Preface

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This book presents the cost of capital approach to tax policy analysis. Jorgenson (1963) introduced the cost of capital almost forty years ago. Chapter 1 shows how this concept became an essential tool for modeling the impact of tax policy on investment behavior. Chapter 2 presents the conceptual framework and applies it to capital income taxation. The widespread success of the cost of capital approach is due to its ability to assimi late virtually unlimited descriptive detail on alternative tax policies, as we demonstrate in our description of the U.S. tax system in Chapter 3.

Auerbach and Jorgenson (1980) introduced the closely related concept of the marginal effective tax rate, the focus of Chapter 4. This emerged from debates over tax reform in the United States, beginning with the Economic Recovery Tax Act of 1981 (ERTA) and culminating in the Tax Reform Act of 1986. The marginal effective tax rate brings out the distorting effects of specific tax provisions in a highly succinct and comprehensible way. Horizontal equit)~ the equal treatment of taxpayers in similar circumstances under the law, is achieved by equalizing marginal effective tax rates for all types of capital.

Christensen and Jorgenson (1973a) incorporated a complete description of the U.S. tax system into a system of national accounts for the United States. The most important innovation in this system is that production, income and expenditure, and wealth accounts are presented in both current and constant prices. The cost of capital emerges within the system as the price of capital input and a source of income for the owners of capital. This accounting system is used to generate the data required for econometric modeling of the impact of tax policy in Chapters 5 and 6.

Jorgenson and Yun (1990) employed an earlier version of our .econometric model in analyzing the impact of the Tax Reform Act of 1986. In Chapter 7 we present the methodology for evaluating the welfare impacts of tax reform. We then show that eliminating distortions resulting from different capital income tax treatment for different sectors and different types of assets would produce large gains in welfare. Eliminating the progressive tax on labor income as well would enhance these welfare gains considerably.

The major thrust of recent tax reform proposals is to shift the base for taxation from income to consumption. Substitution of consumption for income would have the effect of eliminating capital income taxes altogether, thereby equalizing the tax treatment of different sectors and assets. In Chapter 8 we show that the welfare impact of this fundamental tax reform would be comparable in magnitude to eliminating the distortions of capital income taxation considered in Chapter 7. Eliminating the progressive tax on labor income would result in substantial additional gains in welfare.

Jorgenson and Yun (1991b) introduced measures of the efficiency cost of different types of taxes. In Chapter 9 we extend these measures to include the sources of tax revenues, the allocation of these revenues among different categories of spending, and the type of benefits resulting from the spending programs. We use this framework to analyze the welfare impact of cuts in defense spending made possible by the end of the Cold War. This dwarfs the effects of the tax reforms considered in Chapters 7 and 8.

It is a pleasure to acknowledge the contributions of many colleagues and former students at Berkeley, Chicago, and Harvard to the cost of capital approach. The modeling of tax provisions for capital cost recovery presented in this book was a product of collaboration with Robert Hall, then an undergraduate student at Berkeley. The system of national accounts used in generating the cost of capital was developed in collaboration with Laurits Christensen, then a graduate student at Berkeley. Erwin Diewert, Sidney Handel, Charles Hulten, Sung-Woo Kim, Robert Oster, Calvin Siebert, James Stephenson, Tait Ratcliffe, and Frank Wykoff are among the many former Berkeley students who have made important contributions to tax policy and the cost of capital.

The cost of capital was originated in a paper written while Jorgenson was Ford Foundation Research Professor of Economics at the University of Chicago. Stimulating conversations with the late Zvi Griliches, Arnold Harberger, and Robert Lucas, then a graduate student at Chicago, were especially valuable at this stage. Griliches kindly arranged for the paper to be presented at a meeting of the American Economic Association. The paper was published in the *American Economic Review* for May 1963.

As a consequence of the research and teaching in public finance at Harvard by Martin Feldstein and Lawrence Summers, Harvard has been a center of active research on the cost of capital for the past three

decades. The concept of the marginal effective tax rate was developed in collaboration with Alan Auerbach, then Assistant Professor of Economics at Harvard. Our collaboration began when Kun-Young Yun was a graduate student at Harvard. Christophe Chamley, Robert Fry, Roger Gordon, Furnio Hayashi, Taewon Kwack, John Laitner, Peter Merrill, Kevin Stiroh, Eric Stubbs, Martin Sullivan, and Brian Wright are among the many former Harvard students who have made important contributions to tax policy and the cost of capital.

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