THE VOLUME

OF CORPORATE BOND FINANCING

SINCE 1900

NATIONAL BUREAU OF ECONOMIC RESEARCH
FINANCIAL RESEARCH PROGRAM
Studies in Corporate Bond Financing

1. The Volume of Corporate Bond Financing since 1900

The Volume of Corporate Bond Financing since 1900

BY W. BRADDOCK HICKMAN

A STUDY BY THE

NATIONAL BUREAU OF ECONOMIC RESEARCH, NEW YORK

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TO AUDREY DOBSON HICKMAN

PREFACE

This is the first report on the findings of the National Bureau's corporate bond research program.[1] It is based largely on extensive materials compiled by the Corporate Bond Project, a Work Projects Administration project, sponsored by the Federal Deposit Insurance Corporation and directed by the National Bureau of Economic Research with the active cooperation of several public agencies and private investment services. The data sheets and tabulating card records of the Corporate Bond Project originally covered the period from January 1900 to January 1939, and were subsequently extended by the National Bureau to January 1944.

The present project, which was initiated by the National Bureau in mid-1946, has a twofold purpose: first, to provide basic statistical series on corporate bond financing in a form that we hope will prove useful to investors, to government agencies, and to students generally; and second, to analyze and interpret the behavior of these series for what light they may throw on the workings of the economy. Largely as a matter of convenience in packaging the materials, the present report is confined to the presentation and analysis of broad aggregates; a subsequent monograph will deal with detailed breakdowns covering the characteristics and investment behavior of the securities included in the aggregates.

An attempt has been made to organize the report in a way that will meet the requirements both of the general reader interested primarily in analyses and conclusions and of the research statistician interested primarily in basic statistical estimates. The principal findings are summarized at the beginning of the text and, more briefly, in introductory sections to each of the chapters. The basic estimates on which the analyses in the text are founded are brought together in a statistical appendix. Estimating procedures are described in another appendix and in certain sections of the text, designated by the word "derivation" in their titles, so that

[1] The principal conclusions of the study so far have been published separately in my *Trends and Cycles in Corporate Bond Financing* (National Bureau of Economic Research, Financial Research Program, Occasional Paper 37, 1952), substantially as they appear in the introduction that follows.

the general reader who wishes to skip them may easily pick up the text again at the next section heading.

It is a pleasure to thank all those who have had a part in the undertaking—the members of the original project for their skill and diligence in collecting the basic source materials, the organizations actively supporting the present project, and all who have assisted in the actual preparation of this book.

The work of the original project was conducted under the supervision of the National Bureau's Committee on the Corporate Bond Project, which was composed of the following members: Winfield W. Riefler, chairman, William J. Carson, vice chairman, Raymond W. Goldsmith, William R. Leonard, Harold V. Roelse, Raymond J. Saulnier, Woodlief Thomas, Donald S. Thompson, Donald B. Woodward, and Ralph A. Young. Technical consultants to the committee included Henry Bodwell, Leslie L. Drew, Erling C. Olsen, and E. L. Vogelius. The project was staffed by the following members, whose services were contributed by the various cooperating agencies: Melvin W. Brethouwer, administrative director, Harold G. Fraine, technical director, Lewis N. Dembitz, Frederick C. Dirks, David Durand, Rose Director Friedman, William Hayes, W. Braddock Hickman, George P. Hitchings, Harold P. Pfleeger, S. Grant Saunders, and Elizabeth T. Simpson.[2]

Grants for the support of the present project were obtained from the following sources: the Life Insurance Association of America; the American Life Convention; the Association of Reserve City Bankers; J. Reed Morss, President, Boston Five Cents Savings Bank; the Savings Banks Trust Company of New York; and the Trust Investment Study Committee of the New York State Bankers Association. It was supported, as well, by general funds of the National Bureau of Economic Research. The International Business Machines Corporation originally placed at our disposal its elaborate machine installation at the Watson Scientific Computing Laboratory, Columbia University, and later provided and maintained a complete tabulating unit at our Hillside offices. The New York State Banking Department, the American Bankers

[2] The work of the Corporate Bond Project and its organization and methods are described fully in the series of monographs listed in Appendix B.

Association, and the Life Insurance Investment Research Committee also cooperated generously in the work of the project.

I have benefited greatly, particularly during the planning stages of the work, from the expert advice of the National Bureau's Technical Committee on Corporate Bond Research. Those who have served on the committee as members and alternates are: Winfield W. Riefler, chairman, Arthur F. Burns, Irvin Bussing, William J. Carson, A. J. Casazza, Eleanor Bagley Daniel, J. R. Dunkerley, William E. Dunkman, Harold G. Fraine, Gabriel S. Hauge, Frederick W. McComas, Jr., Fergus J. McDiarmid, Adrian M. Massie, J. Reed Morss, John J. Moynahan, Roger F. Murray, James J. O'Leary, Raymond J. Saulnier, A. Edward Scherr, Jr., Elizabeth T. Simpson, Bascom H. Torrance, Donald B. Woodward, and James W. Wooster, Jr.

Preliminary drafts of the report were read by Arthur F. Burns, Geoffrey H. Moore, and Raymond J. Saulnier; and there is hardly a page that has not been improved by their constructive and cogent suggestions. Others whose comments on the manuscript have been most helpful include William J. Carson, Mona Dingle, Harold G. Fraine, Raymond W. Goldsmith, Frederick W. McComas, Jr., Shepard Morgan, Roger F. Murray, George B. Roberts, E. R. Rolph, R. M. Snyder, Melville J. Ulmer, Leo Wolman, and Ralph A. Young. The computations underlying the statistical analyses of Chapter 4 were carried out under the supervision of Millard Hastay, ably assisted by Harry Eisenpress and other members of the National Bureau's division of business cycle studies. In addition, Mr. Hastay placed at my disposal his expert knowledge of the National Bureau methods of business cycle analysis. I wish also to thank Professor T. W. Anderson, Department of Mathematical Statistics, Columbia University, for discussions carried on during the preparation of the statistical note to Chapter 2.

My greatest personal debt is to Elizabeth T. Simpson. It is not too much to say that without her encouragement the investigation would not have been undertaken, and that without her skillful assistance and knowledge of the intricacies of the data it would not have been brought to a successful conclusion. Miss Simpson was solely responsible for the extension of the basic tabulating records through 1944, for the reconciliation of the interrelated records extending back to 1900, and for all of the statistical compilations underlying the analyses now presented. Her detailed comments on the manuscript also added materially to its accuracy and readability.

The actual statistical computations were carried out by an able group of workers, among whom Georgette M. Welscher deserves special mention. The I.B.M. tabulations and computations were supervised at different stages by Mario P. Bosso, Charles F. Earley, and Martha S. Jones. In addition, I wish to thank Morris L. Goldstein, Statistical Division, Metropolitan Life Insurance Company of New York, for conducting certain preliminary machine runs and for advice on several knotty computational problems. The charts were prepared by Ruth W. Harris. The manuscript was edited by Mary Phelps.

W. Braddock Hickman

January 1953

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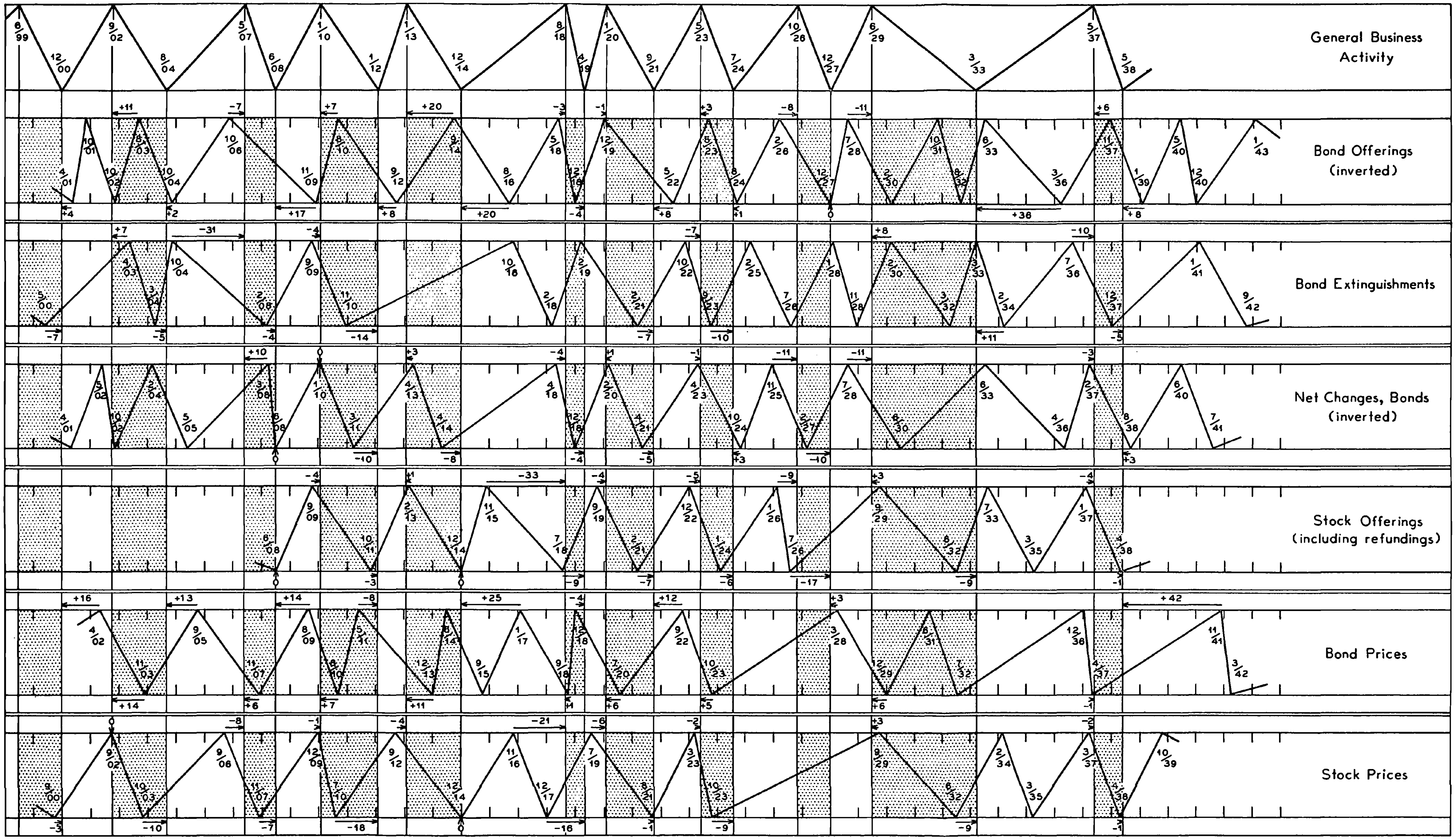
CHART 15—Comparison of Specific- and Reference-cycle Turning Points: Selected Monthly Stock and Bond Price and Volume Series, 1900-1938



Based on monthly data. Reference-cycle chronology is from Arthur F. Burns and Wesley C. Mitchell's Measuring Business Cycles (National Bureau of Economic Research, 1946), p. 78. Bond offerings, extinguishments, and net changes are from Tables A-14, A-15, and A-16, for straight bonds; stock offerings, including those for refunding purposes, United States, Canadian, and foreign, from Journal of Commerce; stock prices, for all common stocks, from Alfred Cowles 3rd and Associates' Common-Stock Indexes (Bloomington, Indiana, 1939); bond prices from inverted index of yields of high-grade corporate and municipal bonds, Standard and Poor's Corporation.

Bond prices are plotted on a positive basis, but timing comparisons for them are made on an inverted basis.

TABLES

CHARTS

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