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A Guided Tour of the Amusement Park**

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International Studies Program
Andrew Young School of Policy Studies
Georgia State University
Atlanta, Georgia 30303
United States of America

Phone: (404) 651-1144
Fax: (404) 651-4449
Email: ispaysps@gsu.edu
Internet: <http://isp-aysps.gsu.edu>

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Consumption-Based Direct Taxes: A Guided Tour of the Amusement Park¹

Charles E. McLure, Jr.
Hoover Institution, Stanford University

and

George R. Zodrow
Economics Department and Baker Institute for Public Policy, Rice University

I. Introduction

The modern discussion of consumption-based direct taxation – with its ups and downs and ins and outs – has sometimes resembled a seemingly never-ending series of rides in an amusement park, though perhaps not exhilarating ones. 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 will 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. Although the focus of this conference is on the taxation of individuals, it will often be necessary to discuss the taxation of business, since the two can be separated only with great care.

II. The Bird’s Eye View

The modern discussion of consumption-based taxes began some 65 years ago with Irving Fisher.² Following Fisher’s insights, advocates of consumption-based taxation have emphasized that proportional taxation based on consumption achieves neutrality toward the choice of when

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² See Fisher (1939) and Fisher and Fisher (1942).

to consume.³ 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.

Similarly, 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 adoption of an expenditure tax would reduce the progressivity of the tax system are misplaced, since under a direct consumption tax vertical equity could be maintained by appropriately adjusting the rate structure.

In 1955, Nicholas Kaldor published *An Expenditure Tax*, in which he proposed that direct taxation should be based on consumption rather than on income. 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, thus calculating consumption directly, or balance sheets, allowing saving to be deducted from income to calculate consumption.⁴ Kaldor showed that household 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.

In 1974, in a seminal paper published in the *Harvard Law Review*, Bill 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 on the basis of consumption eliminates the timing problems (e.g., deductions 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 US Department of the Treasury (1977) and the Meade Commission in the UK (Institute for Fiscal Studies, 1978) produced the first detailed studies of alternative methods of implementing consumption-based direct taxes.⁵ 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 applies to income from old capital while a wage tax exempts deferred capital income from tax. In 1983, Robert Hall and Alvin Rabushka

³ However, by calling the problem “double taxation of saving,” Fisher obscured its nature, diverting attention from the intertemporal distortion of consumption. Earlier advocacy of consumption-based taxation by Mill and 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).

⁴ William Vickrey (1947, chapter 12) describes the adjustments that would need to be made to calculate personal expenditures. Richard 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. The risks of excessive cost, substantial breakdown, and even an administrative debacle would probably increase if the tax were applied on a broad scale approaching that of the personal income tax.” In a similar vein, Carl Shoup (1969, p. 349) writes, “[T]he formidable administrative problems facing a mass expenditure tax make detailed discussion of it unfruitful at this time. By comparison, Patrick 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 developed and developing countries. ... In the context of highly developed societies, there seems little reason to doubt the possibility of effectively imposing an expenditure tax.” Citing Kenyon Poole (1943) and Milton Friedman (1943), Kelley notes that analysts at the US Treasury Department had earlier reached a similar conclusion regarding a wartime tax on spending.

⁵ Sven-Olof Lodin (1978) appeared at about the same time, but was substantially less influential.

proposed what has become the most famous form of consumption-based direct tax – and perhaps the most widely misunderstood – the Hall-Rabushka flat tax, an approach that combines a single rate income tax on wages and salaries above an exemption at the individual level with a business level tax levied at the same rate on real cash flow, with expensing of all expenditures, exemption of interest income, and the elimination of interest deductions (Hall and Rabushka, 1983, 1985).

These various proposals for consumption-based direct taxation were part of the background during the development of the US 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 among tax experts, that report's endorsement of a traditional income tax, rather than a consumption-based direct tax, may have surprised many – a development that we will discuss further below.

David Bradford (1986, 2005) 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, 1996a, 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.⁶

Twenty years after the Treasury Department proposals, the Tax Reform Panel appointed by President Bush proposed for consideration 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. Much of the intervening debate has focused – and continues to focus – on three issues: a) the effects on investment, labor supply, economic output, and welfare, which depend in turn on b) the transition and wealth effects of introducing a consumption-based direct tax, and c) international issues, notably whether such a tax would be eligible for foreign tax credits offered by residence countries of investors. In our discussion, we will concentrate on the issues of simplicity in administration and compliance and the international aspects of consumption taxes, as these issues have been especially relevant in our work in developing countries and countries in transition; however, we will also consider the important issues of economic efficiency, equity, and transition.

III. Some Preliminaries

A. Two Approaches to Taxing Consumption

Leaving aside amounts paid in taxes, the only possible uses of income are consumption and saving. Thus, as emphasized by Andrews, 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 – to be symmetrical – must allow deductions for saving and repayment of loans. Traditional Individual Retirement Accounts (IRAs) implement this approach, as taxpayers are allowed a deduction for contributions, interest accumulates without being taxed, and both principal and interest (or other earnings on investment) are included in taxable income when withdrawn. Because tax is

⁶ In developing and transition countries this term did not carry the baggage it would have carried in the US, where it could easily be mistaken for a proposal to simplify the infamous alternative minimum tax.

postponed until saving is withdrawn for consumption, this can be characterized as the “tax postpaid” approach to taxing consumption.

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.⁷ 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 under this approach to consumption taxation. The Hall-Rabushka flat tax, the Bradford X-tax, the Simplified Alternative Tax, and (for individuals only) the McLure-Zodrow 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 (“expensed”) in the year in which incurred, rather than being capitalized, with deductions spread over the useful life of the item, via depreciation allowances, amortization, depletion, etc. Another important 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 marginal investments – is zero, as in the case of both the individual-level tax postpaid and tax prepaid approaches described above (Brown, 1948; Harberger 1980). Combining this treatment of expenditures on real assets with the tax prepaid treatment of financial transactions yields what the Meade Committee called the real business cash flow tax base, or “R-base,” and combining it with the tax postpaid approach yields the “real plus financial” business cash flow tax base, or “R+F base.” The hybrid that we proposed would employ the tax prepaid method for individuals with the tax postpaid method for businesses.⁸

B. 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 both individuals and businesses. 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

⁷ Despite early arguments to the contrary, this equivalence can also be extended to the case of uncertain returns (Kaplow, 1994; Zodrow, 1995).

⁸ See Institute for Fiscal Studies (1978, chapter 12) Two additional approaches to consumption-based direct taxation deserve mention, although they have not received much attention in the US debate. The so-called S-base consumption tax, a version of which was adopted in Estonia in 1994, would apply (only) to all business distributions to shareholders. From 1994 through 2000 Croatia employed a tax that allowed an Allowance for Corporate Equity (ACE) – an additional deduction equal to the product of the book value of equity capital and a risk-free interest rate. See Boadway and Bruce (1984), IFS Capital Taxes Group (1991), and Devereux and Freeman (1991, 1995) for the intellectual origins and development of the ACE tax and Rose and Wiswesser (1998) and Keen and King (2002) for descriptions and evaluations of the Croatia experience.

from socialism⁹) is a far cry from the 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 either the flat tax proposal (and its derivatives) or 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 (Slemrod, 1987; 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. On the other hand, as noted below, inserting expensing into a traditional income tax can create significant problems.

C. 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). These issues are also addressed in Bradford (1986), Slemrod (1996), Gale and Holtzblatt (2002) and Bankman and Schler (forthcoming).

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, especially mismeasurement of depreciation compromises the accuracy of the measurement of income, and implies that the essential economic neutrality goal of the income tax cannot be achieved.¹¹ Moreover, because it is exceedingly difficult to establish empirically the correct pattern of such allowances, they are susceptible to alteration for political reasons.¹²

Consumption-based taxation avoids most problems of income measurement, as its base does not include change in net worth.¹³ This is most easily seen in the case of the tax prepaid

⁹ See Ivanova, Keen and Klemm (2005).

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).

¹² They may also be altered for macroeconomic stabilization (e.g., use of the investment tax credit as a counter-cyclical measure, an issue that we do not consider).

¹³ 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

version. Neither principal nor interest enters into the calculation of 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. Under both approaches, the primary exception is the need to carry forward negative cash flows under the business tax.

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, the measurement of income 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, perhaps badly.¹⁴

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.

D. The Case for Consumption-Based Taxation: Economic Efficiency

Because the efficiency arguments for and against consumption taxation are discussed at some length in Diamond and Zodrow (this conference/volume), we only briefly outline the basic arguments here.¹⁵ The central issue is whether the tax system would be neutral with respect to the allocation of consumption over time, since a proportional tax on consumption achieves such neutrality, while an income tax effectively raises the price of future consumption by reducing the after-tax return to saving. This issue has been addressed at length in the optimal taxation literature; in particular, the results of the literature on whether differential commodity taxation is desirable have been extended by interpreting the commodities as consumption at different points in time. Although the optimal taxation literature by nature seldom obtains definitive results, the general message of this literature is that consumption taxation seems likely to be optimal, or close to optimal.

The strongest results are obtained in models in which individuals are characterized by an infinite life, which loosely corresponds to the case in which the utility function of parents includes the utility function of their children. Under these circumstances, Judd (1985) and Chamley (1986) show that in the long run the optimal capital income tax rate is zero – that is, (proportional) consumption taxation is optimal. This result obtains because the distortionary effects of even a small tax on capital income become exponentially large over an infinite horizon. Note, however, that these results also imply that existing capital should be taxed to the

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, and even more problematic in an inflationary environment, because the interest rate should reflect inflation.

¹⁴ Chile has long had a comprehensive balance-sheet-based system of inflation adjustment. Harberger (1988) provides a brief outline of the system and Thuronyi (1996) provides a more detailed description. While the system is relatively simple, it cannot be as simple as consumption-based taxation, which requires no inflation adjustments to be accurate.

¹⁵ For a more comprehensive discussion, see Zodrow (forthcoming).

maximum extent feasible, since such taxation corresponds to a nondistortionary lump sum capital levy.¹⁶

Because the “real world” relevance of the infinite horizon model is limited, most policy analyses have focused on the alternative of dynamic life-cycle models with an overlapping generations structure. Consumption taxation is optimal in these models only under certain restrictions on individual tastes – such as separability between consumption and leisure, so that the differential taxation of future consumption associated with the taxation of capital income cannot be desirable as a means of indirectly taxing otherwise untaxed leisure. Although the conditions required for consumption taxation to be optimal in life-cycle models arguably represent a reasonable benchmark for individual preferences (Atkinson and Stiglitz, 1980), the validity of such conditions cannot be guaranteed. Accordingly, in order to determine the relative merits of taxation based on income and consumption, numerous studies have simulated the effects of replacing an existing income tax with a consumption tax. Although such results are still controversial (Gravelle, 2002), the general message of this literature – as exemplified by the work of Altig, Auerbach, Kotlikoff, Smetters and Walliser (2001) – is that replacing an income tax with a consumption-based tax generally improves economic efficiency and results in long run increases in output and individual welfare gains.¹⁷ On the other hand, Erosa and Gervais (2002) show that consumption taxation is optimal in the typical lifecycle overlapping generations model only if the appropriate age-conditioned taxes on labor income are available. In the absence of such taxes, they show that positive capital income tax rates may be desirable as an indirect means of approximating the optimal age-dependent labor income taxes. Their simulations suggest that the optimal capital income tax rates are roughly one third the rate applied to labor income. This result could be interpreted as implying that a consumption tax is approximately optimal, especially when the administrative costs of taxing capital income at a relatively low rate are considered. Nevertheless, it also demonstrates that an implication of the optimal taxation literature is that the optimality of consumption taxation – that is, neutral taxation of consumption across time – cannot be assumed.

E. The Case for Consumption-Based Taxation: Distributional Issues

Equity issues are central to the consumption versus income tax debate. There is widespread agreement that a consumption tax is preferable to an income tax in terms of the criterion of horizontal equity – equal treatment of those deemed to have equal taxpaying capacity. The lifetime tax burden under a proportional consumption tax is equal to the product of the tax rate and the lifetime endowment, defined as the present value of lifetime labor earnings, and is thus independent of decisions regarding saving and consumption. By comparison, under an income tax, the lifetime tax burden is relatively high on individuals who save, that is, those who either earn early or consume late in life; the resulting differentials in tax

¹⁶ This strong result is reinforced in the case of a small open economy as a standard optimal taxation result specifies that because such a country faces a perfectly elastic supply of capital it should not attempt to impose a source-based tax on capital income. Such a tax is counterproductive in that it only drives out mobile capital, with both the tax burden and its efficiency costs ultimately being borne by local factors. For further discussion as well as qualifications to this strong result, see Zodrow (2006).

¹⁷ Another central message is that the economic effects of implementing a consumption tax depend on its structure, including especially its transition rules. For example, the effects of a wage tax differ significantly from those of a consumption tax because, as will be discussed further below, only the latter imposes a one-time levy on the owners of existing capital – unless such capital is protected with sufficiently generous transition rules (Summers, 1981; Auerbach and Kotlikoff, 1987).

burdens are widely perceived to be inequitable.¹⁸ Vertical equity issues are more contentious in the debate. In principle, a multiple rate consumption tax like the X-Tax can be designed to satisfy vertical equity by replicating the distribution of the tax burden under the income tax, if it is deemed desirable to do so. For example, the “Progressive Consumption Tax” option discussed by the President’s tax reform panel in the US was designed to satisfy this criterion. More generally, a well-known result derived by Atkinson and Stiglitz (1976) shows that under certain circumstances if individuals differ only in their skill/wage levels and a nonlinear tax on wage income is available, differential taxation of consumption in different periods (i.e., a move away from consumption taxation) is not necessary to achieve society’s distributional goals. This result has been qualified in several ways (Naito, 1999; Saez, 2002) and extended in others (Kaplow, 2004, Saez, 2002), suggesting that vertical equity concerns may be less important than commonly thought in choosing between income and consumption taxes, as long as the consumption tax option is sufficiently progressive.¹⁹ This general conclusion receives tentative support from simulation results which indicate that a progressive X-Tax reform can result in long run welfare gains for each income group in a dynamic life-cycle overlapping generations model (Altig, Auerbach, Kotlikoff, Smetters and Walliser, 2001), as well as several studies, summarized in Slemrod (forthcoming), which show that the extent of actual capital income taxation under the current income tax is relatively moderate (and indeed was negative in 1983, prior to the Tax Reform Act of 1986).

F. Transition Issues

Again, because the transitional issues raised by the implementation of a consumption tax are discussed at some length in Diamond and Zodrow (this conference/volume), we only briefly outline the basic arguments here.²⁰ Implementing a consumption tax reform would raise a host of transition issues (Sarkar and Zodrow, 1993; Pearlman, 1996; Zodrow, 1997, 2002). However, the literature has focused almost exclusively on two of these issues. The first is the one-time loss that might be imposed on owners of business equity with a switch to consumption taxation. This loss arises because, even though consumption tax treatment is very generous to new investment, in the absence of special transition rules, firms would not be allowed to deduct the remaining basis of existing depreciable assets even though the returns to such assets would be taxable. As a result, the prices of existing assets would tend to fall, perhaps significantly (Gravelle, 1996). The magnitude of this potential capital levy, however, would also be affected by numerous other effects of implementing a consumption tax, most of which would act to offset the levy. In particular, the time required to adjust the capital stock, which would allow the owners of existing capital to earn above-normal returns during the transition to the new system, as well as reform-induced efficiency gains, would act to reduce or even reverse the capital levy associated with

¹⁸ As discussed in Zodrow and McLure (1991), this argument can be extended to include bequests and inheritances. In that case, horizontal equity must be defined with respect to a single generation, implying that individuals should be taxed on all the resources available to them over their lifetime regardless of whether they are used for bequests, or multiple-generation dynasty, implying that horizontal equity should be defined with respect to actual consumption, ignoring bequests. However, the issues raised by the choice between these competing views of equity are largely similar for both income and consumption taxes.

¹⁹ By comparison, there is general agreement that a move to a flat tax with a sufficiently large exemption level will result in a redistribution of income from a broadly defined middle class to the very wealthy (Mieszkowski and Palumbo, 2002; Feenberg, Poterba and Mitrusi, 1997).

²⁰ For a more comprehensive discussion, see Diamond and Zodrow (2006).

implementing a consumption tax (Auerbach, 1996; Lyon and Merrill, 2001; Diamond and Zodrow, 2006).

A second concern is the effect of implementing a consumption tax reform on the price of owner-occupied housing, which is provided very generous treatment under the existing income tax. In this case, housing prices might decline both because housing loses its tax advantage relative to other investments (attributable to the fact that imputed rents are untaxed) and because deductions for home mortgage interest and property taxes are eliminated. Some studies suggest that reform-induced price declines might be significant (Brinner, et al., 1995; Capozza, Green and Hendershott, 1996). Once again, however, other researchers have concluded that other factors, including reform-induced declines in interest rates, capital reallocation into other sectors, and conversion of owner-occupied housing into rental housing, would mitigate or completely offset any potential declines in the price of owner-occupied housing (Bruce and Holtz-Eakin, 1999; Gravelle, 1996; Diamond and Zodrow, 2006).

To sum up, potential transition problems have posed a formidable obstacle to the enactment of a consumption tax reform. In particular, opponents of consumption tax reforms commonly stress the prospect of significant declines in business equity prices and the values of owner-occupied housing (and rental housing). Although such declines may be offset by the other economic effects of a consumption tax reform, there is naturally considerable uncertainty about these effects. In addition, the prospect of large reform-induced windfall losses implies that the use of generous transition rules is likely – a development that would reduce the potential efficiency gains that can be obtained a consumption tax reform and add considerable complexity.

G. International Issues²¹

Bilateral tax treaties are employed to prevent double taxation of income by two contracting nations.²² 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 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.²³

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 US model treaty, and the UN model treaty), 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 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 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,

²¹ Our discussion will focus on the issue of creditability; for more general discussions of international issues, see Hines (1996), Ballard (2002), Bradford (2004), and Altshuler and Grubert (2006)..

²² Tax treaties are also employed to improve tax administration, through exchange of information. This is not relevant for the present purpose. Some countries unilaterally provide foreign tax credits.

²³ 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 subsidiaries), as well as for withholding taxes on dividends paid to the parent.

during which time international transactions would be conducted under a cloud of uncertainty, but especially because the negotiators would be operating in unknown territory where there would be no guidelines, thus exacerbating the uncertainty.²⁴ It has thus long been recognized that a consumption-based direct tax might not qualify for relief from double taxation.²⁵ 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 US would allow a foreign tax credit for a consumption-based tax. No country seeking to attract investment from the US could afford to levy a tax that would not be creditable, thus subjecting domestic-source income in the form of above-normal returns earned by US multinationals to double taxation. (Since normal returns are untaxed under a consumption tax, the US domestic tax would be the only tax on such returns.)

H. 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 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 effective tax rates at the entity level, and probably for the economy as a whole. Negative marginal tax rates imply 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, “zeroing out” undermines economic neutrality, by encouraging mergers and acquisitions.

The experience of the early 1980s in the US bore out the validity of this warning. Competition between the White House and the Congress to be generous to investment produced a combination of investment tax credits and accelerated depreciation that was more generous than expensing at the inflation rates prevailing at that time. A provision for “safe-harbor leasing” was enacted which, in effect, allowed firms to sell excessive deductions and credits to firms that

²⁴ The US 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.” Vogel (1990) summarizes the tax treaty problems in barely two pages, concluding (p. 534), “All these treaties would have to be renegotiated. And do not think that renegotiating them is a simple matter. Tax treaty negotiations are hard, extended and sometimes wily battles. And they take their time....”

Somewhat anomalously, both an S-based tax and an ACE tax would be much less likely to be denied creditability. US 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. Thus 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.

²⁵ Thus, when sometime during the late 1990s Alvin Rabushka asked McLure (roughly), “What’s this about a foreign tax credit,” McLure said, “I was wondering when you were going to ask.” Hall and Rabushka (1983) devote barely a page to international issues. They could hardly be more inaccurate when they state regarding a flat tax proposed for the US (1983, p. 52), “Under the principle of taxing only domestic activities, the U.S. tax system would mesh neatly with the tax systems of our major trading partners.”

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).

IV. Riding the Rides

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

A. 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 before doing so he would have paid serious attention to the question of eligibility for foreign tax credits in the US – an issue that might have made such a proposal unwise and untenable. 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.²⁶

B. Treasury I: the Dog That Did Not Bark²⁷

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.

Two things about the process and product of Treasury I surprised many observers: that the proposals we would make could be kept under wraps until near the end and that we did not propose a consumption-based alternative to the income tax. 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 definition does not allow exempting income from capital or allowing a deduction for saving. Even now

²⁶ See Section III.H above and McLure (1991).

²⁷ The idea for this subtitle is shamelessly stolen from Hellerstein (forthcoming), who quotes Arthur Conan Doyle 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.

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. The President of the United States 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 President Reagan 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 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, for reasons also be discussed above, 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.²⁸

C. Colombia: Justifiably Cold Feet

In 1986, shortly after passage of the historic tax reform act in the US, 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 the examination of the case for such a tax.

We 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.

D. 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 US, both the president and Cariaga wanted to proceed.

²⁸ See McLure and Zodrow (1987) for further discussion.

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 the president’s idea; it did not come from foreign advisers or the Ministry of Finance, and was thus much more likely to be implemented or at least considered seriously.

1. The hybrid

We were convinced that the “tax prepaid” method should be used for the taxation of individuals, 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. Moreover, despite its considerable theoretical appeal, the tax prepaid approach suffered from several additional serious practical problems. For example, expensing without cash flow treatment of loans implied that the government would suffer relatively large initial revenue losses and that more firms would initially be in a negative cash flow position, putting greater stress on the choice of the carryforward interest rate. 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 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 we 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.

2. The 800-pound gorilla swats a gnat

As noted above, a consumption-based direct tax was likely to be a non-starter 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 or should be creditable in the US. In a potentially felicitous coincidence, a representative of the IRS came to La Paz while we were there and 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 US Treasury. (Indeed, the amount of Bolivian taxes credited in the US 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 terms by the subsequent deduction of repayment of debt, but were

told that the IRS looks at form, not substance! We even undertook, with some assistance from the IRS representative, an exercise that demonstrated that the business tax base under the hybrid would depart by only a few percentage points from that of an income tax. Again, she could not be persuaded.²⁹

Finally, back in the US, we met with the technical staff of the Office of Tax Analysis of the US Treasury Department, who, much to the consternation of the IRS representative seemed to accept our economic arguments favoring creditability. (The OTA staff consists of 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. The presence of a representative of a foreign government elevated the meeting to a “state-to-state” plane and eliminated all possibility of an open and frank discussion of the merits of our case. Second, we suspect that the US Treasury would not have cared very much if only a Bolivian tax were 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, especially given the widespread interest in such reform. Bureaucratic risk aversion could easily explain the cool reception our proposal received.

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 US, as doing so could bring direct investment from the US to a halt. Somewhat surprisingly, we were asked to return the following year to examine the possibility of utilizing an R-based tax to tax 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 US 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 George H. W. Bush. Indeed, there is some cause for cautious optimism on this score, as the IRS subsequently granted partial creditability to an income-based, origin-based VAT calculated using the subtraction method enacted in Italy – a tax that does not allow interest deductions.

E. 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 region that lacked both the resources for tax administration and compliance and a history of

²⁹See McLure and Zodrow (1996a, b, c) further description, discussion, and documentation.

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, 1992a, b, c).

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 proposed that Russia adopt the SAT, for reasons stated above.³⁰ As it turned out, the economic council did not have – or could not retain – enough influence to matter.³¹

2. Kazakhstan: “Don’t bother”

The experience with consumption-based direct taxes in Kazakhstan was brief – essentially non-existent. A representative of Chevron, then by far the largest foreign investor in the country, told McLure, in effect, of the SAT, “Forget it. It would not be creditable.” Since that view echoed the concerns that McLure had expressed earlier in Jamaica, Colombia, and Bolivia, it was not hard to accept.

F. Colombia: Another spin at the wheel

The overwhelming reelection of President Alvaro Uribe in Colombia has prompted speculation that the time might be right for that country to engage in yet another round of tax reform, especially of the business tax which is currently characterized by the relatively high tax statutory tax rate, including a temporary ten percent surcharge, of 38.5 percent. Toward that end, Zodrow was recently invited to discuss options for fundamental tax reform. Although the discussions are at a preliminary stage, 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, but a considerable amount of confusion about the differences between the designs and the economic effects of these two alternative approaches to fundamental tax reform. In the case of consumption-based direct tax reform options, the appeal of a tax regime that is relatively favorable to foreign (and domestic) direct investment is tempered by concerns related to immediate revenue needs, creditability in the US, and design issues related to limiting avoidance opportunities in a world in which Colombia’s trading partners, especially the US, continue to use an income tax. 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 with an METR of zero is desirable because it eliminates distortions of marginal investment decisions while taxing location-specific economic rents at the

³⁰ See McLure (1991).

³¹ 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.

statutory rate, that rate simply cannot be too high; in particular, a high statutory rate exacerbates problems with transfer pricing and other financial accounting manipulations, and discourages investment by multinationals with relatively mobile firm-specific rents – highly desirable types of investments that generate significant positive externalities, especially in the area of technology transfer. It remains to be seen what lies at the end of this latest “ride.”

G. The recommendations of the President’s tax reform panel in the US

We conclude our discussion of attempts at consumption tax reforms by commenting briefly on the recommendations made recently by the President’s Panel on Federal Tax Reform in the US.³² The panel presented two alternatives for fundamental tax reform in the US. The structure of both these proposals could be described as reflecting the current status of debate regarding the relative desirability of income-based and consumption-based direct taxes, as discussed throughout this paper. Specifically, there is widespread agreement that an “ideal” or comprehensive accrual-based tax on real economic income is not administrable, and 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 such as the Bradford X-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.³³

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 – that is, a version of the dual income tax approach discussed by Genser (this conference/volume). Thus, adoption of either of the panel’s recommendations would move the US 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 is discussed at length in the report as its “Progressive Consumption Tax” option, but was unable to achieve the unanimous approval required for it to be granted the status of one of the panel’s recommended approaches.

V. 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. 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

³² For further evaluation of the panel’s report, see Zodrow and McLure (2006).

³³ For recent collections of articles that reflect the current status of the debate on these issues, see Zodrow and Mieszkowski (2002b) and Aaron, Burman and Steuerle (forthcoming).

of such a switch, which depend crucially on how the transition is handled, the progressivity of the new system,³⁴ and the administrative problems raised by various version of consumption-based taxation. On economic grounds the case for the switch may be strong, but it is not the proverbial “slam dunk.”³⁵ And, hovering over the park is the black cloud of international issues. On the one hand, if the US (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 US would allow foreign tax credits for it. Failing to recognize this problem in the current situation is naive — and only time will tell whether the recent expression of interest in consumption-based taxation by the President’s tax reform panel in the US 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 US multinationals.

³⁴ For example, see Altig, Auerbach, Kotlikoff, Smetters and Walliser (2001) and Diamond and Zodrow (this conference/volume).

³⁵ See Zodrow and Mieszkowski (2002) for a discussion of the degree of uncertainty regarding the relative advantages of consumption-based taxation.

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