UNITED E



Economic and Social Council

Distr. GENERAL

CES/2000/14 31 March 2000

ORIGINAL: ENGLISH

STATISTICAL COMMISSION and ECONOMIC COMMISSION FOR EUROPE

CONFERENCE OF EUROPEAN STATISTICIANS

<u>Forty-eighth plenary session</u> (Paris, 13-15 June 2000)

Theme 1

MEETING USER DEMANDS FOR MORE TIMELY INDICATORS: INSTITUTIONAL AND METHODOLOGICAL APPROACHES

Invited paper submitted by the Office of Management and Budget of the United States¹

I. Introduction and Background

- 1. "Improvement of Statistical Contents: Eurostat Reflections and Country Suggestions" presents an analysis of the "frequency" and the "delay" in producing major monetary indicators in the United States, Japan, and Europe. This assessment reveals that the United States and Japan have much shorter production times for many indicators than is the case for Europe as a whole or most of its individual countries. This finding prompted an invitation to the United States to prepare this paper with the expectation that something could be learned from the U.S. experience. The paper provides information on the institutional framework that governs the timely production of economic indicators in the United States, and describes some further efforts to speed the production of these indicators and to improve their reliability.
- 2. The principal use of economic indicators is to interpret the current economic situation and to forecast underlying short-term trends. To best serve these purposes, the figures must not only be very accurate, but also must come out very promptly. With the development of a global economy, demands for international comparability are being added to the requirements for more accurate and more timely indicators. In the United

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States, it is becoming increasingly challenging for Federal Government agencies to provide accurate, timely, and relevant information. Factors that contribute to the challenge include deregulation and innovation in financial, transportation, and communication markets; increased competition and integration of world markets; growth in services industries; and rapid rates of change in the prices of high-tech goods and services. Deregulation has resulted in the disappearance of some of the data used to monitor industries; growth in service industries has increased the scope of the necessary data collection efforts. Rapid changes in the economy require more frequent updating, for example, of sample frames and industry classification systems – all this at a time of increasingly tight resources for statistical work.

- 3. The timeliness required of economic data is in large measure determined by its intended use. All users seem to have one common characteristic whatever the periodicity of the data they use and the timeliness of their release, they want the information sooner. In addition to the users' demands for timeliness, producers of economic data must also consider trade-offs among timeliness, cost, and accuracy in determining acceptable periodicity and time lags for producing statistics. There are several dimensions of accuracy for economic statistics, including the accuracy of the level of an estimate at a point in time, its accuracy over the course of the business cycle, its accuracy in measuring long-term growth trends, and the accuracy of its components. The most accurate estimates are based on a comprehensive count, or census. The most timely data, on the other hand, are based on early reports collected from what are at times relatively small samples; these estimates are normally revised as more comprehensive and complete data are obtained. The term "reliability" refers to revisions in the estimates, which occur for the following reasons: (1) replacement of preliminary source data with revised or more comprehensive data, (2) replacement of judgmental projections with source data, (3) changes in definitions or estimating procedures, and (4) for real estimates, changes in the base year and changes in the featured measure.
- 4. To produce more timely and accurate economic indicator data, improvements in the timeliness of underlying source data often must be made. For example, in the United States, by the time the first estimate of Gross Domestic Product is released, data are available for all three months of the quarter on retail trade, prices, and many other components of nominal and real GDP, and for two months of the quarter for many other components. In addition, fairly comprehensive data on wages and salaries and other components of national income for all three months of the quarter are available.

II. Institutional Arrangements Foster Timeliness of Release

5. In the decentralized United States' Federal statistical system, the Statistical Policy Office in the Office of Management and Budget (OMB), Executive Office of the President, has the statutory responsibility (under the Paperwork Reduction Act) for coordinating the activities of the Federal statistical system, including the authority to issue and enforce standards and guidelines concerning the timely release of statistical data, the topic of this paper. Today's procedures for ensuring the orderly and timely release of economic indicators have their origins in the late 1960's when President Nixon sent a memorandum to the Director of the Bureau of the Budget (OMB's predecessor) requesting that action be taken to ensure "that the principal statistical series which are issued to the public by agencies, quarterly or more frequently, are released without unnecessary delay." Subsequently, the Bureau of the Budget issued guidelines (on February 12, 1969) for the release of principal economic indicators that are issued quarterly or more frequently. In particular, these guidelines required that (1) compilation should be completed not more than 20 working days after the reference period, (2) the data should be released not more than 2 days later, and (3) a schedule of release dates at least one calendar quarter ahead should be available to the public. To monitor agency practices in regard to prompt release of statistical data, a standard format was developed for quarterly reports on agencies' principal statistical series showing scheduled and actual compilation

and release dates for each series as well as the agency schedule for future releases. Beginning in February 1970, a monthly schedule of release dates was published as a news release and in the Statistical Reporter for the forthcoming month.

- 6. Current guidance on the timely compilation and release of economic indicators is provided in OMB's Statistical Policy Directive Number 3, "Compilation, Release, and Evaluation of Principal Federal Economic Indicators," which was last updated in 1985. (The text of the directive is at Appendix A.) The intent of the directive is to ensure that the Federal statistical series that are widely watched and heavily relied upon by government and the private sector as indicators of the current condition and direction of the economy meet high standards of accuracy and reliability. Because such data series have significant commercial value, may affect the movement of commodity and financial markets, or may be taken as a measure of the impact of government policies, public release must be prompt and according to an established, publicly available schedule.
- 7. The directive designates statistical series that provide timely measures of economic activity as Principal Federal Economic Indicators. Currently 38 data series have been designated (see Appendix B). These indicators are issued by the following nine agencies: the Foreign Agricultural Service, the National Agricultural Statistics Service, and the World Agricultural Outlook Board in the Department of Agriculture; the Bureau of the Census and the Bureau of Economic Analysis in the Department of Commerce; the Bureau of Labor Statistics in the Department of Labor; the Department of Housing and Urban Development; the Federal Reserve Board; and the Financial Management Service in the Department of the Treasury.
- 8. Certain provisions of the directive seek to preserve the time value of such information and to strike a balance between its timeliness and accuracy:
- <u>Prompt release</u>--The interval between the period to which the data or estimates refer and the date when they are released to the public must be as short as practicable. Agencies are required to compile and release series that are issued quarterly or more frequently within 22 working days of the end of the reference period for the data.
- Release schedule--OMB issues an annual news release that provides the scheduled release dates for the 38 principal economic indicators for the coming year. This consolidated schedule had been issued in December of each year for the forthcoming year, but starting in 1999 the advance schedule is now issued in September to meet the International Monetary Fund's Special Data Dissemination Standards. (The calendar of release dates is on the OMB web site--www.whitehouse.gov/OMB/pubpress/index/html.) If special, unforeseen circumstances make it necessary to change any scheduled release date after the consolidated schedule is issued, the agency must announce and explain the change as soon as it is known. In addition, each release of a principal economic indicator includes an announcement of the date and time of the next release, and the last release of the calendar year provides a schedule for the next calendar year.
- Release procedure—The agency responsible for the indicator must issue a press release if such action will significantly speed up the dissemination of the economic indicator data to the public. Agencies now also make their economic indicators news releases available via facsimile and the Internet.
- Releasing preliminary estimates and revisions--Deciding when to release an indicator requires that the agency balance accuracy and timeliness. Agencies are advised not to withhold information needed to evaluate current economic conditions by imposing unnecessarily stringent accuracy requirements on preliminary estimates.

Agencies are required to use the following guidelines when issuing and evaluating preliminary data and revisions:

- (1) Agencies shall clearly identify figures as preliminary or revised.
- (1) Agencies shall only release routine revisions of a principal economic indicator as part of the regular reporting schedule.
- (1) If the difference between preliminary and final aggregate figures is large relative to average period-to-period differences, the agency must either take steps to improve the accuracy of preliminary estimates or delay the release of estimates until a reliable estimate can be made.
- (1) If preliminary estimates show signs of a consistent bias (for example, if revisions are consistently in the same direction), the agency shall take steps to correct this bias.
- (1) Revisions occurring for routine reasons, such as benchmarking and updating of seasonality factors, shall be consolidated and released simultaneously.
- (1) Revisions occurring for other than routine reasons shall be fully explained and shall be released as soon as corrections can be completed.
- <u>Performance evaluation</u>--Agencies are required to submit a performance evaluation of each indicator every three years to OMB. Among other things, the evaluation must address the accuracy and reliability of the series, and the agency's performance in meeting the designated release schedule and the prompt release objective of the directive.
- 9. In deciding on the appropriateness of releasing preliminary estimates, agencies must also consider whether their release may be misleading, increase uncertainty, or foster speculation. Financial markets and decision makers may act on preliminary data regardless of their validity or caveats the agency may specify for using them. Release of preliminary economic indicator data or their individual components could also have the effect of undermining the credibility of a particular indicator. For example, preliminary information will, by its very nature, be partial data and will not be seasonally adjusted. Even though accuracy tends to improve as more information becomes available over time, the inevitable discrepancies between the preliminary and the final data will likely lead to confusion and calls for the agency to explain the differences and defend the validity of the data.

III. Trading Off Accuracy and Timeliness: the Flash GNP

- 10. The value of economic data depends on both their reliability and their timeliness -- two desired criteria that are often in conflict. In the United States, the "flash" Gross National Product (GNP) provides an example of the ultimate trade-off between timeliness and reliability. This estimate was produced 15 days before the end of the referenced quarter.
- 11. The Federal Government first made the flash GNP figure public in September 1983. During the preceding 20 years, this figure had been compiled and circulated internally for the use of Federal Government policy makers who were concerned with changes in tax revenues and welfare spending. Because this number was often leaked to the news media, the U.S. Department of Commerce decided in 1983 to announce this economic indicator on a regularly scheduled basis.

- 12. The flash GNP was based on only partial, incomplete data, such as only one or two months of data for the components; these monthly data were not final data, but were subject to further revision by the agencies that collected them. Because of delays in reporting accurate trade statistics, the flash report was based on only one month of data on imports, business inventories, and business fixed investment and two months of data on exports. Such delays resulted in larger revisions of the figure. (For example, in December 1985, the flash GNP estimate for the period October December 1985 showed that the national output of goods and services was growing at a rate of 3.2 percent, but that number was revised in January 1986 sharply downward to show growth of just 2.4 percent during that period.) Even though the Department of Commerce had always emphasized that the flash number was "an educated guess at best" and based largely on projections, it was still viewed by some economic analysts as "an actual statistic." The financial markets tended to over-react to the number. The number of assumptions and extrapolations required to produce the estimate resulted in perceptions about the misleading nature of the flash GNP, as evidenced by revised GNP estimates. The Department of Commerce, therefore, decided to discontinue the preparation of this estimate as of January 1986.
- 13. Currently, there are three GDP estimates released for each quarter; the advance estimate is released approximately four weeks after the end of the quarter, and preliminary and final estimates are released near the end of the second and third months. There are no revisions to the estimates for previous quarters with any of these quarterly releases. Although later estimates may be more reliable, many business economists regard the advance estimate as the most significant for their work. This importance undoubtedly stems from the fact that the advance estimate is the first published estimate that provides detail on GDP components for a particular quarter. Perhaps the most important lesson that may be gleaned from the U.S. experience with the flash GNP is this: if it is desirable to accelerate the issuance of an estimate, it may be better to expedite the availability of source data, rather than simply to extend extrapolation of source data to produce a more timely estimate.

IV. Improved Collection and Processing Methods Foster Accuracy (and Timeliness)

- 14. U.S. statistical agencies are encouraged to improve the accuracy of the estimates of their economic indicators and to reduce the number of revisions issued. As noted above, every three years each agency conducts an evaluation of its economic indicator series. These evaluations examine issues of accuracy and reliability of the data, as well as whether the agency released the data on the previously announced dates. With very few exceptions (such as those that may result from government closings occasioned by severe weather), the agencies meet the scheduled target dates for issuing the data.
- 15. The following sections provide selected examples of agency efforts to improve the timeliness and/or reliability of economic indicator data series. As will be seen, some troublesome effects of changes in data sources have been offset to a degree by changes in data collection technology and methods. Advances in computer hardware and software have increased the capacity to process large sample frames, and electronic data collection and transfer methods are beginning to improve data collection and editing techniques.

Gross Domestic Product and Personal Income and Outlays

16. For Gross Domestic Product (GPD) and most other National Income and Product Accounts (NIPA) series, quarterly estimates are released on the following schedule: "advance" estimates are released near the end of the first month after the end of the quarter; as more detailed and more comprehensive data become available, "preliminary" and "final" estimates are released near the end of the second and third months, respectively. There are no revisions to the estimates for previous quarters with any of these quarterly releases.

- 17. For gross national product, gross domestic income, national income, corporate profits, and net interest, "advance" estimates are not prepared, because of a lag in the availability of source data. Except for the fourth-quarter estimates, the initial estimates for these series are released with the preliminary GDP estimates, and the revised estimates for that quarter are released with the final GDP estimates. For the fourth quarter, these estimates are released only with the final GDP estimates.
- 18. The Bureau of Economic Analysis produces estimates of personal income and outlays (PI&O) using a large number of disparate data sources, including government and private surveys, censuses, and administrative records. Monthly PI&O estimates are released on the following schedule: advance estimates are released about 4 weeks after the end of the month; the advance estimate is followed by up to five revised estimates in order to reflect quarterly source data that are incorporated in the quarterly estimates at the time of the "final quarterly estimate, which is released 3 months after the end of the quarter. Thus, there are six PI&O estimates (the advance estimate and five revisions) for the first month of each quarter, five estimates (the advance estimate and four revisions) for the second month of each quarter, and four estimates for the third month of each quarter.
- 19. Annual revisions of NIPA, which include PI&O, are usually carried out each summer and cover the months and quarters of the most recent calendar year and of the 2 preceding years. These revisions are timed to incorporate newly available major annual source data. (Except for annual surveys conducted by the Bureau of the Census that are benchmarked every 5 years to the quinquennial economic censuses and annual surveys of international trade and services and direct investment income that are benchmarked to more comprehensive surveys about every 5 years, there are no newly available or revised annual source data for earlier years.)
- 20. Comprehensive, or benchmark, revisions are carried out at about 5-year intervals and differ from annual NIPA revisions because of the scope of the changes and because of the number of years subject to revision. Comprehensive revisions incorporate three major types of improvements: (1) changes in definitions and classifications that update the accounts to portray more accurately the evolving U.S. economy, (2) statistical changes that update the accounts to reflect the introduction of new and improved methodologies and the incorporation of newly available and revised source data (including benchmark input-output accounts prepared using the economic censuses), and (3) presentational changes that update the NIPA tables to reflect the definition, classification, and statistical changes and to make the tables more informative.
- 21. At the time of a comprehensive revision, estimates for all previous periods are subject to revision. Generally, all series are subject to revision beginning with the last previously incorporated benchmark input-output table, and selected series are revised for earlier periods in order to provide a consistent time series for definition, classification, methodological, and presentation changes.

Consumer Price Index

22. In 1987, the average release date of the Consumer Price Index (CPI) was 22.5 days after the reference month. A survey of users of the CPI data showed that earlier publication of data was a common desire. In the late 1980's and early 1990's, the CPI Program implemented a quality improvement initiative with the goal of substantially improving the timeliness of the CPI release. Each process in the production of the data was reviewed and improvements were identified. These improvements were implemented and within a few years, the average CPI release date fell to the 13th day after the reference month. Since 1997 the average release dates have regressed to the 16th day after the reference month. The introduction of new samples, as well as important system development activities, including the CPI revision, the introduction of hybrid indexes, and preparations for

Y2K, have contributed to the slightly longer interval for release.

Produce Price Index

- 23. The Producer Price Index (PPI) is released on average 13 calendar days after the reference month. The monthly index reflects a pricing date equal to the Tuesday of the week containing the 13th of the month. By setting the pricing date, there is sufficient time to receive, process, and analyze the data within the release schedule. This schedule for release of the PPI has remained largely unchanged for decades. The PPI is released as a preliminary number initially. There is a 4-month correction policy that allows for late receipt of data and effective review of data with reporting entities; the index is released in final form 4 months after its initial release.
- 24. Major constraints on releasing the preliminary data at an earlier date or releasing the PPI in final form include response delays and data quality. To address delays in response, some data are now being collected on a limited basis using Broadcast FAX technology. Response rates are similar to those achieved in a mail process; response follow-up is still required to secure a high response rate. The technology allows, however, for far more rapid responses. Additional time savings may be realized if more data are collected by FAX and via the Internet instead of relying on mail.

The International Price Program

25. The International Price Program began an initiative to improve the timeliness of the monthly release of import and export price indexes in 1995. The goal was to reduce the monthly processing time by 2 weeks and thus to release the monthly indexes at least 10 working days earlier (an average of 12 days from the end of the reporting period). Productivity gains are associated with the introduction of a new processing system that is in a local area network based personal computer/server environment. The data at initial release are considered to be preliminary and are subject to revision for 3 months. The data are considered final 3 months later.

The Employment Situation

- 26. The Employment Situation is released on average 5 days after the reference month; this has been the case since the 1960's. The release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment Statistics survey (establishment survey). The household survey provides information on the labor force, employment, and unemployment. The establishment survey provides information on the employment, hours, and earnings of workers on nonfarm payrolls.
- 27. Current Population Survey--While there have not been efforts undertaken to accelerate further the release of these data, major changes were introduced to the Current Population Survey (CPS) in 1994 to improve the reliability of the data. These changes included a complete redesign of the questionnaire and the use of computer-assisted interviewing for the entire survey. In addition, there were revisions to some of the labor force concepts and definitions, including the implementation of some changes recommended in 1979 by the National Commission on Employment and Unemployment Statistics. Some of the major changes to the survey were:
- A redesigned and automated questionnaire was introduced. The CPS questionnaire was totally redesigned in order to obtain more accurate, comprehensive, and relevant information, and to take advantage of state-of-the-art computer interviewing techniques.

- Two more objective criteria were added to the definition of discouraged workers. Prior to 1994, to be classified as a discouraged worker, a person must have wanted a job and be reported as not currently looking because of a belief that no jobs were available or that there were none for which he or she would qualify. Beginning in 1994, persons classified as discouraged must also have looked for a job within the past year (or since their last job, if they worked during the year), and must have been available for work during the reference week (a direct question on availability was added in 1994; prior to 1994, availability had been inferred from responses to other questions).
- Similarly, the identification of persons employed part time for economic reasons (working less than 35 hours in the reference week because of poor business conditions or because of an inability to find full-time work) was tightened by adding two new criteria for persons who usually work part time: they must want and be available for full-time work. Previously, such information was inferred.
- Specific questions were added about the expectation of recall for persons who indicate that they are on layoff. To be classified as "on temporary layoff," persons must expect to be recalled to their jobs. Previously, the questionnaire did not include explicit questions about the expectation of recall.
- Persons volunteering that they were waiting to start a new job within 30 days must have looked for work in the 4 weeks prior to the survey in order to be classified as unemployed. Previously, such persons did not have to meet the job-search requirement in order to be included among the unemployed.
- 28. Current Employment Statistics Survey--The data as first published from the Current Employment Statistics (CES) survey are considered preliminary and revisions are made to the data 1 and 2 months later. Average response rates for 1991-1999 for the first release are 60 percent; for the second release are 81 percent; and for the third release are 88 percent. The response rates for the first release were significantly higher in the 1990's than prior to that period due to the introduction of electronic data collection. The primary type of electronic reporting is touch-tone phone self-response; others are computer-assisted phone interviews and phone voice recognition technology.
- 29. The CES program experience with revisions to the estimates between the first release and subsequent releases 1 and 2 months later provides a direct measure of the tradeoff between timeliness and reliability. The main differences between the first three releases of data are due to improved response rates and more detailed estimate review; the additional time following the month of reference allows for both. In addition, updates to reflect seasonal adjustment affect 4 of the 12 months each year. The following presents the average revisions 1991-1998, without regard to sign (since magnitude, not direction, is the issue).

| | Employment revisions | |
|-------------------------|-----------------------------|-------------|
| | Mean Me | <u>dian</u> |
| First to second release | 35,000 | 25,000 |
| First to third release | 48,000 | 41,000 |

- 30. This revision history needs to be viewed in relation to normal employment growth, which averaged about 200,000 since 1991 and ranged from about –250,000 to +450,000. In general, movements within 50,000 of any specific estimate of total nonfarm employment have the same economic interpretation. Since the average revision to the estimate as first released is less than 50,000, the tradeoff between reliability and timeliness is not significant in the CES program. Further, users view the first estimates from the CES survey to be among the most important and reliable in the Federal statistical system.
- 31. The average revision to hours and earnings is less than the smallest increment published. Average weekly hours are published rounded to the nearest 0.1 hour. The mean and median revisions both between first and second and first and third estimates are less than or equal to 0.05 hour, or half the smallest increment published. Average hourly earnings are published to the nearest cent. The mean and median revisions both between first and second and first and third estimates are less than 1 cent. Thus, the timely release of hours and earnings estimates for the total private economy is not at a significant cost to reliability.

Merchandise Trade Statistics

- 32. The merchandise trade statistics measure goods traded between the United States and other countries and are a major component of the Gross Domestic Product. The Census Bureau compiles import and export statistics from information collected by the United States Customs Service at more than 400 ports of entry and exit in the United States, Puerto Rico, and the U.S. Virgin Islands. Almost all the import transactions and about three-fourths of the export transactions are submitted electronically; the remainder are captured from paper documents. The timeliness and reliability of these data are dependent on the cooperation between two agencies, and such factors as missing documentation (more common with exports), incomplete or inaccurate reporting, and the speed with which the information can be processed.
- 33. Timing problems result when import or export shipments are not included in the correct transaction month. During the early 1980's scarce resources caused the Customs Service to relax its procedures for handling statistical documents. These changes, coupled with dramatic increases in the numbers of import and export transactions, delayed the delivery of large numbers of documents to the Census Bureau processing center. Often these late arrivals were too late for inclusion in the proper month's statistics. Because these shipments carried over into a subsequent month's statistics, the Census Bureau coined the term "carry-over." During the period 1984 to 1988, the Census Bureau and the Customs Service introduced changes to collection and processing procedures to reduce the effect of "carry-over" on the statistics. Ultimately the Census Bureau delayed the merchandise trade release (from 30 to 45 days after the end of the calendar month) to allow more time for receipt and processing of documents. In addition, it revised prior month trade totals to credit the value of any remaining late documents to the proper statistical month. Increased use of automated reporting by the Customs Service and the Census Bureau also has improved the timeliness of the data and decreased "carry-over." In 1999 "carry-over" was less than 1.5 percent of total import and export values during initial publication of the data and less than 0.2 percent after revision of prior month totals.
- 34. The increased use of automated reporting has generally improved the quality and reliability of merchandise trade statistics. Automated reporting minimizes lost data and provides better control over non-filing. Because the Census Bureau receives pre-edited data through the U.S./Canada Data Exchange (see following paragraph), the Automated Broker Interface (ABI), and the Automated Export System (AES), the information arrives at the Census Bureau with fewer reporting errors. The enhanced quality of automated submissions results from the high standards required of automated reporters. The Customs Service and the Census Bureau test and approve all ABI brokers and AES participants before they can submit shipments electronically. Many statistical Census edits

reside in these Customs computer systems and are used to intercept data problems for return to the filers for resolution. Participants who fail to resolve problems or who repeatedly make the same errors face possible fines or penalties. Similarly many Census edits reside in the Statistics Canada import processing system to meet U.S. export needs.

35. To deal with the problem of undocumented export shipments, the statistical and Customs agencies of the United States and Canada signed a Memorandum of Understanding in July 1987 that fostered the exchange of detailed import records; eventually both countries dropped requirements for filing export documents. Several immediate improvements to U.S. export statistics resulted from the introduction of the data exchange. Most important, the exchange almost eliminated undocumented shipments to Canada. Moreover, because the Canadian data are pre-edited, the exchange improved the accuracy of the data reported to the Census Bureau and ensured their inclusion in the correct statistical month. The success of the U.S./Canadian reconciliations prompted the Census Bureau to conduct reconciliation studies with Japan, Korea, Mexico, Australia, and the European Community, which have been useful in estimating undocumented U.S. exports with these trading partners, though no revisions for undercoverage have been made to the data as a result of these studies.

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Annex I

STATISTICAL POLICY DIRECTIVE NO. 3 COMPILATION, RELEASE, AND EVALUATION OF PRINCIPAL FEDERAL ECONOMIC INDICATORS

September 25, 1985

Statistical series that are widely watched and heavily relied upon by government and the private sector as indicators of the current condition and direction of the economy must meet high standards of accuracy and reliability. Because such data series have significant commercial value, may affect the movement of commodity and financial markets, or may be taken as a measure of the impact of government policies, public release must be prompt and according to an established, publicly available schedule. The purpose of the procedures outlined in this directive is to assure that these data series meet specific accuracy, release, and accountability standards.

- 1. **Designation of Principal Indicators.** The Administrator for Information and Regulatory Affairs, Office of Management and Budget, will determine, after consultation with interested Federal agencies, the data series and estimates to be designated as principal Federal economic indicators and covered by this directive. The Administrator will review the designations annually.
- **2. Prompt Release.** The interval between the period to which the data or estimates refer and the date when the data or estimates are released to the public shall be as short as practicable. Agencies should compile and release series that are issued quarterly or more frequently within 22 working days of the end of the reference period.
- **3. Release Schedule.** The releasing agency is responsible for ensuring that the interested public is aware of the release time and date. The last report of each calendar year must contain the time and date of all reports in the upcoming year. In addition, each release will include an announcement of the time and date of the next release. The releasing agency shall provide a schedule of releases for the upcoming calendar year to the Statistical Policy Office, Office of Information and Regulatory Affairs, by December 15. Changes in the release schedule may occur only if special, unforseen circumstances arise. The releasing agency must announce and fully explain any schedule changes as soon as it has determined they are unavoidable.

There should be one office in the agency that can provide the release schedule of all agency's economic indicators. The name, address, and telephone number of this office should be readily available to the public. Agencies shall establish and maintain one or two times of day for the release of their principal economic indicators and shall only release indicators at such designated times.

4. Announcement of Changes. Agencies shall announce any planned change in data collection, analysis, or estimation methods that may affect the interpretation of a principal economic indicator as far in advance of the change as possible. The agency should include the announcement in a regular report of the economic indicator. When possible, a period of public comment should be provided between the announcement of an intended change and its implementation. At a minimum, for quarterly and monthly series, the agency shall announce the change at least three reports before the first report affected by the change. For weekly and annual series, the announcement should precede the first report affected by the change by at least three months. In the first report affected by the change, the agency should include a complete description of the change and its impact.

Agencies shall fully explain unforseeable changes due to special circumstances as soon as they are known and in the first report affected by the change.

5. Release Procedure. The statistical agency that produces each principal economic indicator shall issue it in a press release or other printed report. The agency shall issue a press release where this will significantly speed up the dissemination of data to the public.

Each statistical agency shall be responsible for establishing procedures to assure that there is no premature release of information or data estimates during the time required for preparation of the public report. This includes the protection of public use data banks, which shall not receive any data or estimates until they are officially released. As soon as copies of materials for public release have been prepared, the agency shall physically secure them.

Except for the authorized distribution described in this section, agencies shall ensure that no information or data estimates are released before the official release time.

The agency will provide prerelease information to the President, through the Chairman of the Council of Economic Advisers, as soon as it is available. The agency may grant others prerelease access only under the following conditions:

- (a) The agency head must establish whatever security arrangements are necessary and impose whatever conditions on the granting of access are necessary to ensure that there is no unauthorized dissemination or use.
- (b) The agency head shall ensure that any person granted access has been fully informed of and agreed to these conditions.
- (c) Any prerelease of information under an embargo shall not precede the official release time by more than 30 minutes.
- (d) In all cases, prerelease access shall precede the official release time only to the extent necessary for an orderly review of the data.

All employees of the Executive Branch who receive prerelease distribution of information and data estimates as authorized above are responsible for assuring that there is no release prior to the official release time. Except for members of the staff of the agency issuing the principal economic indicator who have been designated by the agency head to provide technical explanations of the data, employees of the Executive Branch shall not comment publicly on the data until at least one hour after the official release time.

- **6. Preliminary Estimates and Revisions.** Deciding when to release a principal economic indicator requires the balancing of accuracy and timeliness. Agencies should not withhold information needed to evaluate current economic conditions by imposing unnecessarily stringent accuracy requirements on preliminary estimates. However, agencies shall use the following guidelines when issuing and evaluating preliminary data and revisions:
 - (a) Agencies shall clearly identify figures as preliminary or revised.
- (b) Agencies shall only release routine revisions of a principal economic indicator as part of the regular reporting schedule.
- (c) If the difference between preliminary and final aggregate figures is large relative to average period-toperiod differences, the agency must either take steps to improve the accuracy of preliminary estimates or delay release of estimates until a reliable estimate can be made.
- (d) If preliminary estimates show signs of a consistent bias (for example, if revisions are consistently in the same direction), the agency shall take steps to correct this bias.
 - (e) Revisions occurring for routine reasons, such as benchmarking and updating of seasonality factors,

shall be consolidated and released simultaneously.

- (f) Revisions occurring for other than routine reasons shall be fully explained and shall be released as soon as corrections can be completed.
- **7. Granting of Exceptions.** Prior to taking any action that may violate the provisions of this directive, the head of a releasing agency shall consult with the Administrator for Information and Regulatory Affairs. If the Administrator determines that the action is in violation of the provisions of this directive, the head of the releasing agency may apply for an exception. The Administrator may authorize exceptions to the provisions in sections 2, 3, 4, 5, and 6 of this directive. Any agency requesting an exception must demonstrate to the satisfaction of the Administrator that the proposed exception is necessary and is consistent with the purposes of the directive.
- **8. Performance Evaluation.** Each agency that issues a principal Federal economic indicator shall submit a performance evaluation of that indicator to the Statistical Policy Office, Office of Information and Regulatory Affairs, every three years. A schedule for the performance evaluation of data series or estimates designated as principal Federal economic indicators will be prepared by the Statistical Policy Office. The evaluation shall address the following issues:
- (a) the accuracy and reliability of the series, e.g., the magnitude and direction of all revisions, the performance of the series relative to established benchmarks, and the proportion and effect of nonresponses or responses received after the publication or preliminary estimates;
- (b) the accuracy, completeness, and accessibility of documentation describing the methods used in compiling and revising the indicator;
- (c) the agency's performance in meeting the designated release schedule and the prompt release objective of this directive;
 - (d) the agency's ability to avoid disclosure prior to the scheduled release time;
- (e) any additional issues that the Administrator for the Information and Regulatory Affairs specifies in writing to the agency at least 6 months in advance of the scheduled submission date.

The evaluation will be reviewed by the Administrator to determine whether the indicator is prepared and published in conformity with all OMB statistical policies, standards, and guidelines. A summary of the year's evaluations and their reviews will be included in the annual report to Congress required by section 3514 of the Paperwork Reduction Act of 1980 (Pub. L. 96-511).

Principal Federal Economic Indicators

Department of Agriculture

World Agriculture Supply and Demand Estimates
Agricultural Prices
Crop Production
Grain Stocks
Cattle on Feed
Hogs and Pigs
Plantings
World Agricultural Production

Bureau of the Census

Construction Put in Place
Housing Starts and Building Permits
New One-Family Houses Sold and For Sale
Wholesale Trade
Advance Retail Sales
U.S. International Trade in Goods and Services
Manufacturing and Trade: Inventories and Sales
Manufacturers' Shipments, Inventories, and Orders
Advance Report on Durable Goods -Manufacturers' Shipments and Orders
Quarterly Financial Report Manufacturing, Mining, and Wholesale Trade
Quarterly Financial Report - Retail
Housing Vacancies

Bureau of Economic Analysis

Personal Income and Outlays
Gross Domestic Product
Corporate Profits
U.S. International Trade in Goods and Services
U.S. International Transactions

Bureau of Labor Statistics

The Employment Situation
Consumer Price Index
Producer Price Indexes
Real Earnings
Productivity and Costs
Employment Cost Index
U.S. Import and Export Price Indexes

Federal Reserve Board

Money Stock, Liquid Assets, and Debt Measures Factors Affecting Reserves of Depository Institutions and Condition Statement of Federal Reserve Banks Industrial Production and Capacity Utilization Selected Interest Rates Consumer Installment Credit

Department of Housing and Urban Development

Yields on FHA Insured New Home 30-Year Mortgages

Department of the Treasury

Treasury Statement (The Monthly "Budget")
