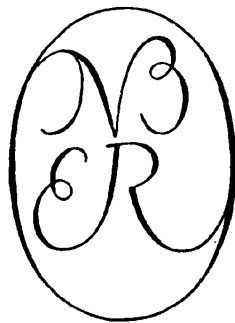


# Business Cycle Indicators

VOLUME II

Basic Data on Cyclical Indicators

GEOFFREY H. MOORE, EDITOR



A STUDY BY THE  
NATIONAL BUREAU OF ECONOMIC RESEARCH

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VOLUME II

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*(Resolution adopted October 25, 1926  
and revised February 6, 1933 and February 24, 1941)*

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## PREFACE

This volume is designed to serve several purposes. First, since it contains a substantial portion of the monthly and quarterly data on which Volume I is based, it should permit the findings of that volume to be checked or corrected as the case may be. Second, it may serve as a basis for the discovery of new facts about business cycle phenomena, for the explorations reported in Volume I are far from exhaustive. Third, by giving the sources and brief descriptions of the historical data, as well as the original and seasonally adjusted figures themselves, it should facilitate the use of the results of this study for current analysis. Knowledge of the sources is of course essential if the data are to be extended beyond 1958, the last year that it was feasible to include here. The descriptions are equally necessary if intelligent use is to be made of the data—the mere titles of series are not enough for a reasoned appraisal of what their movements signify.

The collection of “cyclical indicators” contained in this volume consists, first, of twenty-six selected current indicators (1960 list), numbered 1.0, 2.0, . . . , 26.0. Second, it includes a somewhat larger number of related indicators, numbered 1.1, 3.1, 3.2, etc. These are included either because they help to piece out the historical record or because they provide useful current information on the same sectors covered by the twenty-six (see Chapter 3 and Appendix B in Volume I). In each case, original and seasonally adjusted data and seasonal adjustment factors are provided for as long a period as the available data cover, through 1958. The series do not always exist in continuous form because of changes in definition or coverage. The separate segments are identified in the descriptive notes and in the tables.

The series included are confined to those which have moved in rather close harmony with the ebb and flow of general business activity in the United States, though not without characteristic differences in timing. No data are presented, for example, on marketings of farm products, or government expenditures, or wage rates, or retail prices, since such series, in general, have not regularly moved up and down with business cycles. Their exclusion, on the ground that they do not meet our criteria for an indicator, does not mean that they should be ignored or slighted in evaluating the current business situation, for at times they may have a critical bearing on it. For further explanation of the factors governing the choice of indicators, see Chapters 3, 6, and 7 in Volume I. Observations on their cyclical behavior and its interpretation may be found throughout that volume. A complete listing of the cyclical leads and lags of each indicator is provided in Appendix B in Volume I, and measures of their percentage change during recession and recovery periods are given in Appendix C.

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For a summary of convenient sources of current data on the twenty-six indicators (1960 list) and measures of their erratic movements, see Chapter 3, Tables 3.7 and 3.8.

A word of caution is necessary regarding the use of the indicators for historical comparisons. The presentation of data in a continuous series does not necessarily signify that their content has remained unchanged. For example, makers of index numbers must use what data are available; as the scope of available data changes, the content of their indexes often changes as well. Furthermore, though the composition may formally remain the same, methods of estimation may vary. Finally, the economic significance of well-defined activities may vary over time. As carriers of freight, the railroads gradually superseded wagons and waterways; but more recently trucks, pipelines, and aircraft have encroached upon railway traffic. With these changes, railroad freight first became more representative of the freight traffic of the nation; then less. In describing series, an attempt has been made to indicate formal changes in content and method of estimation. But the descriptions are incomplete; and the user of the statistics must be on his guard lest his comparisons be vitiated by shifts in the relationship of the data to the magnitudes that concern him.

Numerous experiments with methods of summarizing the movements of a collection of business indicators are described in Volume I. One of the simplest is to count the number that are rising at any time and take this as a percentage of the total number under observation. The resulting percentage is called a "diffusion index" since it shows how widely or narrowly diffused an expansionary movement is among the indicators. During business cycle expansions such indexes generally are above 50 per cent, and during contractions they are generally below 50 per cent. Almost invariably they reach a maximum and begin to decline *before* the end of a business cycle expansion, and also reach a minimum and begin to rise before the end of a business cycle contraction. Moreover, diffusion indexes based on leading indicators usually shift their position before those based on coincident indicators, and the latter move before those based on lagging indicators. Although the movement and meaning of each individual indicator should not be lost sight of, the diffusion index provides a convenient summary measure of the scope of cyclical movements in the economy, against which one can compare and analyze the changes in particular indicators.

The collection of "diffusion indexes" contained in this volume includes nearly all of the indexes analyzed in Volume I. Some of the diffusion indexes are based on components of certain indicators, and are given corresponding numbers. For example, diffusion index D 1.0 is based on the average workweek in each of the 21 manufacturing industries that

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comprise indicator 1.0, the average workweek for all manufacturing. Diffusion indexes whose content does not correspond to a single specific indicator, at least approximately, are numbered 50.0 and up.

The preparation of this volume has received the meticulous attention of a number of individuals. Johanna Stern directed the collecting of data and contributed her knowledge of statistical sources to the enterprise. Alexander Pitts prepared the descriptive notes. Sophie Sakowitz, Dorothy O'Brien, and Sandra-Lee Abu El-Haj performed the necessary statistical tasks in connection with seasonal adjustments, compilation of diffusion indexes, etc. Charlotte Boschan and Juanita Johnson took charge of the preparation of the IBM print-outs of the data.

We are grateful to the following organizations for permission to publish certain unpublished data specified in the notes: Babson's Reports, Inc., F. W. Dodge Corporation, Dun and Bradstreet, Inc., First National City Bank of New York, Metropolitan Life Insurance Company, National Association of Purchasing Agents, National Industrial Conference Board, and U.S. Departments of Commerce and Labor.

GEOFFREY H. MOORE

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