

## **WOULD A CONSUMPTION TAX FAVOR THE RICH?**

R. Glenn Hubbard\*

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\* Dean and Russell L. Carson Professor of Finance and Economics, and Professor of Economics, Faculty of Arts and Sciences, Columbia University; Research Associate, National Bureau of Economic Research; and Visiting Scholar, American Enterprise Institute. This paper was prepared for the American Economic Institute Public Interest Conference on Fundamental Tax Reform, Washington, D.C., February 11, 2005.

Fundamental tax reform – moving from the current tax system to a broad-based income tax or consumption tax with a simpler structure and lower marginal rates – would be on the watch list for 2005 even without President Bush’s interest. Part of this emphasis reflects the concerns of economists and policy mavens that tax reform could improve the economy’s efficiency and generate extra income for U.S. citizens. But this source of interest pales in comparison to factors in the very real world of policy debates – the perceived declining competitiveness of U.S. firms, low rates of saving by most Americans, and the growing reach of the Alternative Minimum Tax into the lives of millions of middle-income households.

It is these real-world pressures that have offered support to President George W. Bush’s tax cuts of 2001, 2002, and 2003. With those tax cuts his discussions of tax reform, President Bush has quietly made the case for a simpler tax system that would remove or at least sharply reduce the current-law tax bias against saving and investment. Indeed, the President’s framing of the tax reform debate has corralled the real-world pressures for reform into a discussion of a consumption tax as a way of flushing out the familiar “simpler, fairer, fatter” goals of tax reform. And one could hope that this discussion will focus on how to broaden the tax base to make marginal tax rates on work and investment as low as possible.

This framing will, however, likely provoke significant outcries that consumption-based tax reform is unfair or, in the language of economists, “regressive.” Understanding why these cries are false reveals not only insight into how tax reform works, but how it is likely to emerge in the political discussion.

One fairness concern about any fundamental tax reform that would broaden the tax base and reduce marginal tax rates is that top rate reductions would benefit only a handful of affluent taxpayers. This journalistic image of a “snapshot” distributional analysis calls to mind the imagination of Tevye in *Fiddler on the Roof*, who in “If I Were a Rich Man” thinks of one staircase just going up and another just going down. Just as actual staircases allow for more upward and downward mobility, the tax system witnesses considerable income and tax rate mobility for households. As a consequence, reductions in marginal rates made possible by tax reform affect many more individuals than a snapshot would suggest.

The White House Council of Economic Advisers used actual Treasury Department Data on households over ten years from 1987 to 1996 to study how households change income tax brackets over time.<sup>1</sup> They used the data to ask what tax rates would households have faced if President Bush’s signature Economic Growth and Tax Relief Reconciliation Act of 2001 had been in place over this period. The CEA tabulations show that more than half of taxpayers were in a different tax rate at the end of the period, and there was significant upward and downward mobility. Two-thirds of taxpayers in the lowest bracket had moved to a higher bracket after ten years. And four times as many taxpayers were subject to one of the top two tax rates in at least one of the ten years then would have been surmised from the initial snapshot.

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<sup>1</sup> See Council of Economic Advisers (2003, Exhibit 5.4).

But the more significant “fairness” concern about tax reform in the form of a consumption tax is that such a tax would exempt income from saving from tax. To the extent that higher-income and wealthier households save more (both absolutely and relative to their income),<sup>2</sup> a shift to a consumption tax must confer much larger gains to higher-income and wealthier taxpayers. Such an argument is intuitive – *and wrong*. A broad-based consumption tax need not be more regressive than a broad-based income tax. Indeed, the real challenge for tax reform is to accomplish either one.

### The “Fairness” of Consumption Taxation

Critics often clam that, as a tax base, “consumption” is less fair than “income” because the benefits of not taxing capital income accrue to high-income households. As is often noted, this claim depends critically on the time frame for analyzing fairness; consumption taxes may be less regressive from a lifetime perspective than an annual perspective.<sup>3</sup>

In fact, despite the common perception that consumption taxation eliminates all taxes on capital income, consumption and income taxes actually treat similarly much of what is commonly called “capital income.” In fact, not all of what is commonly called capital income escapes the consumption tax. In principle, one can decompose capital income into four components: (1) the risk-free interest rate (the return to waiting); (2) the expected risk premium for investing (the return to risk-taking); (3) returns to skill or idea (what economists call “economic profit”), and (4) a remainder that reflects good or bad luck. For most investments, the income tax base – but not the consumption tax base – includes the first component of capital income; both tax bases treat similarly the last three components of capital income. Relative to an income tax, a consumption tax exempts only the tax on the opportunity cost of capital.

Moving from the current U.S. tax base to a broad-based consumption tax base encompasses two reforms: (1) a move from the current income tax to a broad-based income tax with uniform capital taxation (as under the Treasury Department’s 1992 proposal of a Comprehensive Business Income Tax) and (2) a switch from this pure income tax base to a consumption tax base (as under the Flat Tax of Hall and Rabushka).<sup>4</sup> Short-run and long-run distributional consequences of moving from the current tax system to a consumption tax may differ in significant ways. In the short-run, eliminating differential capital taxation would affect asset prices favoring currently heavily taxed assets (*e.g.* corporate capital) over light taxed assets (*e.g.* housing). The short-run effects of switching from an income base to a consumption base may depend heavily on transition rules. The short-run distributional consequences of changes in asset prices

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<sup>2</sup> And empirical evidence suggest that they do; see, for example, Dynan, Skinner, and Zeldes (2004) and Gentry and Hubbard (forthcoming)

<sup>3</sup> See, for example, Davies, St. Hilaire, and Whalley (1984); Poterba (1989); and Fullerton and Rogers (1993).

<sup>4</sup> See Hall and Rabushka (1993,1995). Other “Flat Tax” proposals, generally modeled on Hall and Rabushka include those by former Treasury Secretary Nicholas Brady (1992) and former Representative Richard Aimey.

depend critically on the current pattern of assets holding in the economy and the horizon over which different people plan to hold their assets.

A key question for distributional analysis is which savers earn higher returns. For example, for a given level of wealth, investors whose returns mainly consist of risk-free returns on savings would benefit more than investors whose returns include returns to risk-taking or rents from entrepreneurial activities.

### **Comparison of Income and Consumption Tax**

To begin, let's compare two benchmark taxes: a pure uniform-rate income tax and a subtraction-method value-added tax (or combination of a wage tax and a business cash flow tax at the same rate). A pure uniform-rate income tax has a base that includes all forms of labor and capital income and a flat rate. This system would tax corporate and noncorporate capital at the same total tax rate. One way to implement such an income tax would be to combine a business-level tax (for both corporate and noncorporate firms) on receipts less wages, materials costs, and capital depreciation with a household-level tax on wages. For simplicity, suppose that business and household taxes are imposed at a flat rate; the two tax rates are the same; no tax-favored ways of holding wealth are available; and the economy is closed to capital flows. Abstracting from risk considerations, the revised income tax system, then, has three components: (1) a wage tax, (2) a tax on returns from break-even investment projects, and (3) a cash flow tax on returns from existing capital and highly profitable investment projects. Within the context of broad-based income tax reform, the U.S. Treasury Department's (1992) Comprehensive Business Income Tax (CBIT) proposal generally followed this model.

In a subtraction-method value-added tax (VAT), each business has a tax base equal to the difference between receipts from sales of goods and services and purchases of goods and services from other businesses. This measure of value added is then taxed at a fixed tax rate. Transactions among businesses generate offsetting increases in the tax base of sellers and decreases in the tax base of buyers, so that no net revenue accrues to the government. Net revenue arises when goods are sold by a business to a non-business entity, generally households. Because the aggregate business tax base equals the aggregate sales by businesses to non-businesses, the tax base is equivalent to aggregate consumption. As long as tax rates are uniform, this subtraction-method value-added tax is equivalent to the familiar European-style credit invoice value-added tax.

For a uniform tax, we could equivalently allow a deduction for wages at the business level with wage taxation at the same rate for individuals (as in the Hall-Rabushka Flat Tax). Thus the VAT can be thought of as a combination of a wage tax and a tax on business cash flow. With this alternative means of administration, the consumption tax looks strikingly similar to the benchmark income tax. The difference between the two taxes is that the income tax base depreciates capital expenditures but the consumption tax base deducts capital outlays.

*Riskless Returns to Capital: What is Taxed?*

Traditional descriptions of the taxation of capital income under a cash flow tax or consumption tax assume that all income from capital is exempt.<sup>5</sup> To see this, assume that investment projects offer a single riskless rate of return. Then decompose the base of the Flat Tax into two parts: the first is a business cash flow tax whose base is  $R - I$ , where  $R$  is receipts from sales of goods and services less purchases for labor, raw materials, and services, and  $I$  is expenditure on capital goods.<sup>6</sup> The second is a wage tax, whose base is wages,  $W$ . (The subtraction-method VAT combines the two pieces, with a base equal to  $R + W - I$ .) While the wage tax burden is borne by labor, how should one think about the burden of the cash flow tax?

Under the cash flow tax, taxes would no longer affect business investment decisions. In this case, the present value of one dollar's worth of depreciation deduction is one dollar, while the present value is less than one dollar under the income tax. The present value of depreciation allowances depends on the depreciation schedule prescribed by the tax code for the firm's assets and the discount rate which the firm uses to discount the future tax savings from the depreciation allowances. Hypothetically, depreciation schedules reflect the useful life of different assets. For the case of a riskless investment project, the tax savings from depreciation allowances represent riskless cash flows which the firm would discount at the risk-free rate of interest.

For a break-even – one in which the expected rate of return just equals the interest rate – the upfront subsidy to investment provided by expensing just equals the expected future tax payments. It is only in this sense that the return to capital is not taxed under the cash flow tax (or, equivalently, under the consumption tax).

#### *Entrepreneurial Returns: What is Taxed?*

The example assumed a single riskless return available on investment projects. Now suppose that, in addition to having access to riskless investments certain entrepreneurs have access to investments with rents associated with ideas, managerial skill, or market power.

Extending the example, what is taxed are rates of cash flow in excess of the riskless rate of return. Cash flows representing entrepreneurial rents are taxed equivalently under the broad-based income tax and the cash flow tax (or consumption tax). As long as the scale of entrepreneurial projects with rents is limited, the tax savings from expensing should be invested in another riskless asset. For the case of entrepreneurial projects, then, only the component of the return representing the riskless rate is untaxed under the cash flow tax (or consumption tax).

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<sup>5</sup> This argument is an old one, tracing its roots to John Stuart Mill's evaluation of capital income taxation as inherently representing double taxation (see Mill, 1895, Book V, Chapter II). A similar argument appears in Musgrave (1959).

<sup>6</sup> The business cash flow tax has a long pedigree among economists seeking to apply consumption tax principles to business taxation. An early exposition appears in Brown (1948); implementation issues are discussed in King (1975), Institute for Fiscal Studies (1978), and Hubard (1989).

*Risky Investment: What is Taxed?*

Introducing risk now adds two complications. First, risky investments have a higher required rate of return than riskless investments, reflecting a risk premium to compensate savers for bearing risk. Second, risky investments generate – after the fact – high or low returns to investing. When we look at the actual distribution of capital income across households, some variation reflects this good or bad fortune. The component of capital income that represents luck after a risky investment decision has been made can be treated like the rents in the benchmark income tax and cash flow tax. Actual realized returns in excess of the expected return are taxed under both the income tax and the cash flow tax; assuming similar loss offset provisions, low realized returns also generate the same tax consequences under the two systems.

Whether either tax system levies a tax on the risk premium depends upon how one defines a “tax”. If a tax is defined as an increase in expected government revenues, then *both* the income tax and the cash flow tax include the risk premium; if, in contrast, a tax is an increase in the discounted present value of government revenues, then neither tax system includes the risk premium. This distinction is most easily seen for a cash flow tax with full loss offsets. By levying such a tax, the government shares equally in the costs and revenues of investment projects; this feature of the tax system leads to the analogy of the government as a “silent partner” in the investment. Suppose that the government taxes two projects with the same costs but with different expected returns (because one project is riskier than the other). Neither project has expected rents. As do private investors, the government would expect a higher return on its investment (cost-sharing) in the riskier project. However, assuming that expected returns compensate for risk, the “market value” of this extra expected revenue would be zero because it compensates the government for the added riskiness of the revenue stream. There is no free lunch – the government does not increase the discounted present value of its revenue by taxing pure risk.

In contrast to the cash flow tax, an income provides depreciation allowances rather than expensing for capital purchases. This difference does not affect the treatment of the uncertainty about costs and revenues as long as the two tax systems have similar loss offset provisions. By providing depreciation allowances rather than expensing, the government pays a smaller share of the cost of investment projects because the investor recoups the government’s “share” of the cost in the future rather than at the time of the outlay. The present value of the loss to the investor (and, conversely, the gain to the government) depends on how the tax savings from depreciation allowances should be discounted. Under the assumption of full loss offsets and constant tax rates, the government’s promise of depreciation allowances gives the investor a safe, predictable cash flow which warrants discounting at the default-risk-free rate of return. Hence the benchmark income and consumption taxes treat the return to risk-taking similarly.

Putting these arguments together, what is often called the return to capital can be thought of as the sum of the riskless return (return to waiting), entrepreneurial rents (economic

profits), or risk premium on risky investments (payment for bearing risk) and realizations on risky investments (luck). Unlike the consumption tax base, the income tax base includes the opportunity cost of capital, which equals the rate of return on a marginal riskless project. Assuming the consumption tax does not change the rate of return on investment, for investments with the same opportunity cost, the owner of the investment with a high rate of return will pay more in taxes than the owner of the investment with a lower rate of return. Because households that save benefit from eliminating the tax on the opportunity cost of capital, they benefit from this tax reform. However, because rents saving are still taxed, the distributional effects also depend on separating “opportunity cost” returns to saving from rents and returns to risk-taking.

### **Shifting the Tax Base from Income to Consumption**

A major focus of political discussion of the incidence of a consumption tax relates to transitional redistributions accompanying a switch from an income tax to a consumption tax. In the familiar life-cycle framework, part of the steady-state gain in welfare accompanying the tax reform is accounted for by a transition tax, borne disproportionately by the elderly in the conventional life-cycle setting. The elderly accumulate assets to finance retirement consumption under the income tax regime; now they must pay tax again on those funds as they are used to purchase goods and services. The extent to which the elderly bear this depends on the change in the after-tax price of consumption from switching tax bases. In part, the after-tax price of consumption depends on the general price level effects of tax reform which, in turn, may depend on the administration of tax reform. If the transition tax comes only from disallowing depreciation allowances and not from a one-time increase in the price level, then the elderly bear the tax only to the extent they own a disproportionately large share of that lose their depreciation allowances. There is another significant consideration, however: Consumption taxes offer higher expected future after-tax returns to saving. Hence, to the extent that the transition tax is borne by individuals with relatively long future consumption horizons, the consumption tax may make better off even households bearing the transition tax. However, decomposing capital income into its components suggests that the higher expected future (after-tax) returns to saving applies only to opportunity cost returns.<sup>7</sup>

### **Eliminating the Differential Taxation of Capital Income**

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<sup>7</sup> Much of the conventional analysis of the distributional consequences of a shift to consumption taxation emphasizes the “tax on old capital” associated with a cold-turkey switch from an income tax to a consumption tax. As Gentry and Hubbard (1997, 1998) observe, this effect for equities is overstated. Equity prices should decline by a lesser amount and may even rise modestly in response to a consumption tax reform. This result is particularly likely in cases for which it takes firms a significant period of time to make new capital investments. In this instance, existing investments earn higher after-tax returns in response to the lower marginal tax rates following tax reform.

Another commonly cited transition cost relates to owner-occupied housing. As Gentry and Hubbard (1997, 1998) note, a switch from the current tax will likely depress house prices in the short run, but only modestly. The largest such declines should be concentrated in regions in which there are many homeownership households with high marginal tax rates, as in California or New York.

The broad-based income tax assumed by the benchmark described above bears only a faint resemblance to the current U.S. tax system. An important difference between the two is the current system's differential taxation of capital income. Most prominent is the double taxation of equity-financed corporate investment created by having a separate corporate income tax (though this bias was reduced by the 2003 tax legislation). Moreover, variation in the generosity of depreciation allowances across assets generates differences in the effective tax rates across investments. In addition to the corporate tax, many provisions of the individual tax code also produce differential taxation, such as differential tax rates on capital gains and dividends, the non-taxation of the implicit returns from consumer durables, exemption from tax of interest on state and local government bonds, and various provisions to encourage retirement saving.

Again, a consumption tax is only one method of uniform capital income taxation. Such taxation can also be achieved by reforming the income tax system; for example, the Treasury Department's Comprehensive Business Income Tax (CBIT) proposal eliminated most of the main forms of differential capital taxation. Thus the distributional issues associated with eliminating differential taxation are not unique to a consumption tax but can apply to income tax reform.

### **Distributional Consequences of a Consumption Tax**

Studying U.S. household-level data, Gentry and Hubbard (1998) conclude that the switch from a pure income tax to a consumption tax is likely to be less regressive than commonly assumed. Despite the claim that consumption taxes do not tax capital income, replacing depreciation allowances with expensing only eliminated the taxation of the opportunity cost of capital and not capital income attributable to rents and luck (either good or bad). Because wealthier households receive a larger portion of what is often called their capital income in the forms treated similarly by income and consumption taxes (realized returns to risk taking and entrepreneurial rents), a consumption tax is less regressive than would be suggested by assuming a consumption tax exempts all parts of capital income. Their distributional analysis suggests that more than one-third of the reduction in the share of taxed paid by very high-income households in switching from an income tax to a consumption tax is offset by this effect.

This analysis illustrates the benefits of separating the parts of tax reform inherent to taxing consumption from those associated with a broad-based income tax. For the debate over fundamental tax reform, the advantages and disadvantages of eliminating differential capital income taxation can be separated from the choice between income and consumption as the tax base; moreover, in some cases, the eliminating of differential capital taxation may be the more important of the two issues.

### **Getting There from Here**

The charge that consumption tax reform is a sop to the rich is almost certainly unfair. But the sense in which the distributional burdens of "textbook" income and consumption

taxes are closer than conventionally imagined offers three lessons for the process of tax reform.

First, most of the economic gains from fundamental reform can be obtained from reform of the income tax (though additional pro-business-investment and pro-simplification gains can be achieved by the further shift to a consumption tax). Second, following this observation, as the reform debate unfolds, “fairness” assaults on tax reform will likely take aim at pro-growth changes in the income tax – reduced double taxation of saving in particular. But such tax changes are popular.

Finally, should tax reform enter the legislative process, compromises include graduated wage tax rates or a hybrid tax in which capital income is still taxed at the individual level, but at a lower rate than wage income (as is true under the 2003 tax legislation championed by President Bush). In these compromises, the worm will turn back to the question of what base broadening will pay for reform’s lower rates.

I guess that’s fair.

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