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YIELDS ON
CORPORATE DEBT
DIRECTLY PLACED

By AVERY B. COHAN
UNIVERSITY OF NORTH CAROLINA

NATIONAL BUREAU OF ECONOMIC RESEARCH
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DIRECTLY PLACED*

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PREFACE

This study is, in a sense, a lineal descendant of David Durand's study of basic yields on corporate bonds. Durand's purpose was to construct homogeneous series on basic yields—series, that is, which would be free of "extraneous" influences and which, therefore, would represent to the greatest possible extent the pure movement through time of yields on the "best" bonds. My purpose in this study has been to construct series which would represent the pure movement through time of yields on various homogeneous classes of direct placements.

By and large, such techniques as I have used have been directed to identifying those characteristics of a new direct placement which are relevant to variations in yield, *time held constant*, and which, therefore, should be held constant *through time* if the resulting series are to be reasonably homogeneous.

The problem of identifying such "relevant" characteristics, especially when dynamic influences are present, is not as simple as it may seem. And the chances are that, if I were to do this study again, I would not do it in quite the same way. I do hope, however, that other workers on this and similar problems will find some stimulation in the approach.

In bringing this study to completion I have incurred a multitude of obligations, only a few of which can be acknowledged here.

The greatest of these are to the late Joseph W. Conard, who persuaded the National Bureau to undertake the study, to James J. O'Leary, who persuaded the Life Insurance Association of America to provide the necessary financial support and who, himself, provided help and counsel at every step of the way, and to those life insurance companies which agreed to supply the data on which the study is based. Without the support of Professor

Conard, Dr. O'Leary and the LIAA, or the industry itself, the study could not have been undertaken.

I am indebted, next, to the National Bureau's staff reading committee—Jack M. Guttentag, F. Thomas Juster, and Geoffrey H. Moore—all of whom devoted much time and energy to the various preliminary versions of the manuscript. The final version is almost as much their product as mine, and I cannot honestly, therefore, take full credit for whatever virtues it may possess.

The members of the National Bureau's Advisory Committee on the Interest Rates Study are listed on a previous page. Every member of the committee has contributed something to the study, but of those who have not been acknowledged above, W. Braddock Hickman, Milton Friedman, Sidney Homer, and George T. Conklin were especially helpful.

I am grateful also to the reading committee of the National Bureau's Board of Directors: Walter E. Hoadley, Willis J. Winn, and Donald B. Woodward. J. Wilson Newman of the Board also provided a helpful comment.

Help in collecting and processing data was provided by an able succession of research assistants: William Hardin, Jr. (now Associate Professor of Finance at Virginia Polytechnic Institute), Luther H. Hodges, Jr. (now a senior vice-president of the North Carolina National Bank), Lois Terrill, Judith Hamburger, John Beverly, Arch T. Allen, Ronnie Anderson, Richard McEnally, Stephen Hu, and William C. Hale.

As indicated above, the major portion of the financial support for the study was provided by the LIAA. Several other organizations, however, contributed in various ways: the Graduate School of Business Administration of the University of North Carolina, the Research Computation Center of the University of North Carolina, and the Management Development Institute (IMEDE), Lausanne, Switzerland.

Joan Tron has edited the manuscript with great patience, skill, and understanding; H. Irving Forman drew the charts.

FOREWORD

In this study, Professor Cohan sets himself the task of constructing time series on the yields of directly placed corporate bonds that will be relatively homogeneous over time with respect to the many borrower and transaction characteristics that affect yields on different obligations. Although, as Cohan states in his preface, this is a direct descendant of Durand's work on basic yields, the statistical technique employed is a product of our computer age and would hardly have been feasible when Durand began his study. In contrast to the technique of computing basic yields, which results in a single homogeneous series covering the "best" securities and which in effect discards information on other securities, Cohan's multiple regression technique results in a number of relatively homogeneous series, towards which every observation makes its direct contribution. Each of these series is defined in terms of an unchanged bundle of yield-determining characteristics, and these bundles can be scaled in a variety of ways to meet different purposes. Cohan contents himself with three series based on sets of characteristics derived from "cross-classified" series, but this does not begin to exhaust the potential inherent in the technique.

This book, then, is really two things. It is first a technical manual on how to construct homogeneous yield series. In this respect it is frankly experimental. Cohan concedes, as must inevitably be the case in a study of this sort, that if he were to do it again he would probably do some things differently. Students dealing with other kinds of yield data will surely profit by studying Cohan's technique, but they may find that their own data call for somewhat different treatment. Cohan's procedure is most appropriate when the underlying yield data have a substantial degree of cross-section variability, and when the mix of yield-determining characteristics is un-

stable; the technique is feasible only when there is sufficient collateral data to explain a good part of the cross-section variability. Cohan's results, nevertheless, will be useful to other students faced with the question of whether a similar kind of adjustment would materially affect their own series.

But Cohan's work is more than just a technical manual; it also fills a statistical gap of major proportions. When the National Bureau began its study of interest rates, it was decided that a portion of the work should be devoted to removing statistical data deficiencies for two major instruments: directly placed corporate bonds and mortgages on both residential and nonresidential properties. With these gaps eliminated, various possibilities open for fruitful analytical work. In one direction such work can lead to better evaluation of the efficiency of these markets, from the standpoint of resource allocation and the transmission of monetary policy effects. In another direction, possibilities arise for studying the influence of rates and other loan terms on economic activity with respect to sectors defined fairly narrowly, with the financial data corresponding more closely than has heretofore been possible to the cost and availability conditions faced by the specific sector. Cohan's work, therefore, can be expected to yield analytical dividends well beyond those encompassed in the present volume. These analytical uses of the data, as well as their practical value to the financial community, would be enhanced if Cohan's series were brought up-to-date and maintained currently. It is to be hoped that some interested organization, perhaps the SEC itself, will undertake this task.

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EDITOR'S NOTE: The actual averages have now been brought through 1963 with the generous assistance of Robert H. Menke of the SEC and his staff—but unhappily too late for inclusion in this volume.