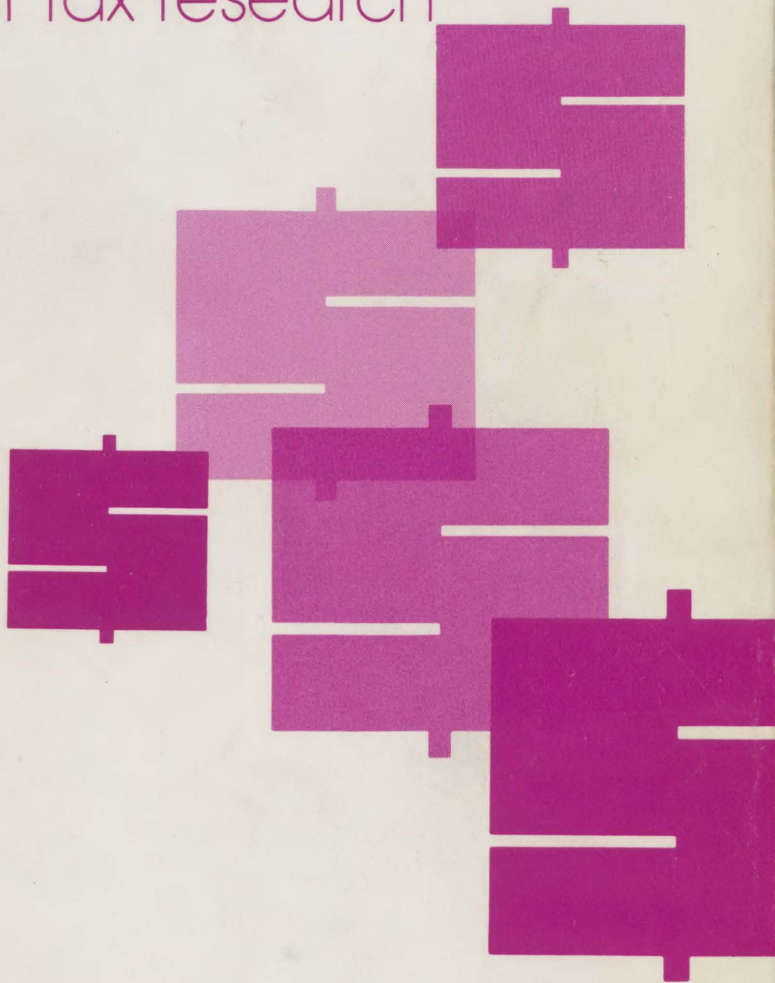
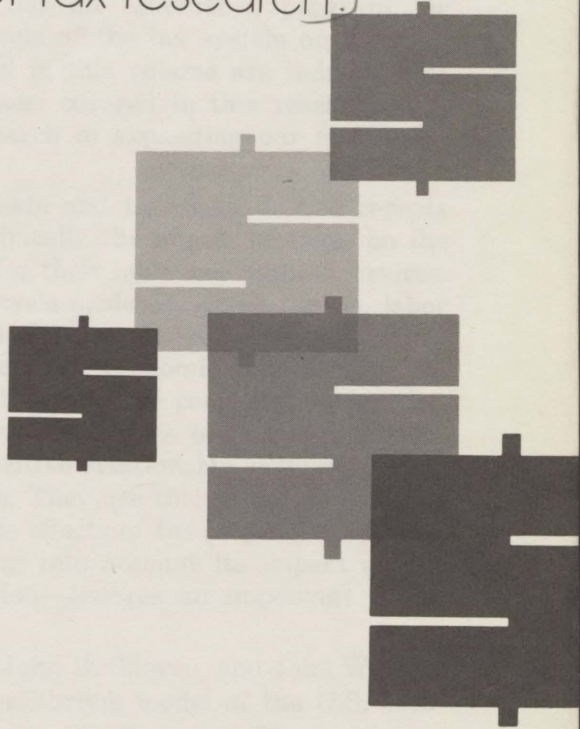


1978
compendium
of tax research



Treas.
HJ
2381
.A2
c.2

1978
compendium
of tax research



LIBRARY

OCT 26 1978

**ROOM 5004
TREASURY DEPARTMENT**



For sale by the Superintendent of Documents, U. S. Government Printing Office
Washington, D. C. 20402
Stock Number 048-000-00316-8

Foreword

The Treasury Department has an established program for sponsoring research on the effects of the tax system on the U.S. economy. The studies presented in this volume are indicative of both the wide range of questions covered in this research program and of the value of research in expanding our knowledge about tax policy issues.

The paper by Michael J. Boskin and Lawrence J. Lau reports on an attempt to measure empirically the impact of taxes on the willingness of individuals to offer their labor and capital services. Boskin and Lau employ a life cycle model in which saving, labor force participation, and retirement consumption are determined simultaneously. They find evidence of economic relationships between the quantities of current and future consumption and leisure that individuals desire and the prices of these quantities. They also find a substantial positive relationship between saving and the after-tax rate of return. They use their analysis to argue that any attempt to quantify the effects of the social security system on savings—without taking into account its impact on the labor force participation decision—ignores an important simultaneity.

The paper by Don Fullerton, John B. Shoven, and John Whalley describes work on a general equilibrium model of the U.S. economy currently being developed for the Treasury. The main purposes of the model are to permit an analysis of differential patterns of taxation on the allocation of capital and labor resources across industries, and to determine how production patterns will change in response to changes in taxes. The authors also quantify the efficiency gains that could be derived by equalizing the taxes on capital in all industries. Further, the model links information on factor incomes and expenditure patterns of typical households, thereby allowing differential factor taxes to affect both the distribution of income and its uses.

The paper by George S. Tolley and C. Eugene Steuerle analyzes the topical issue of energy taxes and deals with three potentially important issues associated with the use of such excise taxes. First, how would an increase in excise taxes affect income tax revenues? Second, how would an increase in excise taxes affect the national income? Third, should excise taxes be deductible from personal income under the individual income tax?

Charles R. Hulten and Frank C. Wykoff discuss analytical methods of measuring depreciation. If the depreciation deductions allowed for tax purposes differ from the changes in the economic value of the depreciable assets, income is mismeasured and there are attendant effects on the use of economic resources. In recent years there have been several empirical studies of economic depreciation. Wykoff and Hulten have applied sophisticated econometric techniques to data on asset prices to develop measures of the economic depreciation of structures. Generally, they find that the rate of economic depreciation is roughly half that allowed for tax purposes. In contrast to earlier researchers, Wykoff and Hulten find evidence that over their useful lives the economic depreciation of structures occurs more rapidly than on a pro-rata linear basis.

The data requirements for many microanalytic models are often not contained on a single file; but, composite data files can be formed by merging two original files. The paper by Richard S. Barr and J. Scott Turner explains a method the authors have developed to merge large microdata files relating to individuals and households. The potency of their methods is demonstrated in their successful merging of a Treasury tax file with a Census file containing general characteristics of the population. The basic question their method addresses is what information records on one file should be associated with the information records on the second file, if the merged file is to mirror as closely as possible the underlying population which the two files have sampled. The generation of accurate merged files is of considerable interest to policymakers concerned with such issues as the aggregate revenue and distributional effects of taxing items of income not now subject to tax or of granting special exemptions to particular classes by expenditures. Turner and Barr first show how their method of "optimally" linking data files leads to large scale linear programs and then describe a set of computer programs known as the Extended Transportation System for solving such problems.

The paper by Joseph B. Kadane investigates a number of theoretical statistical problems associated with the notion of merging (including the propriety of merging itself) and derives several

models for optimal merging under a maximum likelihood criterion. These fundamental concerns apply to much of the data currently used by models for evaluating public policies and have implications for the correct use and interpretation of the statistics that these models generate.

The paper by O. H. Brownlee examines the question of the "optimal" taxation of foreign-source income; this is, how should taxes on foreign-source capital income of U.S. residents be taxed if the goal were to maximize U.S. income or some other measure of the well-being of U.S. citizens. Brownlee reviews a number of recent studies of international taxation which can shed light on the issue. The general conclusion of his review is that different assumptions about production, labor supply, and savings functions can produce quite different answers about the optimal tax rate on foreign-source capital income. Brownlee argues that in addition to relying on questionable assumptions about elasticities, the studies neglect the reaction of foreign governments to U.S. capital export taxes as well as the role of capital exported abroad by the U.S. Government. Taking account of the capital supplied by the U.S. Government via loans and other programs, Brownlee theorizes that under certain conditions the optimal rate of foreign-source taxation appears to be roughly 115 percent to 120 percent of the domestic rate. He notes that the actual tax rates on foreign-source capital income have been estimated as ranging from 120 percent to 130 percent of comparable rates on domestic capital income.

Prior to 1976, corporations had an option of electing either an overall or a per-country limitation on foreign tax credits. Under the option which allowed a single overall limit on creditable foreign taxes paid, excess taxes from relatively high-tax countries could offset U.S. tax liability on income earned in relatively low-tax countries. In spite of this, however, the per-country method might be preferred by companies with large branch losses in certain countries but with taxable income in others because of differences in the way in which losses were taxed and credits could be earned under each of the two systems. The Tax Reform Act of 1976 placed an overall limitation on foreign tax credits.

The paper by Thomas Horst describes a simulation model designed to trace the major economic effects of switching from an overall to a per-country limitation on the foreign tax credit. Horst's work indicates that if the per-country limitation raises the tax burden on income from low-tax countries, multinational corporations would limit investment in those countries and expand

those in the United States. However, according to Horst, the higher U.S. taxes paid would tend to diminish global investment. The substitution and the income effects would combine to reduce investments in low-tax countries, with the aggregate investment response in the high-tax countries depending on whether the income effect outweighs the substitution effect.

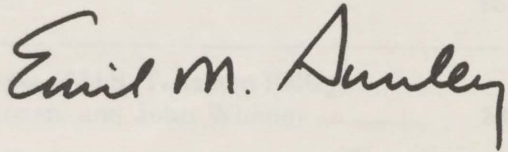
J. Gregory Ballentine and Charles E. McLure describe work on a two-sector general equilibrium model of taxes in which firms can explicitly alter their financial policies—particularly their reliance on debt finance and the extent of their dividend distributions—as personal and corporate tax policies change. They apply their model to analyze the incidence of the corporate tax. According to Ballentine and McLure, when changes in financial policy are taken into account, owners of corporate stock bear less of the long-run burden of the corporate tax than do owners of noncorporate stock. They proceed to argue that this suggests that the corporate tax is far less progressive than has typically been believed. Ballentine and McLure also use their model to analyze the distributional effects of several policies that would reduce the double taxation of corporate dividends.

The paper by T. Nicolaus Tideman analyzes the impact on tax neutrality of several tax policies that would move toward the integration of corporate and personal taxes. Tideman asserts that neutrality requires that any marginal shift of corporate financing between debt and equity should involve no change in Government revenues. He argues that the taxation of capital can give rise to many types of distortions—between corporate and noncorporate activity, dividends and retained earnings, debt and equity financing, individual and institutional financing, and among types of assets. His analysis uses a cost-of-capital approach to demonstrate the difficulties that may be encountered in attempting to achieve neutrality by several forms of integration.

The paper by Warren Weber attempts to develop quantitative measures of how savings in the economy would respond to a tax policy change that would integrate the corporate and personal taxes. Weber argues that integration would affect savings in three ways. First, by changing the interest rate and the taxes on particular types of assets, integration would have a wealth effect which would alter individual incentives to save. Second, by lowering the tax on dividends relative to retained earnings, integration would diminish the incentives of corporations to retain earnings. Third, by reducing taxes, integration would cause revenue loss to the Government—a loss that would have to be made up by higher

taxes on labor. The higher taxes on labor income would tend to reduce saving. According to Weber, integration would increase total saving by approximately \$9 billion annually. Weber argues that the policy question of how tax-exempt institutions and pension funds would be taxed under integration has an important bearing on the aggregate savings response to integration.

I would like to thank all the authors who have contributed to this volume. Special thanks should also be given to Mike Kaufman, Sue Parker, and Gary Robbins of the Office of Tax Analysis, for planning and organizing the publication of this volume. The Blue Pencil Group of Reston, Virginia, provided valuable editorial advice. Finally, I wish to thank Amie Powell and Frances Hawkins for their extraordinary typing efforts.



EMIL SUNLEY

*Deputy Assistant Secretary
Office of Tax Analysis*

Contents

Taxation and Aggregate Factor Supply: Preliminary Estimates/Michael J. Boskin and Lawrence J. Lau	3
Comment: Finis Welch	16

General Equilibrium Analysis of U.S. Taxation Policy/ Don Fullerton, John B. Shoven, and John Whalley	23
Comment: Arnold C. Harberger	59

The Effect of Excises on the Taxation and Measurement of Income/George S. Tolley and C. Eugene Steuerle	67
Comment: Gerard M. Brannon	84

On the Feasibility of Equating Tax to Economic Depreciation/Charles R. Hulten and Frank C. Wykoff	91
Comment: Robert M. Coen	121

A New, Linear Programming Approach to Microdata File Merging/Richard S. Barr and J. Scott Turner	131
Comment: Alan J. Goldman	150
Reply: Richard S. Barr and J. Scott Turner	152

Some Statistical Problems in Merging Data Files/Joseph B. Kadane	159
Comment: Christopher A. Sims	172
Reply: Joseph B. Kadane	178

Optimal Taxation of Foreign-Source Investment

Income/O. H. Brownlee	183
Comment: Gary C. Hufbauer	207

The Overall Vs. the Per-Country Limitation on the U.S.

Foreign Tax Credit/Thomas Horst	213
Comment: George F. Kopits	237

Corporate Tax Integration: Incidence and Effects on**Financial Structure/J. Gregory Ballentine and**

Charles E. McLure, Jr.	243
Comment: Martin J. Bailey	281
Reply: J. Gregory Ballentine and Charles E. McLure, Jr.	282

Integration and Investment Incentives/

T. Nicolaus Tideman	285
Comment: Marshall E. Blume	300

Saving and Tax Integration/Warren E. Weber 305

Comment: Robert E. Hall	316
-------------------------	-----