

## FOREWORD

On October 24 and 25, 1980, the Center for the Study of American Business at Washington University and the Federal Reserve Bank of St. Louis cosponsored their fifth annual conference, "The Supply-Side Effects of Economic Policy." This volume contains the papers and comments delivered at that conference.

Proponents of "supply-side economics" have challenged the policy recommendations that emerge from "Keynesian" macroeconomic models. These models focus on the effects of economic policy on the demand for output. Supply-side economics, in contrast, emphasizes the response of output to changes in the supply of inputs. Decisions affecting the capital stock and employment—in particular, saving and investment decisions and labor force participation and hours decisions—are the focus of the supply-siders' attention.

The 1980 conference examined most of the major themes associated with supply-side economics. The papers in Part I of this volume develop the theory underlying various supply-side propositions and present empirical evidence in support of some of these propositions. In Part II, the effect of taxes on capital formation and the effect of increased capital formation on output growth and inflation are examined. The effect of tax and transfer programs on labor supply, employment and unemployment are examined in Part III. The final section contains the special luncheon and dinner presentations.

Leading proponents of supply-side economics develop the underlying theory and evidence in support of their propositions in Part I. In "Tax Rates, Factor Employment, and Market Production," Victor Canto, Douglas Joines, and Arthur Laffer (CJL) develop a simple, static, one-good, two-factor general equilibrium model in which taxes on factor incomes drive a wedge between gross factor payments and net factor incomes. The authors then derive the response of factor supplies, output, and tax revenue to changes in tax rates. They demonstrate that the framework is consistent with the existence of the so-called "Laffer Curve," according to which increases in tax rates initially increase government revenue up to some revenue maximizing tax rate but decrease tax revenue beyond this point.

CJL note that the theoretical analysis only suggests the possibility that tax rate reductions may raise tax revenue. Empirical evidence is required to demonstrate whether or not tax rates are in the

prohibitive range of the Laffer curve. In the second half of their paper, CJL therefore employ a time series analysis of tax revenues to estimate the effects of the Kennedy tax cuts in 1962 and 1964 on tax revenues. They conclude that the cumulative revenue change induced by the tax cuts is approximately zero, with an equal chance that the tax cuts increased revenue as that they reduced it.

In “An Econometric Model Incorporating the Supply-Side Effects of Economic Policy,” Michael Evans discusses the implications of the supply-side macroeconomic model he recently developed. According to Evans, stimulating investment is a key to supply-side policy because it will both increase real growth *and* moderate inflation. Evans finds that investment would be significantly stimulated by reductions in tax rates, regardless of whether the tax cuts apply to corporate income, personal income, or capital gains. He believes that a change in the corporate tax rate has the most powerful effect on investment, and an increase in the investment tax credit has the least impact. Evans also examines in considerable detail the influence of personal tax cuts, cuts in capital gains taxation, and a variety of other plans to stimulate saving. These tax reductions raise the after-tax real rate of return and increase saving; the increased saving in turn increases demand for assets, lowering interest rates and stimulating investment.

In the labor market equations, Evans finds important effects of tax rates on both labor supply (participation rates and hours worked) and on wage gains. The effect of taxes on wage gains is particularly important because it permits tax declines to moderate inflation.

In “Thoughts on the Laffer Curve,” Alan Blinder notes that the proposition that the function relating tax rates to tax revenues rises to a peak and then falls is both an old idea and a noncontroversial one. The important issue raised by the CJL paper, according to Blinder, is whether or not current U.S. tax rates are in the prohibitive range of the Laffer curve, implying that a decrease in tax rates would increase tax revenues. Blinder presents a simple model and employs alternative values of the critical labor supply and demand elasticities to provide some hints as to whether or not it is plausible that we could be in this prohibitive range. He concludes that “the revenue maximizing tax rate is very likely to be so high as to be considered ridiculous for any broad based tax.” Steven Braun, who discusses the Evans paper, raises a number of serious questions about the specifications of the key equations in the Evans model: the Phillips curve and the labor force

participation, hours, investment, and consumption (saving) equations. Braun concludes that each of Evans' key policy conclusions is derived from an equation which is marred by serious misspecification.

Albert Ando also discusses the Evans paper and reinforces Braun's concern about misspecifications in the Evans model. He focuses on Evans' productivity equation and on the two equations in which the output of the productivity equation plays a role: the manhours equation and the equation explaining maximum production. Ando concludes that the Evans model is dominated by a pattern of major defects, making it of questionable value as a tool for examining the effects of policy changes.

Parts II and III provide evidence on the effects of economic policy on investment and labor supply, respectively. In "Tax Policy and Corporate Investment," Lawrence Summers evaluates various arguments in support of policy measures to stimulate investment and then presents empirical evidence on the response of investment to an assortment of tax changes. Summers concludes that policies to encourage investment will result in only a small increase in the rate of economic growth over the next decade, that tax policies to stimulate investment are unlikely to moderate inflation, and that fears of insufficient capital accumulation as a source of unemployment are groundless. However, despite his pessimism about increased economic growth or reduced inflation via tax policies designed to stimulate investment, Summers concludes that tax rate reductions may substantially reduce the deadweight loss associated with capital income taxation and substantially improve economic welfare.

In "Estimates of Investment Functions and Some Implications for Productivity Growth," Patric Hendershott evaluates the investment sector of Evans' macroeconomic model and discusses the implications of the composition of investment for productivity growth. Hendershott concludes that Evans' treatment of nonresidential investment and residential investment does not represent an advance relative to conventional treatments. Hendershott also considers ways in which economic policy can affect economic growth by channelling investment into more productive uses. He notes that the surge in implicitly mandated investment in the last decade and the subsidy extended to owner-occupied housing have tended to divert investment from its most productive uses and, therefore, to lower the productivity associated with a given capital stock.

In his discussion of Summers' paper, Norman B. Ture takes issue with Summers' conclusion regarding the effects of tax cuts on investment. Ture questions the adequacy of the framework that Summers used to investigate these issues. While he accepts Summers' view that there are substantial welfare gains associated with decreasing taxes on capital income, Ture concludes that Summers "grossly underestimated" the gains in output and employment which would result from reducing the existing tax bias against capital formation and saving.

In the first paper in Part III, "Income and Payroll Tax Policy and Labor Supply," Jerry Hausman presents evidence on the effects of income and payroll taxes on labor supply. Hausman emphasizes that while supply-side economics has focused attention on the labor supply and revenue effects of changes on tax rates, the correct measure of the economic cost of taxation is the deadweight loss associated with taxation. Hausman compares the implications of 10% and 30% tax cuts, along lines suggested by the Kemp-Roth tax proposal, with a move to a linear progressive tax system (i.e., one with progressive average tax rates but constant marginal tax rates). He finds that Kemp-Roth tax cuts decrease deadweight loss, but they do so at the expense of a large decline in tax revenue. A linear income tax which yields the same revenue as the current tax system, on the other hand, can significantly reduce deadweight loss as well as increase labor supply.

In "Transfers, Taxes and the NAIRU," Daniel Hamermesh presents a detailed examination of the effects of individual tax and transfer programs on the unemployment rate (specifically, on the NonAccelerating Inflation Rate of Unemployment, NAIRU), labor supply and employment. He argues that this microeconomic approach, building up from a study of individual programs, is likely to be more reliable than an aggregate or macroeconomic approach that ignores the programs' complexities.

While Hamermesh concludes that the net effect of tax and transfer programs on the NAIRU is approximately zero, he finds they have a significant effect on labor supply, noting that all the programs he examines are likely to decrease labor supply on net. Hamermesh concludes that we cannot ease program eligibility and raise benefits without inducing change in labor supply and employment, which further raise the costs associated with the various transfer programs. He suggests raising the eligibility age for Old Age and Survivors Insurance benefits back to its previous level

and preventing the evolution of Disability Insurance into a retirement program.

Commenting on Hausman's paper, Jeffrey M. Perloff concludes that the paper provides the most reliable labor supply estimates to date. Perloff does, however, raise a number of questions about Hausman's methodology and examines some of the implications of moving from Hausman's partial equilibrium analysis to more of a general equilibrium framework.

Commenting on Hamermesh's paper, Fredric Raines questions Hamermesh's conclusions about the overall effects of the various transfer programs on unemployment and labor force participation. Raines agrees that the macro evidence is unreliable, but he questions Hamermesh's selectivity in accepting or rejecting evidence from various studies of the effects of individual tax and transfer programs. He also notes that it may be inappropriate to treat the effects of the various programs as additive, as Hamermesh does in his paper.

In his luncheon speech, "The Power of Negative Thinking: Government Regulation and Economic Performance," Murray L. Weidenbaum warns that, at a time when the importance of tax incentives on economic activity is being debated, economists should not overlook the continually increasing array of government regulation that impairs economic activity. In the current maze of government regulation, the impact of a change in the after-tax rates of return may, according to Dr. Weidenbaum, have little effect on production. On the other hand, the response of the economy to supply-side tax cuts can be greatly enhanced by simultaneously reducing the burden of regulation on the economy.

In his dinner talk, "The Politics of Supply-Side Economics," Senator Orrin G. Hatch concludes that the establishment of a "budget process" in Congress in the mid '70s has not helped arrest the growth in government spending or the reliance on deficits. However, a war between supply-siders who seek substantial tax cuts and the various constituencies for federal government spending is unnecessary, according to the Senator. He believes that supply-side tax cuts will sufficiently stimulate economic activity to pay for the current rate of government expenditures.

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