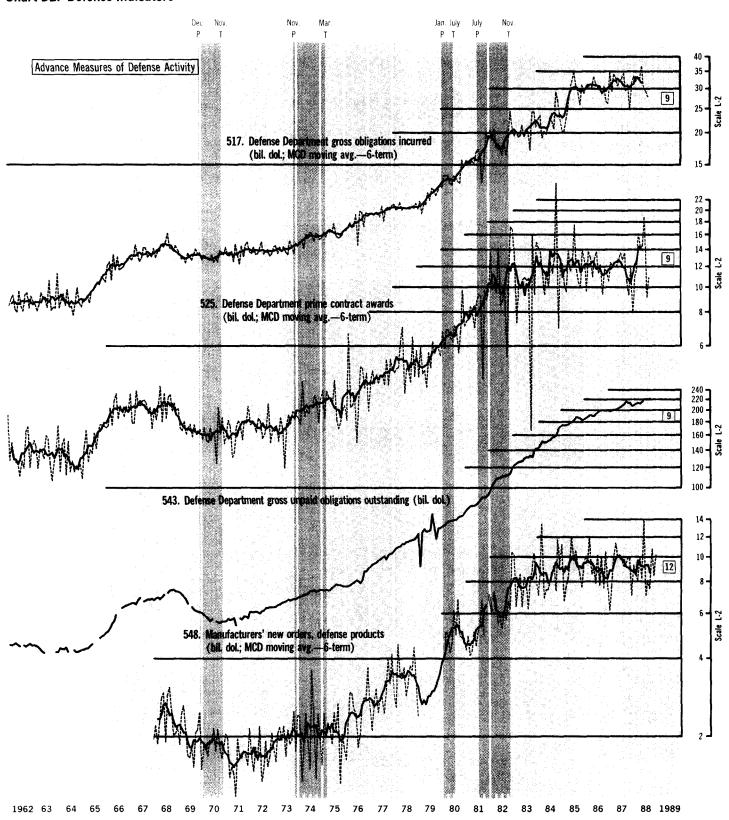
GOVERNMENT ACTIVITIES



Current data for these series are shown on page 90.

GOVERNMENT ACTIVITIES—Continued

Chart D2. Defense Indicators

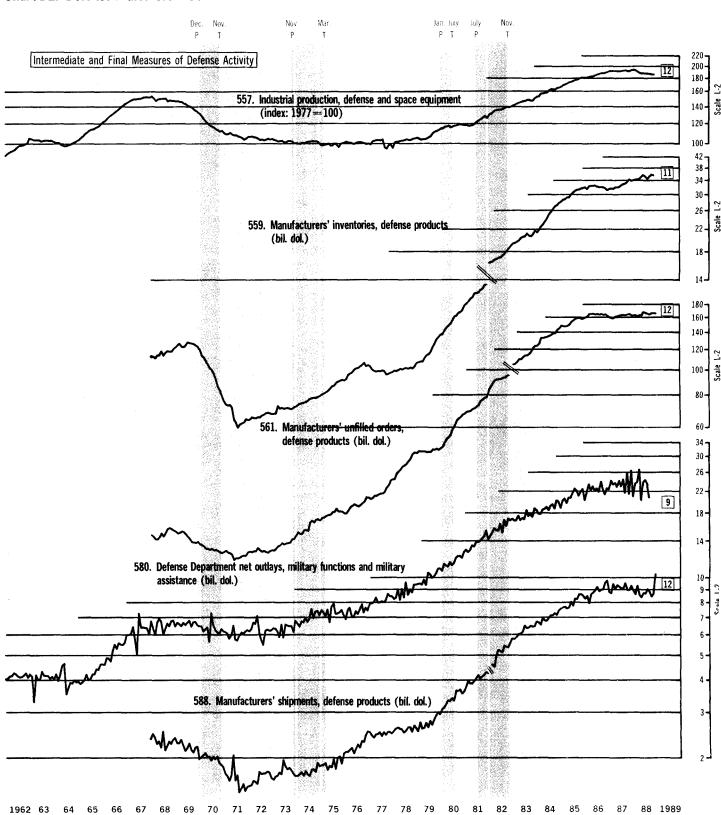


Current data for these series are shown on page 90.



GOVERNMENT ACTIVITIES—Continued

Chart D2. Defense Indicators—Continued



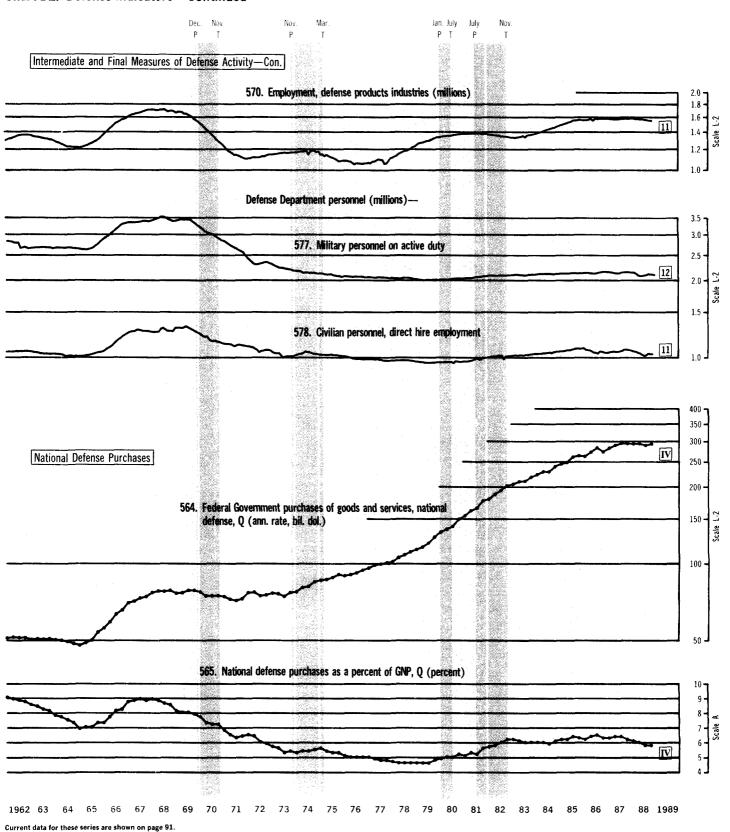
Current data for these series are shown on page 91.





GOVERNMENT ACTIVITIES—Continued

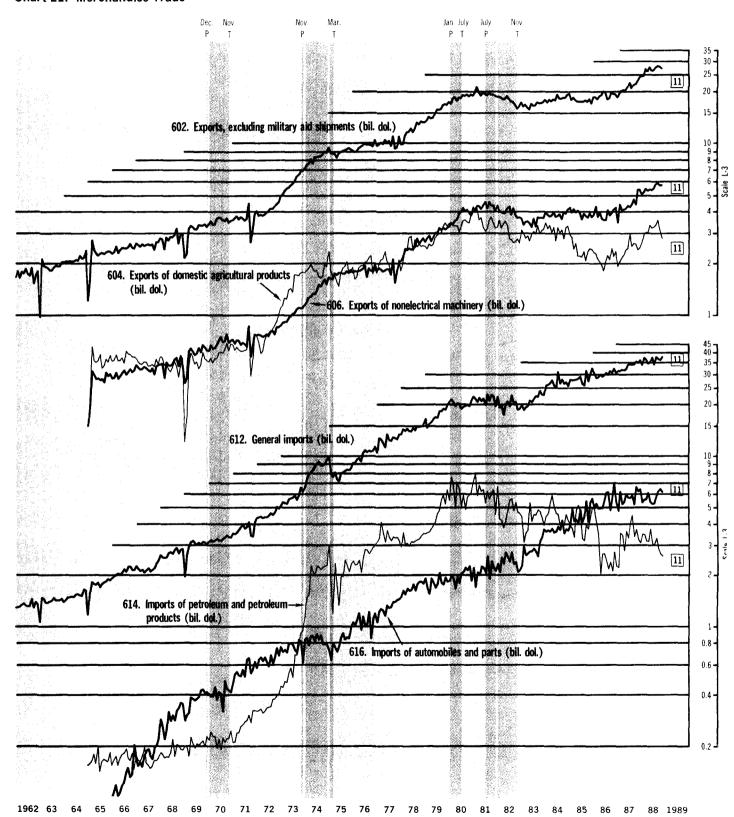
Chart D2. Defense Indicators—Continued





U.S. INTERNATIONAL TRANSACTIONS

Chart E1. Merchandise Trade

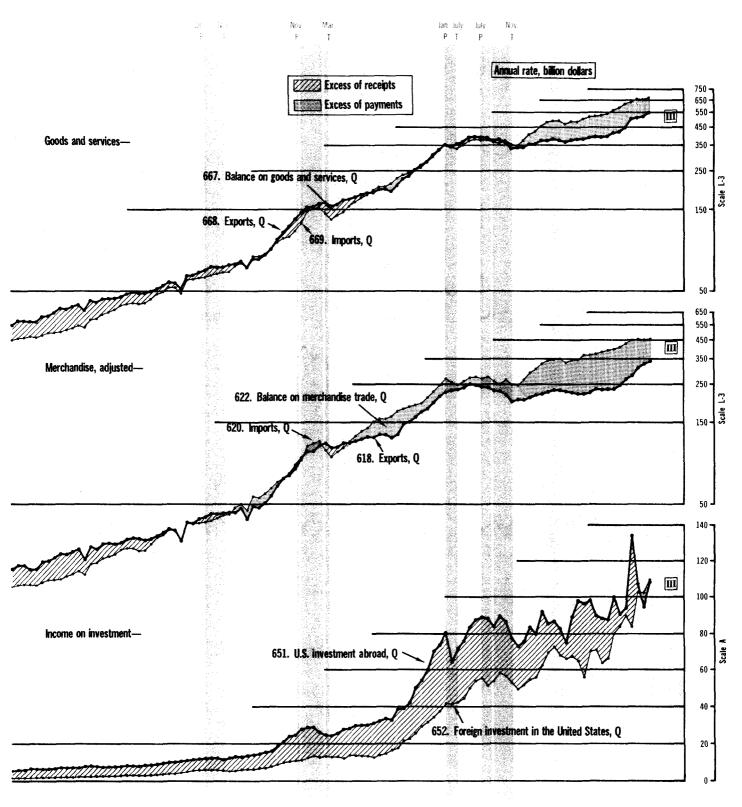


Current data for these series are shown on page 92.



U.S. INTERNATIONAL TRANSACTIONS—Continued

Chart E2. Goods and Services Movements

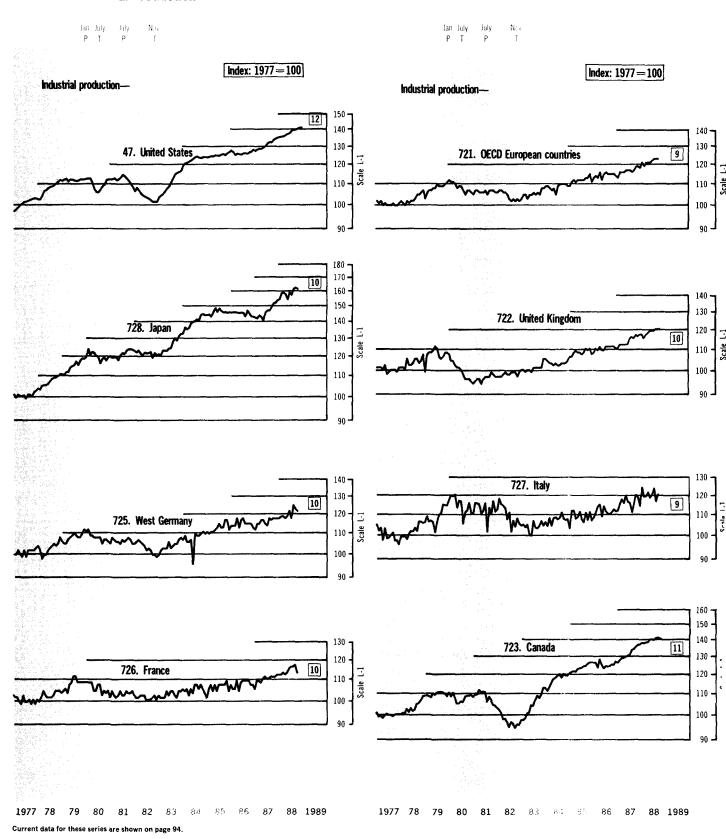


1962 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 1989 Current data for these series are shown on page 93.





Chart F1. Industrial Production



II F

OTHER IMPORTANT ECONOMIC MEASURES

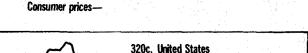
INTERNATIONAL COMPARISONS—Continued

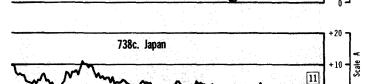
Chart F2. Consumer Prices

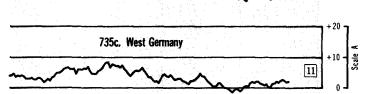
Jan. July July Nov.

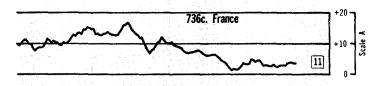


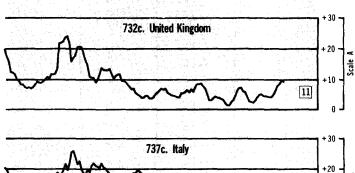
Percent change at annual rate 6-month spans

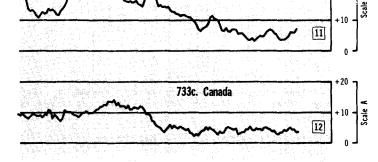








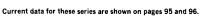




85 86 87 88 1989

1977 78 79

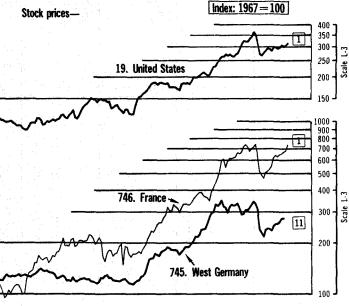
80 81 82

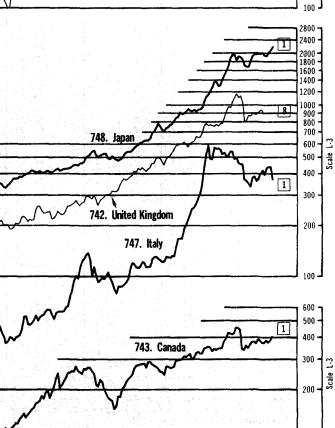


81 82 83

Chart F3. Stock Prices







85

87 88 1989

1977 78 79 80



COMPOSITE INDEXES AND THEIR COMPONENTS

				A1 COMP	Posite Indexes			
	910. Index of eleven leading	920. Index of four roughly	930. Index of 940. Ratio, six lagging indicoincident index			Leading indic	ator subgroups	
Year and month	indicators (series 1, 5, 8, 19, 20, 29, 32, 36, 99, 106, 111) 1	coincident indi- cators (series 41, 47, 51, 57)	cators (series 62, 77, 91, 95, 101, 109)	to lagging index ²	914. Capital investment commitments (series 12, 20, 29) 2	915. Inventory investment and purchasing (series 8, 32, 36, 99)	916. Profit- ability (series 19, 26, 80)	917. Money and financial flows (series 104, 106, 111)
	(1967 = 100)	(1967=100)	(1967 = 100)	(1967=100)	(1967 = 100)	(1967 = 100)	(1967 = 100)	(1967=100)
1986					(°)			
January	174.1 175.0 176.4	162.9 163.4 162.9	140.5 141.1 142.3	115.9 115.8 114.5	108.9 110.2 109.9	103.3 103.3 103.5	117.3 119.0 119.8	142.2 140.3 140.0
April	178.1 178.5 178.3	165.6 164.3 163.7	140.5 141.4 141.6	117.9 116.2 115.6	110.4 109.5 109.6	103.8 103.5 103.0	119.9 119.7 120.4	140.3 142.4 142.6
July August September	179.9 180.3 179.9	164.4 164.8 165.8	141.8 142.2 141.6	115.9 115.9 117.1	109.8 108.8 108.9	103.3 102.9 102.8	120.0 120.4 118.9	144.9 145.6 145.5
October	181.2 182.7 186.7	165.4 165.8 167.4	143.7 143.4 142.4	115.1 115.6 117.6	108.4 108.6 111.0	102.8 103.6 104.9	117.8 117.4 117.9	147.3 146.8 149.2
1987		1						
January February March	185.5 186.0 187.6	165.6 168.2 168.0	144.6 142.1 141.3	114.5 118.4 118.9	108.9 (NA)	104.4 104.6 105.3	119.3 120.8 121.5	148.9 147.0 145.4
April	187.6 188.6 190.5	168.0 167.6 168.2	141.8 142.0 142.6	118.5 118.0 118.0		105.3 106.0 106.7	121.3 121.3 122.9	144.5 144.1 145.6
July August September	190.9 191.7 191.9	169.8 170.6 170.7	141.8 141.6 143.0	119.7 120.5 119.4		107.1 106.4 106.6	124.2 H)126.0 124.7	144.5 144.2 145.4
October	192.1 190.1 190.8	173.0 172.6 174.4	142.5 143.3 142.7	121.4 120.4 122.2		107.2 107.4 (H) 108.2	121.7 118.6 118.3	147.1 146.8 146.6
1988		1	i :					
January February March	r189.8 191.4 r191.7	173.7 r175.0 176.1	144.7 145.1 r145.5	120.0 r120.6 r121.0		107.1 106.7 106.5	119.0 119.5 119.9	r146.9 147.9 149.0
April	r192.2 190.9 r193.7	176.0 176.4 177.7	r146.4 r146.1 r147.6	r120.2 r120.7 r120.4		105.5 105.6 105.9	119.5 118.9 120.0	H)r151.7 150.7 151.1
July August September	r192.3 193.4 r192.7	178.3 178.9 178.9	r147.2 r148.1 r148.0	r121.1 r120.8 r120.9		105.5 r105.5 105.6	119.9 119.5 (NA)	r150.3 r150.1 147.4
October	r193.7 193.4 H)"194.6	r180.7 180.8 ∰>5182.1	r147.9 149.3 °150.5	r122.2 r121.1 p121.0		r105.1 r104.9 p105.6		146.9 p146.6 (NA)

NOTE: Series are seasonally adjusted except for those, indicated by ①, that appear to contain no seasonal movement. Current high values are indicated by H): for series that move counter to movements in general business activity, current low values are indicated by H). Series numbers are for identification only and do not reflect series relationships or order. Complete titles and sources are listed at the back of this issue. The "r" indicates revised; "p". preliminary; "e", estimated; "a", anticipated; and "NA", not available.

Graphs of these series are shown on pages 10 and 11.

¹Values of this index prior to January 1984 include a twelfth component, series 12, which has been suspended from the current index.

²The following series reached their high values before 1986: series 940 (130.0) in January 1984, and series 914 (111.5) in February 1984.

³See "New Features and Changes for This Issue," page iii of the March 1987 issue. "Excludes series 36 and 111, for which data are not available. Excludes series 57, for which data are not available. CExcludes series 77 and 95, for which data are not available.





CYCLICAL INDICATORS BY ECONOMIC PROCESS

MAJOR ECONOMIC PROCESS		B1 EMPLOYMENT AND UNEMPLOYMENT							
Minor Economic Process	,	Marginal Employment Adjustment	s	Job Va	cancies	Comprehensive Employment			
Timing Class	L, L, L	L, C, L	Ł, C, L	L, Lg, U	L, Lg, U	U, C, C			

Year and month	Average weekly hours of production or nonsuper- visory workers, manufac- turing	21. Average weekly over- time hours of production or nonsupervisory workers, manufacturing	5. Average weekly initial claims for unemployment insurance, State programs ¹	60. Ratio, help-wanted advertising in newspapers to number of persons unemployed	46. Index of help-wanted advertising in newspapers	48. Employee hours in nonagricultural establishments
£	(Hours)	(Hours)	(Thous.)	(Ratio)	(1967 = 100)	(Ann. rate, bil. hours)
1986				Revised ²		
January	40.8	3.5	375	0.522	137	184.60
	40.6	3.4	384	0.485	137	183.90
	40.7	3.5	393	0.485	136	184.36
April	40.8	3.4	374	0.485	137	184.45
	40.7	3.5	378	0.476	135	184.53
	40.6	3.4	378	0.502	143	184.48
July	40.6	3.5	370	0.491	137	184.78
	40.8	3.5	379	0.507	138	185.34
	40.8	3.5	369	0.500	140	185.77
October	40.7	3.5	343	0.501	139	186.12
	40.8	3.5	342	0.526	145	186.62
	40.8	3.6	356	0.519	138	186.86
1987						
JanuaryFebruary March	40.9 41.1 41.0	3.6 3.6 3.7	359 361 341	0.512 0.531 0.572	136 140 150	187.56 188.63 188.57
April	40.7	3.5	324	0.583	149	187.58
	41.0	3.8	326	0.601	153	189.74
	41.0	3.7	327	0.614	152	190.02
July	41.0	3.8	327	0.626	153	190.69
	41.0	3.8	297	0.663	161	191.40
	40.6	3.7	286	0.661	158	188.46
October	41.2	3.9	284	0.669	162	192.76
	41.2	3.9	293	0.682	∰162	192.99
	41.0	3.8	312	0.662	155	193.22
1988						
January	41.1	3.9	351	0.652	153	193.56
	41.0	3.7	321	0.673	156	195.04
	40.9	3.7	304	0.691	158	194.92
April	41.2	3.9	296	0.701	157	196.33
	41.0	3.9	307	0.700	160	196.09
	41.1	3.9	292	0.711	156	197.14
July	41.1	3.9	325	0.714	159	198.25
	41.0	3.9	298	0.700	160	197.60
	41.2	3.9	283	0.688	153	198.21
October	41.2	⊞)4.0	H) 282	∰ 0.735	161	r199.95
	H)41.2	r3.9	291	0.716	158	r198.88
	p41.0	p3.9	305	p0.731	p161	∰p199.98

See note on page 60.



Graphs of these series are shown on pages 12, 16, and 17.

Data exclude Puerto Rico, which is included in figures published by the source agency.

See "New Features and Changes for This Issue," page iii.

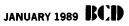


CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

MAJOR ECONOMIC PROCESS		B1 EMPLOYMENT AND UNEMPLOYMENT—Continued							
Minor Economic Process		Comprehensive Emp	loyment—Continued		•	Com	nprehensive Unemploy	ment	
Timing Class	U, C, C	с, с, с	L, C, U	U, Lg, U	L, Lg, U	L, Lg, U	L, Lg, U	Lg, Lg, Lg	Lg, Lg, Lg

Year and month	42. Number of persons engaged in non- agricultural activities	41. Employees on nonagricul- tural payrolls	40. Employees on nonagricul- tural payrolls, goods- producing industries	90. Ratio, civilian employ- ment to popu- lation of working age	37. Number of persons unemployed	43. Unemploy- ment rate	45. Average weekly insured unemployment rate, State programs ¹	91. Average duration of unemployment	44. Unemploy- ment rate, persons unem- ployed 15 weeks and over
	(Thous.)	(Thous.)	(Thous.)	(Percent)	(Thous.)	(Percent)	(Percent)	(Weeks)	(Percent)
1986	Revised ²			Revised ²	Revised ²	(2)		Revised ²	(²)
January	105,592	98,788	24,832	59.86	7,808	6.7	2.8	14.9	1.8
	105,393	98,887	24,752	59.58	8,398	7.2	2.8	15.2	2.0
	105,644	98,973	24,688	59.73	8,347	7.1	2.8	14.6	1.9
April	105,798	99,136	24,679	59.73	8,398	r7.2	2.8	14.8	1.8
	106,013	99,262	24,587	59.80	8,443	7.2	2.8	14.7	1.9
	106,463	99,170	24,499	60.01	8,475	r7.2	2.8	15.2	1.9
July	106,684	99,457	24,476	60.05	8,298	7.0	2.8	15.2	1.9
	106,925	99,608	24,457	60.09	8,094	6.9	2.8	15.5	1.9
	106,889	99,963	24,429	60.06	8,323	7.0	2.8	15.4	2.0
October	107,073	100,120	24,428	60.07	8,252	r7.0	2.7	15.2	1.9
	107,213	100,349	24,429	60.13	8,198	6.9	2.7	15.0	1.9
	107,507	100,571	24,471	60.20	7,911	6.7	2.6	15.0	r1.8
1987									
January February	107,823	100,795	24,501	60.28	7,904	r6.6	2.6	14.9	1.8
	108,066	101,016	24,533	60.39	7,848	6.6	2.6	14.5	1.8
	108,238	101,260	24,536	60.43	7,804	6.5	2.6	15.0	1.7
April	108,566	101,615	24,596	60.56	7,605	r6.4	2.5	15.0	rl.8
	109,180	101,829	24,653	60.90	7,578	6.3	2.4	14.8	1.7
	109,065	102,078	24,684	60.72	7,360	r6.2	2.4	14.9	1.7
July	109,377	102,430	24,788	60.83	7,271	r6.1	2.3	14.2	1.6
	109,890	102,672	24,851	61.00	7,226	6.0	2.3	14.3	1.6
	109,704	102,906	24,902	60.88	7,112	5.9	2.2	14.2	1.6
October	109,998	103,371	25,025	61.01	7,204	6.0	2.1	14.0	1.5
	110,320	103,678	25,123	61.09	7,067	5.9	2.1	14.1	1.5
	110,528	104,001	25,201	61.19	6,961	5.8	2.1	14.2	1.5
1988									
January	110,799	104,262	25,180	61.29	6,980	5.8	2.3	14.2	1.4
	111,073	104,729	25,271	61.36	6,892	5.7	2.3	14.1	1.4
	110,948	105,020	25,330	61.24	6,807	5.6	2.2	13.8	1.4
April	111,473	105,281	25,435	61.49	6,668	r5.5	2.1	13.5	1.3
	111,293	105,489	25,466	61.31	6,800	5.6	2.1	13.8	1.3
	111,880	106,057	25,592	61.58	6,523	r5.4	2.1	13.2	r1.3
July	111,974	106,271	25,663	61.54	6,624	5.4	2.1	13.5	1.3
	112,061	106,425	25,639	61.60	6,797	5.6	2.1	13.5	r1.3
	112,194	106,737	25,648	61.64	6,614	5.4	2.0	13.5	1.3
October	112,335	r106,973	r25,743	61.69	H) 6,518	5.3	1.9	13.4	1.3
	112,709	r107,377	r25,844	H >61.85	6,563	5.4	H)1.9	H)12.6	1.2
	H)112,816	H)p107,656	[H ⟩p25,893	61.83	6,554	H)5.3	2.0	12.8	H)1.2

Graphs of these series are shown on pages 14, 15, 17, and 18.



Data exclude Puerto Rico, which is included in figures published by the source agency. See "New Features and Changes for This Issue," page iii.



CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

MAJOR ECONOMIC PROCESS		B2 PRODUCTION AND INCOME							
Minor Economic Process		Comp	rehensive Output and	Income			Industrial	Production	
Timing Class	C, C, C		C, C, C	C, C, C	c, c, c	c, c, c	C, C, C	C, L, L	C, C, C

	50. Gross national product in 1982 dollars	Persona	f income	51. Personal income less transfer pay-	53. Wages and salaries in 1982 dollars, mining,	47. Index of industrial production	73. Index of industrial production,	74. Index of industrial production,	49. Value of goods output in 1982 dollars
Year and month	111 1395 0011912	223. Current dollars	52. Constant (1982) dollars	ments in 1982 dollars	mfg., and con- struction	production	durable manu- factures	nondurable manufactures	III 1302 UOHAIS
	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(1977=100)	(1977 = 100)	(1977 = 100)	(Ann. rate, bil. dol.)
1986									
January	3,719.3	3,439.3 3,459.8 3,483.0	3,022.2 3,053.7 3,079.6	2,575.6 2,604.1 2,626.5	540.3 539.8 548.0	126.4 125.5 123.9	129.8 128.9 127.4	128.6 128.2 127.3	1,604.7
April	3,711.6	3,516.5 3,514.5 3,521.0	3,109.2 3,093.8 3,088.6	2,654.6 2,638.3 2,632.5	545.2 544.9 541.4	124.7 124.3 124.1	128.5 127.7 126.9	128.9 129.7 130.2	1,598.0
July	3,721.3	3,532.9 3,545.4 3,561.7	3,090.9 3,093.7 3,091.8	2,629.0 2,636.0 2,634.2	542.5 544.0 542.7	124.8 124.9 124.5	128.1 127.9 128.4	130.6 131.1 130.3	1,595.3
October	3,734.7	3,579.6 3,595.5 3,623.6	3,101.9 3,107.6 3,126.5	2,643.2 2,649.2 2,666.8	548.2 544.9 545.0	125.3 125.7 126.8	128.6 129.0 129.7	131.2 131.7 133.4	1,597.8
1987									
January	3,776.7	3,641.3 3,683.5 3,703.4	3,114.9 3,142.9 3,143.8	2,655.8 2,682.5 2,685.4	543.0 542.4 545.6	126.2 127.1 127.4	129.3 130.8 131.5	132.7 132.9 133.7	1,616.2
April	3,823.0	3,725.0 3,736.3 3,747.1	3,146.1 3,142.4 3,138.3	2,687.1 2,678.7 2,678.7	539.8 541.7 542.1	127.4 128.2 129.1	130.9 131.4 132.0	134.6 135.7 136.9	1,645.6
July	3,865.3	3,778.6 3,803.7 3,820.8	3,159.4 3,167.1 3,162.9	2,698.7 2,707.8 2,705.4	542.5 544.3 546.5	130.6 131.2 131.0	133.5 133.8 133.7	138.5 138.8 138.6	1,677.5
October	3,923.0	3,897.2 3,884.1 3,939.0	3,212.9 3,194.2 3,236.6	2,754.2 2,736.8 2,778.2	549.0 551.3 549.5	132.5 133.2 133.9	136.8 136.7 137.3	138.1 139.6 141.3	1,713.9
1988								<u> </u>	
January	3,956.1	3,921.8 3,946.7 3,985.9	3,214.6 3,235.0 3,251.1	2,745.6 2,764.0 2,776.3	550.2 552.7 559.4	134.4 134.4 134.7	137.9 138.4 138.8	141.4 141.1 141.7	1,748.1
April	3,985.2	4,001.0 4,021.4 4,044.9	3,242.3 3,243.1 3,254.1	2,770.0 2,773.7 2,784.6	556.7 557.0 560.7	135.4 136.1 136.5	139.7 141.5 141.7	142.3 142.1 142.6	1,762.4
July	4,009.4	4,075.3 4,091.8 4,114.7	3,265.5 3,270.8 3,270.8	2,795.1 2,799.8 2,802.1	562.4 560.7 562.3	138.0 138.5 138.6	142.9 143.2 143.8	144.6 145.1 145.3	1,768.9
October	 [H)p4,029.2	r4,178.2 r4,170.0 H)p4,207.1	r3,305.5 r3,293.8 ∰p3,315.3	r2,835.0 r2,822.7 H >p2,844.3	∰r570.0 r566.6 p566.1	139.3 r139.8 H)p140.2	r144.4 r145.0 H)p145.5	r146.6 r146.7 H)p147.1	 ∰p1,770.3

See note on page 60.

Graphs of these series are shown on pages 14, 19, 20, and 40.





CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

MAJOR ECONOMIC PROCESS	0.0	DUCTION AND IE—Continued	B3 CONSUMPTION, TRADE, ORDERS, AND DELIVERIES					
Minor Economic Process	Capacity	Utilization	Orders and Deliveries					
Timing Class	L, C, U	L, C, U	L, L, L L, L, L, L, L, L, L, L, L, L, L,					

	82. Capacity utilization rate, manufacturing	84. Capacity utilization rate, materials	Manufacturers durable good	s' new orders, ds industries	8. Manufac- turers' new orders in 1982	25. Change in manufacturers' unfilled orders.	96. Manufac- turers' unfilled orders, durable	32. Vendor performance, companies re-
Year and month	manufacturing	materials	6. Current dollars	7. Constant (1982) dollars	dollars, con- sumer goods and materials	durable goods industries ¹	goods industries	ceiving slower deliveries ¹ (u)
	(Percent)	(Percent)	(Bil. dol.)	(Bil. dol.)	(Bil. dol.)	(Bil. dol.)	(Bil. dol.)	(Percent reporting)
1986								
January February	80.7	80.5	102.61	95.98	82.62	1.92	370.35	46
	80.2	79.8	101.12	94.59	80.40	1.75	372.10	48
	79.2	78.5	100.45	93.88	78.35	3.54	375.64	50
April	79.9	78.7	99.04	92.38	81.10	-2.12	373.52	50
	79.6	78.3	97.27	90.65	78.36	-1.63	371.89	55
	79.3	78.0	97.29	90.59	80.38	-2.62	369.27	50
July	79.7	78.1	99.72	92.77	79.04	-0.13	369.13	54
	79.6	77.9	96.40	89.59	79.86	-2.22	366.91	51
	79.4	77.7	102.20	94.89	82.49	2.02	368.93	52
October	79.5	77.9	100.06	92.56	81.32	-0.44	368.49	54
	79.6	78.5	100.74	93.02	79.47	1.34	369.83	56
	80.2	79.1	104.53	96.52	84.68	0.87	370.70	56
1987								
January February	79.6	78.7	97.34	89.71	79.69	-3.28	367.42	55
	80.0	78.7	102.40	94.38	84.12	-1.26	366.16	52
	80.3	78.7	104.78	96.40	84.78	1.19	367.35	55
April	80.2	79.1	107.64	98.93	83.80	4.55	371.90	57
	80.4	79.3	107.92	99.01	83.47	5.26	377.16	60
	80.8	79.8	108.77	99.70	85.72	4.24	381.40	57
July	81.5	80.6	109.94	100.49	84.03	6.04	387.44	62
	81.5	81.1	106.99	97.44	83.87	2.58	390.02	60
	81.3	81.2	109.68	99.34	85.94	1.30	391.32	69
October	82.0	82.1	112.02	101.28	86.76	3.71	395.04	70
	82.2	82.9	111.96	100.87	85.78	3.67	398.71	66
	82.6	83.6	113.19	101.61	86.79	2.01	400.72	71
1988					ļ			
January February	82.7	83.0	113.07	100.78	83.26	3.94	404.66	68
	82.6	82.3	114.16	101.56	85.44	4.33	408.99	66
	82.7	82.4	113.06	100.41	85.35	0.32	409.31	69
April	82.9	82.9	116.84	103.39	85.78	4.32	413.62	62
	83.3	83.0	115.37	101.74	87.83	0.62	414.24	66
	83.3	83.2	125.44	110.33	87.83	8.92	423.16	70
July	84.0	84.4	116.11	101.76	85.20	2.99	426.15	68
	84.0	84.3	122.81	r107.25	r87.64	4.94	431.09	64
	84.0	84.1	119.32	103.58	87.85	1.29	432.38	66
October	84.3	r84.5	r122.79	r106.59	87.88	r4.35	r436.73	60
	r84.3	r85.0	r122.94	r106.08	r89.52	r3.04	r439.78	56
	H)p84.4	H }p85.0	∰p130.85	H)p112.51	H)p92.97	p6.38	H)p446.16	56

See note on page 60.

Graphs of these series are shown on pages 12, 20, and 21.

¹The following series reached their high values before 1986: series 25 (9.31) and series 32 (72) in March 1984.





CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

MAJOR ECONOMIC PROCESS		ВЗ	CONSUMPTION, TR	ade, orders, and e	ELIVERIES—Continue	đ			D CAPITAL STMENT
Minor Economic Process			(onsumption and Trad	e		:	Formatio ness En	
Timing Class	C, C, C	c, c, c	L, L, L	L, 1, L	L, L, L				

	Manufacturing	and trade sales	75. Index of industrial	Sales of r	etail stores	55. Personal consumption	58. Index of consumer	12. Index of net business	13. Number of new business
Year and month	56. Current dollars	57. Constant (1982) dollars	production, consumer goods	54. Current dollars	59. Constant (1982) dollars	expenditures, automobiles	sentiment 'W	formation	incorporations
	(Mil. dol.)	(Mil. dol.)	(1977 = 100)	(Mil. dol.)	(Mil. dol.)	(Ann. rate, bil. dol.)	(1st Q 1966=100)	(1967 = 100)	(Number)
1986							1		
January February	426,129 419,385 414,543	412,651 410,176 409,478	123.6 122.9 121.4	117,524 116,599 116,184	108,718 108,971 109,504	124.1	95.6 95.9 95.1	119.3 120.8 121.5	57,580 58,799 58,365
April	420,984 416,635 421,122	418,301 414,113 418,444	123.8 123.8 123.7	116,905 118,259 118,314	110,810 111,670 111,407	129.2	96.2 94.8 99.3	122.4 120.7 120.3	58,937 58,257 57,558
July	420,333 422,468 434,978	417,515 420,580 432,602	124.5 125.0 123.6	118,821 120,308 127,115	111,779 112,754 118,467	⊞)151.9	97.7 94.9 91.9	120.7 119.3 120.4	58,002 56,541 58,002
October	426,853 427,284 438,060	423,097 424,320 433,420	124.8 125.0 126.6	120,778 120,470 126,011	112,877 112,589 116,893	139.8 	95.6 91.4 89.1	119.7 118.3 121.9	57,410 56,924 ∰65,318
1987									
January	425,169 442,039 442,633	420,569 434,812 433,419	125.5 126.4 126.7	117,246 123,292 123,680	108,360 113,424 113,053	120.1	90.4 90.2 90.8	118.1 120.5 122.0	55,071 58,868 60,248
April	444,300 446,897 451,532	432,710 431,990 435,135	125.5 127.3 127.2	124,609 124,797 126,461	113,384 113,041 114,032	127.7	92.8 91.1 91.5	120.7 119.8 120.3	57,736 56,627 57,559
July	453,508 458,052 462,889	436,259 438,850 442,296	128.9 129.4 127.7	127,122 129,448 128,211	114,524 116,201 114,679	144.4	93.7 94.4 93.6	120.4 121.5 122.8	57,500 57,773 57,746
October	462,938 r462,248 r464,306	441,184 r437,814 r439,676	129.0 129.4 129.8	127,036 r127,456 r128,527	113,324 r113,597 r114,552	128.0 	89.3 83.1 86.8	121.8 122.8 123.2	r55,559 55,901 54,451
1988						1			į
January	464,772 468,675 476,922	440,040 444,041 449,906	131.2 131.3 131.2	128,769 130,121 132,259	114,767 116,491 117,773	133.9	90.8 91.6 94.6	124.0 124.0 H)124.8	55,782 57,574 60,426
April	477,768 481,874 488,787	448,136 448,952 452,240	131.9 132.7 133.0	131,717 132,833 133,617	116,667 117,137 117,517	139.8	91.2 94.8 94.7	122.4 124.3 123.4	54,821 58,379 54,908
July	489,235 495,482 495,418	449,895 453,536 451,425	134.2 135.0 134.8	134,342 134,759 134,341	117,741 117,796 116,717	139.2 	93.4 97.4 97.3	122.7 123.9 r124.1	57,277 59,649 r56,126
October	r501,906 [H]p503,835 (NA)	r456,315 H)p457,227 (NA)	r136.7 r136.5 ∰p137.2	r136,560 r137,809 ∰)p138,025	r118,234 H)r119,315 p119,296	p140.4	94.1 93.0 91.9	r124.6 r123.2 p123.9	56,557 p53,675 (NA)

See note on page 60.

Graphs of these series are shown on pages 12, 14, 22, and 23.

¹Series 58 reached its high value (101.0) in March 1984.





CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

MAJOR ECONOMIC PROCESS		84 FIXED CAPITAL INVESTMENT—Continued										
Minor Economic Process				Business Investm	ent Commitments							
Timing Class	L, L, L	L, t, L	L, L, L	L, L, L	L, C, U	U, Lg, U	C, Lg, Lg					

		nd orders for equipment		s' new orders, al goods industries	Construction contraction commercial and industrial		11. Newly approved capital appropriations,	97. Backlog of capital appropria- tions, 1,000
Year and month	10. Current dollars	20. Constant (1982) dollars	24. Current dollars	27. Constant (1982) dollars	Square feet of floor space	Square meters of floor space ³	1,000 manufac- turing corpora- tions	manufacturing corporations ²
	(Bil. dol.)	(Bil. dol.)	(Bil. dol.)	(Bil. dol.)	(Millions)	(Millions)	(Bil. dol.)	(Bil. dol.)
1986								
January February	30.19 32.52 31.14	32.16 35.95 33.88	25.70 27.36 26.84	28.13 31.33 30.05	72.89 82.65 73.01	6.77 7.68 6.78	23.39	 92.22
April	30.64 30.10 30.29	32.90 32.88 33.67	25.86 25.67 25.61	28.66 28.95 29.53	82.17 78.06 76.57	7.63 7.25 7.11	19.99 	 85.77
July	30.64 30.02 31.05	33.22 33.15 33.81	26.07 25.53 26.35	29.18 29.18 29.66	73.43 76.48 76.51	6.82 7.10 7.11	20.20	80.71
October	31.76 32.03 33.50	34.03 35.11 36.56	27.31 27.31 28.36	30.07 30.91 31.97	73.54 83.00 76.45	6.83 7.71 7.10	22.10	 69.72
1987	-				,			
January February	31.71 32.18 31.91	34.45 35.41 35.08	27.20 27.28 26.88	30.47 31.10 30.66	80.75 73.72 77.18	7.50 6.85 7.17	21.44	 69.17
April	33.44 34.97 35.54	37.33 38.97 39.40	28.73 30.63 29.75	33.19 35.17 34.35	78.14 76.74 84.28	7.26 7.13 7.83	32.26 	 74.64
July	37.50 34.89 34.54	41.82 39.17 39.15	32.28 29.85 29.39	37.29 34.81 34.69	84.76 84.70 85.96	7.87 7.87 7.99	29.56 	74.55
October	35.50 35.42 r38.65	40.29 39.83 r42.99	30.22 30.66 33.03	35.70 35.73 38.14	82.21 75.90 84.37	7.64 7.05 7.84	35.91 	78.06
1988								
January February	37.67 38.90 36.40	42.89 43.91 41.35	33.87 33.82 31.92	39.63 39.59 37.56	69.43 91.89 73.91	6.45 8.54 6.87	30.85 	78.71
April	37.76 36.04 40.19	43.77 41.54 45.67	33.75 31.52 35.46	40.33 37.72 41.68	69.80 69.98 75.49	6.48 6.50 7.01	H >r40.69	r87.46
July	40.56 H >43.74 39.15	r45.99 ∰r49.36 r43.61	36.21 H)38.81 34.86	42.34 H) 45.22 40.02	81.82 76.46 75.29	7.60 7.10 6.99	p39.09	p92.55
October	r38.45 r39.92 p43.16	r43.35 r44.40 p46.79	r34.62 r35.78 p38.58	r40.16 r40.95 p42.97	69.59 68.60 81.80	6.46 6.37 7.60	(NA)	(NA)

See note on page 60.

Graphs of these series are shown on pages 12, 23, and 24.

JANUARY 1989 BCD

¹This is a copyrighted series used by permission; it may not be reproduced without written permission from McGraw-Hill Information Systems Company, F. W. Dodge Division. ²The following series reached their high values before 1986: series 9 (93.19 square feet and 8.66 square meters) in September 1985, and series 97 (99.88) in 2d quarter 1985. ³Converted to metric units by the Bureau of Economic Analysis.



CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

MAJOR ECONOMIC PROCESS				В4	FIXED CAPITAL	INVESTMENT—Con	tinued				
Minor Economic Process			Busine	ss Investment Expe	nditures				sidential Constructi mitments and Invest		
Timing Class	C, Lg, Lg	lg C, ig, lg C, lg, lg C, lg, U C, lg, C lg, lg C, lg, C l, l, l l, l, l									

	Expenditures tand equ		69. Machinery and equipment	76. Index of industrial pro-		ss private nonreside nvestment in 1982		28. New private housing units started ¹	29. Index of new private	89. Gross pri- vate residential fixed investment
Year and month	61. Current dollars	100. Constant (1982) dollars	sales and business construction expenditures	duction, busi- ness equipment	86. Total	87. Structures ¹	88. Producers' durable equip- ment	units started	housing units authorized by local building permits ¹	in 1982 dollars
	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(1977=100)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, thous.)	(1967 = 100)	(Ann. rate, bil. dol.)
1986										
January	381.33	384.62	392.50 399.19 393.40	142.1 141.3 139.2	446.8 	145.1	301.7 	1,938 1,869 1,873	147.3 140.9 141.9	185.5
April	377.91 	375.87 	395.79 384.77 391.06	139.6 138.6 137.2	432.8 	126.7	306.1 	1,947 1,847 1,845	148.2 143.3 142.7	195.7
July	375.66	369.21 	385.28 387.20 381.72	139.4 139.1 139.6	425.6 	121.7	303.9	1,789 1,804 1,685	141.9 137.6 134.4	199.0
October	383.05	375.34 	391.92 388.64 394.05	139.4 138.8 139.5	427.3	123.8	303.5	1,683 1,630 1,837	133.6 131.1 151.8	H >199.7
1987							}			
January	376.73	370.67 	380.86 390.75 389.03	138.6 141.7 141.9	418.2	121.0	297.2 	1,804 1,809 1,723	134.9 134.6 134.1	198.4
April	380.66	374.67 	394.44 393.13 402.72	142.1 141.7 144.2	434.8 	120.9 	313.8	1,635 1,599 1,583	127.3 119.9 122.7	197.6
July	394.54 	391.18 	412.08 411.20 424.48	145.6 145.6 146.3	462.8 	128.0	334.7	1,594 1,583 1,679	120.4 120.7 119.7	192.1
October	406.82	403.05	416.93 416.55 423.85	148.7 148.3 149.8	464.8 	132.1 	332.7	1,538 1,661 1,399	115.9 116.3 109.4	192.7
1988										
January	412.02	408.91 	430.32 429.21 436.50	151.2 152.4 153.3	473.4 	124.0	349.4	1,382 1,519 1,529	99.5 114.0 117.7	189.5
April	426.94	424.07 	442.03 451.37 452.12	154.6 156.9 158.1	490.2 •••	125.0	365.1	1,584 1,393 1,465	115.6 114.5 119.1	189.6
July	H >436.01	H ⟩431.62	r454.76 r459.38 r459.64	159.3 160.2 160.8	H ⟩495.0	125.8 	H ⟩369.2	1,477 1,461 1,467	113.2 116.7 111.2	191.6
October	a445.73 (²)	a441.35	H >r460.87 p459.02 (NA)	r159.9 r160.9 ∰p161.1	p490.4	p124.0	p365.4	r1,533 r1,558 p1,524	120.9 120.9 124.9	p197.4

See note on page 60.

Graphs of these series are shown on pages 13, 24, and 25.

¹The following series reached their high values before 1986: series 87 (151.4) in 2d quarter 1985, and series 28 (2,260) and series 29 (158.5) in February 1984. ²Anticipated expenditures for 1989: 1st quarter, 466.76; 2d quarter, 473.55. ³Anticipated expenditures for 1989: 1st quarter, 462.28; 2d quarter, 469.61.





CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

MAJOR ECONOMIC PROCESS		B5 INVENTORIES AND INVENTORY INVESTMENT										
Minor Economic Process		Inventory Investment Inventories on Hand and on Order										
Timing Class	i, l, l	L, L, L	L, L, L	L, L, L	Lg, Lg, Lg	Lg, Lg, Lg	lg, lg, lg	Lg, Lg, Lg	L, Lg, Lg			

.,	30. Change in business inven- tories in 1982	36. Change in mf inventories on ha order in 1982 dol	nd and on	31. Change in mfg. and trade inven-	38. Change in mfrs.' inven- tories, mate-		ing and trade itories	65. Manu- facturers' in- ventories,	77. Ratio, mfg. and trade inven-	78. Mfrs. inventories, materials and
Year and month	dollars 1	Actual	Smoothed ²	tories	rials and sup- plies on hand and on order	71. Current dollars	70. Constant (1982) dollars	finished goods	tories to sales in 1982 dollars	supplies on hand and on order
	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Bil. dol.)	(Bil. dol.)	(Bil. dol.)	(Bil. dol.)	(Ratio)	(Bil. dol.)
1986										
January	45.7 	24.56 27.68 52.16	15.84 20.58 29.61	9.0 -3.6 22.1	-0.60 1.35 -0.82	656.91 656.62 658.46	639.74 641.72 646.48	105.25 104.86 104.60	1.55 1.56 H)1.58	238.30 239.65 238.83
April	23.6	25.76 -40.28 10.64	35.00 23.87 5.63	7.2 -30.7 8.8	-1.21 -1.01 -1.15	659.06 656.50 657.24	649.07 647.07 648.17	104.54 104.34 103.52	1.55 1.56 1.55	237.62 236.61 235.46
July	3.0	21.02 -20.50 -21.92	-2.08 0.42 -1.71	30.0 -9.1 -18.2	-0.58 -0.70 1.24	659.74 658.98 657.46	650.88 649.15 646.21	103.92 103.36 102.43	1.56 1.54 1.49	234.89 234.19 235.43
October	-10.5	19.81 -8.17 1.94	-7.34 -5.48 0.55	25.3 -6.2 -47.8	-0.86 0.91 1.92	659.57 659.05 655.06	647.49 646.69 644.74	102.42 103.44 102.60	1.53 1.52 1.49	234.57 235.47 237.40
1987										
January	29.8 	34.87 7.33 46.87	7.04 12.13 22.20	74.2 19.2 37.7	-1.06 -0.59 1.82	661.25 662.85 665.99	649.35 649.72 651.98	103.41 103.02 103.23	1.54 1.49 1.50	236.33 235.74 237.56
April	27.8	19.90 54.35 46.36	27.20 32.54 40.29	26.5 76.0 38.9	2.82 1.09 2.71	668.20 674.54 677.78	652.61 656.22 657.99	102.94 103.23 102.57	1.51 1.52 1.51	240.38 241.47 244.17
July	13.0	33.66 -5.96 46.16	42.50 34.74 24.65	40.1 13.1 53.9	2.76 1.75 2.20	681.12 682.21 686.70	659.44 658.09 660.52	103.84 104.66 104.04	1.51 1.50 1.49	246.94 248.68 250.88
October	67.1 	82.87 43.50 64.86	32.82 49.27 60.63	H ⟩96.9 r63.9 r86.7	2.18 1.02 1.04	694.78 r700.10 707.33	666.42 669.88 674.91	105.04 105.86 106.82	1.51 1.53 r1.54	253.06 254.08 255.11
1988										
January	66.0	40.56 47.59 11.38	56.69 50.32 42.09	51.1 37.9 30.0	3.81 0.25 1.32	711.59 714.75 717.25	679.86 683.23 684.90	107.42 108.16 108.08	1.55 1.54 1.52	258.92 259.18 260.49
April	35.3	5.05 23.10 18.18	27.26 17.26 14.31	45.2 52.4 66.4	2.52 2.83 2.21	721.02 725.38 730.92	686.17 687.95 689.75	108.09 108.43 109.02	1.53 1.53 1.53	263.01 265.83 268.04
July	39.5 	-5.23 r38.10 r28.57	13.73 r14.52 r18.75	59.7 95.5 76.9	1.43 H)3.98 2.48	735.89 743.85 750.26	689.44 693.33 696.11	109.82 110.78 111.62	1.53 1.53 1.54	269.47 273.45 275.93
October	p29.2	r7.43 p18.34 (NA)	r22.59 p21.41 (NA)	r3.9 p35.7 (NA)	r1.90 p-0.46 (NA)	r750.59 ∰p753.56 (NA)	r697.55 ∰p699.39 (NA)	r112.07 ∰)p112.67 (NA)	r1.53 p1.53 (NA)	H)r277.82 p277.36 (NA)

See note on page 60. Graphs of these series are shown on pages 13, 15, 26, and 27.

¹The following series reached their high values before 1986: series 30 (83.4) in 1st quarter 1984, series 36 actual (91.94) in February 1984, and series 36 smoothed (79.42) in May 1984. ²This series is a weighted 4-term moving average (with weights 1,2,2,1) placed on the terminal month of the span.

JANUARY 1989 BCD



CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

MAJOR ECONOMIC PROCESS				B6 PRICES, CO	OSTS, AND PROFITS					
Minor Economic Process		Sensitive Com	modity Prices	Stock Prices		Pro	fits and Profit Marg	gins		
Timing Class	l, l, l	L, L, L U, L, L L, L, L L, L, L L, C, L L, C, L L, C, L								

	98. Change in producer prices	23. Index of spot market	99. Change in se prices	nsitive materials	19. Index of stock prices, 500 common	Corporate pr	ofits after tax		ofits after tax and CCAdj ¹ ⁴	22. Ratio, corporate domestic profits after
Year and month	for sensitive crude and intermediate materials ¹	prices, raw industrial, materials ² Ú	Actual	Smoothed ³	stocks (1)	16. Current dollars	18. Constant (1982) dollars ¹	79. Current dollars	80. Constant (1982) dollars	tax to corpo- rate domestic income ¹
	(Percent)	(1967 = 100)	(Percent)	(Percent)	(1941-43=10)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Percent)
1987										
January February	0.35 0.26 0.88	252.8 247.2 246.3	0.76 -0.57 0.19	1.08 0.51 0.16	264.51 280.93 292.47	135.5 	121.5	172.0 	157.6 	4.8
April	-0.26 2.52 1.78	253.8 272.6 276.4	0.85 ∰3.00 1.00	0.14 0.75 1.48	289.32 289.12 301.38	141.1	125.7 	172.6 	157.0 	5.0
July	1.92 1.55 3.38	284.2 288.3 292.4	1.53 0.98 1.58	H)1.73 1.51 1.27	310.09 (H) 329.36 318.66	149.5	133.2 	182.1 	165.8	5.2
October	2.57 1.44 0.07	294.6 292.0 293.1	1.13 0.26 0.17	1.30 1.11 0.76	280.16 245.01 240.96	145.7 	128.2	179.9 	162.4 	4.7
1988						!				
January	0.67 0.52 1.11	292.5 288.9 292.3	0.17 -0.17 0.77	0.36 0.13 0.16	250.48 258.13 265.74	149.4	131.2	179.3	161.3	5.3
April	-1.02 0.15 0.22	297.3 301.6 309.5	0.08 0.51 0.84	0.24 0.34 0.46	262.61 256.12 270.68	162.7 	143.1	183.2	163.7	5.5
July August September	1.77 -0.22 -0.07	309.0 309.9 306.4	0.58 0.00 -0.33	0.56 0.56 0.28	269.05 263.73 267.97	H ⟩169.1	148.0 	185.2 	164.1	5.4
October	-0.51 0.15 0.29	305.0 309.7 ∰317.2	-0.33 0.50 0.75	-0.07 -0.14 0.13	277.40 271.02 276.51	(NA)	(NA)	(NA)	(NA)	(NA)
1989										
January		⁵323.9			6284.28					
April										
July										
October										

See note on page 60.

Graphs of these series are shown on pages 13, 28, and 29.

The following series reached their high values before 1987: series 98 (3.55) in July 1983; series 18 (149.4) and series 22 (6.9) in 1st quarter 1984; and series 79 (204.0) and series 80 (196.0) in 1st quarter 1986. This is a copyrighted series used by permission; it may not be reproduced without written permission from Commodity Research Bureau, Inc. See footnote 2 on page 68. See footnote 1 on page 70. Average for January 3 through 27. Average for January 4, 11, 18, and 25.





CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

MAJOR ECONOMIC PROCESS				B6 PRICES, COSTS, AND PROFITS—Continued										
Minor Economic Process	Profits an	Profits and Profit Margins—Continued Cash Flows Unit Labor Costs and Labor Share												
Timing Class	U, L, L	U, L, L L, L, L L, L, L L, L, L Lg, Lg, L												

	81. Ratio, cor- porate domes- tic profits after	15. Profits after taxes per dollar of sales, manu-	26. Ratio, im- plicit price de- flator to unit	Corporate n	et cash flow	63. Index of unit labor cost, business sector	68. Labor cost per unit of real gross domestic	62. Index of labor of output, manufa		64. Compensation of employees as a
Year and month	tax with IVA and CCAdj to corp. domestic income ¹	facturing cor- porations	labor cost, nonfarm busi- ness sector	34. Current dollars	35. Constant (1982) dollars	Dusiness sector	product, non- financial cor- porations	Actual data	Actual data as a percent of trend	percent of na- tional income
	(Percent)	(Cents)	(1977 = 100)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(1977=100)	(Dollars)	(1977 = 100)	(Percent)	(Percent)
1986								•		
January	8.4 	3.7 	H>100.1	373.7 ···	375.7 	163.3	0.710	136.7 137.2 ∰140.2	99.6 100.0 H)102.2	72.8
April	8.1 	4.3	99.9 •••	373.1	37 4. 3	164.9 	0.717	137.5 138.1 138.3	100.2 100.7 100.8	72.6
July	7.9 	3.3	99.7 	379.6 	380.5 	167.3	0.722 	137.5 138.1 138.2	100.2 100.7 100.7	73.0
October	7.2 	3.5	98.5	386.2	385.7 	169.6 	0.725 ···	139.2 138.0 136.9	101.5 100.6 99.8	H >73.4
1987										
January	6.5	4.6 	98.8 •••	385.9 	386.4	170.5 	0.730	138.1 137.6 137.9	100.7 100.3 100.5	73.0
April	6.5	4.9 	99.4 	393.9 	393.8 	170.8	0.730	136.9 136.6 136.2	99.8 99.6 99.3	73.0
July	6.7	5.5 	99.9	404.2	404.3	171.1 	0.729	135.2 135.8 137.4	98.5 99.0 100.1	72.9
October	6.2	4.4 	99.1	402.4	402.6	173.5	0.738	136.4 136.5 135.6	99.4 99.5 98.8	72.9
1988										
January	6.6	H >6.3	99.1 	407.3 	405.0	173.5 	0.736	135.9 136.4 137.9	99.1 99.4 100.5	73.1
April	6.4	5.8 	98.7 	420.8 	418.7	177.1	0.747	136.8 136.4 137.2	99.7 99.4 100.0	73.2
July	6.1	p5.9	98.7 	H)425.7	H 423.7	H >179.1	H 0.758	136.5 136.3 136.8	99.5 99.3 99.7	73.3
October	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	r138.5 r137.6 p137.3	r100.9 r100.3 p100.1	(NA)



See note on page 60.

Graphs of these series are shown on pages 15, 29, and 30.

IVA, inventory valuation adjustment; CCAdj, capital consumption adjustment.

Series 81 reached its high value (8.6) in 3d quarter 1985.



CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

MAJOR ECONOMIC PROCESS				В	MONEY AND CRE	DIT			
Minor Economic Process			Money			Velocity	of Money	Credit	Flows
Timing Class	L, L, L	L, C, U	L, L, L	L, L, L	i, i, i	C, C, C	C, Lg, C	L, L, L	Ł, L, L

Year and month	85. Change in money supply M1 ¹	102. Change in money supply M2 ¹	104. Change in total liquid assets ¹	105. Money supply M1 in 1982 dollars	106. Money supply M2 in 1982 dollars	107. Ratio, gross national product to money supply M1 ¹	108. Ratio, personal income to money supply M2	33. Net change in mortgage debt held by financial institutions and life insurance companies (Ann. rate.	112. Net change in business loans
	(Percent)	(Percent)	(Percent)	(Bil. dol.)	(Bil. dol.)	(Ratio)	(Ratio)	bil. dol.)	(Ann. rate, bil. dol.)
1987					:				:
January	0.83 -0.01 0.40	0.71 0.05 0.18	0.70 0.30 -0.03	633.8 631.0 630.8	2,450.3 2,441.0 2,434.9	5.997 	1.288 1.302 1.307	(NA)	H ⟩126.83 -19.49 -33.82
April	1.43 0.24 -0.59	0.46 0.06 0.09	0.38 0.67 0.35	637.0 636.4 631.0	2,435.6 2,428.8 2,424,7	6.024	1.308 1.311 1.314		3.54 -5.56 -7.10
July	0.20 0.39 0.13	0.23 0.40 0.40	0.07 0.54 0.61	630.7 630.5 629.2	2,424,1 2,423.4 2,424.9	6.124	1.322 1.326 1.326		-51.73 -34.25 22.25
October	1.16 -0.46 -0.25	0.48 0.07 0.16	0.69 0.29 0.05	634.4 629.9 627.2	2,428.3 2,423.8 2,423.6	6.191	1.346 1.341 1.358		38.02 5.00 61.02
1988							<u>}</u>		
January	1.07 0.09 0.45	r0.84 r0.71 0.72	r0.88 0.72 0.61	631.8 631.3 631.0	r2,435.7 2,449.0 2,454.5	6.213	1.341 1.340 1.343		54.84 65.56 10.39
April	0.94 0.01 0.82	0.79 0.38 0.48	0.99 0.72 0.37	633.8 631.8 634.9	2,461.6 2,462.8 (H)2,466.5	6.246	1.338 1.339 1.341		118.04 10.86 17.81
July	0.75 0.03 r-0.01	0.31 0.19 r0.09	0.95 0.45 0.15	H) 637.1 634.6 r632.5	2,464.0 2,458.7 r2,452.9	6.274	1.347 1.350 1.356		20.33 r10.51 r-23.15
October	r0.14 0.03 p0.52	r0.11 r0.57 p0.41	0.43 p0.76 (NA)	630.8 629.0 p630.2	2,445.7 r2,451.8 p2,453.9	p6.357	H)r1.376 r1.365 p1.372		r26.17 r23.77 p108.26
1989	Ì					<u> </u>			l.
January	20.14								
April									
July					:				
October November December									

See note on page 60.

Graphs of these series are shown on pages 13, 31, and 32.

¹The following series reached their high values before 1987: series 85 (2.69) in December 1986, series 102 (2.66) in January 1983, series 104 (1.20) in March 1984, series 107 (7.035) in 4th quarter 1984, and series 33 (143.70) in September 1984.

²Average for weeks ended January 2, 9, and 16.





CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

MAJOR ECONOMIC PROCESS				B7 M	ONEY AND CREDIT—	Continued			
Minor Economic Process	C	redit Flows—Continue	ed	Credit D	ifficulties	Bank R	eserves	Interes	t Rates
Timing Class	£, £, £			L, £, L	L, L, L	L, U, U	t, lg, U	L, Lg, Lg	C, Lg, Lg

Year and month	113. Net change in consumer installment credit ²	111. Change in business and consumer credit outstanding ¹	110. Funds raised by private nonfinancial borrowers in credit markets ¹	14. Current liabilities of business failures¹ (ii)	39. Percent of consumer installment loans delin- quent 30 days and over 1	93. Free reserves ¹ഡ	94. Member bank borrow- ings from the Federal Reserve¹(1)	119. Federal funds rate 1 (1)	114. Discount rate on new issues of 91-day Treasury bills ¹ (1)
	(Ann. rate, bil. dol.)	(Ann. rate, percent)	(Ann. rate, mil. dol.)	(Mil. dol.)	(Percent)	(Mil. dol.)	(Mil. dol.)	(Percent)	(Percent)
1987									
January	-10.39 31.74 22.08	7.0 1.9 2.1	381,680	3,220.7 3,586.0 3,249.5	2.43 2.40 2.28	488 656 388	580 556 527	6.43 6.10 6.13	5.45 5.59 5.56
April	55.44 13.93 79.74	6.7 4.6 7.9	606,320	3,222.5 2,488.5 3,332.4	2.36 2.43 2.35	-166 44 414	993 1,035 776	6.37 6.85 6.73	5.76 5.75 5.69
July	67.61 56.14 57.46	1.6 4.1 8.9	562,548 	2,036.1 1,968.2 2,967.2	2.34 2.37 2.35	89 385 -147	672 647 940	6.58 6.73 7.22	5.78 6.00 6.32
October	47.39 21.59 51.54	9.1 5.8 11.4	613,960 	r3,004.2 p1,610.6 p5,512.2	2.66 2.54 2.47	186 298 252	943 625 777	7.29 6.69 6.77	6.40 5.81 5.80
1988									
January	74.83 60.42 62.29	13.2 10.1 6.3	504,596	p3,894.1 p4,625.5 p3,292.0	2.44 2.32 2.19	213 737 -823	1,082 396 1,752	6.83 6.58 6.58	5.90 5.69 5.69
April	46.21 35.78 96.64	12.5 6.2 r9.7	621,400	p3,065.6 p2,316.5 p2,453.4	2.31 2.32 2.34	-2,134 -1,538 -2,195	2,993 2,578 3,083	6.87 7.09 7.51	5.92 6.27 6.50
July	43.45 63.89 0.02	r7.9 r10.7 r2.7	p574,604	p4,582.8 p2,291.2 p3,533.0	2.45 2.38 2.42	-2,433 -2,288 -1,867	3,440 3,241 2,839	7.75 8.01 8.19	6.73 7.02 7.23
October	r46.87 p53.75 (NA)	r7.9 p6.4 (NA)	(NA)	p1,825.5 (NA)	(NA)	-1,237 r-1,742 p-676	2,299 2,861 p1,716	8.30 8.35 8.76	7.34 7.68 8.09
1989				!					
January								² 9.12	³8.29
April						į.			
July									
October									

See note on page 60.

Graphs of these series are shown on pages 13, 32, 33, and 34.

The following series reached their high values before 1987: series 113 (132.08) in September 1985; series 111 (22.6) in June 1984, series 110 (927,324) in 4th quarter 1985; series 14 (829.2) in July 1985; series 39 (1.78) in February 1984; and series 93 (-7,328), series 94 (8,017), series 119 (11.64), and series 114 (10.49) in August 1984.

2Average for weeks ended January 4, 11, 18, and 25.

3Average for weeks ended January 5, 12, 19, and 26.

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CYCLICAL INDICATORS BY ECONOMIC PROCESS—Continued

MAJOR ECONOMIC PROCESS					B7 MONEY AND	CREDIT—Continue	d						
Minor Economic Process	Interest Rates—Continued Outstanding Debt												
Timing Class	Łg, Łg, Lg	C, Lg, Lg	U, Lg, Lg	Łg, Lg, Lg	lg, lg, lg	lg, Lg, Lg	Lg, Lg, Lg	Lg, Lg, Lg	Lg, Lg, Lg				

	116. Yield on new issues of high-grade	115. Yield on long-term Treasury	117. Yield on municipal bonds, 20-	118. Secondary market yields on FHA	67. Bank rates on short-term business	109. Average prime rate charged by	66. Consumer installment credit out-		and industrial tstanding	95. Ratio, consumer in- stallment credit
Year and month	corporate bonds 1 U	bonds ¹ (1)	bond aver- age ¹ (1)	mortgages ¹@	loans¹(1)	banks 1 (1)	standing	72. Current dollars	101. Constant (1982) dollars	outstanding to personal income
	(Percent)	(Percent)	(Percent)	(Percent)	(Percent)	(Percent)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Percent)
1987							ļ			
January	8.59 8.58 8.68	7.60 7.69 7.62	6.61 6.61 6.66	8.79 8.81 8.94	7.46 	7.50 7.50 7.50	570,967 573,612 575,452	369,837 368,213 365,395	367,997 364,567 361,062	15.68 15.57 15.54
April	9.36 9.95 9.64	8.31 8.79 8.63	7.55 8.00 7.79	10.02 10.61 10.33	8.24 	7.75 8.14 8.25	580,072 581,233 587,878	365,690 365,227 364,635	358,871 355,972 354,015	15.57 15.56 15.69
July	9.70 10.09 10.63	8.70 8.97 9.58	7.72 7.82 8.26	10.38 10.55 11.22	8.20	8.25 8.25 8.70	593,512 598,190 602,978	360,324 357,470 359,324	348,139 344,383 346,503	15.71 15.73 15.78
October	10.80 10.09 10.22	9.61 8.99 9.12	8.70 7.95 7.96	10.90 10.76 10.63	8.47	9.07 8.78 8.75	606,927 608,726 613,021	362,492 362,909 367,994	348,215 348,281 353,161	15.57 15.67 15.56
1988										
January February March	9.81 9.43 9.68	8.82 8.41 8.61	7.69 7.49 7.74	10.17 9.86 10.28	8.37	8.75 8.51 8.50	619,258 624,294 629,485	372,564 378,027 378,893	356,180 360,713 361,194	15.79 15.82 15.79
April	9.92 10.25 10.08	8.91 9.24 9.04	7.81 7.91 7.78	10.46 10.84 10.65	8.49 	8.50 8.84 9.00	633,336 636,318 644,372	388,730 389,635 391,119	367,420 365,854 364,850	15.83 15.82 15.93
July	10.12 10.27 10.03	9.20 9.33 9.06	7.76 7.79 7.66	10.66 10.74 10.58	9.75 	9.29 9.84 10.00	647,993 653,317 653,319	392,813 r393,689 r391,760	364,053 r364,527 r362,405	15.90 H)15.97 15.88
October	9.86 9.98 10.05	8.89 9.07 9.13	7.47 7.46 7.61	10.23 10.63 10.81	10.11	10.00 10.05 10.50	r657,226 H)p661,705 (NA)	r393,941 395,922 H)p404,944	r364,086 365,579 H)p371,508	r15.73 p15.87 (NA)
1989								ļ		
January	² 9.92	²9.08	³ 7.35			"10.50				
April										
July										
October										

See note on page 60.

Graphs of these series are shown on pages 15, 34, and 35.

The following series reached their high values before 1987: series 116 (14.49), series 115 (13.00), and series 117 (10.67) in June 1984; series 118 (15.01) in May 1984; series 67 (13.29) in 3d quarter 1984; and series 109 (13.00) in August 1984.

Average for weeks ended January 6, 13, 20, and 27.

Average for weeks ended January 5, 12, 19, and 26.

Average for January 2 through 27.



DIFFUSION INDEXES AND RATES OF CHANGE

						C1 DIFFUS	ION INDEXES	-				
Year and month	950. Eleven le. indicator com (series 1, 5, 8 29, 32, 36, 99	onents , 19, 20,	951. Four rou coincident indi components (: 41, 47, 51, 57	cator series	952. Six laggin indicator comp (series 62, 77 101, 109)	onents	961. Average v hours of produ nonsupervisory 20 manufactur industries	ction or workers,	962. Initial cla unemployment State program areas ²	t insurance,	963. Employer private nonag payrolls, 186 industries	
	1-month	6-month	1-month	6-month	1-month	6-month	1-month	9-month	1-month	9-month	1-month	6-month
	span	span	span	span	span	span	span	span	span	span	span	span
1986												
January	59.1	59.1	75.0	100.0	58.3	50.0	32.5	80.0	58.8	49.0	57.0	48.1
	45.5	50.0	75.0	75.0	75.0	66.7	17.5	50.0	52.9	39.2	47.3	47.3
	59.1	54.5	50.0	75.0	66.7	50.0	80.0	37.5	64.7	51.0	49.5	43.8
April	63.6	54.5	100.0	75.0	0.0	41.7	45.0	65.0	25.5	56.9	50.8	42.7
	50.0	63.6	25.0	75.0	66.7	50.0	42.5	50.0	74.5	56.9	51.9	43.2
	59.1	63.6	37.5	100.0	33.3	33.3	45.0	40.0	56.9	67.6	46.8	47.0
July	59.1	68.2	87.5	75.0	50.0	50.0	40.0	75.0	34.3	92.2	51.9	46.5
	50.0	72.7	100.0	100.0	50.0	41.7	80.0	55.0	78.4	45.1	54.1	50.0
	50.0	90.9	75.0	100.0	41.7	50.0	65.0	67.5	17.6	90.2	51.4	55.9
October	54.5	72.7	75.0	75.0	91.7	75.0	47.5	90.0	71.6	70.6	53.0	53.2
	81.8	81.8	87.5	100.0	41.7	33.3	77.5	77.5	80.4	70.6	58.9	55.9
	81.8	90.9	100.0	100.0	25.0	58.3	45.0	55.0	7.8	94.1	58.9	58.4
1987												i
January	36.4	72.7	25.0	100.0	66.7	50.0	72.5	70.0	88.2	69.6	50.8	64.6
	45.5	72.7	100.0	100.0	25.0	58.3	72.5	75.0	35.3	82.4	59.2	64.3
	63.6	63.6	50.0	50.0	25.0	50.0	22.5	85.0	52.0	78.4	61.1	63.0
April	40.9	72.7	62.5	100.0	75.0	50.0	7.5	77.5	73.5	80.4	62.4	70.3
	45.5	63.6	50.0	100.0	50.0	66.7	95.0	42.5	78.4	94.1	62.4	72.4
	59.1	72.7	87.5	100.0	58.3	50.0	50.0	77.5	15.7	90.2	61.6	77.3
July	50.0	72.7	100.0	100.0	41.7	50.0	62.5	55.0	64.7	92.2	70.8	78.4
	45.5	72.7	100.0	100.0	41.7	66.7	52.5	62.5	84.3	59.8	62.2	79.7
	45.5	63.6	50.0	100.0	83.3	50.0	25.0	87.5	37.3	62.7	68.1	82.7
October	81.8	54.5	75.0	100.0	66.7	83.3	87.5	35.0	86.3	27.5	67.3	77.8
	22.7	59.1	50.0	100.0	75.0	83.3	35.0	50.0	23.5	62.7	67.8	77.0
	50.0	40.9	100.0	100.0	25.0	83.3	25.0	60.0	5.9	80.4	68.4	76.5
1988								•				
January	r36.4	31.8	75.0	100.0	r83.3	83.3	55.0	45.0	80.4	47.1	61.6	73.5
	54.5	50.0	87.5	100.0	r66.7	75.0	30.0	65.0	29.4	41.2	61.6	70.3
	54.5	63.6	100.0	100.0	50.0	r83.3	52.5	27.5	60.8	31.4	62.2	70.3
April	63.6	72.7	50.0	100.0	75.0	83.3	82.5	25.0	94.1	25.5	63.8	73.8
	31.8	77.3	100.0	100.0	25.0	66.7	22.5	55.0	29.4	86.3	58.1	70.5
	86.4	54.5	100.0	100.0	75.0	r83.3	60.0	r50.0	29.4	96.1	68.9	68.4
July	22.7 59.1 54.5	40.9 72.7 ³44.4	75.0 100.0 75.0	100.0 100.0 "100.0	25.0 r66.7 58.3	r58.3 75.0 °100.0	50.0 37.5 77.5	62.5 p40.0	68.6 22.5 76.5	r66.7 p86.3	61.4 51.9 49.5	r64.9 r72.4 p71.1
October November December	r54.5 36.4 ³ 72.2		100.0 75.0 "100.0		58.3 75.0 ⁵50.0		42.5 r42.5 p10.0		72.5 r5.9 p76.5		r62.4 r71.1 p63.2	

NOTE: Figures are the percent of series components rising. (Half of the unchanged components are counted as rising.) Data are centered within the spans: 1-month indexes are placed on the 2d month. 6month indexes on the 4th month, and 9-month indexes on the 6th month of the span; 1-quarter indexes are placed on the 1st month of the 2d quarter and 4-quarter indexes on the 2d month of the 3d quarter. Series are seasonally adjusted except for those, indicated by (1), that appear to contain no seasonal movement. Series numbers are for identification only and do not reflect series relationships or order. Complete titles and sources are listed at the back of this issue. The "r" indicates revised; "p", preliminary; "e", estimated: "a", anticipated; and "NA", not available.

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Graphs of these series are shown on page 36.

¹Values of this index prior to January 1984 include a twelfth component, series 12, which has been suspended from the current index.

Figures are the percent of components declining.

Fixcludes series 36 and 111, for which data are not available.

Excludes series 57, for which data are not available.

Excludes series 77 and 95, for which data are not available.



DIFFUSION INDEXES AND RATES OF CHANGE—Continued

					C1	DIFFUSION IN	IDEXES—Continu	ued			· · · · · · · · · · · · · · · · · · ·
Year and month	964. Manufact new orders, 34 durable goods	!	965. Newly ap capital approp in 1982 dollar manufacturing industries	riations s, 17	966. Industria duction, 24 in		967. Spot mar prices, 13 raw industrial mate		968. Stock pri common stock		960. Net profits, manufacturing, about 600 companies ² ①
	1-month span	9-month span	1-quarter span	4-Q moving average	1-month span	6-month span	1-month span	9-month span	1-month span	9-month span	(4-quarter span)
1987			Revised ³	(3)							
January February	41.2 70.6 47.1	91.2 73.5 89.7	41 	 r61	31.2 64.6 60.4	91.7 89.6 75.0	84.6 42.3 30.8	88.5 96.2 80.8	98.8 95.2 83.3	87.8 92.7 92.5	72
April	54.4 48.5 61.8	80.9 73.5 82.4	82 	 62	50.0 70.8 70.8	75.0 87.5 83.3	61.5 88.5 57.7	73.1 96.2 80.8	39.3 46.3 93.9	97.5 97.5 62.5	7:
luly	67.6 44.1 58.8	82.4 73.5 73.5	59 	 63	70.8 62.5 50.0	91.7 91.7 95.8	73.1 76.9 61.5	88.5 88.5 76.9	81.3 95.0 8.8	10.0 12.5 10.0	7
October	52.9 44.1 55.9	76.5 73.5 73.5	65 	 r58	75.0 79.2 66.7	83.3 79.2 83.3	53.8 46.2 50.0	53.8 69.2 69.2	0.0 0.0 53.8	17.5 8.0 12.8	7
1988											
January February March	47.1 55.9 41.2	73.5 85.3 76.5	44 	 p53	52.1 54.2 70.8	83.3 75.0 70.8	42.3 34.6 65.4	69.2 61.5 61.5	75.0 88.8 37.0	5.1 7.7 52.6	 8
April	57.4 55.9 55.9	73.5 70.6 r79.4	65 	 (NA)	79.2 60.4 58.3	91.7 87.5 r79.2	57.7 65.4 65.4	61.5 61.5 61.5	37.2 3.8 97.4	84.6 91.0 92.3	 (N A
July	41.2 67.6 50.0	r79.4 p76.5	p38 		83.3 60.4 r56.3	79.2 83.3 p95.8	42.3 46.2 38.5	57.7 53.8 465.4	30.8 28.2 69.2	79.5 64.1	
October	r52.9 r66.2 p66.2		(NA)		r62.5 r58.3 p60.4		42.3 69.2 76.9		84.6 23.1 74.4		
1989											
January							473.1		:		
April											
luly											
October											

See note on page 74.

Graphs of these series are shown on page 37.



Based on 42 industries through April 1987, on 41 industries through June 1987, on 40 industries through March 1988, and on 39 industries through April 1307, on 41 Industries through Matter 1308, and on 33 industries through Matter 1308, and on 33 industries through Matter 1308, and on 33 industries through Matter 1308, and on 33 industries through Matter 1308, and on 33 industries through Matter 1308, and on 33 industries through Matter 1308, and on 33 industries through Matter 1308, and on 34 industries through Matter 1308, and on 34 industries through Matter 1308, and on 35 industries through Matter 1308, and



DIFFUSION INDEXES AND RATES OF CHANGE—Continued

						DIF	Fusion in	DEXESC	ontinued					
Year and	970. Expenditures 21 industries	for new plant and	l equipment,		971. New	orders, m	nanufacturi	ng ¹ 🛈	972. N and tr	let profits, ma ade ¹ (1)	nufact	uring	973. N et sales, mand trade ¹ (u)	inufacturing
quarter	a. Actual expenditures	b. Later projections	c. Early projections		Actual		Anticipat	ed	Actual		Antic	ipated	Actual	Anticipated
	(1-Q span)	(1-Q span)	(1-Q spa	an)	(4-Q sp	oan)	(4-Q	span)	(4-	Q span)	(4	-Q span)	(4-Q span)	(4-Q span
1986					*									
First quarter	19.0 57.1 28.6 71.4	47.6 66.7 40.5 76.2	60	6.2 6.7 5.2 8.1		76 76 74 75		82 83 84 78		70 71 70 70		78 81 81 78	72 73 74 74	83 84 83 86
1987	50.0	50.4		1.9		70		00		7.4		70	70	0,
First quarter	50.0 69.0 83.3 69.0	52.4 88.1 85.7 76.2	71	76.2 57.1 47.6		78 83 82 82		80 83 85 86		74 74 75 76		78 81 83 82	78 80 82 83	83 83 84 86
1988 First quarter	81.0 73.8 64.3 (NA)	95.2 69.0 71.4 42.9	5 5	71.4 57.1 50.0 52.4		82 82 82 NA)		84 84 86 84		76 76 76 (NA)		82 82 82 84	80 80 82 (NA)	84 84 86 81
1989 First quarter	, , ,		7	76.2				82				80		84
				ل		C1 DI	ffusion in	IDEXES—(Continued	!				<u> </u>
Year	974. Number of e manufacturing and		975. Level of in manufacturing a				elling price	s, manu-		977. Selling trade 1 (u)	prices	, wholesale	978. Selling p	ices, retail
and quarter	Actual	Anticipated	Actual		ipated	Actual	<u> </u>	Anticipa	ted	Actual		Anticipated	Actual	Anticipated
	(4-Q span)	(4-Q span)	(4-Q span)	(4-	-Q span)	(4-() span)	(4-Q	span)	(4-Q spa	n)	(4-Q span)	(4-Q span)	(4-Q spa
1986				1										
First quarter Second quarter Third quarter Fourth quarter	58 59 60 58	59 60 59 58	62 61 62 60		58 58 60 57	58 60			62 65 62 59	5	59 59 58 52	64 64 62 62	62 66	6 6 6 6
First quarter	60 61 64 64	60 59 62 62	64 65 66 68		60 60 61 62	60 61			60 66 67 66	7	63 70 72 70	63 68 66 69	67 72	6 6 6 7
1988 First quarter	63 62 62 (NA)	63 62 62 61	67 70 69 (NA)		62 64 62 63		74 74 74 (NA)		70 69 74 72	,	74 73 74 A)	72 72 71 68	70 73	6 7 7 7
1989 First quarter		62			63				70			72		7

NOTE: Figures are the percent of series components rising. (Half of the unchanged components are counted as rising.) Data are placed at the end of the span. Series are seasonally adjusted except for those, indicated by , that appear to contain no seasonal movement. The "r" indicates revised; "p", preliminary; and "NA", not available.

Graphs of these series are shown on page 38.

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Federal Reserve Bank of St. Louis

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DIFFUSION INDEXES AND RATES OF CHANGE—Continued

				C2 S	SELEC	TED DIFFUSIO	N INC	DEX COMPONE	ENTS:	Basic Data a	nd Dir	rections of Ch	ange			
Diffusion index components								198	88		-					
		May		June		July	Þ	August	Se	ptember ^r	0	ctober	No	vember ^r	Dec	ember ^p
961. AVE	RAGE	WEEKLY HOL	irs o		N OR Hours	nonsupervis)	ORY	WORKERS, M	ANUFA	ACTURING 1						
All manufacturing industries		41.0	+	41.1	0	41.1	_	41.0	+	41.2	0	41.2	0	41.2	_	41.0
Percent rising of 20 components		(22)		(60)		(50)		(38)		(78)		(42)		(42)		(10)
Durable goods industries:																
Lumber and wood products Furniture and fixtures	- 0	40.1 39.5	+	40.2 39.4	+	40.5 39.7	- -	40.0 39.0	- +	39.9 39.6	+	40.7 39.4	- +	40.3 39.5	+	40.6 39.3
Stone, clay, and glass products	+	42.3 43.6	+	42.4 43.6	-	42.1 43.4	0+	42.1 43.5	+ +	42.3 44.0	+	42.5 43.8	+	42.6 43.7	- -	42.1 43.4
Fabricated metal products	- -	41.9 42.6	+	42.0 42.5	+	41.7 43.0	+	41.8 42.4	+ +	42.0 42.7	- -	41.9 42.6	+	42.1 42.4	- 0	41.9 42.4
Electric and electronic equipment Transportation equipment	- 0	41.0 43.0	+ 0	41.1 43.0	-	41.0 42.6	-+	40.8 42.7	+ +	41.0 43.3	0 0	41.0 43.3	0 +	41.0 43.4	- -	40.7 43.0
Instruments and related products Miscellaneous manufacturing	-	41.4 39.2	- +	41.3	+	41.8 39.2	0	41.5 39.2	+ 0	41.6 39.2	+	41.9 39.1	- +	41.5 39.3	-	41.4 39.0
Nondurable goods industries:																
Food and kindred products Tobacco manufacturers ²	0 +	40.1 39.5	++	40.3 39.8	+	40.5 39.2	+	40.4	- +	40.3 41.2	+ +	40.6 41.3	0 -	40.6 40.3	-	40.5 39.4
Textile mill products	-	40.8 36.8	- +	40.7 36.9	+ 0	41.1 36.9	0	41.1	0 +	41.1 37.1	- -	41.0 36.8	0 +	41.0 37.0	0 -	41.0 36.8
Paper and allied products	0 -	43.3 37.7	+	43.2 38.0	0	43.2 38.0	0	43.2 38.0	++	43.3 38.1	- -	43.2 38.0	 -	43.0 37.8	- -	42.9 37.7
Chemicals and allied products	-	42.0 44.1	+	42.4 45.1	- +	42.3 45.3	- -	42.1 44.6	0 +	42.1 44.7	+ 0	42.5 44.7	- -	42.4 44.1	- -	42.3 43.8
Rubber and miscellaneous plastics products	- 0	41.7 37.3	-	41.6 36.9	0+	41.6 37.0	+	41.5 37.6	+	41.6 37.5	- +	41.5 37.9	+	41.7 37.5	-	41.4 37.1
		964. MANUF	ACTU			S, DURABLE G dollars)	00DS	INDUSTRIES	1 3		L					
All durable goods industries	-	115,369	+	125,442	-	116,112	+	122,806	-	119,321	+	122,791	+	122,942	+	130,846
Percent rising of 34 components		(56)		(56)		(41)		(68)		(50)		(53)		(66)		(66)
Primary metals	+	12,348 12,038	-	12,271 11,958	- -	12,103 11,471	- +	11,794 11,638		12,496 12,007	 - +	12,428 12,026		12,631 12,400	+	13,303 13,288
Machinery, except electrical	+	20,969 18,865	+	22,018 18,461		21,408 19,039	+	22,851 19,025	-	21,459 18,629		21,181 18,977		21,385 20,115	- +	20,707
Transportation equipment	- -	28,313 22,836	+	37,735 22,999	- -	29,239 22,852		34,707 22,791		31,618 23,112		34,898 23,281	 - +		+	38,882 24,325

NOTE: To facilitate interpretation, the month-to-month directions of change are shown along with the numbers: (+) = rising, (o) = unchanged, and (-) = falling. The "r" indicates revised: " ρ ", preliminary; and "NA", not available.

Plata for most of the diffusion index components are not available for publication, but they are included in the totals and directions of change for the six major industry groups shown here.



^{*}Unless otherwise noted, data are seasonally adjusted by the source agency.

²Not seasonally adjusted.



DIFFUSION INDEXES AND RATES OF CHANGE—Continued

			C	2 SELECT	ED DIF	FUSION IN	DEX C	OMPONENT	S: Bası	c Data and	Directi	ons of Cha	nge—C	ontinued		
Diffusion index components								19	88							
		May		June		July	,	Nugust	Sep	tember ^r	0c	tober ^r	Nov	vember ^r	De	cember ^p
		<u>(</u>	966. II	NDEX OF IN	DUSTA 177 = 1		CTION	1								
All industrial production	+	136.1	+	136.5	+	138.0	+	138.5	+	138.6	+	139.3	+	139.8	+	140.2
Percent rising of 24 components 2		(60)		(58)		(83)		(60)		(56)		(62)		(58)		(60)
Durable manufactures:					t								!			
Lumber and products	+	139.8 160.5	 - 	136.4 161.2	+	136.6 162.9	- +	133.8 164.9	- 0	133.5 164.9	+	137.2 164.5	++	138.6 165.0		(NA) (NA)
Clay, glass, and stone products Primary metals	+	121.5 89.2	+	123.4 87.5	- +	122.2 91.5	+	122.6 90.8	0 +	122.6 93.1	- +	122.5 94.3	+	124.6 92.4	-	(NA) 92.0
Fabricated metal products Nonelectrical machinery	+	119.8 170.3	++	120.4 171.2	++	121.7 173.1	+	122.1 174.1	++	122.5 174.8	+	122.6 173.2	++	124.2 174.6	+	124.5 174.7
Electrical machinery	+	179.1 133.1	+	179.5 132.8	+	181.5 131.9	+	182.2 131.8	- +	181.8 132.7	+	182.9 134.8	- +	182.3 135.6	-+	181.7 138.0
Instruments Miscellaneous manufactures	+	151.3 106.0	+	153.0 107.6	++	156.4 107.8	++	156.8 108.3	+	157.8 108.5	+	159.9 107.7	- +	159.8 109.0	+	160.5 (NA)
Nondurable manufactures:																
Foods Tobacco products	+ 0	141.0 107.2	+	141.3 104.5	+	143.3 100.6	0 +	143.3 105.1	- -	143.2 105.0	+	145.2 103.7	+	145.5 (NA)		(NA) (NA)
Textile mill products Apparel products	- -	114.6 108.6	- +	114.3 109.3	++	117.1 109.4	-	116.4 108.9	- +	116.2 109.9	+	117.0 109.5	-	116.5 (NA)		(NA) (NA)
Paper and products Printing and publishing	+	149.5 180.7	- +	148.6 182.3	+	152.3 184.9	- +	151.0 186.7	- +	150.9 188.0	+	151.7 187.8	- -	150.7 186.7	0	(NA) 186.7
Chemicals and products Petroleum products	+	149.1 95.2	+	150.5 94.1	+	153.4 95.0	++	154.8 96.0	+	155.3 93.7	+	157.0 96.3	+	158.1 94.7	+	(NA) 97.7
Rubber and plastics products	+	173.4 57.1	++	174.4 58.9	++	175.4 59.1	- +	175.3 59.4	0 +	175.3 59.9	+	177.3 61.0	+	178.9 60.2		(NA) (NA)
Mining:																
Metal mining	- -	86.0 127.8	-	82.2 126.9	+	94.0 141.5	+	96.6 137.2	++	99.1 142.2	+	100.4 138.5	+	(NA) 149.7	+	(NA) 151.8
Oil and gas extraction Stone and earth minerals	-	94.6 104.1	+	95.8 137.4	-+	93.3 140.2	- +	93.2 141.3	- -	92.0 139.7	-+	91.3 142.9	-	90.8 1 4 2.2		(NA) (NA)

NOTE: To facilitate interpretation, the month-to-month directions of change are shown along with the numbers: (+) rising. (o) unchanged, and (-) = falling. The "r" indicates revised: "p", preliminary; and "NA", not available.

¹Data are seasonally adjusted by the source agency.
²Where actual data for separate industries are not available, estimates are used to compute the percent rising.



DIFFUSION INDEXES AND RATES OF CHANGE—Continued

		C2 SE	LECTED DIFFUSI	ION INDEX COM	PONENTS: Basic	Data and Direct	tions of Change-	-Continued	
Diffusion index components				19	88				1989
	May	June	Ju1y	August	September	October	November	December	January¹
	96	7. INDEX OF SF	POT MARKET PRI	ICES, RAW INDU	STRIALS 2				
Raw industrials price index (1967 - 100)	+ 301.6	+ 309.5	- 309.0	+ 309.9	- 306.4	- 305.0	+ 309.7	+ 317.2	+ 323.9
Percent rising of 13 components	(65)	(65)	(42)	(46)	(38)	(42)	(69)	(77)	(73)
					Dollars		•		
Copper scrap	+ 0.768 1.693	+ 0.820 1.808	- 0.776 1.711	- 0.773 1.704	+ 0.875	+ 0.942 2.077	+ 0.954 2.103	+ 0.989 2.180	- 0.968 2.134
Lead scrap(pound) (kilogram)	+ 0.215	+ 0.230	+ 0.232	o 0.232	+ 0.246	+ 0.258	+ 0.270	+ 0.285	o 0.285
	0.474	0.507	0.511	0.511	0.542	0.569	0.595	0.628	0.628
Steel scrap (U.S. ton) (metric ton)	- 103.000	+ 106.500	+ 120.000	- 117.000	- 115.000	- 114.000	- 108.600	- 106.000	+ 114.000
	113.537	117.395	132.276	128.969	126.765	125.662	119.710	116.844	125.662
Tin(pound) (kilogram)	+ 3.852	+ 4.008	+ 4.058	+ 4.176	+ 4.222	- 4.142	+ 4.182	+ 4.195	+ 4.235
	8.492	8.836	8.946	9.206	9.308	9.131	9.220	9.248	9.336
Zinc(pound)	+ 0.579	+ 0.651	+ 0.684	o 0.684	+ 0.699	+ 0.708	+ 0.724	+ 0.754	+ 0.803
	1.276	1.435	1.508	1.508	1.541	1.561	1.596	1.662	1.770
Burlap (yard) (meter)	+ 0.282	- 0.281	- 0.277	+ 0.285	- 0.281	- 0.276	+ 0.278	+ 0.280	+ 0.281
	0.308	0.307	0.303	0.312	0.307	0.302	0.304	0.306	0.307
Cotton	+ 0.619	+ 0.633	- 0.574	- 0.549	- 0.513	+ 0.520	+ 0.533	+ 0.547	+ 0.554
	1.365	1.396	1.265	1.210	1.131	1.146	1.175	1.206	1.221
Print cloth	- 0.530	- 0.500	- 0.498	+ 0.508	- 0.500	- 0.480	+ 0.492	+ 0.500	+ 0.518
	0.580	0.547	0.545	0.556	0.547	0.525	0.538	0.547	0.566
Wool tops(pound)(kilogram)	+ 7.100	- 6.575	- 6.500	o 6.500	o 6.500	+ 6.950	+ 7.480	- 7.088	- 7.000
	15.653	14.495	14.330	14.330	14.330	15.322	16.490	15.626	15.432
Hides (pound) (kilogram)	- 1.089	- 0.969	- 0.941	+ 1.026	- 0.980	- 0.905	- 0.874	- 0.865	+ 0.920
	2.401	2.136	2.075	2.262	2.161	1.995	1.927	1.907	2.028
Rosin	o 47.500 o 47.500	+ 56.600	+ 62.250	+ 65.000					
	104.719	104.719	104.719	104.719	104.719	104.719	124.780	137.236	143.299
Rubber	+ 0.593	+ 0.710	- 0.662	- 0.640	- 0.599	- 0.555	- 0.536	+ 0.539	+ 0.556
	1.307	1.565	1.459	1.411	1.321	1.224	1.182	1.188	1.226
Tallow(pound)	- 0.158	+ 0.172	+ 0.179	- 0.174	- 0.154	- 0.146	- 0.140	+ 0.152	- 0.148
(kilogram)	0.348	0.379	0.395	0.384	0.340	0.322	0.309	0.335	0.326

NOTE: To facilitate interpretation, the month-to-month directions of change are shown along with the numbers: (+) rising, (o) unchanged, and (-) - falling. preliminary; and "NA", not available.



¹The index is the average for January 3 through 27; component prices are averages for January 3, 10, 17, and 24.
²Data are not seasonally adjusted. These series are based on copyrighted data used by permission; they may not be reproduced without written permission from Commodity Research Bureau, Inc. Components are converted to metric units by the Bureau of Economic Analysis.



NATIONAL INCOME AND PRODUCT

				A1	GNP AND P	ersonal inc	OME			····-		
Year and	200. Gross national prod	uct in current dollars		50. Gros	s national pro	oduct in 1982	dollars			217. Per capita gross national product in 1982	213. Final sales in 1982 dollars	
quarter	a. Total t	ch	Percent ange at	a. Total	i	b. Differenc	e	c. Percent change at		dollars		
	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	nual rate		n. rate, . dol.)		Ann. rate, bil. dol.)			(Ann. rate, dollars)	(Ann. rate, bil. dol.)	
1985			!									
First quarter	3,925.6 3,979.0 4,047.0 4,107.9	73.8 53.4 68.0 60.9	7.9 5.6 7.0 6.2		3,577.5 3,599.2 3,635.8 3,662.4		42.3 21.7 36.6 26.6		4.9 2.4 4.1 3.0	15,004 15,061 15,173 15,244	3,582 3,639	2.3 9.8
1986 First quarter	4,180.4	72.5	7.0		2 710 2		56.9		6.4	15,447	2 672	
Second quarter Third quarter Fourth quarter	4,207.6 4,268.4 4,304.6	27.2 60.8 36.2	7.2 2.6 5.9 3.4		3,719.3 3,711.6 3,721.3 3,734.7		-7.7 9.7 13.4		0.8 1.0 1.4	15,380 15,381 15,397	3,688 3,718	3.0
1987 First quarter Second quarter Third quarter Fourth quarter	4,391.8 4,484.2 4,568.0 4,662.8	87.2 92.4 83.8 94.8	8.4 8.7 7.7 8.6		3,776.7 3,823.0 3,865.3 3,923.0		42.0 46.3 42.3 57.7		4.6 5.0 4.5 6.1	15,537 15,693 15,826 16,022	3,795 3,852	2.2
1988	1,002.0	,			0,520.0		J, .,		0.1	- 7.	. 0,000	• •
First quarter	4,724.5 4,823.8 4,909.0 p4,989.9	61.7 99.3 85.2 p80.9	5.4 8.7 7.3 p6.8		3,956.1 3,985.2 4,009.4 p4,029.2		33.1 29.1 24.2 p19.8		3.4 3.0 2.5 2.0	16,126 16,213 16,283 p16,30	3,949 3,969	9.9 9.9
	A1 GNF	P AND PERSONAL INCOME	—Continued			<u> </u>	A2 P	ersonal consu	MPTI0	n expenditures		
Year and		Disposable personal inco	me		230. Total i	n current	231. Tot dollars	al in 1982		Durable goods rrent dollars	233. Durable goods in 1982 dollars	,
quarter	224. Current dollars	225. Constant (1982) dollars	227. Per capita 1982 dollars	in								
	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rat dollars)			. rate, dol.)		Ann. rate, pil. dol.)		(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	
1985												
First quarter	2,764.6 2,850.7 2,840.0 2,899.5	2,509.4 2,563.4 2,535.4 2,562.8	5 1 4 1	0,524 0,727 0,581 0,667	2 2	,554.9 ,599.3 ,661.4 ,700.4		2,319.1 2,337.4 2,375.9 2,386.9		361.4 367.1 387.2 373.2	344 350 369 356).3 9.1
First quarter	2,965.1 3,016.3 3,032.4 3,064.7	2,614.5 2,655. 2,643.5 2,649.6	9 1	0,858 1,006 0,928 0,923	2 2	,739.0 ,772.1 ,842.8 ,876.0		2,415.1 2,440.9 2,478.6 2,486.2		381.4 393.0 429.9 421.8	363 374 405 397	1.2 5.1
1987 First quarter Second quarter Third quarter Fourth quarter	3,143.9 3,154.1 3,224.9 3,315.8	2,679. 2,652. 2,683. 2,728.	3 1 9 1	1,024 0,889 0,989 1,145	2 3	,921.7 ,992.2 ,058.2 ,076.3		2,490.2 2,516.6 2,545.2 2,531.7		403.5 420.5 441.4 422.0	378 391 406 387	1.3
1988 First quarter	3,375.6 3,421.5 3,507.5 p3,587.1	2,762. 2,762. 2,800. p2,832.	2 1 4 1	1,260 1,237 1,362 1,463	3	,128.1 ,194.6 3,261.2 3,320.1		2,559.8 2,579.0 2,603.8 p2,621.9		437.8 449.8 452.9 p459.3	401 410 410 p412	0.6

NOTE: Series are seasonally adjusted except for those, indicated by (1), that appear to contain no seasonal movement. Series numbers are for identification only and do not reflect series relationships or order. Complete titles and sources are listed at the back of this issue. The "r" indicates revised; "p", preliminary; "e", estimated; "a", anticipated; and "NA", not available. Graphs of these series are shown on pages 40 and 41.

JANUARY 1989 BCD



NATIONAL INCOME AND PRODUCT—Continued

	A2	PERSONAL CONSUMPTIO	N EXPENDITURES—Con	tinued		A3 GROSS PRIVATE	DOMESTIC INVESTMENT	
Year and quarter	236. Nondurable goods in current dollars	238. Nondurable goods in 1982 dollars	237. Services in current dollars	239. Services in 1982 dollars	240. Total in current dollars	241. Total in 1982 dollars	242. Fixed invest- ment in current dollars	243. Fixed invest- ment in 1982 dollars
	(Ann. rate,	(Ann. rate,	(Ann. rate,	(Ann. rate,	(Ann. rate,	(Ann. rate,	(Ann. rate,	(Ann. rate,
	bil. dol.)	bil. dol.)	bil. dol.)	bil. dol.)	bil. dol.)	bil. dol.)	bil. dol.)	bil. dol.)
1985								
First quarter	890.9	838.2	1,302.7	1,136.2	639.3	634.3	621.5	618.6
	905.6	843.0	1,326.6	1,144.1	652.3	647.5	632.8	630.6
	915.7	850.0	1,358.5	1,156.8	626.7	618.1	626.0	622.1
	932.7	858.3	1,394.5	1,172.2	654.1	648.0	646.8	640.4
1986 First quarter	938.4	870.4	1,419.2	1,181.4	686.6	678.0	642.6	632.4
	937.2	880.9	1,441.9	1,185.8	667.8	652.1	648.3	628.5
	944.7	881.4	1,468.2	1,192.0	653.0	627.6	652.3	624.6
	954.1	885.3	1,500.1	1,203.6	656.4	616.5	658.4	627.0
1987 First quarter Second quarter Third quarter Fourth quarter	977.5	889.9	1,540.7	1,222.0	685.5	646.4	647.8	616.6
	995.3	889.8	1,576.4	1,235.5	698.5	660.1	665.8	632.3
	1,006.6	891.9	1,610.2	1,246.8	702.8	667.9	688.3	654.9
	1,012.4	890.5	1,641.9	1,253.6	764.9	724.7	692.9	657.6
1988 First quarter Second quarter Third quarter Fourth quarter	1,016.2	892.7	1,674.1	1,265.9	763.4	728.9	698.1	662.9
	1,036.6	893.6	1,708.2	1,274.8	758.1	715.1	714.4	679.7
	1,060.8	904.5	1,747.5	1,288.9	772.5	726.1	722.8	686.6
	p1,075.2	p908.7	p1,785.6	p1,300.7	p767.9	p717.1	p734.3	p687.9
		OSS PRIVATE IC INVEST.—Con.		A4	GOVERNMENT PURCHAS	es of goods and ser	VICES	
Year and quarter	245. Change in business inven- tories in current dollars	30. Change in business inven- tories in 1982 dollars	260. Total in current dollars	261. Total in 1982 dollars	262. Federal Government in current dollars	263. Federal Government in 1982 dollars	266. State and local government in current dollars	267. State and local government in 1982 dollars
	(Ann. rate,	(Ann. rate,	(Ann. rate,	(Ann. rate,	(Ann. rate,	(Ann. rate,	(Ann. rate,	(Ann. rate,
	bil. dol.)	bil. dol.)	bil. dol.)	bil. dol.)	bil. dol.)	bil. dol.)	bil. dol.)	bil. dol.)
1985								
First quarter	17.8	15.8	784.4	705.5	336.1	309.0	448.3	396.4
	19.5	16.9	801.7	716.7	339.6	313.3	462.1	403.4
	0.7	-4.0	840.2	749.8	368.4	340.9	471.8	408.9
	7.2	7.7	856.7	752.7	376.6	340.6	480.1	412.1
First quarter	44.0	45.7	847.8	741.8	356.6	322.7	491.2	419.1
	19.5	23.6	868.8	758.8	368.7	333.6	500.2	425.2
	0.7	3.0	881.8	766.9	372.7	336.7	509.1	430.2
	-2.0	-10.5	886.5	774.5	366.7	340.5	519.7	434.0
1987 First quarter Second quarter Third quarter Fourth quarter	37.7	29.8	903.8	772.9	372.7	334.0	531.1	438.9
	32.7	27.8	915.7	772.2	377.5	332.1	538.2	440.1
	14.5	13.0	932.2	782.9	386.3	342.1	546.0	440.8
	72.0	67.1	947.3	792.6	391.4	347.7	555.9	444.9
1988 First quarter Second quarter Third quarter Fourth quarter	65.3	66.0	945.2	776.4	377.7	327.8	567.5	448.7
	43.7	35.3	961.6	783.8	382.2	331.6	579.4	452.2
	49.7	39.5	955.3	773.5	367.7	320.1	587.6	453.4
	p33.7	p29.2	p992.2	p790.9	p393.2	p332.9	p599.0	p458.0

See note on page 80.

Graphs of these series are shown on pages 41, 42, and 43.





NATIONAL INCOME AND PRODUCT—Continued

			A5 FOR	reign trad	DE .						IONAL INCOME TS COMPONENTS
Year and	Net exports of goo	ds and services	Exports of god	ods and ser	vices	Impo	rts of goo	ds and services		220. National in- come in current	280. Compensation of
quarter		255. Constant (1982) dollars	252. Current dollars	256. Cor (1982)		253. Curren dollars	t	257. Constant (1982) dollars		dollars	employees
	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)		n. rate, l. dol.)	(Ann. r bil. do		(Ann. rate, bil. dol.)		(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)
1985 First quarter Second quarter Third quarter Fourth quarter	-53.1 -74.3 -81.2 -103.2	-81.4 -102.4 -107.9 -125.3	376.8 372.6 365.1 369.2		371.2 367.6 362.6 367.4	1	429.9 446.9 446.2 472.4	452 470 470 492	.0 .5	3,161.5 3,209.2 3,252.4 3,312.8	2,314.8 2,347.5 2,381.2 2,426.7
1986 First quarter Second quarter Third quarter Fourth quarter 1987	-93.0 -101.2 -109.1 -114.3	-115.7 -140.2 -151.8 -142.4	376.9 373.9 377.8 385.2		374.5 372.1 379.1 387.8	1	469.9 475.1 486.9 499.4	490 512 530 530	.4 .9	3,378.9 3,421.8 3,450.9 3,496.6	2,461.0 2,483.4 2,518.2 2,565.8
First quarter Second quarter Third quarter Fourth quarter	-119.1 -122.2 -125.2 -125.7	-132.8 -126.0 -130.7 -126.0	395.3 416.8 440.4 459.7		394.9 416.4 440.9 459.2		514.4 539.0 565.6 585.4	527 542 571 585	.3 .6	3,573.0 3,631.8 3,708.0 3,802.0	2,608.9 2,652.0 2,702.8 2,769.9
First quarter Second quarter Third quarter Fourth quarter	-112.1 -90.4 -80.0 p-90.3	-109.0 -92.6 -93.9 p-100.7	487.8 507.1 536.1 p543.8		486.2 496.9 514.0 p517.6		599.9 597.5 616.0 634.1	595 589 607 p618	.5 .9	3,850.8 3,928.8 4,000.7 (NA)	2,816.4 2,874.0 2,933.2 p2,996.3
	A6	NATIONAL INCOME	AND ITS COMPONENTS	S—Continu	ed					A7 SAVING	
Year and quarter	282. Proprietors' income with IVA and CCAdj ¹	284. Rental income of persons with CCAdj ¹	286. Corporate profits before with IVA and CCAdj ¹		288. Net in	terest	290. Gr	oss saving	295. savin	Business g	292. Personal saving
	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. ra bil. dol			ı. rate, dol.)		Ann. rate, bil. dol.)		(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)
1985 First quarter	253.2 257.3 248.8 264.2	9. 11. 8. 7.	2 9	266.0 275.8 296.1 291.4		318.4 317.4 317.4 322.7		550.9 553.3 509.4 520.3		518.4 532.4 554.1 554.5	128.7 167.8 93.3 111.7
First quarter	273.1 294.6 285.0 294.2	10. 12. 13. 13.	5	303.2 297.1 301.2 293.9		331.1 334.1 333.3 329.3		571.2 537.5 517.7 522.5		565.6 557.7 562.3 554.3	136.9 154.1 98.8 96.8
First quarter	310.1 308.9 306.8 326.0	17. 17. 18. 20.	8	298.3 305.2 322.0 316.1		338.3 348.1 358.3 369.5		539.2 542.4 556.8 603.4		549.0 555.5 569.6 570.0	130.8 69.5 72.6 144.0
1988 First quarter	323.9 328.8 321.6 p324.6	20. 19. 19. p19	7	316.2 326.5 330.0 (NA)		373.9 380.6 396.2 p415.1		627.0 634.1 665.4 (NA)		576.4 583.3 587.2 (NA)	149.9 127.8 145.7 p164.6



See note on page 80.

Graphs of these series are shown on pages 44, 45, and 46.

IVA, inventory valuation adjustment; CCAdj, capital consumption adjustment.



NATIONAL INCOME AND PRODUCT—Continued

	A7 SAVIN	G—Continued		A8 SHA	res of GNP and National	LINCOME	
Year and	298. Government surplus or deficit	293. Personal saving rate		Pe	rcent of gross national prod	uct	
quarter	(Ana rata		235. Personal con- sumption expendi- tures	248. Nonresidential fixed investment	249. Residential fixed investment	247. Change in business inventories	251. Net exports of goods and services
	(Ann. rate, bil. dol.)	(Percent)	(Percent)	(Percent)	(Percent)	(Percent)	(Percent)
1985							
First quarter	-96.3 -146.9 -138.0 -145.9	4.7 5.9 3.3 3.9	65.1 65.3 65.8 65.7	11.1 11.2 10.8 11.0	4.7 4.7 4.7 4.8	0.5 0.5 0.0 0.2	-1.4 -1.9 -2.0 -2.5
First quarter	-131.4 -174.3 -143.5 -128.5	4.6 5.1 3.3 3.2	65.5 65.9 66.6 66.8	10.5 10.3 10.1 10.1	4.9 5.1 5.2 5.2	1.1 0.5 0.0 0.0	-2.2 -2.4 -2.6 -2.7
First quarter	-140.6 -82.6 -85.5 -110.7	4.2 2.2 2.3 4.3	66.5 66.7 66.9 66.0	9.6 9.8 10.1 10.0	5.1 5.1 5.0 4.9	0.9 0.7 0.3 1.5	-2.7 -2.7 -2.7 -2.7
1988 First quarter Second quarter Third quarter Fourth quarter	-99.2 -77.1 -67.5 (NA)	4.4 3.7 4.2 p4.6	66.2 66.2 66.4 p66.5	10.0 10.1 10.1 p10.0	4.8 4.7 4.7 p4.7	1.4 0.9 1.0 p0.7	-2.4 -1.9 -1.6 p-1.8
			A8 SHARES OF	GNP AND NATIONAL INCO	ME—Continued		
Year and	Percent of GN	P—Continued			Percent of national income		
quarter	265. Federal Govern- ment purchases of goods and services	268. State and local government purchases of goods and services	64. Compensation of employees	283. Proprietors' income with IVA and CCAdj ¹	285. Rental income of persons with CCAdj ¹	287. Corporate profits before tax with IVA and CCAdj ¹	289. Net interest
	(Percent)	(Percent)	(Percent)	(Percent)	(Percent)	(Percent)	(Percent)
1985							
First quarter	8.6 8.5 9.1 9.2	11.4 11.6 11.7 11.7	73.2 73.1 73.2 73.3	8.0 8.0 7.6 8.0	0.3 0.3 0.3 0.2	8.4 8.6 9.1 8.8	10.1 9.9 9.8 9.7
First quarter	8.5 8.8 8.7 8.5	11.8 11.9 11.9 12.1	72.8 72.6 73.0 73.4	8.1 8.6 8.3 8.4	0.3 0.4 0.4 0.4	9.0 8.7 8.7 8.4	9.8 9.8 9.7 9.4
First quarter	8.5 8.4 8.5 8.4	12.1 12.0 12.0 11.9	73.0 73.0 72.9 72.9	8.7 8.5 8.3 8.6	0.5 0.5 0.5 0.5	8.3 8.4 8.7 8.3	9.5 9.6 9.7 9.7
1988 First quarter Second quarter Third quarter Fourth quarter	8.0 7.9 7.5 p7.9	12.0 12.0 12.0 p12.0	73.1 73.2 73.3 (NA)	8.4 8.4 8.0 (NA)	0.5 0.5 0.5 (NA)	8.2 8.3 8.2 (NA)	9.7 9.7 9.9 (NA)

See note on page 80.

¹IVA, inventory valuation adjustment; CCAdj, capital consumption adjustment.



Graphs of these series are shown on pages 46 and 47.



PRICES, WAGES, AND PRODUCTIVITY

					B1 PRICE	MOVEMENTS				
	Implicit price gross natio	e deflator for nal product		d price index, business product		onsumer price inde r all urban consume			nsumer price index urban consumers, f	
Year and month	310. Index	310c. Change over 1-quarter spans ¹	311. Index	311c. Change over 1-quarter spans ¹	320. Index (u)	320c. Change over 1-month spans ¹	320c. Change over 6-month spans ¹	322. Index	322c. Change over 1-month spans ¹	322c. Change over 6-month spans ¹
	(1982=100)	(Ånn. rate, percent)	(1982=100)	(Ann. rate, percent)	(1982-84=100)	(Percent)	(Ann. rate, percent)	(1982-84 = 100)	(Percent)	(Ann. rate, percent)
1986										· •
January	112.4	0.7 	112.7	1.9 	109.6 109.3 108.8	0.3 -0.3 -0.4	0.6 -0.2 0.0	107.4 107.0 107.3	0.2 -0.4 0.3	3.0 2.6 1.9
April	113.4	3.6 	113.3	2.1 	108.6 108.9 109.5	-0.3 0.2 0.5	-0.5 0.4 1.7	107.6 108.0 108.2	0.3 0.4 0.2	3.4 5.9 6.1
July	114.7	4.7 	114.1	2.8 	109.5 109.7 110.2	0.0 0.2 0.3	2.6 2.8 2.2	109.2 110.1 110.5	0.9 0.8 0.4	5.8 5.8 5.8
October	115.3	2.1 	114.8	2.3 	110.3 110.4 110.5	0.2 0.3 0.2	3.7 4.1 4.4	110.7 111.1 111.3	0.2 0.4 0.2	5.0 3.7 3.3
1987										
January	116.3	3.5 	115.8 	3.7 	111.2 111.6 112.1	0.7 0.4 0.4	5.0 5.1 5.3	111.9 112.1 112.3	0.5 0.2 0.2	3.6 4.0 4.7
April	117.3	3.5 	117.0 	4.0 	112.7 113.1 113.5	0.4 0.4 0.3	4.4 4.5 4.1	112.7 113.3 113.9	0.4 0.5 0.5	3.4 3.2 4.0
July	118.2	3.1 	118.0	3.5 	113.8 114.4 115.0	0.3 0.4 0.3	3.9 3.7 3.6	113.8 113.9 114.5	-0.1 0.1 0.5	3.6 2.7 2.5
October	118.9	2.4 	119.0	3.5 	115.3 115.4 115.4	0.3 0.3 0.2	3.7 3.2 3.7	114.7 114.8 115.3	0.2 0.1 0.4	3.2 2.5 2.1
1988								<u>.</u>	i	
January	119.4	1.7	119.9	3.0 	115.7 116.0 116.5	0.3 0.2 0.5	3.9 4.0 4.4	115.6 115.3 115.7	0.3 -0.3 0.3	3.2 3.9 4.2
April	121.0	5.5	121.3	5.0 	117.1 117.5 118.0	0.4 0.3 0.3	4.5 5.1 4.7	116.5 117.0 117.7	0.7 0.4 0.6	5.8 7.6 8.5
July	122.4	4.7	123.0	5.6 	118.5 119.0 119.8	0.4 0.4 0.3	4.7 4.5 4.5	118.9 119.6 120.5	1.0 0.6 0.8	7.3 6.6 6.0
October	p123.8	p4.7	p124.2	p3.9	120.2 120.3 120.5	0.4 0.3 0.3		120.7 120.8 121.2	0.2 0.1 0.3	

See note on page 80.

Graphs of these series are shown on pages 48 and 49.

¹Changes are centered within the spans: 1-month changes are placed on the 2d month, 6-month changes are placed on the 4th month, and 1-quarter changes are placed on the 1st month of the 2d quarter.



PRICES, WAGES, AND PRODUCTIVITY—Continued

				B1	PRICE MOVEMENTS—	Continued	· · · · · ·		
	Produce	r price index, all com	modities	Producer pi	ice index, industrial c	ommodities		r price index, crude n for further processing	
Year and month	330. Index (1)	330c. Change over 1-month spans ¹ (1)	330c. Change over 6-month spans ¹ ①	335. Index (U)	335c. Change over 1-month spans 1 (1)	335c. Change over 6-month spans ¹ ①	331. Index	331c. Change over 1-month spans ¹	331c. Change over 6-month spans ¹
	(1982=100)	(Percent)	(Ann. rate, percent)	(1982=100)	(Percent)	(Ann. rate, percent)	(1982=100)	(Percent)	(Ann. rate, percent)
1986	:							:	
January	103.2	-0.4	-6.3	103.7	-0.4	-7.6	94.2	-1.2	-17.8
	101.7	-1.5	-6.5	102.1	-1.5	-7.9	90.4	-4.0	-17.4
	100.3	-1.4	-7.0	100.5	-1.6	-8.1	88.3	-2.3	-18.2
April	99.6	-0.7	-7.2	99.8	-0.7	-9.2	85.4	-3.3	-15.9
	100.0	0.4	-4.7	99.8	0.0	-6.7	86.8	1.6	-8.2
	99.9	-0.1	-1.8	99.8	0.0	-3.4	86.2	-0.7	-4.0
July	99.4	-0.5	0.2	98.8	-1.0	-1.4	86.4	0.2	5.0
	99.3	-0.1	-0.4	98.6	-0.2	-1.2	86.6	0.2	1.4
	99.4	0.1	-0.4	98.8	0.2	-1.2	86.5	-0.1	0.9
October	99.7	0.3	2.2	99.1	0.3	3.3	87.5	1.2	6.3
	99.8	0.1	3.5	99.2	0.1	4.5	87.4	-0.1	7.8
	99.7	-0.1	3.7	99.2	0.0	4.7	86.6	-0.9	9.7
1987									
January	100.5	0.8	4.5	100.4	1.2	5.1	89.1	2.9	11.3
	101.0	0.5	5.7	100.8	0.4	5.5	89.9	0.9	16.4
	101.2	0.2	6.7	101.1	0.3	6.6	90.6	0.8	19.3
April	101.9	0.7	6.1	101.6	0.5	5.5	92.3	1.9	15.1
	102.6	0.7	5.6	101.9	0.3	5.8	94.3	2.2	15.7
	103.0	0.4	5.0	102.4	0.5	4.8	94.6	0.3	12.3
July	103.5	0.5	4.4	103.1	0.7	4.8	95.6	1.1	8.4
	103.8	0.3	3.1	103.7	0.6	4.6	96.7	1.2	1.3
	103.7	-0.1	2.3	103.5	-0.2	3.5	96.0	-0.7	0.2
October	104.1	0.4	2.1	104.0	0.5	2.5	96.1	0.1	-3.5
	104.2	0.1	1.9	104.2	0.2	1.7	94.9	-1.2	-4.3
	104.2	0.0	2.3	104.2	0.0	2.3	94.7	-0.2	-3.7
1988									
January	104.6	0.4	3.3	104.4	0.2	3.1	93.9	-0.8	-1.9
	104.8	0.2	4.5	104.6	0.2	3.7	94.6	0.7	3.4
	104.9	0.1	5.8	104.7	0.1	4.3	94.2	-0.4	5.8
April	105.8	0.9	6.4	105.6	0.9	4.7	95.2	1.1	6.3
	106.5	0.7	6.2	106.1	0.5	r4.6	96.5	1.4	r6.0
	107.2	0.7	6.2	106.4	0.3	4.2	97.4	0.9	6.5
July	107.9	0.7	4.6	106.8	0.4	2.9	96.8	-0.6	4.0
	108.0	0.1	3.4	r107.0	r0.2	2.5	r97.4	r0.6	-4.9
	108.1	0.1	3.4	106.9	r-0.1	3.2	97.2	r-0.2	0.0
October	108.2 108.3 109.0	0.1 0.1 0.6		107.1 107.4 108.1	0.2 0.3 0.7		97.1 94.1 97.4	-0.1 -3.1 3.5	

See note on page 80.

Graphs of these series are shown on page 48.

Federal Reserve Bank of St. Louis

¹Changes are centered within the spans: 1-month changes are placed on the 2d month, and 6-month changes are placed on the 4th month.



PRICES, WAGES, AND PRODUCTIVITY—Continued

		·		B1 PF	RICE MOVEMENTS—C	ontinued	10 10 10 10 10 10 10 10 10 10 10 10 10 1	<u> </u>	
		cer price index, intern ils, supplies, and com		Producer	price index, capital e	equipment	Producer pri	ce index, finished con	sumer goods
Year and month	332. Index	332c. Change over 1-month spans ¹	332c. Change over 6-month spans ¹	333 Index	333c. Change over 1-month spans ¹	333c. Change over 6-month spans ¹	334. Index	334c. Change over 1-month spans ¹	334c. Change over 6-month spans ¹
	(1982=100)	(Percent)	(Ann. rate, percent)	(1982=100)	(Percent)	(Ann. rate, percent)	(1982=100)	(Percent)	(Ann. rate, percent)
1986									
January	102.3	-0.6	-6.5	108.6	0.1	1.9	104.5	-0.8	-6.8
February	101.1	-1.2	-7.3	108.7	0.1	1.7	102.6	-1.8	-6.9
March	99.9	-1.2	-8.0	108.9	0.2	2.0	101.2	-1.4	-7.8
April	99.0	-0.9	-8.2	109.2	0.3	2.0	100.4	-0.8	-8.1
	98.8	-0.2	-6.0	109.3	0.1	1.8	101.0	0.6	-3.7
	98.7	-0.1	-2.6	109.6	0.3	2.0	101.1	0.1	-0.2
July	98.0	-0.7	-1.6	109.7	0.1	2.4	100.2	-0.9	2.0
	98.0	0.0	-1.0	109.7	0.0	2.8	100.7	0.5	0.8
	98.6	0.6	-0.6	110.0	0.3	2.2	101.1	0.4	0.6
October	98.2	-0.4	2.1	110.5	0.5	2.8	101.4	0.3	3.2
	98.3	0.1	3.3	110.8	0.3	2.4	101.4	0.0	2.8
	98.4	0.1	2.4	110.8	0.0	2.0	101.4	0.0	3.0
1987									
January	99.0	0.6	4.1	111.2	0.4	1.6	101.8	0.4	3.8
	99.6	0.6	5.2	111.0	-0.2	1.3	102.1	9.3	4.4
	99.8	0.2	6.0	111.1	0.1	1.1	102.6	0.5	4.6
April	100.2	0.4	5.9	111.4	0.3	0.7	103.3	0.7	4.6
	100.8	0.6	5.7	111.5	0.1	1.6	103.6	0.3	4.4
	101.3	0.5	5.9	111.4	-0.1	2.5	103.7	0.1	4.1
July	101.9	0.6	6.1	111.6	0.2	1.1	104.1	0.4	2.3
	102.4	0.5	5.6	111.9	0.3	1.1	104.3	0.2	1.7
	102.7	0.3	5.0	112.5	0.5	1.6	104.7	0.4	0.6
October	103.2	0.5	4.6	112.0	-0.4	2.2	104.5	-0.2	0.6
	103.6	0.4	3.9	112.1	0.1	2.0	104.5	0.0	-0.6
	103.8	0.2	4.3	112.3	0.2	1.2	104.0	-0.5	0.0
1988									
January	104.2	0.4	4.7	112.8	0.4	2.5	104.4	0.4	1.3
	104.4	0.2	5.3	113.0	0.2	2.9	104.0	-0.4	2.1
	104.9	0.5	6.7	113.2	0.2	2.9	104.7	0.7	3.5
April	105.6	0.7	7.4	113.4	0.2	2.7	105.2	0.5	4.5
	106.3	0.7	7.6	113.7	0.3	3.2	105.6	0.4	r6.1
	107.2	0.8	7.4	113.9	0.2	4.5	105.8	0.2	5.6
July	108.0	0.7	6.0	114.3	0.4	3.6	106.7	0.9	4.4
	108.3	0.3	5.5	114.8	0.4	3.5	r107.1	r0.4	4.4
	108.7	0.4	4.7	115.7	0.8	3.9	107.6	r0.5	4.6
October	108.7 109.2 109.7	0.0 0.5 0.5		115.4 115.7 116.1	-0.3 0.3 0.3		107.5 107.9 108.2	-0.1 0.4 0.3	

See note on page 80.

Graphs of these series are shown on page 48.

Changes are centered within the spans: 1-month changes are placed on the 2d month, and 6-month changes are placed on the 4th month.



PRICES, WAGES, AND PRODUCTIVITY—Continued

				B2	WAGES AND PRODUC	CTIVITY			
			e hourly earnings of p workers on private no					urly compensation, al onfarm business sect	
Year and	!	Current-dollar earning	\$		Real earnings		Cur	rent-dollar compensa	tion
month	340. Index	340c. Change over 1-month spans ²	340c. Change over 6-month spans ² (Ann. rate,	341. Index	341c. Change over 1-month spans ²	341c. Change over 6-month spans ² (Ann. rate,	345. Index	345c. Change over 1-quarter spans ² (Ann. rate,	345c. Change over 4-quarter spans ² (Ann. rate,
	(1977 = 100)	(Percent)	percent)	(1977=100)	(Percent)	percent)	(1977 = 100)	percent)	percent)
1986	167.5	0.3	2.6	02.6	0.6	2.0		4.4	
January	167.5 168.2 168.5	-0.2 0.4 0.2	2.6 2.4 1.7	93.6 94.3 95.0	-0.6 0.8 0.7	2.9 2.9 2.2	179.0	4.4	4.2
April	168.5 168.8 169.3	0.0 0.2 0.2	2.1 1.6 1.6	95.5 95.3 95.2	0.5 -0.1 -0.2	3.4 2.0 0.3	180.4	3.2	4.2
July	169.2 169.6 169.8	0.0 0.2 0.2	2.2 2.8 2.3	95.2 95.3 95.1	0.0 0.1 -0.2	-0.4 0.3 0.2	182.3 	4.3	3.7
October	170.3 171.2 171.2	0.3 0.5 0.0	2.5 2.8 2.7	95.3 95.5 95.3	0.1 0.2 -0.2	-1.1 -1.3 -1.6	184.6	5.1	3.7
1987				:					
January February	171.3 171.9 172.1	0.1 0.4 0.1	2.6 2.0 2.1	94.7 94.7 94.4	-0.7 0.0 -0.3	-2.4 -3.1 -3.3	185.6 	2.1	3.8
April	172.5 172.9 172.9	0.3 0.2 0.1	2.3 2.6 2.9	94.1 94.0 93.7	-0.3 -0.1 -0.3	-2.1 -2.0 -1.5	187.1 	3.4	4.0
July	173.2 174.1 174.6	0.2 0.5 0.3	2.8 3.3 3.3	93.7 93.8 93.7	-0.1 0.1 -0.1	-1.3 -0.5 -0.1	189.2	4.4	4.4
October	174.9 175.6 175.7	0.2 0.4 0.1	4.0 3.0 2.8	93.5 93.8 93.7	-0.2 0.3 -0.1	0.2 -0.1 -0.4	192.1	6.2 	4.7
1988]				1			ļ	
January	176.6 176.7 177.0	0.5 0.1 0.2	3.6 3.5 3.3	93.8 93.7 93.5	0.1 -0.1 -0.2	0.1 -0.5 -1.0	193.7 	3.5	4.9
April	178.0 178.7 178.6	0.6 0.4 -0.1	3.1 3.2 3.8	93.6 93.6 93.2	0.1 0.0 -0.4	-1.2 -1.8 -1.1	195.9 	4.5 	(NA)
July	179.3 179.5 180.3	0.4 0.1 0.5	4.0 r3.0 p3.5	93.2 92.9 93.0	0.0 -0.4 0.2	-1.0 -1.3 p-1.0	198.4 	5.4	
October	181.5 r181.4 p181.7	r0.6 r-0.1 p0.2		93.1 r92.9 p92.7	0.1 -0.2 p-0.2		(NA)	(NA)	

See note on page 80.

Graphs of these series are shown on pages 49 and 50.



Adjusted for overtime (in manufacturing only) and interindustry employment shifts.

Changes are centered within the spans: 1-month changes are placed on the 2d month, 6-month changes are placed on the 4th month, 1-quarter changes are placed on the 1st month of the 2d quarter, and 4-quarter changes are placed on the middle month of the 3d quarter.



PRICES, WAGES, AND PRODUCTIVITY—Continued

				B2 WAGE	S AND PRODUCTIVITY	Continued			
		urly compensation, a n business sector—C			d wage and decisions	Output per	hour, all persons, bus	iness sector	358. Index of output per hour,
Year and month		Real compensation		348. Average first-year	349. Average changes over	370. Index	370c. Change over 1-quarter	370c. Change over 4-quarter	all persons, nonfarm busi- ness sector
тощ	346. Index	346c. Change over 1-quarter spans ¹	346c. Change over 4-quarter spans ¹	changes (1)	life of contract (1)		spans 1	spans 1	
	(1977=100)	(Ann. rate, percent)	(Ann. rate, percent)	(Ann. rate, percent)	(Ann. rate, percent)	(1977=100)	(Ann. rate, percent)	(Ann. rate, percent)	(1977 = 100)
1986						_			
lanuary February	99.2 	2.7 	2.5	0.6	1.2	110.5	7.7 	1.6	108.6
April	100.3	4.6	2.9	0.7	1.6	110.4	-0.4 	1.2	108.4
July	100.8	1.9	1.4	0.7	1.2	110.0	-1.4	-0.6 	108.0
October	101.4	2.4	-0.1	2.7	2.4	109.8	-0.8	0.2	107.8
1987						}			
January	100.6	-3.1	-0.4	1.1	2.1	109.9	0.3	1.5	107.8
April	100.2	-1.4	-0.4	4.1	3.9	110.6	2.7	1.9	108.6
July	100.4	0.6	0.4	2.5	2.1	111.7	3.9	2.7	109.6
October	101.0	2.5	0.7	3.4	2.4	111.8	0.6	1.1	109.9
1988	}								}
January	101.0	0.1	0.7	p1.8	p1.8	112.8	3.5	0.5	110.8
April	100.9	-0.2 	(NA)	rp3.1	p2.4	111.8	-3.4	 (NA)	110.1
luly	101.1	0.6		p3.4	rp3.2	112.2	1.5		110.0
October	(NA)	(NA)		p3.8	p2.2	(NA)	(NA)		(NA)

See note on page 80.

JANUARY 1989 BCD

Graphs of these series are shown on pages 49 and 50.

Changes are centered within the spans: 1-quarter changes are placed on the 1st month of the 2d quarter, and 4-quarter changes are placed on the middle month of the 3d quarter.



LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

				c	CIVILIAN LAE	OR FORCE AND N	MAJOR COMPONEN	ITS			
,			Civilian la	bor force	-		447. Number unemployed,	448. Number employed	Civilian la	bor force particip	ation rates
Year and month	441. Total	442. Civilian employment		Number u	nemployed		full-time workers	part time for eco- nomic	451. Males 20 years and over	452. Females 20 years and over	453. Both sexes 16-19 years of age
month			37. Persons unemployed	444. Males 20 years and over	445. Females 20 years and over	446. Both sexes 16-19 years of age		reasons	and over	and over	years or age
	(Thous.)	(Thous.)	(Thous.)	(Thous.)	(Thous.)	(Thous.)	(Thous.)	(Thous.)	(Percent)	(Percent)	(Percent)
1986	Revised ¹	Revised¹	Revised	Revised ¹	Revised ¹	Revised¹	Revised¹	Revised ¹	(¹)	Revised ¹	Revised¹
January	116,687 116,875 117,194	108,879 108,477 108,847	7,808 8,398 8,347	3,497 3,760 3,765	2,909 3,150 3,140	1,402 1,488 1,442	6,423 6,818 6,854	5,289 5,110 5,303	78.3 78.1 r78.2	54.9 55.0 55.1	53.4 54.5 55.0
April	117,341 117,613 118,132	108,943 109,170 109,657	8,398 8,443 8,475	3,738 3,824 3,802	3,118 3,121 3,137	1,542 1,498 1,536	6,823 6,913 6,820	5,577 5,629 5,384	78.0 78.0 78.2	55.2 55.4 55.7	55.6 55.4 55.4
July	118,124 118,110 118,381	109,826 110,016 110,058	8,298 8,094 8,323	3,832 3,664 3,872	3,022 3,006 2,987	1,444 1,424 1,464	6,722 6,558 6,815	5,120 5,311 5,383	78.1 77.9 78.1	55.8 55.8 55.8	54.6 54.7 54.7
October	118,454 118,623 118,567	110,202 110,425 110,656	8,252 8,198 7,911	3,833 3,793 3,728	3,011 2,959 2,824	1,408 1,446 1,359	6,725 6,646 6,454	5,494 5,302 5,311	r78.0 78.2 78.3	55.8 55.7 55.6	54.9 54.4 53.4
1987											
January February March	118,873 119,119 119,263	110,969 111,271 111,459	7,904 7,848 7,804	3,649 3,594 3,532	2,864 2,822 2,870	1,391 1,432 1,402	6,430 6,382 6,231	5,187 5,326 5,168	78.2 r78.1 78.1	55.7 55.8 55.9	54.2 54.8 54.4
April	119,394 120,102 119,647	111,789 112,524 112,287	7,605 7,578 7,360	3,482 3,443 3,440	2,757 2,708 2,640	1,366 1,427 1,280	6,110 6,039 6,043	5,122 5,098 4,979	78.1 78.2 78.0	56.0 56.3 56.2	54.5 55.6 53.6
July	119,884 120,245 120,008	112,613 113,019 112,896	7,271 7,226 7,112	3,340 3,259 3,165	2,674 2,662 2,666	1,257 1,305 1,281	5,895 5,814 5,664	5,103 5,046 5,050	78.0 77.9 77.9	56.4	53.8 56.0 54.1
October	120,429 120,527 120,701	113,225 113,460 113,740	7,204 7,067 6,961	3,194 3,114 3,061	2,620 2,602 2,605	1,390 1,351 1,295	5,756 5,655 5,562	5,142 5,287 4,979	78.0 78.0 77.8	56.4 56.4 56.5	55.1 54.8 55.4
1988		:									
January	121,035 121,165 120,936	114,055 114,273 114,129	6,980 6,892 6,807	3,106 3,053 3,064	2,568 2,596 2,450	1,306 1,243 1,293	5,550 5,526 5,473	5,113 5,101 5,087	77.9 r78.1 77.9	56.6 56.7 56.6	55.9 55.0 54.1
April	121,328 121,203 121,524	114,660 114,403 115,001	6,668 6,800 6,523	2,941 3,065 2,889	2,471 2,492 2,485	1,256 1,243 1,149	5,338 5,413 5,163	4,953 4,676 5,073		56.6 56.5 56.6	54.5 54.5 56.2
July	121,658 122,000 121,984	115,034 115,203 115,370	6,624 6,797 6,614	2,832 3,077 2,905	2,565 2,467 2,456	1,227 1,253 1,253	5,215 5,491 5,293	5,102 4,972 4,862	r77.8 78.0 77.9	56.7 56.8 56.8	55.9 56.1 56.0
October	122,091 122,510 122,563	115,573 115,947 116,009	6,518 6,563 6,554	2,911 2,996 2,953	2,413 2,445 2,422	1,194 1,122 1,179	5,176 5,273 5,317	4,727 4,819 5,033	77.8 r77.8 77.8	57.4	55.2 55.1 55.2

See note on page 80.

Graphs of these series are shown on page 51.

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¹See "New Features and Changes for This Issue," page iii.



GOVERNMENT ACTIVITIES

			D1 RECEIPTS A	and expenditures				D2 DEFENS	E INDICATORS	
		Federal Government	t¹	Sta	te and local governr	nent 1		Advance measures	of defense activity	
Year and month	500. Surplus or deficit	501. Receipts	502. Expenditures	510. Surplus or deficit	511. Receipts	512. Expenditures	517. Defense Department gross obliga- tions incurred	525. Defense Department prime con- tract awards	543. Defense Department gross unpaid obligations outstanding	548. Manu- facturers' new orders, defense products
	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)
1986										•
January February	-198.6 	806.7	1,005.3	67.2 	613.1	545.9 	28,411 30,247 30,969	12,843 9,715 13,822	185,822 188,008 190,756	9,975 9,449 11,858
April	-23 4. 4	816.3 	1,050.7	60.1	616.6	556.5 	29,758 30,267 33,056	13,136 11,052 12,949	188,903 189,004 193,207	8,514 9,012 7,845
July	-206.1 	833.6	1,039.7 	62.7 	629.6 	566.9 	31,199 29,968 30,678	13,810 11,432 12,315	196,185 198,635 199,295	10,091 7,709 9,968
October	-183.3 	856.8 	1,040.1	54.8 	632.9	578.1 	28,383 30,341 26,583	9,450 11,866 11,581	198,408 198,337 197,769	7,508 10,426 7,763
1987										
January	-188.3	871.3	1,059.6 	47.7 	637.5 	589.9 	25,911 34,669 28,986	10,617 12,546 12,167	196,585 199,440 199,308	6,129 7,650 9,769
April	-144.0 	920.0	1,064.0	61.4	659.3 	597.9 	33,794 32,801 30,475	12,138 12,103 12,748	200,411 202,504 204,177	11,265 9,907 10,128
July	-138.3 	930.1	1,068.4	52.9 	659.1 	606.2	31,867 32,619 34,065	13,667 12,881 13,609	207,148 209,556 215,074	9,882 9,179 9,102
October	-160.4 	944.4	1,104.9	49.7 	666.9	617.2	29,233 30,794 24,532	10,613 9,383 11,912	212,355 212,086 205,974	9,864 9,824 7,036
1988					İ					
January	-155.1 	951.0	1,106.1	55.8 	685.5	629.7	31,157 33,243 31,595	7,871 11,080 11,901	208,366 210,637 212,335	9,223 8,480 8,065
April	-133.3 	983.0	1,116.3 	56.2 	698.4 	642.1	33,172 32,294 36,167	16,222 14,301 14,580	210,520 214,223 219,469	9,871 8,215 13,829
July	-123.5 	975.5 	1,099.0	56.0	708.0	652.0	29,691 29,004 p27,652	18,794 9,185 p10,964	219,349 219,239 p220,134	6,995 8,037 7,472
October	('nÀj	(NA)	p1,143.0	(NA)	(NA)	p665.6	(NA)	(NA)	(NA)	r10,695 r8,392 p10,160

See note on page 80.

Graphs of these series are shown on pages 52 and 53.

 $^{^{1}\}mbox{Based}$ on national income and product accounts.



GOVERNMENT ACTIVITIES—Continued

					D2 DEFENSE IND	MCATORS—Continue	ed				
			Intern	nediate and final mo	asures of defense a	activity				defense hases	
Year and month	557. Index of industrial	559. Manufac- turers' inven-	561. Manufac- turers' unfilled	580. Defense Department	588. Manufac- turers' ship-	570. Employ- ment, defense		epartment onnel	564. Federal purchases of	565. National defense pur- chases as a	
month	production, defense and space equip- ment	tories, defense products	orders, defense products	net outlays, military	ments, defense products	products in- dustries	577. Military on active duty (1)	578. Civilian, direct hire employment	goods and services, national defense	percent of GNP	
	(1977 = 100)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Thous.)	(Thous.)	(Thous.)	(Ann. rate, bil. dol.)	(Percent)	
1986										1	
January	178.9 178.0 178.6	31,682 31,148 31,963	159,414 160,355 164,278	20,152 21,586 23,342	8,272 8,508 7,935	1,570 1,572 1,572	2,157 2,160 2,160	1,103 1,087 1,084	266.8	6.4	
April	179.8 180.2 180.7	32,072 32,089 32,156	164,153 164,405 163,323	22,101 22,921 21,954	8,639 8,760 8,927	1,581 1,588 1,564	2,150 2,150 2,143	1,081 1,072 1,060	277.2	6.6	
July	182.4 183.7 184.6	31,800 31,648 31,684	164,192 163,058 164,078	22,538 21,714 23,886	9,222 8,843 8,948	1,592 1,589 1,590	2,150 2,161 2,169	1,059 1,052 1,072	288.0	6.7 	
October	185.6 185.5 186.2	31,578 31,369 30,762	162,570 163,442 161,459	22,324 21,168 22,512	9,016 9,554 9,746	1,592 1,591 1,590	2,177 2,181 2,178	1,069 1,063 1,059	278.1	6.5	
1987											
January February March	187.3 188.9 188.6	31,122 31,233 31,169	158,833 157,779 158,084	22,243 24,096 23,259	8,755 8,704 9,464	1,593 1,591 1,588	2,179 2,172 2,168	1,061 1,067 1,070	287.3	6.5 	
April	189.2 189.3 188.6	31,597 31,624 31,709	160,358 160,898 161,816	23,593 22,760 24,046	8,991 9,367 9,210	1,584 1,587 1,585	2,158 2,153 2,151	1,072 1,068 1,070	294.8	6.6 	
July	188.7 189.1 189.8	32,174 32,553 32,668	162,605 162,741 162,316	22,858 24,340 21,513	9,093 9,043 9,527	1,588 1,589 1,590	2,158 2,167 2,174	1,074 1,076 1,090	299.8	6.6 	
October	190.3 188.7 188.9	33,171 33,936 33,504	163,247 164,130 161,860	25,816 21,276 26,329	8,933 8,941 9,306	1,593 1,592 1,592	2,172 2,174 2,167	1,090 1,087 1,083	299.2	6.4	
1988											
January February	190.6 191.0 189.9	33,656 33,859 33,945	162,206 162,089 160,841	20,786 23,441 23,752	8,877 8,597 9,313	1,599 1,596 1,587	2,166 2,162 2,142	1,077 1,071 1,067	298.4	6.3	
April	187.9 185.5 184.6	34,069 34,695 35,328	162,171 162,009 167,117	26,548 20,130 23,765	8,541 8,377 8,721	1,588 1,585 1,584	2,108 2,100 2,104	1,059 1,053 1,041	298.8	6.2	
July	184.9 184.9 r184.5	34,799 34,071 34,839	165,449 164,451 163,092	24,243 23,321 20,636	8,663 9,035 8,830	1,580 1,577 1,571	2,111 2,122 2,138	1,031 1,036 1,052	294.3	6.0	
October	r184.0 r183.3 p183.2	r35,410 p35,239 (NA)	r165,356 r165,093 p164,931	(NA)	8,431 r8,655 p10,322	1,566 p1,565 (NA)	2,130 2,130 p2,121	1,046 p1,047 (NA)	p298.4	p6.0	

See note on page 80. Graphs of these series are shown on pages 54 and 55.



U.S. INTERNATIONAL TRANSACTIONS

	E1 MERCHANDISE TRADE									
Year	602. Exports, excluding military aid shipments	604. Exports of domestic agricultural products	606. Exports of non- electrical machinery	612. General imports	614. Imports of petro- leum and petroleum products	616. Imports of auto- mobiles and parts				
and month										
	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)				
1986										
January	18,557	2,320	3,854	30,600	4,978	5,044				
	18,520	2,283	4,294	28,866	4,254	5,378				
	17,999	2,135	3,740	29,124	3,578	5,018				
April	18,762	2,043	3,981	30,287	2,084	5,044				
	19,023	1,960	3,644	29,390	2,718	5,054				
	20,038	1,819	3,582	29,960	2,731	5,535				
July	19,731	2,062	3,585	30,969	2,483	6,242				
	17,970	2,231	4,091	30,122	2,225	6,280				
	18,282	2,111	3,812	31,738	2,435	4,909				
October	19,728	2,447	3,932	30,953	2,155	5,790				
	19,295	2,204	4,138	32,666	2,788	7,156				
	19,255	2,352	4,227	30,762	2,299	5,483				
1987										
January	18,399	1,926	3,452	31,666	2,269	4,882				
	19,327	2,047	4,404	31,825	3,598	6,322				
	20,171	2,157	4,098	32,271	3,513	5,329				
April	20,402	2,234	4,122	31,978	2,842	5,516				
	20,260	2,410	4,176	32,514	3,685	6,093				
	21,107	2,445	4,338	34,418	3,375	5,823				
July	22,430	2,956	4,260	34,625	4,125	5,800				
August	20,883	2,520	4,420	34,492	4,574	6,008				
September	21,810	2,625	4,717	34,582	3,439	5,307				
October	22,074	2,593	4,407	35,966	3,780	6,776				
	23,094	2,409	5,371	35,316	3,292	6,342				
	24,152	2,472	5,371	36,586	3,158	6,560				
1988										
January	24,488	2,634	5,040	34,258	3,541	5,441				
	24,518	2,936	5,177	37,729	3,536	5,659				
	26,876	3,030	5,442	36,644	3,225	5,677				
April	26,026	3,030	5,288	34,825	3,226	6,220				
	27,478	3,327	5,374	35,732	3,802	5,507				
	26,283	3,220	5,353	37,948	3,060	5,351				
July	26,515	3,266	5,457	34,533	3,122	5,378				
	27,493	3,349	5,778	38,140	3,360	5,888				
	27,988	3,576	5,876	37,178	2,927	6,354				
October	r27,816	3,092	5,698	r36,600	2,718	6,589				
	27,177	2,808	5,709	38,134	2,645	6,291				
	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)				

See note on page 80.

Graphs of these series are shown on page 56.



U.S. INTERNATIONAL TRANSACTIONS—Continued

	GOODS AND SERVICES MOVEMENTS (EXCLUDING TRANSFERS UNDER MILITARY GRANTS)										
		Goods and services			Merchandise, adjusted	Income on investment					
Year and month	667. Balance	668. Exports	669. Imports	622. Balance	618. Exports	620. Imports	651. U.S. invest- ment abroad	652. Foreign investment in the United States			
	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)			
1986											
January	-29 , 485	93,067	122,552	-35,433 	54,113	89,546 	24,352	17,357 			
April	-29 , 629	94,088	123 , 717	-33,861 	56 , 946	90,807	22,248	17,533			
July	-31 , 288	93,493	124,781	-36,721 	56,268 	92,989 	21,845	15,729 			
October	-33,118	94,408	127,526 	-38,532 	56,642 	95,174 	21,667	16,350			
1987											
January	-34,657 	98 , 907	133,564	-39,871 	56,791 	96,662	24,791	19,715			
April	-37 , 727	100,353	138,080	-39,552 	59,864 	99,416	22,429	20,737			
July	-38 , 987	106,318	145,305 	-39,665 	64,902 	104,567	23,289	22,222			
October	-29,150 	119 , 247	148,397 	-41,192 	68,013	109,205	33,248	20,709			
1988											
January	-33,817 	121,122 	154,939 	-35,184 	75,300 	110,484	26,554 	25,395 			
April	-30,988 	123,000	153,988 	-30,151 	79,606	109,757	23,426	25,366 			
July	p-27,776	p129,793	p157,569	p-28,533	p82,306	p110,839	p26,830	p27,167			
October	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)			

Graphs of these series are shown on page 57.

Balance of payments basis: Excludes transfers under military grants and Department of Defense sales contracts (exports) and Department of Defense purchases (imports).



INTERNATIONAL COMPARISONS

			·	F1 INDUSTRI	AL PRODUCTION			
Year and month	47. United States, index of indus- trial production	721. OECD ¹ European coun- tries, index of industrial production	728. Japan, index of indus- trial production	725. West Germany, index of industrial production	726. France, index of indus- trial production	722. United Kingdom, index of industrial production	727. Italy, index of industrial production	723. Canada, index of indus- trial production
	(1977 = 100)	(1977 = 100)	(1977 = 100)	(1977 = 100)	(1977 = 100)	(1977=100)	(1977 = 100)	(1977 = 100)
1986								
January	126.4	112	144.6	113	107	108	108.4	126.2
	125.5	113	144.8	113	105	110	110.9	126.3
	123.9	112	144.8	113	105	109	113.8	123.3
April	124.7	115	144.4	117	109	111	114.9	128.1
	124.3	111	144.2	112	104	109	108.7	124.8
	124.1	114	144.5	116	108	109	113.9	123.0
July	124.8	115	144.2	117	109	111	111.1	124.3
	124.9	114	141.9	114	109	111	110.0	123.9
	124.5	114	145.8	114	109	111	109.8	124.3
October	125.3	114	143.8	114	109	111	111.0	125.1
	125.7	114	141.9	114	107	111	112.2	124.9
	126.8	113	142.0	112	107	110	111.1	126.8
1987								
January	126.2	112	141.3	111	105	110	111.8	126.2
	127.1	115	140.8	114	109	112	115.2	127.6
	127.4	115	142.8	114	109	112	117.6	128.8
April	127.4	115	141.7	116	108	112	115.5	128.9
	128.2	116	139.5	116	110	112	119.7	129.6
	129.1	116	144.7	114	111	112	116.2	130.3
July	130.6	116	145.9	113	110	115	115.6	130.9
	131.2	115	145.9	117	110	116	110.8	133.6
	131.0	116	148.2	116	111	115	115.1	134.1
October	132.5	118	150.7	117	111	117	120.1	135.5
	133.2	118	151.1	117	111	r116	118.7	136.5
	133.9	117	152.9	117	112	117	114.0	136.9
1988								
January	134.4	120	153.5	117	112	117	124.2	137.9
	134.4	118	157.7	118	112	115	118.9	137.5
	134.7	120	158.0	118	113	117	119.2	138.1
April	135.4	120	156.8	117	112	118	121.5	138.2
	136.1	120	153.2	118	113	r119	118.3	139.9
	136.5	121	158.3	121	115	119	120.1	140.0
July	138.0	122	156.2	117	116	119	123.6	139.5
	138.5	r122	160.6	124	116	120	116.4	r140.8
	138.6	r122	161.5	r122	r117	r120	r120.3	141.0
October	139.3 r139.8 p140.2	(NA)	p160.5 (NA)	p121 (NA)	p113 (NA)	p120 (NA)	(NA)	r140.4 p139.9 (NA)

See note on page 80. Graphs of these series are shown on page 58.

¹Organization for Economic Cooperation and Development.



INTERNATIONAL COMPARISONS—Continued

	F2 CONSUMER PRICES									
	United	States	Jap	an	West G	ermany	Fra	nce	United Kingdom	
Year and month	320. Index (U)	320c. Change over 6-month spans ¹	738. Index (u)	738c. Change over 6-month spans ¹	735. Index 🛈	735c. Change over 6-month spans ¹	736. Index (1)	736c. Change over 6-month spans ¹	732. Index (U)	732c. Change over 6-month spans ¹
	(1982-84 = 100)	(Ann. rate, percent)	(1982-84 = 100)	(Ann. rate, percent)	(1982-84=100)	(Ann. rate, percent)	(1982-84=100)	(Ann. rate, percent)	(1982-84 = 100)	(Ann. rate, percent)
1986										
January February	109.6	0.6	105.0	1.2	105.5	-0.4	116.1	1.4	113.1	3.2
	109.3	-0.2	104.9	0.4	105.2	-0.8	115.9	1.2	113.5	2.9
	108.8	0.0	104.8	0.0	104.9	-1.3	116.1	1.2	113.7	1.8
April	108.6	-0.5	105.1	-0.6	104.9	-1.9	116.6	1.6	114.8	1.1
	108.9	0.4	105.4	0.0	104.9	-1.1	116.9	2.4	115.0	1.1
	109.5	1.7	104.9	-0.6	105.0	-0.6	117.2	3.3	114.9	2.1
July	109.5	2.6	104.6	-1.7	104.5	-1.1	117.4	2.9	114.6	2.8
	109.7	2.8	104.4	-0.4	104.2	-1.5	117.5	2.9	114.9	4.2
	110.2	2.2	104.9	-0.6	104.4	-0.8	118.0	3.1	115.5	5.9
October	110.3	3.7	105.0	-1.9	104.1	0.0	118.2	4.5	115.7	6.8
	110.4	4.1	104.5	-2.3	104.0	0.2	118.4	4.3	116.7	6.9
	110.5	4.4	104.3	-0.2	104.2	0.0	118.5	3.6	117.1	5.6
1987										
January February	111.2	5.0	103.9	2.3	104.6	1.2	119.6	4.1	117.5	5.4
	111.6	5.1	103.9	0.4	104.7	1.5	119.8	4.1	118.0	3.8
	112.1	5.3	104.3	1.3	104.7	1.2	120.0	3.4	118.2	2.4
April	112.7	4.4	105.2	2.1	104.9	1.7	120.6	2.4	119.6	2.2
	113.1	4.5	105.4	3.3	105.0	1.7	120.9	2.7	119.7	2.0
	113.5	4.1	105.2	1.9	105.2	1.0	121.1	2.5	119.7	2.7
July	113.8	3.9	104.7	-0.9	105.2	0.8	121.4	2.3	119.6	3.7
	114.4	3.7	104.8	1.0	105.1	0.4	121.7	2.3	120.0	4.6
	115.0	3.6	105.7	0.0	104.9	0.8	121.7	2.8	120.3	4.8
October	115.3	3.7	105.7	0.0	105.0	-0.2	122.0	2.2	120.9	4.2
	115.4	3.2	105.2	-1.7	105.0	0.0	122.2	2.1	121.5	4.2
	115.4	3.7	105.1	-0.4	105.2	1.0	122.2	2.5	121.4	4.0
1988										
January	115.7	3.9	104.8	1.3	105.4	1.1	122.4	2.6	121.4	3.8
	116.0	4.0	104.6	-0.2	105.6	1.7	122.7	2.6	121.9	3.8
	116.5	4.4	105.0	0.2	105.7	1.3	123.0	2.5	122.3	4.6
April	117.1	4.5	105.5	0.8	106.0	1.9	123.6	3.3	124.3	5.7
	117.5	5.1	105.6	2.1	106.2	2.3	123.9	3.4	124.8	7.5
	118.0	4.7	105.4	1.3	106.3	1.9	124.3	3.6	125.3	8.3
July	118.5	4.7	105.2	1.5	106.2	1.5	124.7	3.3	125.4	9.5
	119.0	4.5	105.5	2.7	106.3	1.7	125.1	3.3	126.8	9.1
	119.8	4.5	106.4	(NA)	106.3	(NA)	125.3	(NA)	127.4	(NA)
October	120.2 120.3 120.5		106.9 106.5 (NA)		106.4 106.7 (NA)		125.6 125.8 (NA)		128.7 129.3 (NA)	

See note on page 80.

Graphs of these series are shown on page 59.

¹Changes over 6-month spans are centered on the 4th month.



INTERNATIONAL COMPARISONS—Continued

	F2 CONSUMER PRICES—Continued					F3 STOCK PRICES						
	it	aly	Сап	ada	19. United States, index of stock	748. Japan, index of stock	745. West Germany,	746. France, index of	742. United Kingdom, index of	747. Italy, index of	743. Canada, index of	
Year and month	737. Index (u)	737c. Change over 6-month spans ¹	733. Index (U)	733c. Change over 6-month spans ¹	prices, 500 common stocks W	prices (1)	index of stock prices ①	stock prices (U)	stock prices (1)	stock prices (1)	stock prices W	
	(1982-84 = 100)	(Ann. rate, percent)	(1982-84 = 100)	(Ann. rate, percent)	(1967 = 100)	(1967 = 100)	(1967 = 100)	(1967 = 100)	(1967 = 100)	(1967 = 100)	(1967=100)	
1987												
January February	131.6 132.1 132.6	4.2 4.7 4.5	115.8 116.3 116.8	4.4 4.7 4.2	287.7 305.6 318.1	1,492.7 1,577.3 1,675.5	308.8 285.2 288.5	642.1 660.1 708.1	841.0 917.9 973.1	r526.9 r503.2 r502.1	378.4 395.4 422.5	
April	132.9 133.4 133.9	4.8 5.9 6.5	117.3 118.0 118.3	5.1 5.2 4.7	314.7 314.5 327.8	1,856.7 1,937.3 1,965.7	304.2 302.3 313.7	725.9 703.6 664.6	957.2 1,042.0 1,098.5	r533.4 r533.6 483.6	420.0 416.4 422.6	
July	134.3 134.6 135.6	6.8 6.4 5.5	119.2 119.3 119.3	4.5 3.8 4.1	337.3 358.3 346.6	1,806.9 1,902.6 1,888.0	327.7 340.7 330.0	691.9 704.9 729.8	1,155.7 1,102.2 1,121.9	r495.0 r460.1 r452.1	455.4 451.3 440.9	
October	136.8 137.2 137.4	5.1 4.0 3.4	119.7 120.2 120.3	3.1 2.9 3.5	304.8 266.5 262.1	1,831.8 1,676.8 1,654.9	306.1 234.2 224.2	632.8 508.5 484.6	1,028.6 795.0 810.9	r450.2 r367.0 r361.4	341.2 336.5 357.1	
1988	ļ									<u> </u>		
January February March	138.1 138.5 139.1	3.5 3.5 4.0	120.5 121.0 121.6	3.5 4.4 4.0	272.5 280.8 289.1	1,654.9 1,797.4 1,909.4	213.0 223.3 237.7	465.0 501.6 510.3	864.2 859.2 889.1	r349.2 r334.2 r377.4	345.4 362.1 374.4	
April	139.6 140.0 140.4	4.5 5.9 5.9	122.0 122.8 122.9	4.5 5.2 4.5	285.7 278.6 294.4	1,960.5 1,962.2 1,978.5	235.9 230.4 246.1	523.5 545.7 609.1	880.3 879.1 907.5	r383.6 r359.9 r373.0	377.4 367.1 388.9	
July	140.8 141.4 142.1	5.8 7.0 (NA)	123.7 124.1 124.1	4.6 3.6 3.8	292.7 286.9 291.5	1,971.2 1,987.1 1,923.6	253.2 253.6 260.5	632.2 618.6 636.0	933.1 909.2 (NA)	r400.0 r416.8 r393.2	381.6 371.3 371.0	
October	143.2 144.4 (NA)	!	124.7 125.1 125.1		301.8 294.8 300.8	p1,913.8 p2,009.1 p2,074.2	272.3 272.4 (NA)	645.3 p659.7 rp669.1		r432.3 436.7 435.6	383.7 372.3 383.0	
1989										ĺ		
January					p309.2	p2,167.6		p726.0		p369.3	p403.0	
April												
July August September										į		
October												

See note on page 80.

Graphs of these series are shown on page 59.



¹Changes over 6-month spans are centered on the 4th month.

Business Cycle Indicators: Revised Composite Indexes

By MARIE P. HERTZBERG and BARRY A. BECKMAN

BEA is revising its composite indexes of leading, coincident, and lagging indicators, the key indexes in its analytic system designed to help predict peaks and troughs in the business cycle. The revision will be effective with the release on March 3 of estimates for January 1989. Since their initial publication in Business Conditions Digest (BCD) in 1968, the indexes have been revised a number of times.¹

This revision, like the earlier ones, incorporates changes in the components, changes in methodology for computing the indexes, updated statistical factors, and historical revisions in component data. The revision includes the following changes:

- Index of leading indicators: Two components are dropped, two components are improved, and two components are added;
- Index of lagging indicators: One component is improved and one component is added; and
- Methodology for computing the indexes: A new method of smoothing irregular series and some other minor changes are introduced. In addition, the base year of the indexes is changed to 1982.

Elements of the Revision

Several characteristics of a time series are used to analyze and evaluate the existing and the potential composite index components. The most important of these characteristics are cyclical timing, economic significance, and currency. Cyclical timing is determined by the consistency with which the cyclical turning points in a series lead, coincide with, or lag the business cycle

turns. Economic significance refers to the importance of the economic activity measured by the series. Currency takes into account both the periodicity of the data and the promptness with which they are available.

In addition, component series are considered in terms of statistical adequacy, conformity to business cycles, smoothness, and revisions. Statistical adequacy refers to the quality of the data and includes factors such as the type of reporting system, the coverage of the data, and the length of the series and its comparability over time. Conformity refers to the consistency of the cyclical pattern of the series in relation to the business cycles, and it includes the amplitude of the cycles and the existence of extra turning points. Smoothness refers to the ease with which the cyclical movements in the series can be observed. Revisions refers to the size and frequency of revisions in recently released data.

The components selected for the revised composite indexes, using these series characteristics, are listed in table 1 along with the components of the current indexes.

Changes in index components

The leading index.—Two series—the change in credit outstanding and the change in inventories on hand and on order—are dropped from the leading index because their current data are not available in time to be included in the initial estimate of the index. In the past, the major factor in the first revision of the index was the addition of data for these two components. (See "A Note on Revisions to the Leading Indicators" in the May 1988 Survey of CURRENT BUSINESS, p. 21.) Excluding these components should reduce considerably the size of the first revisions in the index. Subsequent index revisions also should be smaller because the dropped components were subject to substantial revisions after they became available. Because of the important role of credit in the economy, an improved, more promptly available series is being tested as a potential replacement for the change in credit outstanding. (See "Areas of Future Work.") For the change in inventories on hand and on order, the on-order portion, which is available promptly, is included in the new change in unfilled orders component (see below). The inventories-on-hand portion, in addition to not being available promptly, does not qualify as a leader.

Two components of the leading index are improved. First, vendor performance, which has been derived from a survey of manufacturers in the Chicago area, is now based on a national survey conducted by the National Association of Purchasing Management. The

Data Availability

Data for 1948 through June 1988 for the revised composite indexes and their components, plus revised statistical factors and a description of the changes in the indexes, are available on printouts and on a diskette. To order, write to Economic and Statistical Analysis/BEA, U.S. Department of Commerce, Citizens and Southern National Bank, 222 Mitchell Street, P.O. Box 100606, Atlanta, GA 30384. Specify Revised Indicator Estimates (Accession No. BEA SID 89-201 for printouts or BEA SID 89-401 for diskette), and include a check or money order for \$4.00 for printouts or \$20.00 for diskette, payable to "Economic and Statistical Analysis/BEA." Add 25 percent for foreign shipment. For further information about these products or how to order them, write to the Statistical Indicators Division (BE-60), Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230 or call (202) 523-0800.

These data and information will also be available about February 10 on the Commerce Department's Economic Bulletin Board, a subscription service providing electronic distribution of economic information to computer users. For specifications and costs, call (202) 377–1986.

^{1.} The last overall revision was in 1983. In addition, in 1987 one component of the leading index was removed and one component of the lagging index was recalculated.

national data, which begin in 1976, are judged to be more appropriate because of their broader coverage; the Chicago data continue to be used for the period before 1976. Data for both periods are seasonally adjusted. Second, the change in sensitive materials

prices is recalculated: Price series that are no longer available are dropped for the entire period, those that display seasonal variation are seasonally adjusted, and all are weighted equally. In addition, the method of smoothing the series is changed. (See the section

Table 1.—Components of Current and Revised Composite Indexes

Current	Revised
Composite Index of	f Leading Indicators
Average weekly hours of production or nonsupervisory workers, manufacturing.	Same.
Average weekly initial claims for unemployment insurance, State programs (inverted).	Same.
Manufacturers' new orders in 1982 dollars, consumer goods and materials industries.	Same.
Contracts and orders for plant and equipment in 1982 dollars.	Same.
Index of new private housing units authorized by local building permits.	Same.
Index of stock prices, 500 common stocks	Same.
Money supply M2 in 1982 dollars	Same.
Vendor performance, percent of companies receiving slower deliveries.	Same title; incorporates improved data source for recent years.
Change in sensitive materials prices, smoothed	Same title; based on revised methodology and consistent data for entire period.
Change in business and consumer credit outstanding.	Dropped.
Change in manufacturing and trade inventories on hand and on order in 1982 dollars, smoothed.	Dropped.
	Change in manufacturers' unfilled orders in 1982 dollars, durable goods industries, smoothed.
	Index of consumer expectations.
Composite Index of	Coincident Indicators
Employees on nonagricultural payrolls	Same.
Personal income less transfer payments in 1982 dollars.	Same.
Index of industrial production	Same.
Manufacturing and trade sales in 1982 dollars	Same.
Composite Index of	Lagging Indicators
Average duration of unemployment in weeks (inverted).	Same.
Ratio, manufacturing and trade inventories to sales in 1982 dollars.	Same.
Average prime rate charged by banks	Same.
Commercial and industrial loans outstanding in 1982 dollars.	Same.
Ratio, consumer installment credit outstanding to personal income.	Same.
Index of labor cost per unit of output, manufacturing—actual data as a percent of trend.	Change in index of labor cost per unit of outpu manufacturing, smoothed.
	Change in consumer price index for services,

on the changes in methodology for an explanation of smoothing.)

Two components are added to the leading index. First, the change in unfilled orders (in 1982 dollars) of durable goods manufacturers is added. This series covers all durable goods, whereas the unfilled orders data previously included as a component of the change in inventories on hand and on order exclude capital goods and defense products. Second, the index of consumer expectations, compiled by the University of Michigan's Survey Research Center, is added to provide a new dimension to the leading index by including an aspect of economic activity not covered previously.

The coincident index.—No changes are made in the four components of this index.

The lagging index.—One component of the lagging index is improved. For the labor cost per unit of output in manufacturing, the revised index uses the percent changes in this measure rather than the deviations from trend used in the current index. This change eliminates the need to estimate the current trend, a difficult task in a period when the trend is changing.

One new component is added to the lagging index. The change in the consumer price index for services, compiled by the Bureau of Labor Statistics, increases the representation of services in the index.

Changes in methodology

Each composite index measures the average behavior of a group of economic time series that show similar timing at business cycle turns but that represent widely differing activities or sectors of the economy. The procedures used to construct the indexes offset the tendency of volatile series to dominate the average, and they enhance the usefulness of the three indexes as a consistent system. The current procedures were explained in the November 1987 Survey of Current Business (pp. 24-28). This revision incorporates four changes in those procedures. In addition, statistical factorsstandardization factors for the components, standardization factors for the indexes, and trend adjustment factors-are updated, as shown in tables 2, 3, and 4; revised historical data are incorporated; and the base year of the indexes is changed from 1967 to 1982.

Smoothing of components.—For many economic time series, irregular short-term movements mask the underlying cyclical patterns in the series. particularly in the case of series that are expressed as differences or rates of change. To dampen the irregular fluctuations and to clarify the cyclical movements, smoothing techniques are

A commonly used smoothing technique is the moving average, which can be computed with equal or variable weights and can be placed at either the center or the end of the span. Although a properly selected moving average can smooth an erratic series, it does so at the expense of other desirable characteristics. Centered moving averages are not used in the composite indexes, because they lose currency

Acknowledgments

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BEA benefited from the suggestions and advice of the Business Conditions Digest Technical Committee, whose members represent several Federal agencies. Geoffrey H. Moore, Director of the Center for International Business Cycle Research (CIBCR) at Columbia University, and Victor Zarnowitz of the University of Chicago, who were engaged as consultants by BEA, also provided useful suggestions. In addition, BEA benefited from a recent study at the CIBCR that was carried out by Moore.

for recent months. End-of-span moving averages, such as those used to smooth two components of the current leading index, do not lose currency but shift the turning points forward, reducing their leads.

Table 2.—Standardization Factors and Weights for Components

	Curren	t index	Revised index		
Component series	Standardi- zation factor ¹	Weight	Standardi- zation factor ²	Weight	
Leading index components:					
Average weekly hours of production or nonsupervisory workers, manufacturing	0.467	1.014	0.477	1.000	
Average weekly initial claims for unemployment insurance, State programs 3	5.374	1.041	5.236	1.000	
Manufacturers' new orders in 1982 dollars, consumer goods and materials industries	2.818	.973	2.714	1.000	
Vendor performance, percent of companies receiving slower deliveries*	3.840	1.081	3.423	1.000	
Contracts and orders for plant and equipment in 1982 dollars	6.194	.946	6.110	1.000	
Index of new private housing units authorized by local building permits	5.064	1.054	5.095	1.000	
Change in manufacturing and trade inventories on hand and on order in 1982 dollars, smoothed*4	5.855	.986			
Change in manufacturers' unfilled orders in 1982 dollars, durable goods industries, smoothed* 5			.459	1.000	
Change in sensitive materials prices, smoothed*4 5	.324	.892	.174	1.000	
Index of stock prices, 500 common stocks	2.633	1.149	2.640	1.00	
Money supply M2 in 1982 dollars	.417	.932	.440	1.000	
Change in business and consumer credit outstanding*	2.627	.959			
Index of consumer expectations*			1.951	1.000	
Coincident index components:					
Employees on nonagricultural payrolls	.321	1.064	.318	1.00	
Personal income less transfer payments in 1982 dollars	.502	1.003	.481	1.00	
Index of industrial production	.924	1.028	.901	1.00	
Manufacturing and trade sales in 1982 dollars	1.021	.905	1.000	1.000	
Lagging index components:					
Average duration of unemployment in weeks 3	3.587	1.098	3.470	1.000	
Ratio, manufacturing and trade inventories to sales in 1982 dollars*	.016	.894	.016	1.00	
Index of labor cost per unit of output, manufacturing—actual data as a percent of trend*	.557	.868	***************************************		
Change in index of labor cost per unit of output, manufacturing, smoothed*5			1.251	1.00	
Average prime rate charged by banks*	376، 6	1.123	7.355	1.00	
Commercial and industrial loans outstanding in 1982 dollars	.901	1.009	.927	1.00	
Ratio, consumer installment credit outstanding to personal income*	.062	1.009	.067	1.00	
Change in consumer price index for services, smoothed*5			.434	1.00	

In the revised composite indexes. technique developed by Statistics Canada is used to smooth two leading index components and two lagging index components. technique utilizes an autoregressivemoving-average filter that minimizes the amount of lead time sacrificed for a given amount of smoothing. The filtered series F is derived from the actual series A by applying the following formula2:

$$F_t = 0.134A_t + 1.451F_{t-1} - 0.586F_{t-2}$$

(The result is similar to a weighted average of series A with weights for the current month and the 6 preceding months equal to 0.134, 0.195, 0.204, 0.182, 0.145, 0.104, and 0.036, respectively.)

Weighting of components.—In the current composite indexes, each component is assigned a weight that reflects the overall performance score of that series as a cyclical indicator. The score for each indicator is based on an evaluation of the time series characteristics mentioned in the discussion of component selection: Cyclical timing, economic significance, currency, statistical adequacy, conformity to business cycles, smoothness, and revisions. Because only indicators of relatively high quality are included as components of the composite indexes, the weights fall into a narrow range, and the effect of the weighting is minimal (table 2).

In the computation of the revised indexes, the components of each index are assigned equal weights. This procedure simplifies the construction of the indexes and the analysis of each component's contribution.



^{*} First differences rather than symmetrical percent changes are computed for this series.

1. Except as noted, current standardization factors are computed over the period 1948-81.

2. Except as noted, revised standardization factors are computed over the period 1948-85 (or beginning with the first year after Except as noted, revised standardization factors are computed over the period 1948-65 (or beginning with the first year after 1948 for which data are available).
 Changes for this series are inverted; i.e., they are multiplied by -1.
 In the current index, this series is smoothed with a 4-term moving average (weighted 1,2,2,1) placed at the end of the span.
 In the revised index, this series is smoothed with a filtering technique developed by Statistics Canada.
 This standardization factor is computed over the period 1966-81.
 This standardization factor is computed over the period 1966-85.

^{2.} For the derivation of the formula, see Darryl Rhoades, "Converting Timeliness into Reliability in Economic Time Series or Minimum Phase Shift Filtering of Economic Time Series," Canadian Statistical Review 55 (February 1980): vi-xviii.

Table 3.—Standardization Factors for Composite Indexes

	Curren	t index '	Revised index ²		
Composite index	Average absolute change ³	Index standard- ization factor 4	Average absolute change 3	Index standard- ization factor 4	
Leading index	0.496	0.582	0.522	0.625	
Coincident index	.852	1.000	.835	1.000	
Lagging index	.602	.707	.573	.686	
		1		1	

^{1.} Factors are computed over the period 1948-81.

Trend adjustment of composite indexes.—The current indexes include an adjustment that sets the trend in each index equal to a predetermined target trend. The revised indexes undergo the same trend adjustment procedure, but use a revised definition of the target trend (table 4). For the current indexes, the target trend is the average of the trends of the four components of the coincident index; for the revised indexes, the target trend is the trend of real gross national product (GNP). This change has little effect on the indexes, because the trend of real GNP is almost the same as the average trend of the coincident index components. (For the revised indexes, the target trend computed from real GNP is 0.261 percent per month; it would be 0.268 percent per month using the same method as used in the current indexes.) The change is made because economists consider the trend of real GNP to be the more appropriate measure of the growth in aggregate economic activity.

Updating of composite indexes.— Each month BEA updates the composite indexes to include the latest available data for their components. This updating includes both the computation of a preliminary index value for the latest data month and the recomputation of recent index values to incorporate revised component data. In the current indexes, the updating covers 12 index values—1 new value plus the 11 preceding values. In the revised indexes, only six index values will be computed each month—one new value plus the five preceding values.

The shorter recomputation period will pick up most routine monthly revi-

Table 4.—Trend Adjustment Factors for **Composite Indexes**

[Percent per month]

	Current	index 1	Revised index 2		
Composite index	Trend in raw index	Trend adjust- ment factor 3	Trend in raw index	Trend adjust- ment factor 3	
Leading index	0.132	0.139	0.118	0.142	
Coincident index	.446	175	.447	186	
Lagging index	.253	.018	.231	.030	

sions in the index components. In order to pick up longer term revisions, such as seasonal and benchmark revisions, the composite indexes will undergo annual recomputations to incorporate revised component data for earlier periods. The first recomputation is scheduled for the fall of 1989.

Cyclical Patterns in the Composite Indexes

The current and revised composite indexes for 1948 through June 1988 are shown in chart 1, where the lead or lag of each index at each business cycle turning point is indicated. The chart shows that the cyclical patterns in each pair of indexes are very much alike; that is, the current and revised indexes show similar cyclical amplitudes, similar degrees of smoothness, and relatively minor differences in turning points.

For the leading indexes, the revised and current versions each have average leads of about 91/2 months at business cycle peaks. The leads range from 2 to 20 months for the revised index and from 3 to 23 months for the current index. At recent peaks, the lead of the revised index at the January 1980 peak is 5 months longer than the lead of the current index, and at the July 1981 peak it is 1 month shorter. The false signals in the indexes are similar; both indexes show obvious downturns in 1950-51, 1966, and 1984 that do not lead to recessions.

At business cycle troughs, the average lead of the revised leading index is 4.5 months, and the average lead of the current index is 3.2 months. This difference is largely accounted for by the 8-month longer lead of the revised index at the February 1961 trough. The leads at troughs range from 1 to 10 months for the revised index and 1 to 8 months for the current index.

For the coincident indexes, the turning points of the two indexes are the same except for the July 1953 peak, where the revised index is exactly coincident and the current index has a 2-month lead. More than half of the turning points of each index are exact coincidences, and—except for the 6month lead at the August 1957 peak the rest fall within 3 months of the business cycle turns.

For the lagging indexes, the average lag at business cycle peaks is 4.5 months for the revised index and 5.9 months for the current index. This difference is largely accounted for by the 9-month longer lag of the current index at the July 1981 peak. The lags at peaks range from 2 to 13 months for both indexes.

At business cycle troughs, the average lag of the revised lagging index is 8.5 months, and the average lag of the current index is 9.8 months. The largest difference is at the July 1980 trough, where the lag of the current index is 6 months longer. The lags at troughs range from 3 to 15 months for the revised index and 4 to 15 months for the current index.

The differences in the turning points are caused by the addition, deletion, and modification of components, by the use of updated statistical factors and revised historical data, or by a combination of these. In all, there were 16 differences in turning points; in 9 of them, the differences were only 1 or 2 months.

- In the leading index, the differences at the July 1981 peak and the February 1961 and November 1982 troughs are caused primarily by updated statistical factors and revised historical data. The four other differences are caused primarily by changes in the selection of components.
- In the coincident index, the only difference in the turning points (July 1953 peak) is the result of updated statistical factors and revised historical data.
- In the lagging index, the differences at the March 1975 and July 1980 troughs are caused primarily by updated statistical factors and revised historical data. The six other differences are caused primarily by changes in the selection of components.

Factors are computed over the period 1948-81.
 Factors are computed over the period 1948-85.
 The average absolute change for each index is obtained as follows: (a) For each month, an average of the standardized changes of all components in that index is computed; (b) the average without regard to sign is calculated from these monthly averages for the entire period. For the current indexes, the average in step (a) is computed from weighted standardized changes.

changes.

4. This measure is the ratio of the average absolute change in each index to the average absolute change in the coincident index.

Trends are computed over the period 1948–81.
 Trends are computed over the period 1948–85.
 The trend adjustment factor is the target trend minus the trend in the raw index. The target trend is 0.271 for the current indexes and 0.261 for the revised indexes.

Areas of Future Work

BEA plans to review the selection, coverage, and presentation of data in *BCD*. In addition, BEA has under way further work on the composite indexes. This additional research is focused on three areas: First, on expanding the coverage of the indexes; second, on further improving the quality of some components; and third, on providing a theoretical framework for the indexes.

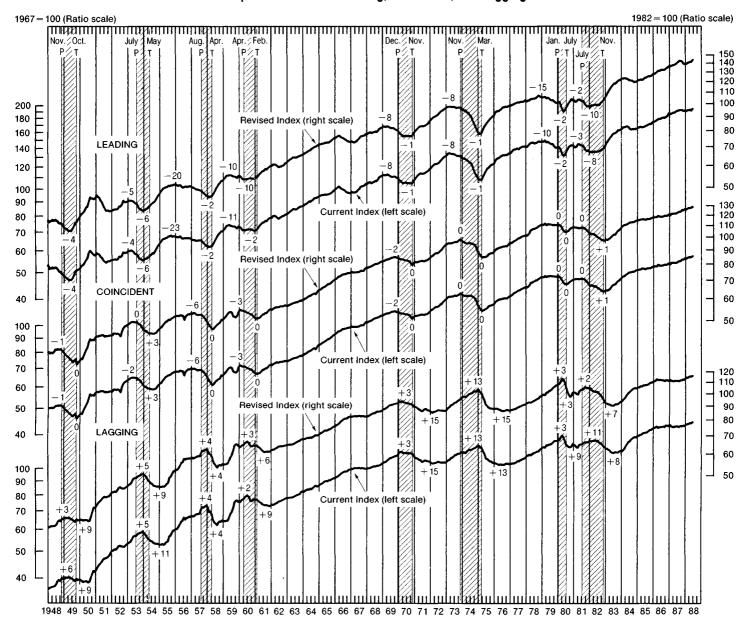
Coverage.—Users of the composite indexes have suggested that measures of service activity and of international activity, areas that have been increasing in importance, be added to the leading index. As part of the current revision, BEA searched for leading indicators in these areas, but results were marginal—one service series was added to the lagging index. Work in this area is continuing.

The available data on services were found not to contain much cyclical vari-

ation. Many service activities continue to grow during business cycle contractions as well as during expansions. In a recent review of the cyclical indicators system, Geoffrey H. Moore, of the Center for International Business Cycle Research, reached a similar conclusion; he concurred with BEA's relatively heavy reliance on manufacturing, construction, and trade in its system of indicators.

Moore developed a separate system of indicators for services, based on six

Chart 1. Composite Indexes of Leading, Coincident, and Lagging Indicators



NOTE.—Peak (P) indicates the end of a business cycle expansion and the beginning of a recession (shaded area). Trough (T) indicates the end of a business cycle recession and the beginning of an expansion. Business cycle peaks and troughs are designated by the National

Bureau of Economic Research, Inc. The numbers entered on the chart indicate the length of leads (-) and lags (+) in months from the business cycle turning dates.

monthly and two quarterly series, that focuses on growth rates rather than on levels of activity. The reference cycles of his system are based on a chronology of peaks and troughs in growth rates of service activity-therefore, they differ from the reference cycle chronology designated by the National Bureau of Economic Research and used by BEA to determine leads and lags. Although this system of service indicators provides some gauge of leads and lags in growth rates of services, it cannot be readily combined with BEA's system of composite indexes. When BEA revises the selection of data published in *BCD*, growth rates of some service activities will be added.

BEA will continue to monitor data on service activity. As service activity evolves further and more data become available, it may be possible to develop cyclical indicators of services suitable for inclusion in the leading index.

With respect to international activities, BEA attempted to find a measure that could be added to the leading index. However, an adequate measure of future foreign demand for U.S. goods is not available. In addition, in many cases data from foreign statistical agencies, which could be used to construct a series, are not available promptly. BEA will continue to monitor international data to determine if a suitable component for the leading index can be developed.

Quality of components.—BEA and the Board of Governors of the Federal Reserve System have compiled a new series on changes in business and consumer credit outstanding. The new series differs from the one dropped in the revision in two respects—preliminary data are available for the most recent month and the estimates cover all business and consumer credit rather than selected components. BEA is monitoring the suitability of the new series—particularly the size of its revisions—for inclusion in the leading index.

BEA is considering the substitution of employee hours in nonagricultural establishments for the number of employees on nonagricultural payrolls, which is now a component of the coincident index. Both series have shortcomings as business cycle indicators. Counting the number of employees gives equal weight to part-time and full-time workers and counts workers

Origin of Business Cycle Indicators

Research at the National Bureau of Economic Research, Inc. (NBER) explored the role of individual economic time series in the business cycle and established the foundation for later studies of leading, coincident, and lagging indicators. NBER's first list of cyclical indicators, compiled by Arthur F. Burns and Wesley C. Mitchell, was published in 1938.

In 1946, Burns and Mitchell described business cycles as follows: "Business cycles are a type of fluctuation found in the aggregate economic activity of nations that organize their work mainly in business enterprises; a cycle consists of expansions occurring at about the same time in many economic activities, followed by similarly general recessions, contractions, and revivals which merge into the expansion phase of the next cycle; this sequence of changes is recurrent but not periodic; in duration business cycles vary from more than one year to ten or twelve years; they are not divisible into shorter cycles of similar character with amplitudes approximating their own." (Measuring Business Cycles, NBER (1946).)

In 1961, the U.S. Department of Commerce began publishing a monthly report that featured the NBER's leading, coincident, and lagging indicators. The composite indexes of cyclical indicators were first published by the Department in 1968.

with more than one job more than once. The hours series does not have these drawbacks, but it may be distorted when a holiday or severe weather falls in the survey week. The Bureau of Labor Statistics is developing adjustments to remove the effects of holidays. Suitable adjustments for the effects of severe weather do not appear feasible. Once the adjustments for holidays are incorporated, BEA will compare the number of employees series with the hours series and will decide which is the better coincident indicator.

The Census Bureau is investigating data sources that could be used to compile a net business formation series that BEA could include in the leading index. A similar indicator was removed from the index in 1987 because of statistical inadequacy.

Theoretical framework.—A better understanding of the theoretical framework that underlies leading indicators can improve the analysis of indicators and may lead to a better system of indicators. BEA and researchers elsewhere are working on developing such a framework for the cyclical indicators. In a recent study, Frank de Leeuw, of BEA, notes five rationales that underlie one or more of the components of BEA's index of leading indicators:

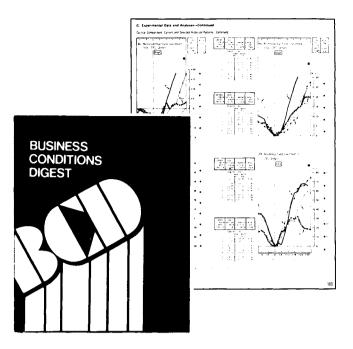
- An early stage in a production process;
- An easily adaptable dimension of economic activity;
- A market highly sensitive to expectations about activity;

- A "prime mover" of the economy;
- The first difference of a series that parallels economic activity.³

This study develops a theoretical model, based on the dynamic theory of production, that incorporates the first three of these rationales. Simulations demonstrate that under some conditions, but not under others, the theoretical model implies lead-lag relationships similar to those implied by the index of leading indicators. The model can be solved to yield a reduced form that resembles the composite index of leading indicators in some respects but that differs from it in others. This reduced form is the basis for a "theorybased" indicator that the study compares with the official composite index.

"Prime movers," the fourth rationale in this study, are defined as fiscal and monetary policies, foreign economic developments, technological changes, and other fundamental forces that most experts believe have a major impact on economic activity. A second study by Frank de Leeuw, which will appear in a forthcoming issue of the Survey of Current Business, documents the low representation of prime movers in leading indexes for many countries. It lists possible reasons for low representation and considers ways of improving the performance of prime movers as leaders. Finally, the study constructs a prime mover-based leading index.

^{3.} Frank de Leeuw, "Toward a Theory of Leading Indicators," Leading Economic Indicators: New Approaches and Forecasting Methods, edited by Kajal Lahiri and Geoffrey H. Moore, Cambridge University Press, forthcoming.





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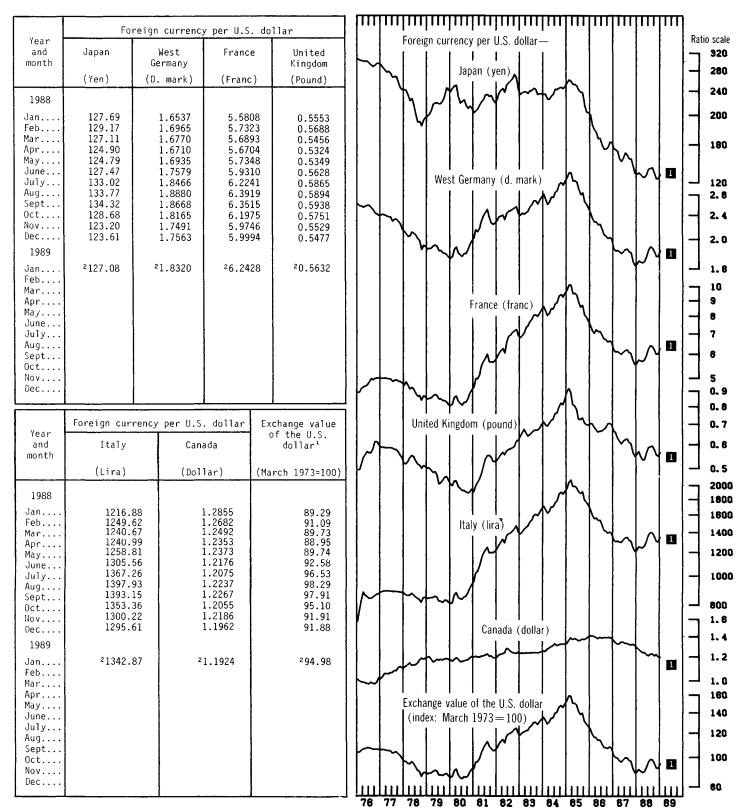
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Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ΙQ	II Q	III Q	IV Q	Annual
		7	3. INDEX	OF INDUS		ODUCTION 977=100)		MANUFAC	TURES	1				AVI	ERAGE FOR	PERIOD	
1954 1955 1955 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1978 1979 1980 1981 1982 1983 1984 1985 1985 1986 1987	40.6 42.3 47.1 48.7 41.8 45.9 52.0 64.4 51.0 54.3 64.8 73.1 77.5 79.7 76.7 81.9 93.1 194.8 86.9 93.1 111.4 101.9 112.7 111.9 126.3 129.8	40.3 43.0 46.7 49.2 40.4 46.9 51.5 52.0 54.7 73.7 65.4 73.7 76.7 79.9 83.8 82.8 82.8 89.1 102.3 111.3 3111.3 111.3	39.6 44.2 46.7 48.9 39.6 48.0 55.0 66.5 74.7 66.5 74.7 66.5 83.4 79.6 84.4 103.7 113.1 112.0 103.0 101.8 127.5 127.5	39.3 44.9 47.7 48.2 38.7 49.4 49.6 45.7 59.5 67.1 75.6 84.2 79.0 94.1 81.2 89.3 98.5 106.4 112.1 110.9 9111.8 101.7	39.5 45.9 46.7 47.5 39.1 50.5 49.2 46.7 67.8 75.9 83.3 78.8 77.9 85.0 95.6 80.5 91.1 106.7 114.5 91.1 106.2 112.5 112.3	39.6 45.9 46.5 50.9 48.1 47.5 52.1 56.7 68.4 76.3 76.3 81.1 81.1 81.1 81.1 81.1 81.1 81.1 81	39.2 46.2 42.9 48.0 40.8 48.4 48.1 48.1 52.6 60.6 69.8 75.8 80.7 78.4 76.8 85.3 97.0 95.3 81.0 99.3 81.0 91.8 101.0 91.8 110.5 114.2 110.5 114.2 112.1 113.5	39.1 46.5 46.2 48.3 41.8 45.3 47.9 49.4 53.0 61.0 69.7 76.8 80.6 84.7 75.1 86.4 96.9 99.5 82.6 99.5 110.1 113.1 110.1 113.1 110.1 113.1 110.9 128.5 127.9 133.8	39.1 46.4 47.6 47.4 42.3 44.9 47.1 56.9 61.6 69.8 77.6 80.4 84.8 76.7 77.2 87.6 95.8 83.5 91.8 10.9 110.9 111.3 98.1 111.3 98.1 1125.8 127.8	39.7 47.2 48.1 46.2 42.5 55.5 57.5 57.5 57.5 57.7 70.4 78.6 89.6 89.6 89.6 89.6 89.6 111.9 111.9 112.4 128.6 128.6 136.8	40.5 46.9 48.0 45.0 45.2 45.8 50.9 53.8 57.7 70.7 77.3 83.4 73.0 78.7 91.3 99.2 6 84.5 99.2 113.0 112.	41.2 47.4 48.9 43.2 45.1 50.1 44.4 51.7 72.2 77.8 83.0 64.2 79.8 83.0 79.4 92.3 96.8 87.7 85.6 95.1 103.9 111.8 105.6 96.5 116.3 128.7 129.7 139.7	40.2 43.2 46.8 48.9 40.6 46.9 51.3 51.8 54.7 78.5 65.6 73.8 79.7 82.7 94.1 94.2 102.8 114.7 113.0 111.6 102.9 100.2 120.9 126.7 128.7	39.5 45.6 47.0 39.4 50.3 49.0 46.6 52.4 56.3 59.7 67.8 80.6 83.9 77.1 85.0 99.4 107.0 113.8 110.8 112.2 121.1 121.	39.1 46.4 47.9 41.6 46.2 47.7 48.8 53.0 56.6 61.1 69.8 77.0 76.4 86.4 97.3 99.5 82.4 92.1 101.6 113.6 105.7 112.8 99.3 110.7 112.7 99.3 110.7 127.9	40.5 47.2 48.3 44.8 44.2 46.6 45.7 50.8 57.6 62.2 71.1 77.9 78.6 82.2 78.9 91.1 98.0 91.8 84.7 102.8 84.7 113.3 111.0 107.7 96.3 115.4 128.3 129.1 136.9	39.9 45.6 47.1 47.4 41.5 47.7 48.5 56.3 68.6 67.6.2 77.0 80.8 84.0 77.6.2 86.3 96.3 96.3 96.1 100.0 108.2 113.9 109.1 111.1 199.9 107.7 124.2 127.6
			4. INDEX	OF INDUS		ODUCTION 1977=100)		BLE MANI	JFACTURES					AV	ERAGE FOR	PERIOD	
1954 1955 1955 1957 1958 1959 1960 1961 1964 1965 1966 1967 1968 1969 1970 1971 1973 1974 1975 1977 1978 1979 1978 1988 1988	34.2 37.3 40.9 41.6 40.9 44.8 46.7 50.6 65.2.7 56.5 66.5 68.0 70.4 74.6 76.5 77.3 84.1 88.9 90.7 81.9 90.7 81.9 90.7 81.0 90.7 90.7 90.7 90.7 90.7 90.7 90.7 90	34.4 37.5 40.9 42.0 45.5 47.4 46.9 51.3 56.8 67.2 70.8 84.3 890.7 80.7 890.7 80.7 80.7 80.7 80.7 80.7 80.7 80.7 8	34.6 38.3 40.8 42.1 40.6 47.6 47.6 47.3 51.6 65.4 67.0 71.4 76.2 77.2 85.0 91.7 78.9 91.7 78.9 91.7 78.9 91.7 78.9 91.7 91.9 91.9 91.9 91.9 91.9 91.9 91	34.6 38.5 41.1 41.5 40.3 46.1 47.7 51.5 54.4 57.9 61.2 65.1 67.9 71.4 75.8 76.4 78.0 86.0 90.4 90.9 80.5 91.7 99.1 107.9	34.8 39.1 40.8 41.7 40.8 46.3 47.8 48.1 51.7 54.6 58.3 65.9 66.6 72.1 76.1 76.1 176.2 78.1 100.0 105.3 108.8 112.4 122.0 124.4 122.7	35.0 39.2 40.5 41.6 47.5 48.6 51.7 54.6 66.0 66.9 72.3 76.1 78.8 86.3 90.7 91.6 84.0 92.2 100.2 100.2 103.8 110.7 113.4 122.8 110.7 113.4 122.8 124.2 130.2 130.9	35.1 39.2 40.8 42.0 42.1 46.9 47.6 48.9 52.0 52.0 54.4 58.5 72.3 77.1 76.8 79.7 86.0 91.2 91.5 85.3 30.3 100.1 110.1 110.1 110.1	35.1 38.9 41.0 42.0 42.0 42.8 46.8 47.1 51.9 55.1 58.7 762.4 66.6 68.3 73.2 77.0 75.8 79.7 87.2 91.6 91.3 86.4 4101.2 106.8 110.8 107.8 110.8 11	35.6 39.5 41.1 42.1 43.1 46.9 47.0 47.0 49.3 55.4 58.7 66.7 73.6 76.2 80.6 87.6 81.4 91.4 91.0 87.6 100.9 108.0 107.6 110.0 105.7 118.0 122.3 126.1 130.3 138.6	35.9 40.0 41.4 41.6 43.4 46.4 47.2 50.3 52.0 55.6 69.4 73.7 76.6 88.0 99.9 88.5 95.3 101.0 108.9 107.0 108.9 107.3 117.9 122.7 125.3 131.2 138.1	36.3 40.5 41.2 44.0 46.5 46.7 50.9 52.4 55.9 59.3 63.5 67.1 70.0 88.5 92.0 87.5 89.4 91.0 88.5 92.0 87.5 89.4 91.0 91.0 91.0 91.0 91.0 91.0 91.0 91.0	36.9 40.9 41.6 41.2 44.0 47.1 46.5 51.2 52.5 52.5 55.9 63.9 67.2 70.6 74.0 76.7 82.8 89.5 90.5 84.0 90.0 101.8 107.9 108.4 106.3 107.1 108.4 106.3 117.5 122.8 127.1 133.4 141.3	34.4 37.7 40.9 41.9 40.7 45.3 47.6 61.0 61.0 61.0 75.5 76.5 76.5 77.2 84.5 80.6 80.6 80.6 80.6 109.7 1109.7 109.7	34.8 38.9 40.8 41.6 40.9 46.2 47.7 48.2 51.6 54.5,5 58.1,7 67.1 76.2 78.3 86.0 90.6 90.6 91.3 81.9 92.0 99.9 99.9 105.5 108.3 112.1 112.1 112.1	35.3 39.2 41.0 42.0 42.7 46.9 47.2 49.2 52.1 55.0 66.6 67.8 73.0 76.9 76.3 80.0 86.9 91.4 91.3 100.6 51.0 106.5 109.2 110.9 11	36.4 40.5 41.4 41.3 43.8 50.8 50.8 50.3 55.8 63.5 67.0 74.1 76.7 76.3 82.1 188.7 91.5 87.1 188.6 107.6 107.6 107.6 107.6 107.6	35.2 39.1 41.1 41.8 42.1 46.3 47.4 48.8 51.8 51.8 54.6 58.2 62.1 66.0 68.1 72.5 76.3 76.3 76.3 76.3 79.4 86.5 90.2 84.5 90.5 90.5 90.5 90.5 90.5 90.5 90.5 90
105/	26.0	26.4	-	INDEX OF	(1	1977=100)							26.2		ERAGE FOR		
1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1970 1971 1972 1973 1974 1977 1978 1978 1988 1988 1988	36.0 39.9 43.0 43.7 42.9 50.3 48.4 52.9 55.8 59.2 63.9 67.4 70.0 72.7 75.8 78.9 84.9 89.8 88.2 80.8 90.5 90.1 100.7 110.7 110.7 110.7 110.7 110.7 110.7 110.7	36.4 40.1 42.9 44.2 42.6 47.2 48.7 53.2 56.4 69.1 73.1 77.3 76.5 85.2 91.1 87.5 85.2 91.1 101.6 101.0 101.0 101.0 101.0 101.0 101.0 101.0	36.5 40.9 42.9 44.4 47.2 49.8 48.7 53.6 56.7 58.8 64.6 68.1 73.5 91.5 91.2 88.7 77.9 105.5 91.2 104.7 104.7 104.7 104.7 104.7	36.5 41.1 43.0 43.9 41.8 48.0 50.1 49.8 56.1 56.9 60.3 70.5 73.4 76.7 76.8 79.7 87.2 91.0 0 104.2 103.2 106.2 118.2 118.2 118.2 118.2 123.8 125.5	36.7 41.7 42.8 44.0 42.5 50.4 50.4 57.0 60.7 68.3 76.1 77.2 79.8 86.3 91.1 105.0 1105.0 1105.2 111.4 111.5 111.4 111.5	37.0 41.4 42.7 44.2 43.3 48.0 50.1 50.9 57.4 60.6 65.0 68.6 69.3 77.4 80.4 86.7 77.9 1.3 84.7 92.9 99.7 105.4 104.3 99.7 101.8 104.3 104.3 104.3 104.3 104.3 104.3 105.3	37.1 41.5 42.8 44.4 44.0 48.6 49.6 55.0 65.0 68.5 68.5 74.1 77.5 81.6 86.3 391.2 89.2 28.6 59.3 3105.4 103.2 101.0 3118.9 110.3 124.5	37.1 41.6 43.0 44.6 44.1 48.7 51.7 51.7 65.0 68.3 69.9 78.2 76.2 80.7 87.8 91.1 89.7 87.1 93.9 102.6 102.1 104.9 112.2	127.7	37.6 42.6 43.3 43.9 44.0 48.3 50.0 52.3 59.5 66.3 69.9 71.0 75.7 77.7 77.7 77.7 77.7 75.0 82.5 89.1 187.9 91.3 102.9 103.3 100.9 113.6 112.4 124.8	38.4 42.8 43.1 43.8 46.1 47.2 49.1 53.2 66.6 69.6 69.6 69.6 69.6 88.8 896.4 101.7 104.3 102.7 101.3 110.3 110.3 112.7	39.1 43.4 43.4 43.5 48.8 48.8 53.3 55.1 58.6 63.0 67.1 76.3 77.7 83.7 76.3 84.3 89.5 84.3 89.5 97.2 102.4 1101.6 1101.6 1101.1 1101.6	36.3 40.3 42.9 44.1 47.6 47.1 49.9 48.6 55.3.2 55.3.3 59.0 64.2 67.7 69.5 73.1 77.3 76.2 90.7 88.1 101.5 3 101.5 103.7 111.1 113.6 103.7 117.1 118.6 112.6 112.6 112.6	36.7 41.4 42.8 44.0 42.5 50.2 50.4 55.2 57.1 60.5 64.8 68.4 69.6 77.1 80.0 86.7 77.1 80.0 86.7 91.1 100.9 91.1 100.9 104.8 100.1 100.2 100	87.4 91.7 89.4 87.2 93.6 100.7 105.4 102.9 102.2 104.4 101.6 112.0 118.1	38.4 42.8 43.3 43.7 45.5 48.1 49.3 52.9 58.4 66.7 72.4 76.7 83.1 89.9 91.3 86.7 75.7 81.1 104.1 102.5 1011.9 118.8 125.5	37.3 41.6 43.1 44.2 43.8 50.9 54.3 57.3 68.6 70.3 74.5 77.3 76.4 80.8 87.3 391.2 88.4 84.9 93.3 100.0 104.3 103.9 102.7 104.1 111.4 109.3 118.8

C. Historical Data for Selected Series—Continued

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Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ΙQ	II Q	III Q	IV Q	Annual
	7	6. INDEX	OF INDUS	STRIAL PR	ODUCTION 977=100)	, BUSINES	S EQUIPM	ENT					AVE	RAGE FOR	PERIOD	
33.5 31.8 37.9 42.7 37.4 36.9 41.5 38.6 41.0 43.3	33.1 32.3 38.4 43.6 36.1 37.4 41.8 38.3 41.6	32.6 32.6 38.8 43.4 35.3 37.8 41.9 38.2 42.1 43.6	32.1 33.7 40.0 42.6 34.6 34.8 41.4 38.6 42.4 44.0	32.0 34.2 39.8 41.8 33.7 40.1 41.6 38.7 42.4 43.9	31.6 34.6 40.0 42.0 33.7 41.0 41.0 39.0 42.8 44.1	31.5 34.7 40.0 42.2 33.9 41.1 40.5 39.2 43.2 44.7	31.3 34.9 40.5 42.1 34.5 40.7 40.0 39.4 43.6 45.8	31.0 35.2 40.6 41.5 34.8 40.4 39.6 40.0 43.6 45.7	30.9 36.8 41.0 40.4 35.3 40.1 39.3 39.9 43.7 46.5	31.5 37.0 41.6 39.4 35.9 39.5 39.2 41.0 43.7 46.8	31.6 37.6 42.1 38.2 36.2 40.1 38.3 41.1 43.5	33.1 32.2 38.4 43.2 36.3 37.4 41.7 38.4 41.6 43.6	31.9 34.2 39.9 42.1 34.0 41.3 38.8 42.5 44.0	31.3 34.9 40.4 41.9 34.7 40.0 39.5 43.5	31.3 37.1 41.6 39.3 35.8 39.9 38.9 40.7 43.6 46.7	31.9 34.6 40.1 41.7 35.2 39.5 40.6 39.4 42.8 44.9 50.3
53.4 63.8 68.2 69.7 74.1 68.6 73.7 87.0 93.9	54.3 63.6 68.3 69.7 74.0 74.4 69.0 74.8 88.4 94.2	55.0 64.8 68.1 70.3 74.7 74.6 68.3 76.0 88.9 95.0	55.5 65.3 68.1 70.0 75.5 74.5 67.9 77.6 90.2 96.0	56.3 66.2 68.3 71.0 75.0 74.5 67.5 77.8 91.3 97.8	57.1 66.8 68.0 70.9 75.8 74.0 67.8 78.1 92.6 98.0	58.1 67.9 66.6 70.2 73.8 67.9 77.7 93.3 84.2	58.1 68.2 67.8 70.8 76.2 73.6 68.9 79.0 93.6	59.2 68.9 67.5 71.6 77.0 72.0 70.5 80.8 95.6 95.1	60.1 68.7 66.9 72.2 77.2 69.7 71.2 82.4 96.5 98.7	61.2 67.7 68.7 72.3 75.4 69.3 71.5 84.5 96.6 98.0	62.5 68.7 69.4 73.0 75.2 71.9 85.1 94.4	54.2 64.1 68.2 69.9 74.4 68.6 74.8 88.1 88.4	56.3 66.1 68.1 70.6 75.4 74.3 67.7 77.8 91.4 91.4	58.5 68.3 67.3 70.9 76.6 73.1 69.1 79.2 94.2 98.0 84.8	61.3 68.4 68.3 72.5 75.9 69.7 71.5 84.0 95.8	57.6 66.7 68.0 71.0 75.6 72.9 69.3 79.0 92.4 96.5
86.1 96.2 104.4 122.1 125.2 127.0 118.3 109.2 128.1 138.2 142.1	87.9 96.6 105.1 123.6 127.1 128.0 119.8 109.4 128.7 138.9 141.3	87.6 96.5 107.4 124.5 126.0 127.9 118.8 110.0 130.2 139.3	87.7 98.3 109.8 122.7 125.3 128.3 116.8 111.5 130.6 140.8	88.5 98.4 109.8 125.2 123.0 128.9 115.0 112.4 132.6 141.8 138.6	88.1 99.5 111.8 125.4 121.8 130.3 113.3 113.4 134.6 139.2 137.2	89.1 100.8 112.6 125.2 123.2 131.1 113.2 114.6 135.9 140.3 139.4	89.3 100.7 114.3 124.4 123.9 128.7 110.1 117.7 138.5 140.9 139.1	89.4 102.5 115.5 126.4 124.5 127.9 110.3 120.8 137.0 140.5 139.6	90.1 102.7 116.8 126.3 126.0 126.3 108.6 120.7 137.8 138.5 139.4	93.1 103.2 119.0 125.5 127.8 123.8 108.9 121.7 138.5 142.2 138.8	94.7 104.4 119.5 124.6 127.4 122.8 109.9 123.0 137.0 141.6 139.5	87.2 96.4 105.6 123.4 126.1 127.6 119.0 109.5 129.0 138.8 140.7	88.1 98.7 110.5 124.4 123.4 129.2 115.0 112.4 132.6 140.6 138.5	89.3 101.3 114.1 125.3 123.9 129.2 111.2 117.7 137.1 140.6 139.4	92.6 103.4 118.4 125.5 127.1 124.3 109.1 121.8 137.8 140.8 139.2 148.9	89.3 100.0 112.2 124.7 125.1 127.6 113.6 115.4 134.2 140.2 139.5
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81.3 83.5	80.8	80.2 85.8	79.4 86.7	79.8 87.9	79.9 87.6	79.4 87.7	78.8 87.3	79.2 87.5	79.7 88.4	80.9 88.3	81.8 89.0	80.8	79.7 87.4	79.1 87.5	80.8 88.6	80.1 87.0
86.2 86.2 75.7 80.2 85.6 74.1 80.2 81.9 84.5 88.6 90.9 89.4 87.1 77.2 80.5 86.0 84.5 73.2	87.4 87.0 73.8 81.4 673.5 81.4 84.7 90.9 87.9 87.9 87.9 87.8 81.8 81.8 983.9 971.6	87.0 86.4 72.7 82.5 73.9 81.9 81.9 84.4 89.3 91.6 87.1 81.3 86.9 88.1 81.3 84.0 69.9	87.8 85.0 71.3 84.0 82.3 75.4 81.7 83.5 85.6 89.3 91.5 86.7 77.8 80.7 77.9 82.5 86.8 83.4 70.5	86.3 84.2 71.9 84.9 81.5 76.4 81.3 84.0 85.6 89.4 86.2 87.4 86.7 77.2 82.1 86.9 84.2 77.2	85.3 84.6 73.9 84.8 77.3 80.9 83.9 85.5 91.5 85.7 87.3 86.9 77.7 282.1 87.2 87.1 17.1	81.5 84.3 74.3 83.0 79.7 78.1 81.5 83.3 91.4 84.9 86.7 77.6 87.2 77.6 87.2 77.6	84.9 84.2 75.7 79.1 79.1 81.4 86.1 86.1 86.1 86.9 78.8 72.8 83.3 72.7	86.0 83.2 76.2 79.0 77.9 78.2 81.8 86.2 89.6 89.6 85.7 86.5 77.9 83.3 83.3 83.4 83.2 73.4	86.5 81.4 76.4 77.5 79.6 81.4 84.3 84.6 89.8 86.0 86.7 78.3 84.4 87.7 82.2 73.8 77.9	85.8 79.4 79.1 78.5 80.8 81.8 84.3 86.6 87.2 87.6 85.0 75.1 77.1 87.6 79.7 74.2	86.8 77.50 83.6 74.3 81.6 88.0 90.5 90.0 87.6 87.3 84.2 76.9 85.7 75.7 75.7	87.5 86.5 74.1 81.4 84.5 73.8 81.2 82.3 84.5 88.9 91.1 87.0 87.8 81.7 77.0 80.9 86.6 84.1	86.5 84.6 72.4 84.6 81.3 76.4 81.3 83.8 85.5 89.4 87.1 87.0 80.2 77.1 82.2 87.0 83.9 77.0	84.1 83.9 75.4 80.9 78.4 81.6 81.6 89.9 91.2 86.7 86.7 87.8 87.3 77.7	86.4 79.4 78.2 80.1 75.9 80.7 81.6 84.2 86.5 90.0 90.6 86.5 90.0 97.8 85.1 75.9 78.5 85.2 74.3 78.7	86.1 83.6 81.6 80.1 77.3 81.4 83.5 85.6 89.5 91.1 86.8 87.0 82.6 82.6 77.4 82.8 87.0
81.8 85.8 82.8 79.5 71.9 69.4 79.4 80.0 80.7 79.6	81.5 85.9 82.7 79.4 73.0 70.1 80.0 80.0 80.2	82.1 86.0 82.1 79.5 72.3 70.9 80.3 80.3 79.2 80.3	83.8 84.4 80.1 79.3 71.2 71.7 80.5 80.2 79.9 80.2	83.8 85.4 77.7 79.5 70.7 72.6 80.4 80.5 79.6	84.5 85.1 76.3 79.2 70.4 73.2 80.9 80.0 79.3 80.8	84.8 84.7 76.1 79.8 70.2 74.6 81.3 79.7 81.5	85.0 84.0 77.1 79.2 69.8 75.7 81.2 80.2 79.6 81.5	85.3 83.7 78.1 77.9 69.3 76.9 80.6 80.1 79.4 81.3	85.5 83.8 78.6 76.7 68.4 77.2 80.7 79.5 82.0	85.9 83.1 79.7 75.2 68.2 77.3 80.7 80.2 79.6 82.2	86.5 82.9 79.6 73.8 68.0 77.6 80.4 80.1 80.2 82.6	81.8 85.9 82.5 79.5 72.4 70.1 79.9 80.0 80.0	84.0 85.0 78.0 79.3 70.8 72.5 80.6 80.5	85.0 84.1 77.1 79.0 69.8 75.7 81.0 80.0 79.6 81.4	86.0 83.3 79.2 68.2 77.4 80.6 79.9 79.8 82.3	84.2 84.6 79.2 78.2 70.3 73.9 80.5 80.1 79.7 81.0
			84. CAPAC			RATE, MATI	RIALS						AV	ERAGE FOR	PERIOD	
79.8 86.5 93.5 88.4 75.0 82.4 88.6 72.1 81.9 98.9 90.3 88.6 86.4 87.5 89.8 89.8 89.8 89.8 89.8 89.8 89.8 89	72.8 78.8 82.6 82.5 88.3 85.5 82.3 76.0	70.9 78.9 83.6 83.1 88.4 85.2 82.5 74.7	86.0 87.5 83.0 80.7 73.4 73.0 82.2	92.3 83.8 87.7 82.1 81.4 85.3 90.8 88.0 70.5 80.1 84.6 86.3 87.5 77.6 80.8 82.4 80.2	91.8 83.3 87.5 88.5 81.6 85.1 91.3 87.8 71.6 86.5 87.6 87.6 87.6 81.9 77.6 77.6 77.6 77.7	79.5 93.5 77.9 85.4 74.4 79.5 79.7 80.2 83.9 92.7 92.1 83.0 88.3 88.2 81.7 79.4 84.9 84.9 84.9 84.7 87.1 88.2 88.2 88.2 88.4 88.4 88.4 88.4 88.4	70.8 76.8 82.8	69.9 78.4 82.2	81.8 89.6 82.5 79.5 77.0 75.7 81.8 80.9 84.8 88.8 89.1 91.3 85.0 86.2 88.4 79.3 80.1 88.1 88.1 88.1 88.1 86.1 77.4 88.1	73.7 82.3 81.5 85.8 89.6 89.9 85.6 78.6 78.6 78.6 78.6 81.6 78.7 85.2 88.6 28.7 89.7 89.7 89.7 89.7 89.7 89.7 89.7 8	71.7 81.4 84.4 90.6 90.9 89.0 86.1 86.1 81.4 80.1 77.1 76.9 82.2 83.8 85.9 85.9 85.9 86.5 77.6 68.5 79.6 88.2	79.6 88.3 92.8 86.2 72.6 86.6 72.0 81.8 85.7 91.0 91.8 86.6 86.2 88.0 80.6 83.9 80.5 83.9 80.7 83.0 88.1 85.7 73.0 88.1 88.7 82.7 71.5 82.7 78.7	79.8 92.4 90.8 85.4 71.0 89.5 80.9 76.5 81.1 87.1 91.2 92.0 84.1 82.1 81.2 85.3 87.1 82.1 81.1 82.1 82.1 83.5 84.1 82.1 84.3 87.5 87.1 84.6 86.3 87.5 87.1 88.1 87.1 88.1 87.1 88.1 88.1 88.1	84.1 86.6 81.9 79.4 85.9 91.8 86.9 73.3 80.9 84.6 87.7 70.6 77.0 82.6 77.9	83.2 93.9 89.2 80.0 80.8 79.7 73.7 82.6 81.3 84.8 89.7 87.6 79.3 80.5 89.0 99.1 87.6 1.6 1.7 81.7 84.7 85.6 86.7 87.7 88.6 88.7 88.6 88.7 89.7 87.6 88.6 88.7 89.7 89.6 89.7 89.6 89.6 89.6 89.6 89.6 89.6 89.6 89.6	80.6 92.0 89.4 84.7 7.5,4 82.9 979.8 77.9 81.5 83.8 87.8 91.0 91.4 85.1 86.4 91.1 86.4 86.4 91.1 86.3 87.8 86.3 87.8 86.3 87.8 86.3 87.8 86.3
	33.5 31.8 37.9 42.7 37.4 41.3 34.9 41.0 38.6 68.2 69.7 74.1 68.6 68.2 10.2 11.2 12.2 11.2 12.2 12.1 11.2 12.2 12.1 11.3 83.5 86.2 75.7 86.1 12.1 12.1 12.1 12.1 12.1 13.6 86.2 86.2 86.2 86.2 86.2 86.2 86.2 86	33.5 33.1 33.3 33.3 31.8 32.3 37.9 38.4 42.7 43.6 37.4 36.1 36.9 37.4 43.6 37.4 43.6 38.6 38.6 44.0 41.6 41.6 41.5 41.8 38.6 68.2 68.3 69.7 69.7 74.0 74.1 74.4 68.6 69.0 73.7 74.8 88.6 68.2 68.3 69.7 69.7 74.1 74.4 68.6 69.0 73.7 74.8 88.6 1 87.9 94.2 96.6 104.4 105.1 122.1 123.6 125.2 127.1 123.6 125.2 127.1 123.6 125.2 127.1 123.6 125.2 127.1 138.9 138.9 138.9 138.6 141.7 138.6 141.7 138.6 141.7 138.6 141.7 138.6 141.7 138.6 141.7 138.6 141.7 88.6 88.2 87.4 88.2 87.4 88.2 87.4 88.6 88.7 88.2 81.4 88.6 88.7 88.2 81.4 88.7 88.2 81.4 88.6 88.7 89.9 89.4 87.9 87.4 87.9 88.7 88.2 88.7 99.9 89.4 87.9 88.7 88.2 88.7 99.9 89.4 87.9 88.7 88.2 88.7 99.5 79.5 79.5 80.1 88.8 82.7 79.5 79.5 80.1 88.5 88.9 97.2 71.6 75.5 77.0 79.5 80.1 88.5 88.7 99.5 79.5 79.4 80.0 80.7 80.2 81.4 88.6 86.6 86.9 87.9 88.1 88.2 77.2 77.1 87.1 87.1 87.1 87.1 87.1 87.1 87.1	76. INDEX 33.5 33.1 32.6 31.8 32.3 32.6 37.9 38.4 38.8 42.7 43.6 43.4 37.4 36.1 35.3 36.9 37.4 37.8 41.5 41.8 41.9 38.6 38.3 38.2 41.0 41.6 42.1 43.3 43.9 43.6 48.0 47.7 48.3 53.4 54.3 55.0 63.8 63.6 64.8 68.2 68.3 68.1 69.7 69.7 70.3 74.0 74.0 74.7 74.1 74.4 74.6 68.6 69.0 68.3 73.7 74.8 76.0 90.7 88.8 86.4 88.9 33.9 94.2 95.0 90.7 88.8 86.4 88.9 33.9 94.2 95.0 90.7 88.8 86.4 88.1 87.9 87.6 96.2 96.6 96.5 104.4 105.1 107.4 122.1 123.6 124.5 125.2 127.1 126.0 90.7 88.8 86.4 86.1 87.9 87.6 96.2 96.6 96.5 104.4 105.1 107.4 122.1 123.6 124.5 125.2 127.1 126.0 127.0 128.0 127.9 118.3 119.8 118.8 109.2 19.4 110.0 128.1 128.7 130.2 138.5 141.7 141.9 81.9 82.4 88.9 139.3 138.1 141.3 19.8 118.8 88.2 87.4 87.0 86.2 81.4 82.5 88.1 13 80.8 80.2 88.2 87.4 87.0 86.4 87.9 87.1 86.9 86.4 87.9 87.1 87.1 88.8 88.9 88.9 88.9 89.9 89.9 99.9 81.3 86.0 88.0 82.1 81.4 81.9 82.1 81.8 88.1 82.1 81.8 88.1 83.7 98.3 84.1 82.4 82.6 84.5 83.9 84.0 77.2 77.1 76.7 79.5 80.1 80.4 82.1 81.8 81.3 77.2 77.1 76.7 79.5 80.1 80.4 82.1 81.8 81.3 77.2 77.1 76.7 79.5 80.1 80.4 82.1 81.8 81.3 77.2 77.1 76.7 79.5 80.1 80.4 82.1 81.8 81.3 77.2 77.1 76.7 79.5 80.1 80.4 82.1 81.8 81.3 77.2 77.1 76.7 79.5 80.1 80.4 82.1 81.8 81.3 77.2 77.1 76.7 79.5 80.1 80.4 82.1 81.8 81.3 77.2 77.1 76.7 79.5 80.1 80.4 82.1 81.8 81.3 77.2 77.1 76.7 79.5 80.1 80.4 80.9 80.9 90.9 91.3 91.5 92.5 88.6 86.6 84.6 88.7 99.2 91.3 91.5 92.5 88.6 86.6 84.6 88.1 88.2 88.2 87.4 88.1 88.9 88.2 87.4 88.1 88.9 88.2 87.4 88.1 88.9 88.2 87.4 88.1 83.8 88.2 87.4 88.1 83.8 88.2 87.4 88.1 83.8 88.2 87.4 88.1 83.8 88.2 87.4 88.1 83.8 88.2 87.4 88.1 83.8 88.2 87.4 88.1 83.8 88.2 87.4 88.1 83.8 88.2 87.4 88.8 89.0 88.2 87.4 88.8 89.0 88.2 88.2 88.2 87.4 88.8 89.0 88.2 88.2 88.2 87.4 88.8 89.0 88.2 88.2 88.2 87.4 88.8 89.0 88.2 88.3 88.2 88.2 88.2 88.3 88.2 88.3 88.2 88.3 88.2 88.3 88.2 88.3 88.2 88.3 88.2 88.3 88.2 88.3 88.2 88.3 88.2 88.3	76. 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CAPAC 81.3 80.8 80.2 79.4 83.5 84.1 85.8 86.7 88.2 87.4 87.0 86.4 86.2 81.0 86.4 85.0 75.7 73.8 72.7 71.3 80.2 81.4 82.5 84.0 85.6 84.6 83.2 82.3 74.1 73.5 73.9 75.4 80.2 81.4 82.5 84.0 88.6 88.7 89.3 89.3 89.4 87.9 87.1 88.6 88.6 88.7 89.3 89.3 89.4 87.9 87.1 88.7 82.1 81.8 81.3 80.7 77.2 77.1 76.7 76.9 87.4 87.8 88.1 87.4 82.1 81.8 81.3 80.7 77.2 77.1 76.7 76.9 80.4 87.9 87.1 86.9 86.7 89.9 89.9 91.6 91.7 87.9 86.9 86.9 86.8 86.8 86.9 86.9 86.9 86.8 86.8 86.9 86.9 86.9 86.9 86.8 86.5 88.0 90.9 91.6 91.7 87.9 88.0 88.0 79.0 79.0 78.8 86.5 88.0 90.9 91.6 91.7 79.5 80.1 80.4 86.1 81.8 81.5 82.1 88.1 82.8 77.9 72.3 71.2 77.1 76.7 76.7 76.9 79.6 80.0 80.3 80.3 80.7 80.2 79.2 79.9 79.6 80.0 80.3 80.3 80.2 89.9 99.9 91.9 91.9 91.9 91.9 91.9 91.9 9	76. INDEX OF INDUSTRIAL PROPERTY OF THE PROPER	76. IRDEX OF INDUSTRIAL PRODUCTION 33.5 33.1 32.6 32.1 32.0 31.6 42.4 43.6 43.8 40.0 39.8 40.0 42.4 43.6 43.5 31.7 32.0 31.6 42.4 43.6 43.5 32.1 32.6 33.7 34.2 34.6 31.8 32.3 32.3 32.6 33.7 34.2 34.6 31.8 32.3 32.6 33.7 34.2 34.6 41.8 41.9 41.4 43.6 43.6 43.2 32.8 63.8 7 39.0 41.5 41.8 41.9 41.4 41.6 41.0 38.6 38.3 38.2 38.6 38.7 39.0 41.0 41.6 42.1 42.4 42.4 42.4 42.4 43.0 43.9 43.6 44.0 43.9 44.1 45.0 47.7 43.5 55.3 56.2 66.8 68.2 68.3 68.1 68.1 68.3 68.6 69.7 69.7 70.3 70.0 71.0 70.9 74.0 74.0 74.7 75.5 75.0 75.8 74.1 74.4 74.6 74.5 74.5 74.5 74.0 68.6 69.0 68.3 66.3 66.3 66.3 66.3 68.4 69.0 68.3 67.9 67.5 67.8 73.7 74.8 76.0 77.6 77.8 78.1 81.0 88.4 89.9 90.2 91.3 92.6 86.1 68.1 68.3 68.3 89.4 99.5 104.4 105.1 107.4 109.8 109.8 111.8 122.1 123.6 124.5 122.7 125.2 125.4 140.1 105.1 107.4 109.8 109.8 111.8 125.2 127.1 120.0 125.3 123.0 121.8 125.2 127.1 126.0 125.3 123.0 121.8 125.2 127.1 126.0 125.3 123.0 121.8 125.2 127.1 128.0 127.9 128.3 128.9 130.3 118.3 119.8 118.8 115.8 67.7 88.5 88.1 128.1 138.9 139.3 140.8 141.8 115.0 113.3 118.3 119.8 118.8 115.0 122.4 134.2 82. CAPACITY UTILIZATION 8 81.2 87.0 86.4 85.0 84.2 84.6 75.7 73.8 72.7 71.3 71.9 73.9 84.5 84.7 84.8 85.8 86.7 87.9 87.6 86.2 87.0 86.4 85.0 84.2 84.6 75.7 73.8 72.7 71.3 71.9 73.9 80.2 81.4 82.5 84.0 84.9 84.8 86.2 87.4 87.0 87.8 86.3 85.3 86.2 87.0 86.4 85.0 84.2 84.6 75.7 73.8 72.7 71.3 71.9 73.9 80.2 81.4 82.5 84.0 84.9 84.8 86.2 87.4 87.0 87.8 86.3 85.3 86.2 87.0 86.4 85.8 86.7 87.9 87.6 88.2 87.4 87.0 87.8 86.3 86.3 86.3 88.2 87.4 87.0 87.8 86.3 86.3 86.3 88.2 87.4 87.0 87.8 86.3 86.3 86.3 88.2 87.4 87.0 87.8 86.3 86.3 86.3 88.2 87.4 87.0 87.8 86.9 86.9 87.2 88.1 58.6 88.7 89.3 89.3 89.4 89.9 89.9 99.9 91.6 91.5 91.6 91.5 91.6 91.5 89.4 87.9 87.1 88.7 88.8 18.9 91.9 91.9 91.9 91.9 91.9 91.9	76. INDEX OF INDUSTRIAL PRODUCTION, BUSINES (1977-100) 33.5 33.1 32.6 32.1 32.0 32.0 34.7 34.7 34.7 34.7 34.7 34.7 34.6 34.7 37.8 38.4 38.8 40.0 39.8 40.0 40.0 40.0 40.0 40.0 40.0 40.0 40	76. INDEX OF INDUSTRIAL PRODUCTION, BUSINESS EQUIPM (1977-100) 33.5 33.1 32.6 32.1 32.0 31.6 31.5 31.3 31.8 32.3 32.6 32.7 34.2 34.6 34.7 34.9 37.9 38.4 38.8 40.0 39.8 40.0 40.0 40.2 42.7 43.6 43.4 42.6 41.8 42.0 42.2 42.1 42.7 43.6 43.4 42.6 41.8 42.0 40.0 40.0 42.7 43.6 43.4 42.6 41.8 42.0 40.0 34.0 42.7 43.6 43.4 42.6 41.8 42.0 40.1 41.0 41.5 41.8 41.9 41.4 41.6 41.0 40.5 40.5 42.7 43.6 38.3 38.6 38.7 39.0 39.2 39.6 44.9 41.8 41.9 41.4 41.6 41.0 40.5 40.5 42.7 48.3 38.6 38.7 39.0 39.2 39.6 44.0 47.7 48.3 48.6 50.3 56.7 39.0 39.2 39.8 44.0 47.7 48.3 49.4 50.0 50.2 50.8 50.8 53.4 54.3 55.0 55.5 56.3 57.1 58.1 58.1 53.4 54.3 55.0 55.5 56.3 57.1 58.1 58.1 53.8 53.6 56.8 68.8 55.3 56.2 66.2 66.8 67.9 66.8 66.9 66.9 66.9 67.0 67.0 70.9 70.9 70.2 70.8 68.6 69.0 66.0 67.0 67.2 67.8 67.9 67.2 74.1 74.4 74.6 74.5 74.5 74.5 74.0 73.8 73.6 68.6 69.0 66.0 67.9 67.9 67.2 67.8 67.9 70.3 77.0 88.4 88.9 90.2 91.3 92.6 93.3 93.6 93.9 94.2 95.0 96.0 97.8 96.0 98.3 96.7 90.7 88.8 88.9 90.2 91.3 92.6 93.3 93.6 90.7 88.8 88.9 90.2 91.3 92.6 93.3 93.6 90.1 88.8 88.9 90.2 91.3 92.6 93.3 93.6 90.1 88.8 88.9 90.2 91.3 92.6 93.3 93.6 90.1 88.8 88.9 90.2 91.3 92.6 93.3 93.6 90.1 88.8 88.9 90.2 91.3 92.6 93.3 93.6 90.2 10.9 4.1 10.0 11.5 112.4 113.4 114.5 112.5 114.3 112.1 118.3 119.8 118.8 118.8 113.6 113.6 114.5 112.7 113.6 114.3 118.1 119.8 118.8 118.8 116.8 115.0 113.3 113.2 113.9 113.8 113.9 113.9 113.9 113.8 113.9 113	76. INDEX OF INDUSTRIAL PRODUCTION, BUSINESS EQUIPMENT (1977-100) 33.5 33.1 32.6 32.1 32.6 33.7 34.2 34.6 34.7 34.9 35.2 37.7 34.2 38.8 40.0 35.8 44.0 42. 40.2 34.7 34.2 37.7 34.2 38.8 40.0 35.7 34.2 34.6 34.7 34.9 35.2 37.7 34.2 38.8 40.0 35.7 34.2 34.6 34.7 34.9 35.2 37.7 34.2 38.8 40.0 35.7 34.2 34.6 34.7 34.9 34.2 40.6 34.7 34.9 40.6 34.1 41.0 41.1 40.7 41.1 40.7 41.1 40.1 40.1 40.1 40.1 40.1 40.1 40.1	76. INDEX OF INDESTRIAL PRODUCTION, INDISESS EXCURPMENT 33.5 33.1 32.6 32.1 32.6 32.2 32.6 33.2 33.6 33.7 33.9 33.0 30.9 33.1 32.6 33.1 32.6 33.2 33.6 33.2 33.6 33.7 33.1 32.6 33.2 33.2	76. INDEX OF INDUSTRIAL PRODUCTION, RUBLINGS RQUIPMENT 33.4 33.1 31.6 32.1 32.6 33.1 32.6 31.5 31.3 31.6 30.9 31.5 33.5 33.1 31.6 32.1 32.6 31.6 31.5 31.3 31.6 30.9 31.5 33.6 38.2 38.2 40.0 39.8 40.0 40.0 40.5 40.5 40.6 40.6 40.7 40.7 40.6 40.7 40.7 40.7 40.7 40.7 40.7 40.7 40.7	76. IBDEX OF INDUSTRIAL PRODUCTION, WISHEST ROFFIRMST 131.0 331.1 32.6 32.7 32.0 31.0 31.0 31.2 31.0 30.0 31.0 31.0 31.0 31.0 31.0 31.0	76. INDEX OF IDDITITION PROPERTY AND PROPERT	74. IMPRIL OF INDUSTRIAL (1977) 100. ##130255 NOTIFICATION 31.5 32.1 32.6 32.7 32.7 32.7 32.7 32.7 32.7 32.7 32.7	### CAPACITY BILLS 1911 1912 1913 1913 1914 1915 19	The 1952 of 1967 1140 1967 1

G. Experimental Data and Analyses



^{&#}x27;This index is the weighted-average exchange value of the U.S. dollar against the currencies of the other G-10 countries plus Switzerland. Weights are the 1972-76 global trade of each of the 10 countries. For a description of this index, see the August 1978 FEDERAL RESERVE BULLETIN (p. 700).

Source: Board of Governors of the Federal Reserve System.

²Average for January 3 through 27.

G. Experimental Data and Analyses—Continued

Net Contributions of Individual Components to the Leading, Roughly Coincident, and Lagging Composite Indexes

LEADING INDICATORS 1. Average weekly hours of production or nonsupervisory workers, manufacturing (hours). 5. Average weekly initial claims for unemployment insurance, State programs¹ (thous.). 8. Mfrs.' new orders in 1982 dollars, consumer goods and materials industries (bil. dol.). 87. 85 32. Vendor performance, percent of companies receiving slower deliveries (percent). 66 60. Contracts and orders for plant and equipment in 1982 dollars (bil. dol.). 729. New private housing units authorized by local building permits (index: 1967=100). 81. Change in inventories on hand and on order in 1982 dol., smoothed² (ann. rate, bil. dol.). 99. Change in sensitive materials prices, smoothed² (percent). 99. Change in sensitive materials prices, smoothed² (percent). 91. Stock prices, 500 common stocks (index: 1941-43=10). 106. Money supply MZ in 1982 dollars (bil. dol.). 111. Change in business and consumer credit outstanding (ann. rate, percent). 710. Composite index of leading indicators³ (index: 1967=100). 710. Composite index of leading indicators³ (index: 1967=100). 72, 452.9 73. Manufacturing and trade sales in 1982 dollars (mil. dol.). 74. Industrial production (index: 1977=100). 75. Manufacturing and trade sales in 1982 dollars (mil. dol.). 76. Average duration of unemployment¹ (weeks). 77. Ratio, manufacturing and trade inventories 78. Labor cost per unit of output, manufacturing- 62. Labor cost per unit of output, manufacturing-	0ct. 1988	Nov. 1988	Dec.	C +		
1. Average weekly hours of production or non- supervisory workers, manufacturing (hours). 5. Average weekly initial claims for unemploy- ment insurance, State programs¹ (thous.). 283 8. Mfrs.' new orders in 1982 dollars, consumer goods and materials industries (bil. dol.). 32. Vendor performance, percent of companies receiving slower deliveries (percent). 66 20. Contracts and orders for plant and equipment in 1982 dollars (bil. dol.)	41.2		1988	Sept. to Oct. 1988	Oct. to Nov. 1988	Nov. to Dec. 1988
1. Average weekly hours of production or non- supervisory workers, manufacturing (hours). 5. Average weekly initial claims for unemploy- ment insurance, State programs¹ (thous.). 283 8. Mfrs.' new orders in 1982 dollars, consumer goods and materials industries (bil. dol.). 32. Vendor performance, percent of companies receiving slower deliveries (percent). 66 20. Contracts and orders for plant and equipment in 1982 dollars (bil. dol.)	41.2					
ment insurance, State programs¹ (thous.)		41.2	p41.0	0.00	0.00	-0.20
goods and materials industries (bil. dol.). 32. Vendor performance, percent of companies receiving slower deliveries (percent). 20. Contracts and orders for plant and equipment in 1982 dollars (bil. dol.)	282	291	305	0.01	-0.09	-0.17
receiving slower deliveries (percent)	87.88	r89.52	p92.97	0.00	0.10	0.25
in 1982 dollars (bil. dol.)	60	56	56	-0.26	-0.18	0.00
29. New private housing units authorized by local building permits (index: 1967=100)	r43.35	r44.40	p46.79	-0.01	0.06	0.15
36. Change in inventories on hand and on order in 1982 dol., smoothed² (ann. rate, bil. dol.). 99. Change in sensitive materials prices, smoothed² (percent)	120.9	120.9	124.9	0.27	0.00	0.13
99. Change in sensitive materials prices, smoothed² (percent)	r22.59	p21.41	NA NA	0.10	-0.03	N A
19. Stock prices, 500 cómmon stocks	į	i		-0.15	-0.03	0.14
106. Money supply M2 in 1982 dollars (bil. dol.)	-0.07	-0.14	0.13	1	ļ	
111. Change in business and consumer credit outstanding (ann. rate, percent)	277.40	271.02	276.51	0.24	-0.16	0.17
910. Composite index of leading indicators³ (index: 1967=100)	2,445.7	r2,451.8	p2,453.9	-0.10	0.09	0.04
ROUGHLY COINCIDENT INDICATORS 41. Employees on nonagricultural payrolls	r7.9	p6.4	NA	0.30	-0.09	N A
41. Employees on nonagricultural payrolls	r193.7	r193.4	p194.6	0.52	-0.15	0.62
(thous.)	Ì					
1982 dollars (ann. rate, bil. dol.)	106,973	r107,377	p107,656	0.18	0.31	0.28
(index: 1977=100)	2,835.0	r2,822.7	p2,844.3	0.58	-0.22	0.49
dollars (mil. dol.)	139.3	r139.8	p140.2	0.14	0.10	0.10
indicators³ (index: 1967=100)	r456,315	p457,227	N A	0.24	0.04	AM
91. Average duration of unemployment' (weeks)	r180.7	r180.8	p182.1	1.01	0.06	0.72
(weeks)						
77. Ratio, manufacturing and trade inventories to sales in 1982 dollars (ratio)	r13.4	r12.6	12.8	0.05	0.44	-0.17
62. Labor cost per unit of output, manufacturing actual data as a percent of trend (percent)	r1.53	p1.53	N A	-0.13	0.00	N A
	r100.9	r100.3	p100.1	0.44	-0.22	-0.11
(percent)	10.00	10.05	10.50	0.00	0.04	0.46
101. Commercial and industrial loans outstanding	r364,086	365,579	p371,508	0.12	0.04	0.62
95. Ratio, consumer installment credit		·	,	-0.58	0.11	NA
outstanding to personal income (percent)	r15.73	p15.87 r149.3	NA p150.5	-0.58	0.95	0.80

NOTE: The net contribution of an individual component is that component's share in the composite movement of the group. It is computed by dividing the standardized and weighted change for the component by the sum of the weights for the available components and dividing that result by the index standardization factor. See the February 1983 BUSINESS CONDITIONS DIGEST (pp. 108-109) or the 1984 HANDBOOK OF CYCLICAL INDICATORS (pp. 67-68) for the weights and standardization factors. NA, not available. p, preliminary. r, revised. e, estimated.

¹This series is inverted in computing the composite index; i.e., a decrease in this series is considered an upward movement.

This series is a weighted 4-term moving average (with weights 1,2,2,1) placed on the terminal month of the span.

Figures in the net contribution columns are percent changes in the index. The percent change is equal (except for rounding differences) to the sum of the individual components' contributions plus the trend adjustment factor. The trend adjustment factor for the leading index is 0.139; for the coincident index, -0.175; for the lagging index, 0.018.

ALPHABETICAL INDEX—SERIES FINDING GUIDE

Series title	Ca=1	Current (page nu		Historical	Series	Series title			it issue umbers)	Historical	Series
(See complete titles in "Titles and Sources of Series," following this index)	Series . number	Charts	Tables	data (issue date)	description (*)	(See complete titles in "Titles and Sources of Series," following this index)	Series number		Tables	data (issue date)	description (*)
Α						Construction					
Agricultural products, exports	604	56	92	10/87	56	Building permits, new private housing	29	13,25	67	5/88	24
Anticipations and intentions Consumer sentiment, index	58	22	65	12/88	20	industrial buildings	9	23	66	5/88	21
Employees, manufacturing and trade, DI	974	38	76	8/87	37	Expenditures, plus machinery and equipment sales Gross private fixed investment	69	24	67	9/88	17
Inventories, manufacturing and trade, DI	975 971	38 38	76 76	8/87 8/87	37 37	Nonresidential constant dollars	86	25	67	8/88	40
Plant and equipment expenditures, constant dollars	100	24	67	10/88		Nonresidential, percent of GNP	248 87	47 25	83 67	10/88 8/88	40 40
Plant and equipment expenditures, current dollars Plant and equipment expenditures, DI	61 970	24 38	67 76	10/88 10/88	23 23	Residential, constant dollars	89	25 25 47	67	8/88	40
Prices, manufacturing, DI	976	38 38	76	8/87	37	Residential, percent of GNP	249 28	47 25 48	83 67	10/88 5/88	40 24
Prices, retail trade, DI Prices, wholesale trade, DI	978 977	38 38	76 76	8/87 8/87	37 37	Consumer finished goods, producer price index	334		86 64 65	3/88 9/88	51 15
Profits, manufacturing and trade, DI	972	38 38	76	8/87	37	Consumer goods and materials, new orders	8 75	12,21 22	65	9/88 12/87	15 12
Sales, manufacturing and trade, DI	973	36	76	8/87	37	Consumer installment credit	66	36	73	5/88	33
Imports of automobiles and parts	616 55	56 22	92 6 5	10/87 8/88	56 39	Credit outstanding	113	35 32	72 73	5/88	33 33
	33	22	00	0/00	33	Ratio to personal income Consumer installment loans, delinquency rate	95 39	15,35 33	73 72	11/88 2/88	33 34
8						Consumer prices—See also International comparisons.					
Balance of payments—See International transactions. Bank loans—See Business Loans.						All itemsFood	320 322	49 49	84,95 8 4	3/88 3/88	49 49
Bank rates—See Interest rates.						Consumer sentiment, index	58	22	65	12/88	20
Bank reserves Free reserves	93	33	72	11/88	35	Consumption expenditures—See Personal consumption expenditures.					
Member bank borrowings from the Federal Reserve	94	33	72	11/88	35	Contract awards, Defense Department	525	53	90	12/88	55
Bonds—See Interest rates. Borrowing—See Credit.						Contracts and orders, plant and equipment, constant dollars	20	12,23	66	9/88	21
Budget—See Government.						Contracts and orders, plant and equipment,					
Building—See Construction. Building permits, new private housing	29	13,25	67	5/88	24	Corporate bond yields	10 116	23 34	66 73	9/88 5/88	21 35
Business equipment, industrial production	76	24	67	12/87	12	Corporate profits—See Profits. Costs—See Labor costs and Price indexes.	-			•	
Business failures, current liabilities	14	33	72	6/87	34	Credit					
Business formation, index	12 13	23 23	65 65	1/88 1/88	21 21	Borrowing, total private Business loans	110	32	72	11/88	34
Business inventories—See Inventories.	13	23	GJ	1/00	21	Loans outstanding, constant dollars	101	15,35	73	7/88	32
Business loans Loans outstanding, constant dollars	101	15.35	73	7/88	32	Loans outstanding, current dollars Loans outstanding, net change	72 112	35 32	73 71	7/88 7/88	32 32 32
Loans outstanding, current dollars	72	35	73	7/88	32 32 32	Consumer installment credit				·	
Loans outstanding, net change	112 295	32 46	71 82	7/88 11/88	32 26	Credit outstanding	66 113	35 32	73 72	5/88 5/88	33 33
	200		-	11,00		Ratio to personal income	95 39	15,35	72 73 72 72 71	11/88	33
C						Consumer installment loans, delinquency rate	39 111	33 13,32	72 72	2/88 7/88	34 31
Canada—See International comparisons. Capacity utilization						Mortgage debt, net change	33	32	71	9/86	31
Manufacturing	82	20	64	11/87	14	Crude and intermediate materials, change in producer prices	98	28	69	4/88	51
MaterialsCapital appropriations, manufacturing	84	20	64	11/87	14	Crude materials, producer price index	331	48	85	3/88	50
Backlog	97	24	66	5/88	22	D					
Newly approved	11 965	24 37	66 66 75	5/88 5/88	22 22	Debt—See Credit.					
Capital equipment, producer price index	333	48	86	3/88	51	Defense and space equipment, industrial production	557	54	91	12/87	13
Capital investment commitments, Cl	914		60	1/86	5	Defense Department Gross obligations incurred	517	53	90	12/88	55
Cash flow, corporate, constant dollars	35 34	29 29	70 70	8/88 8/88	26 26	Gross unpaid obligations	543	53	90	10/87	55
Civilian labor force—See also Employment.				-,		Net outlays	580 578	54 55	91 91	10/87 12/88	56 56
Employment Employment as percent of population	442 90	51 17	89 62	2/88 2/88	9 9	Personnel, civilian Personnel, military	577	55	91	12/88	56
Labor force	441	51	89	2/88	ğ	Prime contract awards	525	53	90	12/88	55
Unemployed	37	18,51	62,89	2/88	9	Defense products Inventories, manufacturers'	559	54	91	9/88	17
Composite index	920	10	60	5/88	5	New orders, manufacturers'	548	53	90	9/88	15
Composite index, rate of change	920c 951	39 36	74	5/88 12/87	5	Shipments, manufacturers'	588 561	54 54	91 91	9/88 9/88	17 15
Ratio to lagging indicators, composite index	940 9	11 23	60 66	11/87 5/88	5 21	Defense products industries, employment	570	55	91	8/88	5
Commercial and industrial buildings, contracts awarded Commercial and industrial loans						Defense purchases, goods and services Defense purchases, percent of GNP	564 565	55 55	91 91	8/88 8/88	43 43
Loans outstanding, constant dollars Loans outstanding, current dollars	101 72	15,35 35	73 73	7/88 7/88	32 32	Deficit—See Government.	303	33	31	0,00	70
Loans outstanding, net change	112	35 32	71	7/88	32 32	Deflators—See Price indexes.	20	22	72	2/88	34
Compensation—See also Income. Compensation, average hourly, nonfarm						Delinquency rate, consumer installment loans Deliveries, vendor performance	39 32	33 12.21	72 64	1/88	17
business sector	345	49	87	11/88	46	Diffusion indexes	205	•	75	F (00	20
Compensation of employees	280	45	82	11/88	46	Capital appropriations, manufacturing Coincident indicators	965 951	37 36	75 74	5/88 12/87	22 5
national income	64	30,47	70,83	10/88	46	Employees, manufacturing and trade	974	38	76	8/87	37
Compensation, real average hourly, nonfarm business sector	346	49	88	11/88	46	Employees on private nonagricultural payrolls	963 966	36 37	74 75	7/88 12/87	5 12
Earnings, average hourly, private nonfarm						Industrial production, components			78		
economy Earnings, real average hourly, private nonfarm	340	49	87	8/88	5	Initial claims, State unemployment insurance	962	36	74	2/88	8
economy	341	49	87	8/88	5	Inventories, manufacturing and trade Lagging indicators	975 952	38 36	76 7 4	8/87 12/87	37 5
Wage and benefit decisions, first year	348 349	50 50	88 88	7/87 7/87	53 53	Leading indicators	950	36	74	6/87	5
Wages and salaries in mining, manufacturing,	53	19	63	9/88	11	New orders, durable goods industries New orders, durable goods industries, components	964	37	75 77	9/88	15
and construction	23	7.2	93	3/06	11	New orders, manufacturing	971	38	76	8/87	37
Coincident indicators	920	10	60	5/88	5	Plant and equipment expenditures	970	38	76	10/88	23
	920c	39		5/88		Profits, manufacturing Profits, manufacturing and trade	960 972	37 38	75 76	5/88 8/87	37 37
Four coinciders, index	940	11	60	11/87	5	Raw industrials, spot market prices	967	37	75	1/88	25
Four coinciders, rate of change	340		**	10/87	5	Raw industrials, spot market prices, components	973	38	79 76	8/87	37
Four coinciders, rate of change	930	10	60			SAICS. III ATIULALIU (IIIX ATIU LI AUC					
Four coinciders, rate of change Ratio to lagging indicator index Lagging indicators Sx laggers, index Sx laggers, rate of change		10 39		10/87		Selling prices, manufacturing	976	38	76	8/87	37
Four coinciders, rate of change Ratio to lagging indicator index Lagging indicators Sk laggers, index Sk laggers, rate of change Leading indicators Capital investment commitments	930 930c 914	39	60	10/87 1/86	5	Selling prices, manufacturing	976 978	38 38	76 76	8/87 8/87	37 37
Four coinciders, rate of change Ratio to lagging indicator index Lagging indicators Six laggers, index Six laggers, rate of change Leading indicators Capital investment commitments Eleven leaders, index	930 930c 914 910	39		10/87 1/86 6/88		Selling prices, manufacturing	976 978 977	38 38 38	76 76 76	8/87 8/87 8/87	37 37 37
Four coinciders, rate of change Ratio to lagging indicator index Lagging indicators Sk laggers, index Sk laggers, rate of change Leading indicators Capital investment commitments	930 930c 914	39	60	10/87 1/86	5	Selling prices, manufacturing	976 978	38 38	76 76	8/87 8/87	37 37

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ALPHABETICAL INDEX—SERIES FINDING GUIDE—Continued

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(See complete titles in "Titles and Sources of Series," following this index)	Series . number		Tables	data (issue date)	description (*)	(See complete titles in "Titles and Sources of Series," following this index)	Series number	Charts	Tables	data (issue date)	description (*)
E		,				Housing					
arnings—See Compensation.						Housing starts	28 29	25 13,25	67 67	5/88 5/88	24 24
mployment and unemployment Civilian labor force	441	51	89	2/88	9	Residential GPDI, constant dollars	89	25	67	8/88	40
Defense Department personnel, civilian	578	55	91	12/88	56	Residential GPDI, percent of GNP	249	47	83	10/88	40
Defense Department personnel, military Employee hours in nonagricultural establishments	577	55	91	12/88	56	1					
Rate of change	48c	39 17	61	7/88	 5	Implicit price deflator, GNP	310	48	84	8/88	38
Total Employees in goods-producing industries	48 40	17	62	7/88 7/88	5	Imports—See International transactions. Income					
Employees, manufacturing and trade, Di	974 41	38 14.17	76 62	8/87 1/88	37 5	Compensation, average hourly, nonfarm business sector	345	49	87	11/88	46
Employees on private nonagricultural payrolls, DI	963	36	74	7/88	5	Compensation of employees	280	45	82	11/88	46
Employment, civilian	442 570	51 55	89 91	2/88 8/88	9 5	Compensation of employees, percent of national income	64	30,47	70,83	10/88	46
Employment, ratio to population	90	55 17	62	2/88	9	Compensation, real average hourly, nonfarm					
Help-wanted advertising in newspapers	46 60	16 16	61 61	12/87 2/88	9	business sector	346 95	49 15,35	88 73	11/88 11/88	46 33
Initial claims, State unemployment insurance	5	12,16	61	2/88	8	Corporate profits with IVA and CCAdj	286	45	82	11/88	26
Initial claims, State unemployment insurance, DI	962 21	36 16	74 61	2/88 7/88	8 5	Corporate profits with IVA and CCAdj, percent of national income	287	47	83	11/88	26
Participation rate, both sexes 16-19 years of age	453	51	89	2/88	9	Disposable personal income, constant dollars	225	40	80	10/88	11
Participation rate, females 20 years and over Participation rate, males 20 years and over	452 451	51 51	89 89	2/88 2/88	9 9	Disposable personal income, current dollars Disposable personal income, per capita,	224	40	80	10/88	11
Part-time workers for economic reasons	448	51	89	2/88	9	constant dollars	227	40	80	10/88	11
Persons engaged in nonagricultural activities Unemployed, both sexes 16-19 years of age	42 446	17 51	62 89	2/88 2/88	9	Earnings, average hourly, private nonfarm economy	340	49	87	8/88	5
Unemployed, females 20 years and over	445	51	89	2/88	ğ	Earnings, real average hourly, private nonfarm					-
Unemployed, full-time workers	447 444	51 51	89 89	2/88 2/88	9 9	Income on foreign investment in the United States	341 652	49 57	87 93	8/88 8/88	5 57
Unemployment, average duration	91	15,18	62	2/88	9	Income on U.S. investment abroad	651	57 57	93	8/88	57
Unemployment, civilian	37 43	18,51 18	62,89 62	2/88 2/88	9 9	Interest, net	288 289	45 47	82 83	11/88 11/88	47 47
Unemployment rate, 15 weeks and over	44	18	62	2/88	ğ	National income	220	45	83 82	10/88	46
Unemployment rate, insured	45 1	18 12,16	62 61	5/88 7/88	8 5	Personal income, constant dollars Personal income, current dollars	52 223	19 40	63 63	9/88 9/88	11 11
Workweek, manufacturing, components	961		77		5	Personal income less transfer payments, constant dollars				-,	
Workweek, manufacturing, DIquipment—See Investment, capital.	961	36	74	7/88	5	Rate of change	51c 51	39 14,19	63	9/88 9/88	11
xports—See International transactions.						Personal income, ratio to money supply M2	108	31	71 82	11/88	30
F						Proprietors' income with IVA and CCAdj Proprietors' income with IVA and CCAdj, percent	282	45	82	11/88	47
ederal funds rate	119	34	72	6/88	35	of national income	283	47	83 82	11/88	47
ederal Government—See Government.						Rental income of persons with CCAdj Rental income of persons with CCAdj, percent	284	45	82	11/88	47
ederal Reserve, member bank borrowings from	94 213	33 40	72 80	11/88 10/88	35 38	of national income	285	47	83	11/88	47
inancial flows, Cl	917	11	60	1/88	5	Wage and benefit decisions, first year	348 349	50 50	88 88	7/87 7/87	53 53
ixed investment.—See Investment, capital. ixed-weighted price index, gross domestic						Wages and salaries in mining, manufacturing,					
business product	311	48	84	8/88	49	and construction	53 13	1 9 23	63 65	9/88 1/88	11 21
ood—See Consumer prices. oreign trade—See International transactions.						Industrial commodities, producer price index	335	48	85	3/88	51
rance—See International comparisons.						Industrial production—See also International comparisons. Business equipment	76	24	67	12/87	12
ree reserves	93	33	72	11/88	35	Consumer goods	75	22	65	12/87	12
G						Defense and space equipment	557 73	5 4 20	91 63	12/87 12/87	13 12
oods output in constant dollars	49	20	63	8/88	14	Nondurable manufactures	74	20	63	12/87	12
overnment budget Federal expenditures	502	52	90	8/88	53	Total	47	14,20,58	63,94 78	12/87	12
Federal receipts	501	52 52 52 52	90	8/88	53	Total, DI	966	37	75	12/87	12
Federal surplus or deficit		52 52	90 90	8/88 8/88	53 53	Total, rate of change	47c	39		12/87	
State and local receipts	511	52 52	90	8/88	53 53	Components			79		
State and local surplus or deficit	510 298	5∠ 46	90 83	8/88 11/88	53 48	Diffusion index	967 23	37 28	75 69	1/88 1/88	25 25
overnment purchases of goods and services						Installment credit—See Credit.	20	20	43	1,00	20
Federal, constant dollars	263 262	43 43	81 81	11/88 11/88	43 43	Insured unemployment	E	1216	61	2/00	8
Federal, percent of GNP	265	47	83	11/88	43	Average weekly initial claims	5 962	12,16 36	61 74	2/88 2/88	8
National defense	564 565	55 55	91 91	8/88 8/88	43 43	Average weekly insured unemployment rate	45	18	62	5/88	8
State and local, constant dollars	267	43	81	11/88	43	Interest, net	288 289	45 47	82 83	11/88 11/88	47 47
State and local, current dollars	266	43	81	11/88	43	Interest rates					
State and local, percent of GNP	268 261	47 43	83 81	11/88 11/88	43 43	Bank rates on short-term business loans	67 116	35 34	73 73	1/88 5/88	35 35
Total, current dollars	260	43	81	11/88	43	Corporate bond yields	119	34	72	5/88 6/88	35
ross domestic business product, fixed-weighted price index	311	48	84	8/88	49	Mortgage yields, secondary market	118	34	73	6/88	35
ross domestic product, labor cost per unit	68	30	70	8/88	28	Municipal bond yields Prime rate charged by banks	117 109	34 35	73 73	5/88 2/88	35 35
ross national product	En	10.40	63.00	10/99	38	Treasury bill rate	114	34	72	5/88	35
GNP, constant dollarsGNP, constant dollars, differences	50 50b	19,40	63,80 80	10/88 10/88	38 38	Treasury bond yields	115 332	34 48	73 86	5/88 3/88	35 50
GNP, constant dollars, percent changes	50c	39	80	10/88	38	International comparisons	JJL	70	00	J/ 00	30
GNP, current dollars	200 200b	40	80 80	10/88 10/88	38 38	Consumer prices	700	50	0.0	4.00	
GNP, current dollars, percent changes	200c		80	10/88	38	CanadaFrance	733 736	59 59	96 95	4/88 4/88	60 61
GNP, ratio to money supply M1	107	31	71	8/88	30	Italy	737	59	96	4/88	61
Goods output in constant dollars	49 310	20 48	63 84	8/88 8/88	14 38	Japan	738	59 50	95 05	4/88	61
Per capita GNP, constant dollars	217	40	80	10/88	38	United Kingdom United States	732 320	59 49	95 84,95	4/88 3/88	60 4 9
ross private domestic investment—See Investment, capital.						West Germany	735	59	95	4/88	61
н						Industrial production	722	E0	0.4	11/00	59
lelp-wanted advertising in newspapers	46	16	61	12/87	9	Canada France	723 726	58 58	94 94	11/88 6/88	59 59
lelp-wanted advertising, ratio to unemployment	60	16	61	2/88	9	Italy	727	58	94	6/88	59
ours, manufacturing	1	12.16	61	7/00	5	Japan	728	58 59	94 94	6/88	59 58
Average weekly hours	1	12,16	61 77	7/88	5	OECD, European countries	721 722	58 58	94 94	6/88 6/88	58 58
Average weekly hours, DI	961	36	74	7/88	5	United States		14,20,58	63,94	12/87	12
Average weekly overtime	21	16	61	7/88	5	West Germany	725	58	94	6/88	59

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Sources of Series," following this index)	number	Charts	Tables	(issue date)	(*)	Sources of Series," following this index)	number	Charts	Tables	(issue date)	(*)
lernational comparisons—Continued Stock prices						Leading indicators, eleven Composite index	910	10	60	6/88	5
Canada	743	59	96	12/88	63	Composite index, rate of change	910c	39		6/88	
France Italy		59 59	96 96	12/88 12/88	63 63	Diffusion index	950 14	36 33	7 4 72	6/87 6/87	5 34
Japan	748	59	96	12/88	63	Liquid assets, change in total	104	33 31	71	5/88	29
United Kingdom United States	7 4 2 19	59 59	96 96	12/88 12/88	63 25	Loans—See Credit.					
West Germany	745	59	96	12/88	63	M					
ernational transactions Balance on goods and services	667	57	93	8/88	57	Materials and supplies on hand and on order,					
Balance on merchandise trade	622	57	93	8/88	57	manufacturers' inventories	78	27	68	12/88	17
Exports, excluding military aid	602	56 57	92 93	8/88 8/88	56 57	Materials and supplies on hand and on order,	70		00	12,00	.,
Exports, merchandise, adjusted, excluding military Exports of domestic agricultural products	618 604	56	92	10/87	56	manufacturers' inventories, change	38	26	68	12/88	17
Exports of goods and services, constant dollars	256	44	82	10/88	44	Materials, capacity utilization rate	84	20	64	11/87	14
Exports of goods and services, current dollars Exports of goods and services, excluding military	252 668	44 57	82 93	10/88 8/88	44 57	Materials, new orders for consumer goods and	8	12,21	64	9/88	15
Exports of nonelectrical machinery	606	56	92	10/87	56	Merchandise trade—See International transactions.					
Imports, general	612 620	56 57	92 93	8/88 8/88	56 57	Military—See Defense.					
Imports of automobiles and parts	616	56	92	10/87	56	Money and financial flows, Cl	917	11	60	1/88	5
Imports of goods and services	669 257	57 44	93 82	8/88 11/88	57 44	Money supply Liquid assets, change in total	104	31	71	5/88	29
Imports of goods and services, constant donars	253	44	82	10/88	44	Money supply M1, constant dollars	105	31	71	5/88	29
Imports of petroleum and petroleum products	614	56	92	10/87	56 57	Money supply M1, percent changes	85	31	71	5/88	29
Income on foreign investment in the United States Income on U.S. investment abroad	652 651	57 57	93 93	8/88 8/88	57 57	Money supply M2, constant dollars	106 102	13.31 31	71 71	5/88 5/88	30 29
Net exports of goods and services,						Ratio, GNP to money supply M1	107	31	71	8/88	30
constant dollars	255	44	82	10/88	44	Ratio, personal income to money supply M2	108	31	71	11/88	30
current dollars	250	44	82	10/88	44	Mortgage debt, net change	33 118	32 34	71 73	9/86 6/88	31 35
Net exports of goods and services, percent of GNPentories	251	47	83	10/88	44	Municipal bond yields	117	34	73 73	5/88	35
Business inventories, change, constant dollars	30	26,42	68,81	10/88	40	,					
Business inventories, change, current dollars	245 247	42 47	81 83	10/88 10/88	40 40	N					
Defense products, manufacturers'	559	54	91	9/88	17	National defense—See Defense. National Government—See Government.					
inished goods, manufacturers'	65	27	68	12/88	17	National income—See Income.					
nventories to sales ratio, manufacturing and trade nventory investment and purchasing, Cl	77 915	15,27 11	68 60	12/88 1/88	17 5	New orders, manufacturers'					
Manufacturing and trade	71	27	68	12/88	17	Capital goods industries, nondefense,	27	22		0./00	16
Manufacturing and trade, change	31 70	26 27	68 68	12/88 12/88	17 17	constant dollars	27 24	23 23	66 66	9/88 9/88	15 15
Manufacturing and trade, Constant donars	975	38	76	8/87	37	Consumer goods and materials, constant dollars	8	12,21	64	9/88	15
Manufacturing and trade, on hand and	20	12.20	co	12 (00	17	Contracts and orders, plant and equipment,		10.00		0.400	
on order, change	36	13,26	68	12/88	17	constant dollars	20	12,23	66	9/88	21
manufacturers'	78	27	68	12/88	17	current dollars	10	23	66	9/88	21
Materials and supplies on hand and on order, manufacturers', change	38	26	68	12/88	17	Defense products	548	53	90	9/88	15
estment, capital						Durable goods industries, constant dollars Durable goods industries, current dollars	7 6	21 21	64 64	9/88 9/88	15 15
Capital appropriations, manufacturing, backlog	97 11	24 24	66	5/88	22	Components			77	3/00	13
Capital appropriations, manufacturing, new	965	37	66 75	5/88 5/88	22 22	Diffusion index	964	37	75	9/88	15
Capital investment commitments, Cl	914		60	1/86	5	New orders, manufacturing, DI	971	38	76	8/87	37
Construction contracts, commercial and industrial Construction expenditures, business, plus machinery	9	23	66	5/88	21	Producers' durable equipment, constant dollars	88	25	67	8/88	40
and equipment sales	69	24	67	9/88	17	Structures, constant dollars	87	25	67	8/88	40
Gross private domestic investment Business inventories, change—See Inventories.						Total, constant dollars	86 248	25 4 7	67 83	8/88 10/88	40 40
Fixed investment, constant dollars	243	42	81	10/88	40	Total, percent of GNP	240	4,	63	10/00	40
Fixed investment, current dollars	242	42	81	10/88	40 40	0					
Nonresidential, constant dollars Nonresidential, percent of GNP	86 248	25 47	67 83	8/88 10/88	40	Obligations incurred, Defense Department	517	53	90	12/88	55
Nonresidential producers' durable equipment,			67		40	Obligations unpaid, Defense Department	543	53	90 94	10/87	55 58
Constant dollars	88 87	25 25	67 67	8/88 8/88	40 40	OECD, European countries, industrial production Orders—See New orders and Unfilled orders.	721	58	94	6/88	58
Residential, constant dollars	89	25	67	8/88	40	Outlays, Defense Department	580	54	91	10/87	56
Residential, percent of GNP	249	47	83	10/88	40 40	Output—See also Gross national product and					
Total, constant dollars	241 240	42 42	81 81	10/88 10/88	40 40	Industrial production. Goods output, constant dollars	49	20	63	8/88	14
New orders, nondefense capital goods,						Labor cost per unit of					
constant dollars	27	23	66	9/88	15	Actual data	62	30	70	9/88	28
current dollars	24	23	66	9/88	15	Actual data as percent of trend Per hour, business sector	62 370	15 50	70 88	9/88 10/88	28 52
Plant and equipment						Per hour, nonfarm business sector	358	50	88	10/88	52
Contracts and orders, constant dollars	20 10	12,23 23	66 66	9/88 9/88	21 21	Ratio to capacity, manufacturing	82	20	64	11/87	14
Contracts and orders, current dollars Expenditures by business, constant dollars	100	23 2 4	67	9/88 10/88		Ratio to capacity, materials	84 21	20 16	64 61	11/87 7/88	1 4 5
Expenditures by business, current dollars	61	24	67	10/88	23	•	41	10	41	7/00	J
Expenditures by business, DI	970	38	76	10/88	23	P					
estment, toreign acome on foreign investment in the United States	652	57	93	8/88	57	Participation rates, civilian labor force		r.	00	9.400	_
ncome on U.S. investment abroad	651	57	93	8/88	57	Both sexes 16-19 years of age	453 452	51 51	89 89	2/88 2/88	9
-See International comparisons.						Males 20 years and over	451	51	89	2/88	9
j						Personal consumption expenditures					
an—See International comparisons.						Automobiles	55	22	65	8/88	39
·						Durable goods, constant dollars	233 232	41 41	80 80	10/88 10/88	3 9 39
L						Durable goods, current dollars Nondurable goods, constant dollars	232	41	80 81	10/88	39
or cost per unit of gross domestic product	68	30	70	8/88	28	Nondurable goods, constant dollars	236	41	81	10/88	39
oor cost per unit of output, business sector oor cost per unit of output, manufacturing	63	30	70	10/88	28	Services, constant dollars	239	41	81	10/88	39
Actual data	62	30	70	9/88	28	Services, current dollars	237	41	81	10/88	39
Actual data as percent of trend	62	15	70	9/88	28	Total, constant dollars	231 230	41 41	80 80	10/88 10/88	39 39
or cost, price per unit of, nonfarm business	26	29	70	10/88	28	Total, percent of GNP	235	47	83	10/88	39
ging indicators, six		, .	• •		_	Personal income—See Income.					4.0
Composite index	930 930c	10 39	60	10/87 10/87	5	Personal saving Personal saving rate	292 293	46 46	82 83	11/88 11/88	48 48
Composite index, rate of change											

See notes at end of index.

ALPHABETICAL INDEX—SERIES FINDING GUIDE—Continued

Series title (See complete titles in "Titles and Sources of Sories" following this index)	Series .		umbers)	Historical data	Series description	Series title (See complete titles in "Titles and Source of Series" following this index)	Series		t issue umbers) Tables	Historical data	Series description
Sources of Series," following this index)	number	Charts	Tables	(issue date)	(*)	Sources of Series," following this index)	number			(issue date)	(*)
Plant and equipment—See also Investment, capital.	20	10.00	0.0	0.100	A1	Residential fixed investment, percent of GNP	249	47	83	10/88	40
Contracts and orders, constant dollars	10	12,23	66 66	9/88 9/88	21 21	Residential structures—See Housing.		22	CE.	11/00	20
Expenditures by business, constant dollars	100	23 2 4	67	10/88		Retail sales, constant dollars	59 54	22 22	65	11/88	20
Expenditures by business, current dollars	61	24	67	10/88	23	Retail sales, current dollars	54	22	65	11/88	20
Expenditures by business, DI	970	38	76	10/88	23	s					
opulation, civilian employment as percent of	90	17	62	2/88	9	5					
rice indexes	30	••	02	2/00	•	Salaries—See Compensation.					
Consumer prices—See also International comparisons.						Sales					
All items	320	49	84.95	3/88	49	Final sales, constant dollars	213	40	80	10/88	38
Food	322	49	84	3/88	49	Machinery and equipment sales and business					
Deflators	••-		٠,	0,00		construction expenditures	69	24	67	9/88	17
Fixed-weighted, gross domestic business product	311	48	84	8/88	49	Manufacturing and trade sales, constant dollars	57	14.22	65	11/88	17
Implicit price deflator, GNP	310	48	84	8/88	38	Manufacturing and trade sales, current dollars	56	22 38	65	11/88	17
Labor cost, price per unit of, nonfarm business	26	29	70	10/88	28	Manufacturing and trade sales, DI	973	38	76	8/87	37
Producer prices						Ratio, inventories to sales, manufacturing and trade	77	15,27 22 22	65 76 68 65 65	12/88	17
All commodities	330	48	85	3/88	50	Retail sales, constant dollars	59 54	22	65	11/88	20
Capital equipment	333	48	86	3/88	51	Retail sales, current dollars	54	22	65	11/88	20
Crude materials	331	48	85 86	3/88	50	Saving					
Finished consumer goods	334	48	86	3/88	51	Business saving	295	46	82	11/88	26
Industrial commodities	335	48	85	3/88	51 50	Government surplus or deficit	298	46	83	11/88	48 48
Intermediate materials	332	48	86	3/88	50	Gross saving	290	46	82	11/88	48
Sensitive crude and intermediate materials	98	28	69	4/88	51	Personal saving	292	46	82 83	11/88	48
Raw industrials, spot market prices						Personal saving rate	293	46	83	11/88	48
Components			79			Selling prices—See Prices, selling					
Diffusion index	967	37	75	1/88	25	Sensitive crude and intermediate materials, change					
Spot market index	23	28	69	1/88	25	in producer prices	98	28	69	4/88	51
Sensitive crude and intermediate materials, change						Sensitive materials prices, percent change	99	13,28	69	4/88	25
in producer prices	98	28	69	4/88	51	Shipments of defense products	588	54	91	9/88	17
Sensitive materials prices, percent change	99	13,28	69	4/88	25	Spot market prices, raw industrials					
Stock prices—See also International comparisons.						Components		-11-	79	1111	
500 common stocks	19	13,28	69	12/88	25	Diffusion index	967	37	75	1/88	25
SUU COMMON SEOCKS, DI	968	37	75	12/88	25	Spot market index	23	28	69	1/88	25
rice to unit labor cost, nonfarm business	26	29	70	10/88	28	State and local government—See Government.					
rices, selling						Stock prices—See also International comparisons.					0.5
Manufacturing, DI	976	38	76	8/87	37	500 common stocks	19	13,28	69	12/88	25
Retail trade, Di	978	38	76	8/87	37	500 common stocks, DI	968	37	75	12/88	25
Wholesale trade, DI	977	38	76	8/87	37	Surplus—See Government.					
rime contract awards. Detense Department.	525	53	90	12/88	55	-					
rime rate charged by banks	109	35	73	2/88	35	T					
roducer prices—See Price indexes.						Treasury bill rate	114	34	72	5/88	35 35
roducers' durable equipment, nonresidential, GPDI	88	25	67	8/88	40	Treasury bond yields	115	34	73	5/88	35
roduction—See Gross national product and											
Industrial production.						U					
roductivity						Unemployment					
Output per hour, business sector	370	50	88	10/88	52	Duration of unemployment, average	91	15.18	62	2/88	9
Output per hour, nontarm business sector	358	50	88	10/88	52	Help-wanted advertising, ratio to unemployment	60	16	61	2/88	á
rofitability, CI	916	11	60	1/88	5	Initial claims for unemployment insurance	5	12,16	61	2/88	Ř
rofits						Initial claims for unemployment insurance	962	36	74	2/88	š
Corporate profits after tax						Number unemployed	002	00		2,00	•
Constant dollars	18	28	69	8/88	26	Roth seves 16:19 years of age	446	51	89	2/88	q
Current dollars	16	28	69	8/88	26	Females 20 years and over Full-time workers Males 20 years and over		51		2/88	ğ
With IVA and CCAdj, constant dollars	80	29	69	8/88	26	Full-time workers	445 447	51 51	89 89	2/88	š
With IVA and CCAdj, current dollars	79	29	69	8/88	26	Males 20 years and over	444	51	89	2/88 2/88	9
Corporate profits before tax	200		••			rotai unempioyed	37	18,51	62,89	2/88	9
With IVA and CCAdi	286	45	82	11/88	26	Unemployment rates					_
With IVA and CCAdj, percent of national income	287	47	83	11/88	26	Civilian	43	18	62 62 62	2/88	9
Manufacturing and trade. Df	972	38 37	76	8/87	37 37	15 weeks and over Insured unemployment Unfilled orders, manufacturers'	44 45	18	62	2/88 5/88	9 8
Manufacturing, DI	960	3/	75	5/88	3/	Insured unemployment	45	18	bΖ	5/88	8
Per dollar of sales, manufacturing	15	29	70	1/88	27	Defense products	561	54	91	9/88	16
Profitability, Cl	916	11	60	1/88	5	Durable goods industries		21	6A 31	9/88	15 15 15
Ratio, profits to corporate domestic income	22	29	69	8/88	26	Durable goods industries change	96 25	21 21	64 64	9/88 9/88	iš
Ratio, profits with IVA and CCAdj to corporate	0.1	00	74	0.100	••	Durable goods industries, change United Kingdom—See International comparisons.	23	21	04	3/00	10
domestic income	81	29	70	8/88	26						
roprietors' income with IVA and CCAdj	282	45	82	11/88	47	V					
roprietors' income with IVA and CCAdj, percent of	000					Halasita of manage					
national income	283	47	83	11/88	47	Velocity of money	107	31	71	8/88	30
D						GNP to money supply M1, ratio	107	31			30 30
R						Vender performance clawer delivering	32	12.21	71 64	11/88 1/88	30 17
aw industrials, spot market prices						Vendor performance, slower deliveries	32	12,21	04	1/88	17
Components			79			w					
Diffusion index	967	37	7Š	1/88	25	••					
Spot market index	23	28	69	1/88	25	Wages and salaries—See Compensation. West Germany—See International comparisons. Wholesale (producer) prices—See Price indexes.					
ental income of persons with CCAdj	284	45	82	11/88	47	West Germany—See International comparisons.					
ental income of persons with CCAdj, percent	201	•••	OL.	11,00	77	Wholesale (producer) prices—See Price indexes.					
of national income	285	47	83	11/88	47	Workweek, manufacturing	-			2.00	_
eserves, free	93					Average weekly hours	I	12,16	61	7/88	5
6361763, 1166		33	72 67	11/88 8/88	35 40	Components	961	36	77		5
esidential fixed investment, constant dollars	89	25				Diffusion index			74	7/88	

NOTE: CCAdj, capital consumption adjustment; Cl, composite index; Dl, diffusion index; GNP, gross national product; GPDI, gross private domestic investment; IVA, inventory valuation adjustment. * The number shown is the page of the Handbook of Cyclical Indicators (1984) on which the series description appears.

TITLES AND SOURCES OF SERIES

Series are listed below according to the sections of this report in which they appear. Series numbers are for identification only and do not reflect relationships or order among the series. "M" following a series title indicates monthly data; "Q" indicates quarterly data. Data apply to the whole period except when indicated by "EOM" (end of month) or "EOQ" (end of quarter).

To save space, the commonly used sources listed below are referred to by number:

Source 1—U.S. Department of Commerce, Bureau of Economic Analysis; Source 2—U.S. Department of Commerce, Bureau of the Census; Source 3—U.S. Department of Labor, Bureau of Labor Statistics; Source 4—Board of Governors of the Federal Reserve System.

Following the source for each series is an indication of the pages on which that series appears. The "Series Finding Guide" also lists chart and table page numbers for each series.

I-A. Composite Indexes

- 910. Composite index of eleven leading indicators (includes series 1, 5, 8, 19, 20, 29, 32, 36, 99, 106, 111) (M).—Source 1 (10,39,60)
- 914. Composite index of capital investment commitments (includes series 12, 20, 29) (M).—Source 1 (11,60)
- 915. Composite index of inventory investment and purchasing (includes series 8, 32, 36, 99) (M).—Source
- 916. Composite index of profitability (includes series 19, 26, 80) (M).—Source 1 (11,60)
- 917. Composite index of money and financial flows (includes series 104, 106, 111) (M).—Source 1 (11.60)
- 920. Composite index of four roughly coincident indicators (includes series 41, 47, 51, 57) (M).—Source 1 (10,39,60)
- 930. Composite index of six lagging indicators (includes series 62, 77, 91, 95, 101, 109) (M).—Source 1 (10,39,60)
- 940. Ratio, coincident composite index (series 920) to lagging composite index (series 930) (M).—Source

I-B. Cyclical Indicators

- 1. Average weekly hours of production or nonsupervisory workers, manufacturing (M).—Source 3 (12,16,61,77)
- Average weekly initial claims for unemployment insurance, State programs (M).—U.S. Department of Labor, Employment and Training Administration; seasonal adjustment by Bureau of Economic Analysis (12,16,61)
- 6. Manufacturers' new orders in current dollars, durable goods industries (M).—Source 2 (21,64,77)
- 7. Manufacturers' new orders in 1982 dollars, durable goods industries (M).—Sources 1 and 2 (21,64)
- 8. Manufacturers' new orders in 1982 dollars, consumer goods and materials industries (M).—Sources 1 and 2 (12,21,64)
- Construction contracts awarded for commercial and industrial buildings, floor space (M).—McGraw-Hill Information Systems Company; seasonal adjustment by Bureau of Economic Analysis (Used by permission. This series may not be reproduced without written permission from the source.) (23,66)

- Contracts and orders for plant and equipment in current dollars (M).—Sources 1, 2, and McGraw-Hill Information Systems Company; seasonal adjustment by Bureau of the Census and Bureau of Economic Analysis (23,66)
- 11. Newly approved capital appropriations, 1,000 manufacturing corporations (Q).—The Conference Board (24,66)
- Index of net business formation (M).—Source 1; seasonal adjustment by Bureau of Economic Analysis and National Bureau of Economic Research, Inc. (23,65)
- Number of new business incorporations (M).—Dun & Bradstreet, Inc.; seasonal adjustment by Bureau of Economic Analysis and National Bureau of Economic Research, Inc. (23,65)
- 14. Current liabilities of business failures (M).—Dun & Bradstreet, Inc. (33,72)
- Profits after taxes per dollar of sales, manufacturing corporations (Q).—Source 2 and Federal Trade Commission; seasonal adjustment by Bureau of Economic Analysis (29,70)
- Corporate profits after tax in current dollars (Q).— Source 1 (28,69)
- 18. Corporate profits after tax in 1982 dollars (Q).— Source 1 (28,69)
- 19. Index of stock prices, 500 common stocks (M).— Standard & Poor's Corporation (13,28,59,69,96)
- 20. Contracts and orders for plant and equipment in 1982 dollars (M).—Sources 1, 2, and McGraw-Hill Information Systems Company; seasonal adjustment by Bureau of the Census and Bureau of Economic Analysis (12.23.66)
- 21. Average weekly overtime hours of production or nonsupervisory workers, manufacturing (M).—
 Source 3 (16,61)
- 22. Ratio, corporate domestic profits after tax to total corporate domestic income (Q).—Source 1 (29,69)
- 23. Index of spot market prices, raw industrial materials (M).—Source 3 and Commodity Research Bureau, Inc. (Used by permission. Beginning with June 1981, this series may not be reproduced without written permission from Commodity Research Bureau, Inc.) (28,69,79)
- 24. Manufacturers' new orders in current dollars, nondefense capital goods industries (M).—Source 2 (23.66)
- 25. Change in manufacturers' unfilled orders, durable goods industries (M).—Source 2 (21,64)
- Ratio, implicit price deflator to unit labor cost, nonfarm business sector (Q).—Sources 1 and 3 (29.70)
- Manufacturers' new orders in 1982 dollars, nondefense capital goods industries (M).—Sources 1 and 2 (23,66)
- 28. New private housing units started (M).—Source 2 (25,67)
- 29. Index of new private housing units authorized by local building permits (M).—Source 2 (13,25,67)
- **30. Change in business inventories in 1982 dollars** (Q).— Source 1 (26,42,68,81)
- 31. Change in manufacturing and trade inventories (M).—Sources 1 and 2 (26,68)
- 32. Vendor performance, percent of companies receiving slower deliveries (M).—Purchasing Management Association of Chicago (12,21,64)

- 33. Net change in mortgage debt held by financial institutions and life insurance companies (M).— Sources 1; 4; American Council of Life Insurance; Federal National Mortgage Association; U.S. Department of Housing and Urban Development, Government National Mortgage Association; National Association of Mutual Savings Banks; and Federal Home Loan Bank Board; seasonal adjustment by Bureau of Economic Analysis (32,71)
- 34. Corporate net cash flow in current dollars (Q).—
 Source 1 (29,70)
- 35. Corporate net cash flow in 1982 dollars (Q).—Source 1 (29,70)
- 36. Change in manufacturing and trade inventories on hand and on order in 1982 dollars (M).—Sources 1 and 2 (13,26,68)
- 37. Number of persons unemployed (M).—Source 3 (18,51,62,89)
- 38. Change in manufacturers' inventories, materials and supplies on hand and on order (M).—Source 2 (26,68)
- Percent of consumer installment loans delinquent
 days and over (EOM).—American Bankers
 Association (33,72)
- 40. Employees on nonagricultural payrolls, goodsproducing industries (M).—Source 3 (17,62)
- 41. Employees on nonagricultural payrolls (M).—Source 3 (14,17,62)
- 42. Number of persons engaged in nonagricultural activities (M).—Source 3 (17,62)
- 43. Unemployment rate (M).—Source 3 (18,62)
- 44. Unemployment rate, persons unemployed 15 weeks and over (M).—Source 3 (18.62)
- 45. Average weekly insured unemployment rate, State programs (M).—U.S. Department of Labor, Employment and Training Administration (18,62)
- 46. Index of help-wanted advertising in newspapers (M).—The Conference Board (16,61)
- 47. Index of industrial production (M).—Source 4 (14.20.39.58.63,78.94)
- **48.** Employee hours in nonagricultural establishments (M).—Source 3 (17,39,61)
- **49.** Value of goods output in 1982 dollars (Q).—Source 1 (20,63)
- 50. Gross national product in 1982 dollars (Q).—Source 1 (19,39,40,63,80)
- 51. Personal income less transfer payments in 1982 dollars (M).—Source 1 (14,19,39,63)
- **52.** Personal income in **1982 dollars** (M).—Source 1 (19.63)
- Wages and salaries in 1982 dollars, mining, manufacturing, and construction (M).—Source 1 (19,63)
- 54. Sales of retail stores in current dollars (M).—Source 2 (22,65)
- 55. Personal consumption expenditures, automobiles (Q).—Source 1 (22,65)
- 56. Manufacturing and trade sales in current dollars (M).—Sources 1 and 2 (22,65)
- 57. Manufacturing and trade sales in 1982 dollars (M).—Sources 1 and 2 (14.22.65)
- 58. Index of consumer sentiment (Q,M).—University of Michigan, Survey Research Center (22,65)
- 59. Sales of retail stores in 1982 dollars (M).—Sources 1 and 2 (22,65)

TITLES AND SOURCES OF SERIES—Continued

- 60. Ratio, help-wanted advertising in newspapers to number of persons unemployed (M).—Sources 1, 3, and The Conference Board (16,61)
- 61. New plant and equipment expenditures by business in current dollars (Q).—Source 1 (24,67)
- 62. Index of labor cost per unit of output, manufacturing (M).—Sources 1 and 4 (15,30,70)
- 63. Index of unit labor cost, business sector (Q).—Source $3 \hspace{1cm} (30,70)$
- 64. Compensation of employees as a percent of national income (Q).—Source 1 (30,47,70,83)
- 65. Manufacturers' inventories, finished goods (EOM).— Source 2 (27,68)
- 66. Consumer installment credit outstanding (EOM).— Source 4 (35,73)
- **67.** Bank rates on short-term business loans (Q).—Source (35,73)
- Labor cost in current dollars per unit of gross domestic product in 1982 dollars, nonfinancial corporations (Q).—Source 1 (30,70)
- 69. Manufacturers' machinery and equipment sales and business construction expenditures (M).—Source 2 (24,67)
- 70. Manufacturing and trade inventories in 1982 dollars (EOM).—Sources 1 and 2 (27,68)
- 71. Manufacturing and trade inventories in current dollars (EOM).—Sources 1 and 2 (27,68)
- Commercial and industrial loans outstanding in current dollars (M).—Sources 1, 4 and The Federal Reserve Bank of New York (35,73)
- 73. Index of industrial production, durable manufactures (M).—Source 4 (20,63)
- 74. Index of industrial production, nondurable manufactures (M).—Source 4 (20,63)
- 75. Index of industrial production, consumer goods (M).—Source 4 (22,65)
- 76. Index of industrial production, business equipment
 (M).—Source 4 (24,67)
- 77. Ratio, manufacturing and trade inventories to sales in 1982 dollars (M).—Sources 1 and 2 (15,27,68)
- 78. Manufacturers' inventories, materials and supplies on hand and on order (EOM).—Source 2 (27,68)
- Corporate profits after tax with inventory valuation and capital consumption adjustments in current dollars (Q).—Source 1 (29,69)
- 80. Corporate profits after tax with inventory valuation and capital consumption adjustments in 1982 dollars (Q).—Source 1 (29,69)
- 81. Ratio, corporate domestic profits after tax with inventory valuation and capital consumption adjustments to total corporate domestic income (Q).—

 Source 1 (29,70)
- 82. Capacity utilization rate, manufacturing (M).— Source 4 (20,64)
- 84. Capacity utilization rate, materials (M).—Source 4 (20,64)
- 85. Change in money supply M1 (M).—Source 4 (31,71)
- 86. Gross private nonresidential fixed investment in 1982 dollars (Q).—Source 1 (25,67)
- 87. Gross private nonresidential fixed investment in 1982 dollars, structures (Q).—Source 1 (25,67)

- Gross private nonresidential fixed investment in 1982 dollars, producers' durable equipment (Q).— Source 1 (25,67)
- 89. Gross private residential fixed investment in 1982 dollars (Q).—Source 1 (25,67)
- 90. Ratio, civilian employment to population of working age (M).—Sources 1 and 3 (17,62)
- 91. Average duration of unemployment in weeks (M).— Source 3 (15,18,62)
- **93.** Free reserves (M).—Source 4 (33,72)
- 94. Member bank borrowings from the Federal Reserve (M).—Source 4 (33,72)
- 95. Ratio, consumer installment credit outstanding to personal income (M).—Sources 1 and 4 (15,35,73)
- 96. Manufacturers' unfilled orders, durable goods industries (EOM).—Source 2 (21,64)
- 97. Backlog of capital appropriations, 1,000 manufacturing corporations (EOQ).—The Conference Board (24,66)
- 98. Percent change in producer prices for sensitive crude and intermediate materials (M).—Sources 1 and 3 (28,69)
- 99. Change in sensitive materials prices (M).—Sources 1, 3, and Commodity Research Bureau, Inc. (13,28,69)
- 100. New plant and equipment expenditures by business in 1982 dollars (Q).—Source 1 (24,67)
- 101. Commercial and industrial loans outstanding in 1982 dollars (M).—Sources 1, 4, and The Federal Reserve Bank of New York (15,35,73)
- 102. Change in money supply M2 (M).—Source 4 (31,71)
- 104. Change in total liquid assets (M).—Sources 1 and 4 (31,71)
- 105. Money supply M1 in 1982 dollars (M).—Sources 1 and 4 (31,71)
- 106. Money supply M2 in 1982 dollars (M).—Sources 1 and 4 (13.31.71)
- 107. Ratio, gross national product to money supply M1
 (Q).—Sources 1 and 4
 (31,71)
- 108. Ratio, personal income to money supply M2 (M).— Sources 1 and 4 (31,71)
- 109. Average prime rate charged by banks (M).—Source 4 (35,73)
- 110. Funds raised by private nonfinancial borrowers in credit markets (Q).—Source 4 (32,72)
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- 112. Net change in business loans (M).—Sources 1, 4, and The Federal Reserve Bank of New York (32,71)
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- 114. Discount rate on new issues of 91-day Treasury bills (M).—Source 4 (34,72)
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- 119. Federal funds rate (M).—Source 4 (34,72)

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- 952. Diffusion index of six lagging indicator components (M).—Source 1 (36,74)
- 960. Diffusion index of net profits, manufacturing—about 600 companies (Q).—Dun & Bradstreet, Inc. (Used by permission. This series may not be reproduced without written permission from the source.) (37,75)
- 961. Diffusion index of average weekly hours of production or nonsupervisory workers, 20 manufacturing industries (M).—Sources 1 and 3 (36,74,77)
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- 970. Diffusion index of expenditures for new plant and equipment by U.S. nonfarm business, 22 industries

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- 971. Diffusion index of new orders, manufacturing—about 600 businessmen reporting (Q).—Dun & Bradstreet, Inc. (Used by permission. This series may not be reproduced without written permission from the source.) (38,76)
- 972. Diffusion index of net profits, manufacturing and trade—about 1,400 businessmen reporting (Q).—
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- 973. Diffusion index of net sales, manufacturing and trade—about 1,400 businessmen reporting (Q).—Dun & Bradstreet, Inc. (Used by permission. This series may not be reproduced without written permission from the source.) (38,76)
- 974. Diffusion index of number of employees, manufacturing and trade—about 1,400 businessmen reporting (Q).—Dun & Bradstreet, Inc. (Used by permission. This series may not be reproduced without written permission from the source.) (38,76)
- 975. Diffusion index of level of inventories, manufacturing and trade—about 1,400 businessmen reporting (Q).—Dun & Bradstreet, Inc. (Used by permission. This series may not be reproduced without written permission from the source.) (38,76)

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- 976. Diffusion index of selling prices, manufacturing about 600 businessmen reporting (Q).—Dun & Bradstreet, Inc. (Used by permission. This series may not be reproduced without written permission from the source.) (38,76)
- 977. Diffusion index of selling prices, wholesale trade—
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- 978. Diffusion index of selling prices, retail trade—about 400 businessmen reporting (Q).—Dun & Bradstreet, Inc. (Used by permission. This series may not be reproduced without written permission from the source.) (38,76)

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