



THE JAMES A. BAKER III INSTITUTE FOR PUBLIC POLICY
RICE UNIVERSITY

CONSUMPTION-BASED DIRECT TAXES:
A GUIDED TOUR OF THE AMUSEMENT PARK

BY

CHARLES E. MCLURE, JR.
SENIOR FELLOW, HOOVER INSTITUTION, STANFORD UNIVERSITY

AND

GEORGE R. ZODROW
PROFESSOR OF ECONOMICS AND RICE SCHOLAR,
TAX AND EXPENDITURE POLICY PROGRAM,
JAMES A. BAKER III INSTITUTE FOR PUBLIC POLICY
RICE UNIVERSITY

JULY 2007

Consumption-Based Direct Taxes

THESE PAPERS WERE WRITTEN BY A RESEARCHER (OR RESEARCHERS) WHO PARTICIPATED IN A BAKER INSTITUTE RESEARCH PROJECT. WHEREVER FEASIBLE, THESE PAPERS ARE REVIEWED BY OUTSIDE EXPERTS BEFORE THEY ARE RELEASED. HOWEVER, THE RESEARCH AND VIEWS EXPRESSED IN THESE PAPERS ARE THOSE OF THE INDIVIDUAL RESEARCHER(S), AND DO NOT NECESSARILY REPRESENT THE VIEWS OF THE JAMES A. BAKER III INSTITUTE FOR PUBLIC POLICY.

© 2007 BY CHARLES E. MCCLURE, JR., AND GEORGE R. ZODROW

THIS MATERIAL MAY BE QUOTED OR REPRODUCED WITHOUT PRIOR PERMISSION,
PROVIDED APPROPRIATE CREDIT IS GIVEN TO THE AUTHOR AND
THE JAMES A. BAKER III INSTITUTE FOR PUBLIC POLICY.

Abstract

Although consumption-based direct taxation has long been advocated in academic and policy circles, very few countries have actually implemented such taxes. This article provides an overview of alternative approaches to direct consumption taxation and examines arguments favoring consumption taxes over income taxes. It then describes and analyzes efforts at “fundamental tax reform” involving replacing an income tax with a consumption tax in both the United States and several developing countries and countries in transition from socialism in which the authors have been involved.

This paper is a preliminary version of a paper that is forthcoming in the journal *FinanzArchiv*. The paper was originally presented at a conference on “Alternative Methods of Taxing Individuals,” Andrew Young School of Policy Studies, International Studies Program, Georgia State University, Atlanta, Georgia, June 8-9, 2006.

1. Introduction

The modern discussion of consumption-based direct taxation – with its ups and downs and ins and outs – has sometimes resembled a never-ending series of rides in an amusement park. Our purpose is to review key aspects of that discussion, noting that many of the issues that have bedeviled tax policy experts over the past 30 years are still unresolved. Since we have ridden some of the rides, often together, we will draw on our own personal experiences to motivate some of the discussion. We begin with a bird’s-eye view of the historical development of the amusement park and then zoom in on particular issues, before beginning the guided tour.

2. The Bird’s Eye View

The modern discussion of consumption-based taxes began with Irving Fisher (1939), who emphasized that proportional consumption taxation achieves neutrality toward the choice of

when to consume.¹ By comparison, the taxation of capital income under an income tax increases the relative price of future consumption and thus favors present over future consumption. Subsequently, consumption-tax advocates have noted that consumption-based taxation achieves horizontal equity between taxpayers with a given lifetime endowment (defined in present value terms), regardless of whether they earn early or late in life or choose to consume early or late. In addition, they have stressed that concerns that an expenditure tax would reduce the progressivity of the tax system are, at least in principle, misplaced, since under a direct consumption tax vertical equity could be maintained by appropriately adjusting the rate structure.²

In 1955, in *An Expenditure Tax*, Nicholas Kaldor advocated basing direct taxation on consumption. At that time most tax experts thought that implementing a consumption-based direct tax would be infeasible, because taxpayers would need to maintain either detailed records of expenditures or balance sheets, allowing saving to be deducted from income to calculate consumption.³ Kaldor showed that consumption could be calculated much more easily indirectly, by using accounting similar to that under an income tax except that individuals receive a deduction for net saving and are taxed on net withdrawals from saving.

¹ Earlier advocacy of consumption-based taxation by Hobbes was based on the philosophical argument that individuals should in principle be taxed on what they took from society, as measured by their consumption, rather than what they contributed, as measured by their income (Musgrave, 1959, pp. 161-64).

² For example, the report of the President's Advisory Panel on Federal Tax Reform (2005) discussed at length a "progressive consumption tax" option that it estimated would have replicated the distributional burden of the current income tax system across income classes. Moreover, given widespread concerns about recent increases in income inequality, it seems unlikely (although certainly not impossible) that a true flat rate tax would be politically feasible. The President's tax panel rejected a national retail sales tax, partly on the grounds that it would not be appropriately progressive, as required by the official charge to the panel issued by President Bush. Robert Hall, one of the developers of the original flat tax proposal, has recently concluded that increasing income inequality implies that under a tax prepaid plan two or more individual marginal rates, in addition to the zero-rate applied to income covered by the personal exemption, would be desirable (Hall, 2005).

³ Slitor (1972, pp. 229-30) notes that John Stuart Mill, A. C. Pigou, and John Maynard Keynes all doubted the feasibility of an expenditure tax, but concludes (p. 257) that an expenditure tax as a permanent adjunct to the income tax "is probably practicable within a relatively restricted scope of high-income, substantial wealth taxpayers." Kelley (1970, p.237, 253) suggests, "A fresh consideration of the problem may suggest, however, that an expenditure tax would not be substantially more difficult to impose than other forms of direct taxation currently enforced by developing and developed countries. . . . In the context of highly developed societies, there seems little reason to doubt the possibility of effectively imposing an expenditure tax." Kelley notes that analysts at the U.S. Treasury Department had earlier reached a similar conclusion regarding a wartime tax on spending. By comparison, Shoup (1969, p. 349) writes, "[T]he formidable administrative problems facing a mass expenditure tax make detailed discussion of it unfruitful at this time.

Consumption-Based Direct Taxes

In 1974, in a seminal paper published in the *Harvard Law Review*, William Andrews (1974) questioned the conventional wisdom of that time that consumption-based taxes are more difficult to administer than income taxes. Indeed, he argued convincingly that the exact opposite is true, as taxation based on consumption eliminates the timing problems (e.g., of deductions for depreciation, depletion and amortization) that greatly complicate the income tax.

Shortly after Andrews refuted the charge that a consumption-based tax was not administratively feasible, the U.S. Department of the Treasury (1977) and the Meade Commission in the United Kingdom (Institute for Fiscal Studies, 1978) produced the first detailed studies of alternative methods of implementing consumption-based direct taxes. One of their many important contributions was to show the conditions under which taxes based on consumption and taxes on labor income are equivalent. Nevertheless, it is important to remember that there are important differences between the two approaches, especially during the lengthy period of transition from an income tax, during which a consumption tax would apply to income from old capital while a wage tax would exempt deferred capital income from tax. In 1983, Hall and Rabushka proposed what has become the most famous form of consumption-based direct tax – and perhaps the most widely misunderstood – the “flat tax,” which combines a single rate tax on wages and salaries above a sizable personal exemption at the individual level with a business level tax levied at the same rate on real cash flow, with immediate write-off (expensing) of all expenditures, exemption of interest income, and the elimination of interest deductions (Hall and Rabushka, 1983, 1995).

These various proposals for consumption-based direct taxation were part of the background during the development of the U.S. Department of the Treasury’s 1984 report to President Ronald Reagan, *Tax Reform for Fairness, Simplicity and Economic Growth*. Given the widespread interest in consumption taxes, that report’s endorsement of a traditional income tax – explained in Section 4.2 below – may have surprised many.

David Bradford (1986) subsequently proposed that graduated rates be applied to the individual level base of the flat tax, producing his celebrated X- Tax. Similarly, we proposed progressive consumption-based taxes for Colombia, Bolivia and other developing countries (McLure, Mutti, Thuronyi and Zodrow, 1990; Zodrow and McLure, 1991, McLure and Zodrow, 1996 a, b), and

McLure made similar proposals for Russia and other eastern bloc countries (McLure, 1992 a, b, c). We called the proposed tax the Simplified Alternative Tax (a term coined by McLure), to stress that it would be a simpler alternative to the income tax. Twenty years after the Treasury Department proposals, the Tax Reform Panel appointed by President George W. Bush proposed consideration of a hybrid system in which an individual level flat rate tax on financial income would be combined with what is essentially the Bradford X- Tax.

The academic debate on introducing a consumption-based direct tax has focused on three issues: a) the effects on investment, labor supply, economic output, and welfare, which depend in turn on b) transition and wealth effects, and c) international issues. Our discussion will concentrate on the issues of simplicity in administration and compliance and the international aspects of consumption taxes, issues that have been especially prominent in our work in developing countries and countries in transition. For discussions of the equally important issues of economic efficiency, equity, and transition, see Zodrow (forthcoming) and Diamond and Zodrow (2006, forthcoming-a), and the literature cited there. In addition, we neglect any potential effects of tax reform on revenues; that is, we make the standard assumption that all proposals would be revenue neutral.

3. Some Preliminaries

3.1. Two Approaches to Taxing Consumption

A tax on income that is not saved is a tax on consumption. Since consumption can be financed by borrowing or by drawing down previous saving, the consumption-tax base must include the proceeds of loans and dissaving and must allow deductions for saving and loan repayment. Traditional Individual Retirement Accounts (IRAs), with a deduction for contributions, tax-free accumulation of interest, and taxation of both principal and interest (or other earnings on investment) when withdrawn, implement this approach. Because tax is postponed until saving is withdrawn for consumption, this can be characterized as the “tax postpaid” approach to taxing consumption. The U.S. Treasury (1977) described such a plan, which we shall refer to as Blueprints-1 (BP1), as did Aaron and Galper (1985).

Consumption-Based Direct Taxes

A key theorem underlying the economic case for consumption-based taxation is that such a tax does not reduce the return to marginal saving and investment and is thus neutral with respect to the choice between present and future consumption. Thus, assuming constant tax rates and ignoring bequests, inheritances, and above-normal returns, a tax that excludes the return on investment such as a wage tax is economically equivalent to a tax on consumption.⁴ The Roth IRA operates in this way; no deduction is allowed for saving, but interest (and other returns to capital) are never subject to tax. Thus the tax that would be paid under the traditional IRA when principal and interest are withdrawn is “prepaid” at the time saving occurs. The U.S. Treasury (1977) also described such a plan, which we shall refer to as Blueprints-2 (BP2), and the Hall-Rabushka flat tax, the Bradford X-Tax, the Simplified Alternative Tax, and (for individuals only) the McLure-Zodrow (1996 a, c) proposal for a hybrid consumption tax all follow this approach.

Under most consumption-tax proposals, the financial transactions of business would be treated in the same way as those of individuals. In addition, all business expenditures would be deducted immediately in the year in which incurred, rather than being capitalized and deducted over time via depreciation allowances, amortization, depletion, etc. Another theorem says that, for equity-financed business investment, expensing implies that the marginal effective tax rate (METR) at the business level – the tax rate on income from marginal investments – is zero (Brown, 1948). Combining this treatment of expenditures on real assets with tax prepaid treatment of financial transactions yields what the Meade Committee called the real business cash flow tax base, or “R-base,” under which loans are ignored for tax purposes. By comparison, combining expensing with the tax postpaid approach yields the “real plus financial” business cash flow tax base, or “R+F base,” under which interest income and the proceeds of loans are taxable and the repayment of principal and interest expense are deductible.⁵ The hybrid we proposed would

⁴ This equivalence can be extended to the case of uncertain returns (Kaplow, 1994; Zodrow, 1995) and above-normal returns (Hubbard, 2002). Nevertheless, these assumptions are certainly stringent, and the equivalence would break down if they were relaxed. For example, bequests and inheritances are an important component of wealth at the top of the income distribution, so their tax treatment must be taken into account, and the assumption of constant tax rates is implausible, given both recent history and the prospect that there will be large future federal budget deficits if current rates are not increased.

⁵ See Institute for Fiscal Studies (1978). Two additional approaches deserve mention, although they have not received much attention in the U.S. debate and will be discussed only in passing in this paper. The tax base under an S-base consumption tax, a version of which was adopted in Estonia in 1994, consists solely of all business distributions to shareholders. From 1994-2000 Croatia employed a tax that allowed an Allowance for Corporate Equity (ACE) – a tax that provides for deductions for economic depreciation but also allows an additional deduction

employ the tax prepaid method for individuals with the tax postpaid method for businesses.⁶ To avoid confusion, we summarize the basic features (ignoring many complications) of all of these alternative consumption-based direct tax options in Table 1.⁷

3.2. What's Flat About the Flat Tax? What's Unique?

The Hall-Rabushka flat tax proposal consists of five separable components that, when combined, create its simplicity: business real cash flow and the labor income of individuals are taxed separately, business expenditures are expensed, financial transactions are ignored, there are no itemized deductions, and a single “flat” rate is applied to the tax bases of both individuals and businesses.⁸ Unfortunately, the term “flat tax” is often applied to tax systems and proposals for reform that exhibit only the last of these features, the flat rate. Thus when it is said that a country has a flat tax or that someone has proposed one, it is unclear what this means. An income tax of the traditional type that is based on depreciation allowances and deductions for, and taxation of, interest (such as those recently enacted in Russia and several European countries in transition from socialism⁹) is a far cry from the prototypical flat tax, even if it has a flat rate and especially if it applies different tax rates to businesses and individuals and/or is shot through with exemptions, deductions and credits.

Of the five features of the flat tax, only one, the expensing of business expenditures, is unique to consumption-based taxation. By comparison, all the other features of the flat tax are consistent with an income-based tax, and all have been proposed, if not implemented, in that context

for the cost of equity capital equal to the product of the book value of equity capital and a risk-free interest rate – and Belgium introduced such a tax at the beginning of 2006. See Boadway and Bruce (1984), IFS Capital Taxes Group (1991), and Devereux and Freeman (1991) for the intellectual origins and development of the ACE tax, Rose and Wiswesser (1998) and Keen and King (2002) for descriptions and evaluations of the Croatian experience, Genser (forthcoming) for recent reforms in Austria, Belgium and Italy that move in the direction of an ACE tax, and Gerard (2005) for a description of the new Belgian tax.

⁶ In yet another alternative, the USA (Unlimited Savings Allowance) approach recommended by Senators Nunn and Domenici would combine the tax postpaid approach at the individual level with a value-added tax (implicitly a prepaid tax) at the business level; see Weidenbaum (1996).

⁷ In the interest of simplicity, we do not consider the more familiar indirect tax options, such as the value-added tax or a national retail sales tax; for a recent discussion of these options, see Gillis, Mieszkowski and Zodrow (1996).

⁸ In the case of the individual tax, there is a large personal exemption that has the effect of creating a tax bracket that is subject to a zero tax rate.

⁹ See Ivanova, Keen and Klemm (2005).

(Slemrod, 1997; McLure, 1997).¹⁰ In a fundamental sense, the X-Tax and the SAT are more like the flat tax than are “income” taxes with flat rates.

3.3. The Case for Consumption-Based Taxation: Simplicity Issues

Consumption-based taxation is arguably simpler than income-based taxation, especially in an inflationary environment, and much of our work stresses the administrative and compliance aspects of the consumption vs. income tax debate (McLure and Zodrow, 1990), as do Bradford (1986), Slemrod (1996), Gale and Holtzblatt (2002) and Bankman and Schler (forthcoming).

3.3.1. Basic Simplicity

The Holy Grail of income tax reform has long been to implement the comprehensive Haig-Simon income tax base, defined as annual consumption plus the change in net worth over the year. At the very least, achieving this goal would require keeping track of changes in the value of assets and liabilities. In the United States, to a greater degree than in many countries, the values of these changes for tax purposes do not need to be the same as what is recorded on the balance sheets in a company’s financial accounts, although they must be reconciled in a separate tax schedule. Much worse, knowing how much net worth changes in a particular year entails, among other things, knowing how much an asset has depreciated, to what extent a mineral deposit has been depleted, how the current value of intellectual property compares with last year’s value, the change in the value of real estate and other unique assets, etc. Inaccurate answers to these questions compromise the accuracy of the measurement of income, and imply that the essential economic neutrality goal of the income tax cannot be achieved.¹¹ Moreover, because it is exceedingly difficult to establish empirically the true pattern of decline in asset values, tax provisions are susceptible to alteration for political reasons.

¹⁰ This statement is most suspect with regard to ignoring financial transactions. The proposal for a comprehensive business income tax (CBIT) in U.S. Department of the Treasury (1992) would “flip” the treatment of interest income and expense, making interest non-deductible at the business level and exempt at the individual level. The CBIT would continue capitalization and depreciation, rather than allowing expensing.

¹¹ By attempting (at least with regard to many issues) to create a conceptually attractive definition of taxable income, the Tax Reform Act of 1986 demonstrated just how complicated an income tax can be (McLure, 1988).

Consumption-Based Direct Taxes

Consumption-based taxation avoids most problems of income measurement, as its base does not include change in net worth.¹² This is most easily seen in the case of the tax prepaid version. Neither principal nor interest transactions affect the tax base. There is no need to distinguish between debt and equity, since both are treated the same way. Capital gains are exempt, so there is no need to account for basis. Since all business expenditures are written off immediately, there is no need for depreciation accounting, amortization, depletion, etc. Being based on current-period cash flow, the tax postpaid method also avoids almost all timing issues.

3.3.2. *Immunity to Inflation*

Although commonly stated as above, the Haig-Simon definition of income should be consumption plus *real* change in net worth. That is, income measurement should be independent of the rate of inflation. Inflation erodes the value of depreciable assets, inventories (if valued at historical cost, especially under FIFO), the basis of capital gains, and the principal of debt. Unless the measurement of income accounts for inflation, income will be mismeasured.¹³

Unlike the base of an income tax, the base of a consumption tax is independent of the rate of inflation. Since consumption taxes are based on cash flows, there is no opportunity for inflation to erode the real values of the quantities that enter calculation of the tax base.

3.4. *International Issues*¹⁴

Bilateral tax treaties are employed to prevent double taxation of income. Double taxation – by the country where the income is earned (the source country) and the country of residence of the recipient of income – can be avoided in either of two ways: a) the country of residence can

¹² The clear exception occurs when expensing results in an excess of deductions over gross income, what would be called net operating loss under an income tax. To achieve the economic neutrality and equity benefits associated with consumption-based taxation, it is necessary to carry such excess deductions forward with interest. This is problematic, because of the need to know the right rate of interest to use.

¹³ Chile has long had a comprehensive balance-sheet-based system of inflation adjustment (Thuronyi, 1996). While the system is relatively simple, it cannot be as simple as consumption-based taxation, which requires no inflation adjustments to be accurate.

¹⁴ Our discussion will focus on the issue of creditability; for more general discussions of international issues, see Ballard (2002) and Bradford (2004).

exempt such income, or b) it can provide foreign tax credits for income tax paid to the source country, up to the amount of the residence-country tax on the income in question.¹⁵

Virtually all existing treaties are modeled on the three most important model tax treaties – the OECD model treaty, which is by far the most important since virtually all treaties involving developed countries are based on it, the U.S. model treaty, and the U.N. model treaty. The model treaties, as well as all extant treaties, are, if only implicitly, based on the assumption that the contracting parties tax *income* and that it is avoidance of double taxation (or nontaxation) of *income* that is being sought. Consumption-based direct taxes of either the R or R+F types differ significantly from a common definition of income, the former because it does not tax interest income or allow a deduction for interest expense and the latter because it includes the proceeds of borrowing in the tax base and allows a deduction for repayment of principal. Any country that adopted a consumption-based direct tax of either of these types might thus need to renegotiate its tax treaties – a daunting task, not only because negotiating a treaty ordinarily takes many years, during which time international transactions would be conducted under a cloud of uncertainty, but especially because the negotiators would be operating in unknown territory, thus exacerbating the uncertainty.¹⁶ It has thus long been recognized that a consumption-based direct tax might not qualify for relief from double taxation.¹⁷ Since the United States is the “800-pound gorilla” in the world economy – and also has the most detailed and restrictive rules regarding crediting – most attention has focused on whether the United States would allow a foreign tax credit for a consumption-based tax. No country seeking to attract investment from the United States could afford to levy a tax that would not be creditable, thus subjecting domestic-source

¹⁵ To the extent income is earned by foreign branches (permanent establishments) operating in the source country, the statement in the text applies without qualification. In the case of income earned by a foreign subsidiary, credit is allowed upon repatriation for income taxes paid by the subsidiary (and perhaps by one or more levels of sub-subsidiaries), as well as for withholding taxes on dividends paid to the parent.

¹⁶ The U.S. Department of the Treasury (1992, p. 48) acknowledges that elimination of the interest deduction under the CBIT, one aspect of the R-base, would require “extensive international discussions with tax authorities and market participants.” Somewhat anomalously, both an S-based tax and an ACE tax would be much less likely to be denied creditability. U.S. rules on creditability can be traced to the need to avoid providing tax credits for production taxes levied on petroleum. Thus the emphasis has been on whether the tax in question is a tax on *net* income. A tax that allows no deduction for interest (the R-base tax) or that includes the proceeds of borrowing in the tax base (the R+F -base tax) is suspect, whereas an economically equivalent tax such as an S-based tax (which is applied only to corporate distributions) or an ACE tax (which allows a deduction for imputed interest on equity) is not problematical. Keen and King (2002) note that the creditability of the Croatian tax of the latter type that was levied from 1994 to 2000 was never challenged.

income in the form of above-normal returns earned by U.S. multinationals on FDI to double taxation. (Since normal returns are untaxed under a consumption tax, the U.S. tax would be the only tax on such returns.)

3.5. Investment Incentives: Not a Rose by Another Name

Apparently focusing on the fact that expensing of equity-financed investment is equivalent to a zero effective tax rate on the normal return to capital – a result that presumably is favorable to investment and growth and that does not depend on the rate of inflation – some seem to believe that expensing can – and perhaps should – be allowed in the context of an income tax. This is, however, unwise, especially in an inflationary environment. First, the combination of expensing and debt finance creates negative marginal effective tax rates at the entity level, and probably for the economy as a whole, implying that it might be profitable from the private after-tax point of view – but not from a social point of view – to borrow to make unproductive investments. Second, expensing allows growing firms – and debt-financed firms that are not even growing – to pay no tax. Aside from the undesirable effects on the perception of fairness, this undermines economic neutrality by encouraging mergers and acquisitions that are motivated primarily by the benefits of using tax losses immediately rather than deferring them (until the growing firm has positive profits) and perhaps losing them altogether.

These problems were illustrated by the U.S. experience of the early 1980s when a combination of investment tax credits and accelerated depreciation created a tax system that was more generous than expensing at prevailing inflation rates. A provision for “safe-harbor leasing” was enacted which, in effect, allowed firms to sell excessive deductions and credits to firms that could use them. The specter of large and profitable multinational corporations paying no tax helped fuel the US Tax Reform Act of 1986 (Birnbaum and Murray, 1987).

¹⁷ Note, however, that Hall and Rabushka (1983) do not address the foreign tax credit issue, and devote barely a page to international issues.

4. Riding the Rides

Our experiences over the past two decades illustrate the importance of the issues discussed in the previous section.

4.1. Jamaica: Nipped in the Bud

During the early 1980s, McLure participated briefly in the tax reform project in Jamaica headed by Roy Bahl, before his participation was cut short by his decision to accept a Treasury Department position with the Reagan administration. Had he continued in the Jamaica project, McLure almost certainly would have examined – and perhaps championed – the case for a consumption-based direct tax, but only after examining its creditability. As it was, he focused on explaining why it is unwise to grant expensing of investment in the context of an income tax, especially in an inflationary environment.¹⁸

4.2. Treasury I: The Dog That Did Not Bark¹⁹

In the fall of 1983, McLure became the Deputy Assistant Secretary of the Treasury for Tax Analysis. During the State of the Union address in January 1984, President Ronald Reagan instructed Treasury Secretary Donald Regan to develop a tax reform plan “for fairness, simplicity, and economic growth,” and within a few days Regan had assigned McLure primary responsibility for developing that plan. As a visiting economist in the Office of Tax Analysis (OTA), Zodrow participated in preparation of the Treasury report, which Regan submitted to the White House in late November 1984. The tax reform plan became known as “Treasury I,” in recognition of the fact that it was, in Regan’s words, “written on a word processor” and thus could be modified by the White House before being submitted to the Congress.

¹⁸ See Section 3.4 above and McLure (1991).

¹⁹ The idea for this subtitle is shamelessly stolen from Hellerstein (forthcoming), who quotes from Arthur Conan Doyle’s story “Silver Blaze” regarding “the incident of the dog in the night-time”:

“Is there any point to which you would wish to draw my attention?”

“To the curious incident of the dog in the night-time.”

“The dog did nothing in the night-time.”

“That was the curious incident,” remarked Sherlock Holmes.

Consumption-Based Direct Taxes

Two things about the process and product of Treasury I surprised many observers: that the proposals could be kept under wraps until near the end and that they did not include a consumption-based direct tax alternative to the income tax.²⁰ We will concentrate on the second.

As noted previously, by 1984 a consensus was developing among public finance economists that a consumption-based tax would be preferable to the existing income tax – and even to an ideal “reformed” income tax. Nevertheless, what Treasury I proposed was, despite proposed continuation of some features of then-current law, including consumption-tax treatment of many pension plans, essentially a Haig-Simons income tax, with a primary objective of “taxing all income uniformly and consistently, without regard to source or use.” That objective does not allow exempting income from capital or allowing a deduction for saving. Even now many economists question the decision to opt for reforming the income tax, rather than replacing it with a consumption-based tax. (Indeed, it appears that some would have favored enactment of expensing in the context of an income tax, despite the pitfalls described earlier.)

To understand that choice, it is necessary to appreciate the political context in which the Treasury Department was operating. President Ronald Reagan had asked for a plan to reform the tax code. There was at least some chance that a presidential proposal that resembled whatever was proposed could be enacted. If Treasury had proposed a consumption-based tax, perhaps the president could have sold it. That would have been truly historic. We will never know, but it was not a sure bet. Moreover, the Treasury staff was concerned that if it put too many eggs in the consumption-tax basket, it might encounter “show-stoppers” – problems for which it had no solution – late in the game.

Three problems seemed particularly troublesome. First, given the political climate, it seemed unlikely that bequests would be treated as consumption and thus made subject to the consumption tax – as recommended, for example, in the R+F-based plan proposed by Aaron and Galper (1985). Many on the Treasury staff felt that such an outcome would be highly

²⁰ Treasury I did, however, include an entire volume devoted to examination of the value-added tax, an indirect consumption-based tax, because McLure did not want to miss the opportunity to have the IRS take a close look at the tax. The VAT was not given prominence because of the Reagan administration’s aversion to admitting that deficits were a problem or that higher taxes might be needed.

inequitable. Second, the international aspects of moving to a consumption tax raised serious concerns. In particular, adopting a consumption tax while our trading partners continued to tax on the basis of income would create a variety of opportunities for tax avoidance, tax evasion, and long or indefinite deferrals of tax. In addition, as discussed above, enacting a consumption tax would imply that all foreign tax treaties would have to be renegotiated, and existing provisions for relieving the double taxation of foreign source income via foreign tax credits would have to be revised. Finally, many on the Treasury staff were concerned that the transition to a consumption tax would be especially difficult. For all these reasons, the consumption tax route was abandoned early in the process of fundamental tax reform (McLure and Zodrow, 1987).

4.3. Colombia: Justifiably Cold Feet

In 1986, shortly after passage of the historic tax reform act in the United States, McLure was invited to undertake a statutorily mandated study of the need for inflation adjustment of the income tax in Colombia. Based on the manifest advantages of a consumption-based direct tax, especially in an inflationary environment, McLure proposed successfully that the terms of reference be interpreted to include a detailed examination of the case for such a tax.

This examination focused on the administrative aspects of implementing taxes based on both the R and R+F models (McLure, Mutti, Thuronyi and Zodrow, 1990). Notably, we did not fully examine the issue of creditability. In the final analysis, the government of Colombia settled on a system of inflation adjustment that resembled that pioneered by Chile some years earlier. This choice was fully justified, given the short time between submission of our report and the statutorily imposed deadline for modifying the system to introduce inflation adjustment, the novelty of consumption-based direct taxation, and the unresolved issue of creditability.

4.4. Bolivia: More Cold Feet

In the spring of 1994, Juan Cariaga, the former finance minister of Bolivia, invited us to La Paz to discuss with President Gonzalo Sánchez de Lozada the latter's ideas for a consumption-based direct tax. Despite warnings that such a tax might not be creditable in the United States, both President Sánchez de Lozada and Cariaga wanted to proceed.

Bolivia was an ideal place to introduce a consumption-based direct tax. First, there was no corporate income tax; the consumption-based tax would be an additional source of revenue. Thus from an administrative-compliance viewpoint the transition would have been simpler than in virtually any other western country, and capital levy issues would have been much simpler. Second, the Bolivian value-added tax (VAT) was one of the “cleanest” of any developing country; it had few exemptions and only one rate. This would have greatly simplified linking compliance and administration of the two consumption-based taxes. Third, this was President Sánchez de Lozada’s idea; it did not come from foreign advisers or the Ministry of Finance, and was thus much more likely to be enacted or at least considered seriously.

4.4.1. The Hybrid

We were convinced that the “tax prepaid” method should be used for the taxation of individuals in Bolivia, in order to avoid the complexity of the “tax-postpaid” method. We were, however, reluctant to propose the same approach for business, as that would imply the exemption of the margin of financial intermediaries – not a politically attractive alternative, regardless of any economic rationale for such treatment.²¹ Moreover, despite its considerable theoretical appeal, the tax prepaid approach suffered from several additional serious practical problems. For example, expensing not combined with cash flow treatment of loans implied that the government would initially suffer relatively large revenue losses. For the same reason more firms would initially incur “losses” for tax purposes, putting greater stress on the choice of the interest rate used to adjust carryforwards, an issue that would no doubt be controversial in any case.²² In addition, although the fact that financial transactions are ignored under the tax prepaid approach is the source of many of its simplicity advantages, it also creates problems, especially in transactions with foreign companies that are subject to an income tax. In particular, we felt that various avoidance schemes involving the manipulation of taxable receipts or deductible expenses and non-taxable interest income or non-deductible interest expense posed serious problems for the pre-paid approach that were not amenable to easy solutions. (For more details, see McLure

²¹ Since loans are ignored under the R-base, financial intermediaries would neither pay tax on the interest income on their loans nor take deductions for interest expense paid to their depositors. As a result, their interest rate spread (the difference between their lending and borrowing rates) would be untaxed.

²² For example, the carryforward rate should at least equal the risk-free rate of return, but since there is typically some probability that a firm will never realize the carryforward, an upward adjustment of an unknown magnitude would be appropriate.

and Zodrow (1996 a, b, c).) All of these problems are much more manageable if the postpaid or R+F approach is utilized at the business level.

We ultimately decided that Bolivia could sensibly do what no one had ever proposed – apply the tax prepaid method to individuals and the tax postpaid method to businesses, without creating an asymmetrical system that would be an open invitation for tax arbitrage. We described and appraised obvious opportunities for arbitrage under this “hybrid” system and concluded that the risks of arbitrage were less than the clear costs of either “pure” system.

4.4.2. The 800-pound Gorilla Swats a Gnat

As noted above, a consumption-based direct tax was likely to be a nonstarter if it were not eligible for foreign tax credits in capital-exporting countries, especially the United States. In Bolivia, despite not being lawyers, we undertook a serious attempt to determine whether such a tax would be – or should be – creditable in the United States. In a potentially felicitous coincidence, an IRS representative came to La Paz while we were there and she accompanied us to see President Sánchez de Lozada. She should have seen that the proposed hybrid tax was a well-conceived plan to improve the nation’s economic performance, and not a scheme to raid the U.S. Treasury. (Indeed, the amount of Bolivian taxes credited in the United States would almost assuredly have been less than under a conventional income tax.) But she took a very legalistic stance against creditability. We argued that the inclusion of the proceeds of borrowing in the tax base was exactly offset in present value by the subsequent deduction of debt repayment, but were told the IRS looks at form, not substance! We even undertook, with some assistance from the IRS representative, a demonstration that the business tax base under the hybrid tax would depart by only a few percentage points from that of an income tax. Again, she could not be persuaded.²³

Finally, back in the United States, we met with the technical staff of the Office of Tax Analysis of the U.S. Treasury Department, who, much to the consternation of the IRS representative, seemed to accept our economic arguments favoring creditability. (The OTA staff consists of

²³ See McLure and Zodrow (1996 a, b, c) for further description, discussion, and documentation.

economists.) We then visited Joseph Guttentag, the International Tax Counsel, and received a far different reaction. First, we made the mistake of being accompanied by an attaché from the Bolivian embassy, which elevated the meeting to a “state-to-state” plane and eliminated all possibility of open and frank discussion. Second, we suspect that the U.S. Treasury would not have cared very much if it had been only a Bolivian tax at stake. But agreeing that a consumption-based Bolivian direct tax would be creditable might pave the way for a request for creditability for a similar tax from other much larger countries. Bureaucratic risk aversion could easily explain the cool reception our proposal received.

4.4.3. The Cold Feet

President Sánchez de Lozada had initially told us that he wanted to go ahead with the proposal for a consumption-based direct tax, despite our concerns about creditability. Ultimately, however, reason prevailed and he realized that his country could not afford to impose a tax that might not be creditable in the United States, as doing so could bring direct investment from the United States to a halt. Somewhat surprisingly, we were asked to return the following year to examine the possibility of imposing an R-based tax on the resource sector in Bolivia – an exercise that ultimately also came to naught due to creditability concerns.

In many respects, it was unfortunate that we were representing Bolivia in our efforts to have the IRS deem a consumption tax to be creditable, rather than a country to which the United States could not so easily say “No,” such as Russia or China – and that the proposal was not floated before an administration that would presumably have been more receptive to the idea of consumption-based direct taxation and thus to creditability, such as that of President George H. W. Bush. Indeed, the IRS in 1999 granted partial creditability to an Italian income/origin-based VAT – a tax that does not allow deductions for interest expense or wages. However, the relevance of this treatment for the general issue of the creditability of consumption taxes is limited as, consistent with earlier IRS positions on this issue, the amount of credit granted in the United States reflected an adjustment that reduced the credit by implicitly introducing deductions for interest expense and wages in the calculation of the tax base (Rossi, 2002).

4.5. *The Former Soviet Union*

A consumption-based direct tax would have been highly appropriate for countries in transition from socialism. First, the stimulus to investment provided by expensing and the associated zero METR seems appropriate for countries needing to replace the outmoded industrial infrastructure inherited from the Soviet period. A consumption-based direct tax would be far superior in that regard to the tax holidays that surely would be – and in fact were – proposed and adopted to achieve the same purpose under an income tax. Second, a consumption-based direct tax would be immune to the inflation that would almost certainly occur. Third, the simplicity of a consumption-based direct tax would be a great advantage for a relatively poor region that did not have the resources to devote to administering and complying with an extremely complicated tax system; moreover, a simple new tax system might be easier to introduce successfully in countries that lacked a long history of tax compliance. Finally, transition problems did not seem to be much of a problem; since massive transition to something was inevitable, it might as well be to a consumption-based direct tax. Accordingly, McLure floated the idea of a consumption-based alternative to the income tax in a number of countries in transition from socialism (McLure, 1992 a, b, c).

4.5.1. *Russia: Betting on Dead and Dying Horses*

Shortly before the demise of the Soviet Union, a group of Hoover scholars began visiting Russia and working with successive chairmen of the Supreme Economic Council of the Russian Federation. In 1992 several, including McLure, were even appointed foreign advisers to that body. In that capacity McLure (1991) proposed that Russia adopt the SAT. As it turned out, the Economic Council did not have – or could not retain – enough influence to matter.²⁴

4.5.2. *Kazakhstan: “Don’t bother”*

In Kazakhstan a representative of Chevron, then by far the largest foreign investor in the country, told McLure, in regard to the SAT, “Forget it. It would not be creditable.” Since that view

²⁴ Another obstacle to the enactment of consumption-based tax reforms has been the opposition of the IMF. Indeed, at some point Milka Casanegra of the IMF, in effect, said to McLure, “I fought you in Colombia and I fought you in Venezuela and I will fight you here,” but never explained her – or the IMF’s – antipathy to consumption-based direct taxation.

echoed the concerns that McLure had expressed earlier in Jamaica, Colombia, and Bolivia, it was not hard to accept.

4.6. Colombia: Another Spin at the Wheel

The overwhelming reelection of President Alvaro Uribe in Colombia in May 2006 prompted interest in tax reform, especially of the business tax which is currently characterized by the relatively high tax statutory tax rate, including a temporary 10 percent surcharge, of 38.5 percent. Toward that end, Zodrow was invited to discuss options for fundamental tax reform. Many of the issues discussed in the paper thus far have played a prominent role in the deliberations. In particular, there is great interest in Colombia in both the Hall-Rabushka Flat Tax and the flat rate income taxes enacted in Russia and other countries in transition from socialism. The appeal of a consumption-based tax regime that is relatively favorable to foreign (and domestic) direct investment is tempered by concerns related to immediate revenue needs, creditability in the United States, and design issues related to limiting avoidance opportunities. Similarly, an interest in the simplicity benefits of a flat rate is tempered by concerns about the distributional implications of flattening the individual rate structure. Finally, there is increasing recognition that although a consumption-based business tax system is desirable because it eliminates distortions of marginal investment decisions while taxing location-specific economic rents at the statutory rate, that rate simply cannot be too high, especially given increased evidence of international tax competition and the prevalence of “parasitic” tax havens.²⁵ In particular, a high statutory rate exacerbates problems with transfer pricing and other financial accounting manipulations, as well as discouraging investment by multinationals with relatively mobile firm-specific rents – highly desirable investments that generate positive externalities, especially in the area of technology transfer. It remains to be seen what lies at the end of this latest “ride.”

4.7. The Recommendations of the President’s Tax Reform Panel in the United States

The two alternatives for tax reform recently presented by the President’s Advisory Panel on Federal Tax Reform (2005) reflect the current status of debate regarding the relative desirability

²⁵ See Slemrod and Wilson (2006) and references cited there. See Zodrow (2006) for a recent discussion of the tax policy trade-offs faced by governments attempting to attract highly mobile international capital in the face of increased tax competition, including that from tax havens.

of income-based and consumption-based direct taxes.²⁶ Specifically, there is widespread agreement that an “ideal” or comprehensive accrual-based tax on real economic income is not administrable, and significantly less but still considerable agreement that the taxation of the normal returns to capital that is inherent under an income tax is relatively undesirable. On the other hand, many observers are unconvinced that a movement to a true consumption tax is desirable or could be implemented in practice, citing uncertainty about the magnitudes of efficiency gains and improvements in administrative and compliance simplicity, as well as concerns about the distributional implications of such a reform and transitional problems.²⁷

Reflecting this lack of consensus, the panel was unwilling to recommend either a true consumption-based tax or significant movement toward a more comprehensive income tax. Instead, the panel recommended replacing the current hybrid income-consumption tax system with one of two alternative hybrid systems. The first, the Simplified Income Tax, is an integrated income tax system that follows the traditional base-broadening, rate-lowering approach, especially for the individual income tax, but nevertheless includes a wide variety of consumption tax features. The second, the Growth and Investment Tax, is best described as a consumption tax system based on the X-Tax, supplemented with a layer of flat rate capital income taxation at the individual level. Adoption of either of the panel’s recommendations would move the U.S. tax system closer, but not all the way, to a system of direct taxation based on consumption. By comparison, the alternative of a pure consumption tax based on the X- Tax, discussed at length in the report as its “Progressive Consumption Tax” option, was unable to achieve the unanimous approval required for the panel to recommend it.

5. Concluding Remarks

As we stagger from the amusement park, perhaps a bit dizzy from the rides, we note that enthusiasm for consumption-based direct taxation has ebbed and flowed over time. Indeed, our

²⁶ For further evaluation of the panel’s report, see Zodrow and McLure (2006). Zodrow, along with John Diamond, assisted the U.S. Treasury Department in calculating the estimates presented in the panel’s report of the economic effects of the various reforms proposed, using a dynamic, overlapping generations, computable general equilibrium model similar to that utilized in Diamond and Zodrow (forthcoming-a, forthcoming-c).

²⁷ For recent collections of articles that reflect the current status of the debate on these issues, see Zodrow and Mieszkowski (2002b), Diamond and Zodrow (forthcoming-b), and Aaron, Burman and Steuerle (forthcoming).

Consumption-Based Direct Taxes

own enthusiasm has depended on the context in which we considered the case for a consumption-based direct tax. For example, we reached different conclusions regarding policy for Bolivia, for countries in transition from socialism and for the United States in the period leading up to the Tax Reform Act of 1986.

Exuberant advocacy of a switch to such a tax initially followed Andrews' article debunking the view that a consumption-based direct tax would be administratively infeasible. However, this exuberance gave way to more measured support as tax experts examined more carefully the economic effects of such a switch, which depend crucially on how the transition is handled, the progressivity of the new system²⁸ and the administrative problems raised by various versions of consumption-based taxation. On economic grounds the case for the switch may be strong, but it is not the proverbial "slam dunk." (Zodrow and Mieszkowski, 2002 a).

Moreover, hovering over the amusement park is the black cloud of international issues. On the one hand, if the United States (or any other country) were to enact a tax of either the R or R+F varieties, it would need to undertake the daunting task of renegotiating its double taxation treaties. On the other hand, no other country can afford to enact such a tax without assurance that the United States would allow foreign tax credits for it. At the same time, however, two prominent U.S. reform proposals – the Progressive Consumption Tax option discussed by the president's tax reform panel and the Comprehensive Business Income Tax recommended by the U.S. Treasury (1992) – would have denied deductions for interest expense and thus would fall into the category of "non-creditable" taxes by current IRS standards. Only time will tell whether these recent high-level expressions of interest in tax structures that differ from a standard income tax will ultimately lead to more flexibility on the part of the IRS in deeming consumption-based direct taxes to be creditable against the domestic tax liability of United States.

²⁸ For example, see Altig, Auerbach, Kotlikoff, Smetters and Walliser (2001) and Diamond and Zodrow (forthcoming-a, forthcoming-c).

Table 1. Key Characteristics of Alternative Forms of Consumption-Based Direct Taxes

	BP1, Aaron-Galper	Flat Tax	BP2, X-Tax, SAT	McLure-Zodrow	USA Tax
Characterization	Tax postpaid	Tax prepaid	Tax prepaid	Hybrid ^a	Hybrid ^b
Business tax rates	Flat rate	Flat rate	Flat rate	Flat rate	Flat rate
Depreciable assets	Expensed	Expensed	Expensed	Expensed	Expensed
Business loans	CF ^c	Ignored ^d	Ignored ^d	CF ^c	Ignored ^d
Individual tax rates	Graduated rates	Flat rate	Graduated rates	Graduated rates	Graduated rates
Individual loans	CF ^c	Ignored ^d	Ignored ^d	Ignored ^d	CF ^c

Notes: (a) In the McLure-Zodrow hybrid, the tax on individuals is prepaid, but that on businesses is postpaid.

(b) The USA tax is comprised of a postpaid tax on individuals and a (prepaid) value-added tax (VAT) on businesses.

(c) CF or cash flow treatment of loans implies that interest income and the proceeds of loans are taxable, and repayment of interest and principal are deductible. This treatment characterizes a “R+F” tax base that includes both real and financial transactions in the form of loans.

(d) The case in which loans are ignored corresponds to an “R” base, in which only real transactions are taxed; in particular, interest income is not taxed and interest expense is not deductible.

References

- Aaron, H.J., L. Burman, and C.E. Steuerle. Forthcoming. *Taxing Capital Income*. Washington, D.C.: Urban Institute Press.
- Aaron, H.J., and H. Galper. 1985. *Assessing Tax Reform*. Washington, D.C.: Brookings Institution.
- Altig, D., A.J. Auerbach, L.J. Kotlikoff, K.A. Smetters, and J. Walliser. 2001. Simulating Fundamental Tax Reform in the United States. *American Economics Review* 91:574-595.
- Andrews, W.D. 1974. A Consumption-Type or Cash Flow Personal Income Tax. *Harvard Law Review* 87:1113-88.
- Ballard, C.L. 2002. International Aspects of Fundamental Tax Reform, in *United States Tax Reform in the 21st Century*, eds. G. R. Zodrow and P. Mieszkowski. Cambridge, U.K.: Cambridge University Press.
- Bankman, J., and M. Schler. Forthcoming. Tax Planning Under the Flat Tax/X Tax. In *Taxing Capital Income*, ed. H.J. Aaron, L. Burman, and C.E. Steuerle. Washington, D.C.: Urban Institute Press.
- Birnbaum, J.H., and A.S. Murray. 1987. *Showdown at Gucci Gulch: Lawmakers, Lobbyists, and the Unlikely Triumph of Tax Reform*. New York: Random House.
- Boadway, R., and N. Bruce. 1984. A General Proposition on the Design of a Neutral Business Tax. *Journal of Public Economics* 24:231-39.
- Bradford, D.F. 1986. *Untangling the Income Tax*. Cambridge, MA: Harvard University Press.
- Bradford, D.F. 2004. *The X-Tax in the World Economy*. Washington, D.C.: American Enterprise Institute.
- Brown, E.C. 1948. Business-Income Taxation and Investment Incentives. In *Income, Employment, and Public Policy: Essays in Honor of Alvin Hansen*, ed. L.A. Metzler et al., 300-16. New York: W.W. Norton and Co..
- Devereux, M.P., and H. Freeman. 1991. A General Neutral Profits Tax. *Fiscal Studies* 12:1-15.
- Diamond, J.W., and G.R. Zodrow. Forthcoming-a. Consumption Tax Reform: Changes in Business Equity and Housing Prices. In *Fundamental Tax Reform: Issues, Choices and Implications*, ed. J.W. Diamond and G.R. Zodrow. Cambridge, MA: MIT Press.

Consumption-Based Direct Taxes

- Diamond, J.W., and G.R. Zodrow. Forthcoming-b. *Fundamental Tax Reform: Issues, Choices and Implications*. Cambridge, MA: MIT Press.
- Diamond, J.W., and G.R. Zodrow. Forthcoming-c. Economic Effects of a Personal Capital Income Tax Add-On to a Consumption Tax. *FinanzArchiv*.
- Fisher, I. 1939. Double Taxation of Savings. *American Economic Review* 29:16-33.
- Gale, W.G. and J. Holtzblatt. 2002. The Role of Administrative Issues in Tax Reform: Simplicity, Compliance and Administration. In *United States Tax Reform in the 21st Century*, ed. G. R. Zodrow and P. Mieszkowski. Cambridge, U.K.: Cambridge University Press.
- Genser, Bernd. Forthcoming. The Dual Income Tax: Implementation and Experience in European Countries. *FinanzArchiv*.
- Gerard, Marcel. 2006a. A Closer Look at Belgium's Notional Interest Deduction. *Tax Notes International* 41:449-454.
- Gerard, Marcel. 2006b. Belgium Moves to Dual Allowance for Corporate Equity. *European Taxation* 46:156-162.
- Gillis, M., P. Mieszkowski, and G.R. Zodrow. 1996. Indirect Consumption Taxes: Common Issues and Differences among the Alternative Approaches. *Tax Law Review* 51:725-44.
- Hall, R.E. 2005. Guidelines for Tax Reform: The Simple, Progressive Value-Added Consumption Tax. In *Toward Fundamental Tax Reform*, ed. A.J. Auerbach and K. Hassett. Washington, D.C.: AAEI Press.
- Hall, R.E., and A. Rabushka. 1983. *Low Tax, Simple Tax, Flat Tax*. New York: McGraw-Hill.
- Hall, R.E., and A. Rabushka. 1995. *The Flat Tax*. Stanford: Hoover Institution Press.
- Hellerstein, W. Forthcoming. The U.S. Supreme Court's State Tax Jurisprudence: A Template for Comparison. In *Comparative Fiscal Federalism: Comparing the European Court of Justice and the U.S. Supreme Court's Tax Jurisprudence*, ed. R.S. Avi-Yonah, J.R. Hine, and M. Lang. New York: Kluwer.
- Hubbard, R.G. 2002. Capital Income Taxation in Tax Reform: Implications for Analysis of Distribution and Efficiency. In *United States Tax Reform in the 21st Century*, ed. G.R. Zodrow and P. Mieszkowski. Cambridge, U.K.: Cambridge University Press.

Consumption-Based Direct Taxes

- IFS Capital Taxes Group. 1991. *Equity for Companies: A Corporate Tax for the 1990s, Commentary No. 26*. London: Institute for Fiscal Studies.
- Institute for Fiscal Studies. 1978. *The Structure and Reform of Direct Taxation: Report of the Committee Chaired by Professor J.E. Meade*. London: Allen and Unwin.
- Ivanova, A., M. Keen, and A. Klemm. 2005. Russia's "Flat Tax." *Economic Policy* 20:397-444.
- Kaldor, N. 1955. *An Expenditure Tax*. London: Allen and Unwin.
- Keen, M., and J. King. 2002. The Croatian Profit Tax: An ACE in Practice. *Fiscal Studies* 23: 401-18.
- Kelley, P.L. 1970. Is an Expenditure Tax Feasible? *National Tax Journal* 23:237-253.
- McLure, C.E., Jr. 1988. The Tax Reform Act of 1986: Tax Reform's Finest Hour or Death Throes of the Income Tax? *National Tax Journal* 41:305-15.
- McLure, C.E., Jr. 1991. Expensing. In *The Jamaican Tax Reform*, ed. R. Bahl. Cambridge, MA: Lincoln Institute of Land Policy.
- McLure, C.E., Jr. 1992a. Income Tax Policy for the Russian Republic. *Communist Economies and Economic Transformation* 4:425-36.
- McLure, C.E., Jr. 1992b. A Consumption-Based Direct Tax for Countries in Transition from Socialism. *The Wayne Law Review* 38:1697-1756.
- McLure, C.E., Jr. 1992c. A Simpler Consumption-Based Alternative to the Income Tax for Socialist Economies in Transition. *World Bank Research Observer* 7:221-37.
- McLure, C.E., Jr. 1997. The Simplicity of the Flat Tax: Is It Unique? *American Journal of Tax Policy* 14:283-98.
- McLure, C.E., Jr., and G.R. Zodrow. 1987. Treasury I and the Tax Reform Act of 1986: The Economics and Politics of Tax Reform. *Journal of Economic Perspectives* 1:37-58.
- McLure, C.E., Jr., and G.R. Zodrow. 1990. Administrative Advantages of the Individual Tax Prepayment Approach to the Direct Taxation of Consumption. In *Heidelberg Congress on Taxing Consumption*, ed. M. Rose. New York: Springer-Verlag.

Consumption-Based Direct Taxes

McLure, C.E., Jr., and G.R. Zodrow. 1996a. A Hybrid Consumption-Based Tax Proposed for Bolivia. *International Tax and Public Finance* 3:97-112.

McLure, C.E., Jr., and G.R. Zodrow. 1996b. Creditability Concerns Doom Bolivian Flat Tax. *Tax Notes International* 12:825-29.

McLure, C.E., Jr., and G.R. Zodrow. 1996c. A Hybrid Approach to the Direct Taxation of Consumption. In *Frontiers of Tax Reform*, ed. M. Boskin. Palo Alto: Hoover Institution Press.

McLure, C.E., Jr., J. Mutti, V. Thuronyi, and G.R. Zodrow. 1990. *The Taxation of Income from Business and Capital in Colombia*. Durham: Duke University Press.

Mill, J.S. 1921. *Principles of Political Economy*. London: Ashley, Longmans, Green and Company.

Musgrave, R.A. 1959. *The Theory of Public Finance*. New York: McGraw-Hill.

President's Advisory Panel on Federal Tax Reform. 2005. *Simple, Fair and Pro-Growth: Proposals to Fix America's Tax System*. Washington, D.C.: U.S. Government Printing Office.

Rose, M., and R. Wiswesser. 1998. Tax Reform in Transition Economies: Experiences from Participating in the Croatian Tax Reform Process of the 1990s. In *Public Finance in a Changing World*, ed. P.B. Sorensen. Houndmills: Macmillan Press.

Rossi, A.A. 2002. Relief from Double Taxation under the New U.S.-Italy Tax Treaty. *Tax Notes International* 28:487-502.

Shoup, C.S. 1969. *Public Finance*. Chicago: Aldine Publishing.

Slemrod, J. 1996. Which Is the Simplest Tax System of Them All? In *Economic Effects of Fundamental Tax Reform*, ed. H.J. Aaron and W.G. Gale. Washington, D.C.: Brookings Institution Press.

Slemrod, J. 1997. Deconstructing the Income Tax. *American Economic Review* 87:151-55.

Slemrod, J. and J. Wilson. 2006. Tax Competition with Parasitic Tax Havens. National Bureau of Economic Research Working Paper W12225. Cambridge, MA: NBER.

Consumption-Based Direct Taxes

- Slitor, R.E. 1973. Administrative Aspects of Expenditures Taxation, in *Broad-Based Taxes: New Options and Sources*, ed. R.A. Musgrave. Baltimore: Johns Hopkins University Press.
- Thuronyi, V. 1996. Adjusting Taxes for Inflation. In *Tax Law Design and Drafting*, ed. V. Thuronyi. Washington, D.C.: International Monetary Fund.
- U.S. Department of the Treasury. 1977. Blueprints for Basic Tax Reform. Washington, D.C.: U.S. Government Printing Office.
- U.S. Department of the Treasury. 1984. *Tax Reform for Fairness, Simplicity, and Economic Growth*. Washington, D.C.: U.S. Government Printing Office.
- U.S. Department of the Treasury. 1992. *Integration of the Individual and Corporate Tax Systems*. Washington, D.C.: U.S. Government Printing Office.
- Weidenbaum, Murray. 1996. The Nunn-Domenici USA Tax: Analysis and Comment. In *Frontiers of Tax Reform*, ed. M. Boskin. Palo Alto: Hoover Institution Press.
- Zodrow, G.R. 1995. Taxation, Uncertainty, and the Choice of a Consumption Tax Base. *Journal of Public Economics* 58: 257-65.
- Zodrow, G.R. 2002. Transitional Issues in the Implementation of a Flat Tax or a National Retail Sales Tax. In *United States Tax Reform in the 21st Century*, ed. G.R. Zodrow and P. Mieszkowski. Cambridge, U.K.: Cambridge University Press.
- Zodrow, G.R. 2006. Capital Mobility and Source-Based Taxation of Capital Income in Small Open Economies. *International Tax and Public Finance* 13:269-94.
- Zodrow, G.R. Forthcoming. Should Capital Income Be Subject to Consumption-Based Taxation? In *Taxing Capital Income*, ed. H.J. Aaron, L. Burman, and C.E. Steuerle. Washington, D.C.: Urban Institute Press.
- Zodrow, G.R. and C.E. McLure, Jr. 1991. Implementing Direct Consumption Taxes in Developing Countries. *Tax Law Review* 46:405-87.
- Zodrow, G.R., and C.E. McLure, Jr. 2006. Time for US Tax Reform? The Tax Reform Panel's Recommendations. *Bulletin for International Taxation* 60:134-149.
- Zodrow, G.R. and P. Mieszkowski. 2002a. Introduction: The Fundamental Question in Fundamental Tax Reform. In *United States Tax Reform in the 21st Century*, ed. G.R. Zodrow and P. Mieszkowski. Cambridge, U.K.: Cambridge University Press.

Zodrow, G.R., and P. Mieszkowski. 2002b. *United States Tax Reform in the 21st Century*.
Cambridge, U.K.: Cambridge University Press.