Volume Title: Some Theoretical Problems Suggested by the Movements of Interest Rates, Bond Yields and Stock Prices in the United States since 1856

Volume Author/Editor: Frederick R. Macaulay

Volume Publisher: UMI

Volume ISBN: 0-87014-032-9

Volume URL: http://www.nber.org/books/maca38-1

Publication Date: 1938

Chapter Title: Preface

Chapter Author: Wesley C. Mitchell

Chapter URL: http://www.nber.org/chapters/c6340

Chapter pages in book: (p. -5 - -3)

PREFACE

THIS book is a striking example of the way in which scientific problems evolve when they are attacked by a thoughtful and thorough investigator.

As Dr. Macaulay explains, he planned at the outset to study the course of interest rates and bond yields in the United States over a long period with a view to ascertaining what statistical relations these rates and yields bear to one another, to the prices of stocks and commodities, to the physical and monetary volume of trade, and to credit and banking activities. One outcome of this plan is the collection of index numbers and time series presented in the Appendix. Men of affairs and students will find in these tables a skillfully and carefully compiled record of past experience that can be put to many practical and scientific uses. No other investigator of interest rates, bond yields and security prices has made so thorough an examination of the surviving data about past transactions in American financial markets, or prepared such trustworthy measures of the various types of fluctuation that these rates, yields and prices have undergone.

This part of Dr. Macaulay's work goes far beyond the task of making a faithful compilation of scattered data. Not only did he make critical use of his sources, such as we expect of a classical scholar who is trying to establish a sound text, but he also observed characteristics of his materials that had received little or no attention. The effort to see clearly what was dimly visible in the original data led him both to extend his collections and to invent ingenious methods of measuring the characteristics that he had found.

While he was studying the behavior of his series relating to bond yields, interest rates, stock prices, commodity prices, bank clearings, and pig iron production, Dr. Macaulay tested numerous hypotheses concerning the interrelations among their movements. Though he found that most of the relations that have been announced by others failed conspicuously over the long periods covered by his data, he also found that some rules of thumb hold good most of the time. But the more he wrestled with these problems, the more critical he became of purely empirical relations, and the more desirous of finding out why his different series behave as they do.

This striving for rational understanding of his statistical results carried Dr. Macaulay back to antecedent questions concerning the basic characteristics of the several classes of objects he was observing. He had to ask himself a series of fundamental questions about things that we usually take for granted. What are bond 'yields', interest rates, shares in corporations? For what purposes do men want bonds, loans, shares, commodities, gold, money? Why do they make investments for different terms at different rates? What is the 'duration' of a loan?

These questions and their congeners involved a consideration of the economic planning in which men are more or less consciously engaged. One factor appeared to be involved in all plans. Virtually every present transaction into which men enter involves the future—a future that may belong to the 'specious present' or that may be far removed. In few transactions is this element more prominent than in buying bonds or lending money. To understand the behavior of bond yields and interest rates it is necessary to take account of futurity—a factor that constitutes one of the leading differences between the natural and the social sciences, because it does not complicate the explanation of physico-chemical phenomena but does dominate the planning of men and so must be considered in explaining human behavior. In his *Institutional Economics* Professor John R. Commons has recently directed the attention of economists to the role played by the future in men's transactions with one another; but Dr. Macaulay brings more definite data to the treatment of the theme and carries the analysis further.

Of course the future is always uncertain. Men try to foresee, sometimes spending much systematic effort, often contenting themselves with vague anticipations, accepting what has been as an adumbration of what will be. There has been not a little speculation among economists about such matters as the extent to which forecasts of future price fluctuations influence the present demand for loans. Out of such speculations have been spun theories concerning the relations among the movements of prices, interest rates, investments, volume of credit, and production. By taking the clear test case of bond yields and short term interest rates, both considered with reference to the same period, Dr. Macaulay is able first to demonstrate what the mathematical relationship between the two sets of movements would be if men forecast the future correctly, and second to demonstrate that the actual relationships are commonly of an opposite sort. Though the theoretical relations that would exist between other paired series if the future were accurately known are less simple in their logic, he is able to show how dubious are numerous explanations of the actual relations that credit men with greater ability to foresee the future than they possess.

This discussion of the role played by the future in economic behavior grows out of Dr. Macaulay's efforts to solve the problems attacked in the latter part of his book. Coming later in time so far as the progress of his thinking is concerned, it comes earlier in logical order and is properly placed in Chapter I. Readers interested only in the historical facts concerning interest rates or security prices may not at first grasp the relevance of this philosophical analysis, penetrating as they may admit it to be. But if they follow the argument as it unfolds, their thinking will evolve as Dr. Macaulay's did, and they will see that the book is 'all of one piece'. The beginning really prepares for and illuminates the end.

But the end of the book is not the end of the investigation. For, much as Dr. Macaulay has contributed to our understanding of the behavior of bond yields, interest rates, stock prices, commodity prices, clearings and production, and of the interrelations among these variables, his largest service lies in formulating fundamental problems of economics in a way that opens them to attack, in providing better and more abundant data concerning them, in forging tools for analytic use, and showing how to carry the work further. Many a reader will lay down this book longing to enter himself on the enticing tasks that Dr. Macaulay suggests.

WESLEY C. MITCHELL
DIRECTOR OF RESEARCH