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TIME CONSISTENCY AND THE CHOICE OF TAX BASE

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*Kirk J. Stark**

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ABSTRACT

This article examines how time consistency problems (i.e., an inability to commit to future government policies) complicate the debate over the choice of tax base, with a specific emphasis on arguments in support of consumption taxes. Tax policy literature generally categorizes consumption taxes as either “prepaid” (the yield-exempt model) or “postpaid” (the cash-flow model). Conventional wisdom among tax scholars is that these two types of consumption taxes are economic equivalents under certain assumptions. The principal advantage of a consumption tax of either form, it is generally argued, is its neutrality with regard to the timing of the taxpayer’s consumption. I argue that the two models require very different government precommitments in order to deliver this neutrality benefit. Prepaid consumption taxes require a commitment from the government not to tax investment gains (interest, dividends, etc...)—what I will call a yield-exemption commitment. By contrast, postpaid consumption taxes require a commitment from the government not to vary tax rates across time—what I will call a constant tax rate commitment. The article considers precommitment norms in U.S. tax policy and attempts to show that yield-exemption commitments are familiar and credible, while constant tax rate commitments are extremely rare. Consequently, prepaid consumption taxes are superior to postpaid consumption taxes in terms of their ability to deliver the neutrality benefits commonly cited in support of consumption taxes. In addition, where the government’s commitment to constant tax rates is especially weak, postpaid consumption taxes and income taxes will have similar effects on the timing of taxpayers’ consumption decisions.

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INTRODUCTION

The choice of tax base is one of the oldest debates in the tax policy literature. The two alternatives most commonly discussed are income taxes and consumption taxes. Income taxes, it is generally believed, assert a broader claim to the taxpayer's economic resources than do consumption taxes. Under the most common theoretical formulation, the "Haig-Simons" approach, "income" is thought to include (1) the value of goods and services consumed during the relevant accounting period (typically one year), plus or minus (2) any change in the taxpayer's net worth during the period.¹ By contrast, consumption taxes are generally thought to apply to a narrower base—i.e., only the first half of the Haig-Simons definition.

Considerable scholarly attention has been devoted to the question of which of these two bases is superior from the perspective of fairness, efficiency and administrative simplicity.² Among leading tax policy scholars, consumption taxes typically earn high marks for their supposed neutrality with regard to the timing of the taxpayer's consumption choices.³ The basic argument is that consumption taxes, because they generally exempt the return to savings and investment, do not distort savings behavior. By contrast, income taxes are generally defended on broadly redistributive

¹ This is the familiar "Haig-Simons" concept of income. See Robert M. Haig, *The Concept of Income—Economic and Legal Aspects*, in *THE FEDERAL INCOME TAX* (ROBERT M. HAIG, ed. 1921). HENRY SIMONS, *PERSONAL INCOME TAXATION* (1938).

² The literature is huge. For the most recent salvo in the debate over which tax base is preferable on welfarist grounds, see Joe Bankman and David Weisbach, *The Superiority of an Ideal Consumption Tax to an Ideal Income Tax*, (August 2005) (SSRN). On the fairness debate, see Alvin C. Warren, *Would a Consumption Tax Be Fairer than an Income Tax?*, 89 *YALE L. J.* 1081 (1980); Ed McCaffery, *A New Understanding of Tax*, *MICH. L. REV.* (2005); Barbara Fried, *Fairness and the Consumption Tax*, 44 *STANFORD L. REV.* 961 (1992). On the simplification question, see Joel B. Slemrod, *The Simplification Potential of Alternatives to the Income Tax*, *TAX NOTES* (February 27, 1995); many many others...

³ Bankman & Weisbach; Atkinson/Stiglitz

grounds as the most effective means of ensuring an appropriate distribution of economic resources in society.⁴ Perhaps the most familiar claim is that consumption taxes are likely to be regressive (as compared to income taxes) because low-income households consume a larger share of their income (indeed, sometimes greater than 100%)⁵ than do high-income households.⁶ In recent years, some scholars have begun to turn the tables on these arguments, claiming that consumption taxes—at least when coupled with a progressive rate structure—may in fact *increase* the progressivity of the tax system as compared to the current income tax.⁷

It is not my purpose with this article to weigh in on either side of this debate. For present purposes at least, I have no horse in the income versus consumption tax race. Rather, I want to unpack and critically evaluate one of the key assumptions underlying the argument that consumption taxes are neutral as to the timing of the taxpayer's consumption decisions. As will be discussed in further detail below, this neutrality claim depends upon a *time*

⁴ Bankman and Weisbach summarize the case for income taxes as consisting of two main arguments: (1) the efficiency argument, that income taxes may be preferable due to differential elasticities of savings and labor since an income tax presumably (by taxing the return to savings) permits a lower tax rate on labor. Bankman/Weisbach, relying on Atkinson/Stiglitz, reject this view. And (2):

⁵ See, e.g., CONSUMER EXPENDITURES IN 2003, BUREAU OF LABOR STATISTICS, U.S. DEP'T OF LABOR (June 2005), Table 1 (showing that bottom quintile of income distribution had average income before taxes of \$8,201 and average annual expenditures of \$18,492).

⁶ There are many assumptions and debatable propositions lurking around the statement in the text. One aspect of the debate that only rarely surfaces but that deserves more serious attention among informed consumers of tax policy debates (including readers of this article) is whether one should use an annual or lifetime perspective in evaluating the distributional properties of a tax base. Consumption taxes (even flat rate) are less regressive on a lifetime basis than an annual basis. See Erik Caspersen & Gilbert Metcalf, *Is a Value Added Tax Regressive? Annual Versus Lifetime Incidence Measures*, 47 NAT'L TAX J. 731 (1994) (finding that VATs are "quite regressive" on an annual basis but "only modestly regressive" on a lifetime basis).

⁷ See, e.g., EDWARD J. MCCAFFERY, FAIR NOT FLAT: HOW TO MAKE THE TAX SYSTEM BETTER AND SIMPLER (Univ. Chicago Press 2002); Edward J. McCaffery, *A New Understanding of Tax*, 103 MICH. L. REV. 807 (2005).

consistency assumption – i.e., an assumption that the government, once it has announced its policy, can and will adhere to that policy in the future.

The question of whether governments can credibly precommit to future policies is a subject of longstanding interest to scholars working in several different disciplines, most notably economics. In 2004, Finn Kydland and Edward Prescott were awarded the Nobel Prize in Economics for, among other things, their work exploring the implications of this “time consistency” problem in a variety of contexts. In the debate over the choice of tax base, the time consistency question is whether, in designing a consumption tax, the government can credibly commit not to tax the income from savings and investment in the future.⁸ In a paper published in 1980, Kydland and Prescott concluded that the problem of “time inconsistency severely complicates the computation of the optimal [tax] policy.”⁹ This conclusion has obvious relevance for the neutrality claim often advanced in support of consumption taxes. In the absence of a binding precommitment, taxpayers will make their decisions regarding whether to consume or save according to the future government behavior that they expect, rather than the policies that are promised.

All of the foregoing is familiar in the literature. The principal contribution of the present article is to suggest that the credibility of the government’s commitment not to tax the yield to capital will vary depending upon the *precise design characteristics* of the consumption tax adopted. Tax policy literature generally categorizes consumption taxes as either

⁸ Carol Ann Rogers, *Expenditure Taxes, Income Taxes, and Time-Inconsistency*, 32 J. PUB. ECON. 215 (1987) (noting that many of the arguments offered in support of consumption taxes are grounded in an assumption that “the government, having once announced its policy, does not change its mind.”).

⁹ Kydland & Prescott, *Dynamic Optimal Taxation*, 2 JOURNAL OF ECONOMIC DYNAMICS AND CONTROL 79 (1980).

“prepaid” (the yield-exempt model) or “postpaid” (the cash-flow model). Conventional wisdom among tax scholars is that these two types of consumption taxes are economic equivalents under certain assumptions. I will argue that the two models require very different government precommitments in order to deliver this neutrality benefit.

Prepaid consumption taxes require a commitment from the government not to tax investment gains (interest, dividends, etc...)—what I will call a *yield-exemption commitment*. By contrast, postpaid consumption taxes require a commitment from the government not to vary tax rates across time—what I will call a *constant tax rate commitment*. The credibility of these two alternative types of precommitment devices varies significantly. In the context of U.S. tax policy at least, yield-exemption commitments are quite familiar and generally regarded as credible government promises. By contrast, constant tax rate commitments are extremely rare. Based on this analysis, I will contend that prepaid consumption taxes are superior to postpaid consumption taxes *in terms of their ability to deliver the neutrality benefits commonly cited in support of consumption taxes*. In addition, where the government’s commitment to constant tax rates is especially weak, postpaid consumption taxes and income taxes will have similar effects on the timing of taxpayers’ consumption decisions.

The article is organized as follows. Part I begins with some background, offering a brief overview of the debate over the choice of tax base. It focuses primarily on the longstanding debate between income and consumption taxes. In this Part, I follow the general trend in the literature of emphasizing that the choice between an income and a consumption tax is primarily a decision regarding how (indeed, whether) to tax the yield to capital. The main argument for *not* taxing the yield to capital is to preserve

neutrality between current and future consumption (the spend-save decision). Part II then examines the two main types of consumption taxes – (i) prepaid or “yield-exempt” consumption taxes, such as the Hall-Rabushka “flat tax,” and (ii) postpaid or “cash-flow” consumption taxes, such as the Nunn-Domenici “unlimited savings allowance” tax. Part II also examines and critiques the claim, conventional among tax scholars, that these two types of consumption taxes are economic equivalents. Here it will be argued that both forms depend upon a government precommitment not to tax the yield to capital in the future but that the form such commitment takes depends upon the design of the tax.

Part III examines precommitment norms in U.S. tax policy, focusing specifically on the American experience with yield-exemption norms and constant tax rate norms. Several examples will be discussed regarding the prevalence and credibility of the former, and data will be canvassed regarding the general non-existence of the latter. Part IV will discuss the policy options and implications for tax reform. Part V concludes with some general observations about whether political uncertainty is a useful variable to consider in debates over fundamental tax reform.

I. THE CHOICE OF TAX BASE

A What is the Ideal Tax Base?

Before proceeding, it may be useful to say a few words about the choice of tax base in an *ideal* world unconstrained by political, practical or informational limitations. It is moving too fast to simply launch into a discussion of whether “income” or “consumption” or some other measure is the most appropriate base. For example, it is not helpful to observe that “the personal income tax follows from, and is justified by, a societal

judgment as to the appropriate distribution of income.”¹⁰ As Dan Shaviro notes, “[i]f we want to redistribute ‘income,’ then of course it *is* the right thing to tax—although *why* it is the thing we want to redistribute remains unclear.”¹¹ Similarly, to note that a consumption tax is preferable because “it ultimately imposes a more uniform burden on consumption, whenever it may occur, than does an [income] tax,”¹² ducks the question of *why* consumption is the appropriate target of redistribution. Put differently, neither income nor consumption taxes have compelling justifications, internal to the design of the tax base, that reveal why that is precisely the thing we want to tax.

Instead, as Shaviro and others have noted, the justification for any particular tax base lies in its ability to serve as a “crude proxy for some set of attributes that are relevant to distributive justice but cannot be observed directly” – attributes that we might call “ability,” “innate talent” or “endowment.”¹³ Of course, there are some obvious practical difficulties with taxing these things directly. It is hard to imagine a workable definition of “endowment,” let alone effective mechanisms for encouraging taxpayers to truthfully reveal how much of it they have. Moreover, various commentators have suggested that, even if we could tax endowment, doing so would be offensive to basic principles of liberty.¹⁴

¹⁰ Alvin C. Warren, *Would a Consumption Tax Be Fairer than an Income Tax?*, 89 *YALE L. J.* 1081, 1093 (1980).

¹¹ Daniel Shaviro, *Endowment and Inequality*, in *TAX JUSTICE: AN ONGOING DEBATE* (2002). See also Daniel Shaviro, *TAX LAW REVIEW* (2000).

¹² William Andrews at 1167 (1974).

¹³ *Id.* at 124-125.

¹⁴ See JOHN RAWLS, *A THEORY OF JUSTICE*. Tony Kronman, *Talent Pooling*, 23 *NOMOS* 58 (1981). See also David Hasen, *The Illiberality of Human Endowment Taxation* (2005). But see Kirk J. Stark, *Enslaving the Beachcomber: Some Thoughts on the Liberty Objections to Endowment Taxation*, 28 *CANADIAN JOURNAL OF LAW & JURISPRUDENCE* 47 (2005) (arguing that Rawls’s liberty objections to endowment taxes are indistinguishable

B. Second-Best, Real-World Options

With endowment taxes, talent pooling and other such redistributive schemes ruled off limits for practical reasons, we are left with a handful of “crude proxies” for these attributes—the most prominent of which are income and consumption. Significantly, there is much more similarity between these two tax bases than is often recognized. As noted above, income in an economic sense is generally understood to be the sum of (1) the value of goods and services consumed during the relevant accounting period (typically one year), *plus or minus* (2) any change in the taxpayer’s net worth during the period.

The key thing to note here is that an income tax—at least the income tax understood in the broadest Haig-Simons sense—includes within it a tax on consumption. Thus, the difference between the two tax bases concerns their treatment of item (2) in the Haig-Simons formulation, i.e., changes in the taxpayer’s net worth during the relevant accounting period. These changes arise from fluctuations in the value of assets, increases or decreases in the taxpayer’s savings, and other such capital transactions. In other words, the principal difference between an income tax and a consumption tax concerns the tax treatment of the yield to capital, or savings. This insight leads to the familiar observation in the tax policy literature that an income tax represents a tax on *Consumption + Savings* (that is, $I = C + S$), while a consumption tax can, through the dark magic of algebra, be viewed as a tax on *Income – Savings* (that is, $C = I - S$). In combination, then, these observations lead to the insight that the debate between income and consumption taxes is in fact a debate regarding the appropriate tax treatment of savings or, more broadly, the yield to capital.

from Nozick’s libertarian objections to wage taxes).

As recent work has shown, the yield to capital can be further deconstructed into its component parts, including (1) the risk-free rate of return, (2) the return to risk-taking; and (3) economic profit.¹⁵ Much of the recent literature on the income-consumption tax debate has examined how the two types of taxes treat these particular items differently, if at all. The general consensus seems to be that the only difference between income and consumption taxes concerns the taxation of number (1) above, i.e., the risk-free rate of return. Beginning with the work of Domar-Musgrave in 1944, scholars have generally regarded the return to risk to be exempt under *both* and income tax and a consumption tax.¹⁶ [explain intuition]. As for economic profits, the general consensus seems to be that both income and consumption taxes include these returns in the tax base. [explain intuition].

C. Arguments Against Taxing the Yield to Capital

John Stuart Mill was among the first to weigh in on the question of whether we should tax the yield to capital. In a passage that has provoked seemingly endless debate among students of tax policy and public finance, Mill argued that to impose a tax on the yield to capital was a “double tax on savings” in the sense that the earnings that produced the savings was taxed once, when it was earned, and then again when it generates interest.¹⁷ Various objections have been offered in response to Mill’s argument. [EXPLAIN/EXPLORE].

¹⁵ See Gentry and Hubbard, *Distributional Implications of Introducing a Broad-Based Consumption Tax*, TAX POLICY AND THE ECONOMY 2 (1998). See also *id.* at 9 (“what is often called the return to capital can be thought of as the sum of the riskless return (opportunity cost, or return to waiting), inframarginal returns (economic profits), or *ex ante* risk premium on risky investments (payment for bearing risk) and *ex post* realizations on risky investments (luck). For a useful summary of this literature, see Barbara Fried, *Fairness and a Consumption Tax*, 44 STAN. L. REV. 961 (1992).

¹⁶ E.D. Domar & Richard Musgrave, *Proportional Income Taxation and Risk-Taking*, 58 QUARTERLY JOURNAL OF ECONOMICS 388 (1944). See Weisbach, Zelenak, Schizer....

¹⁷ JOHN STUART MILL, PRINCIPLES OF POLITICAL ECONOMY (1868).

Notwithstanding these alternative points of view, what seems to be less objectionable is the more modest claim that the imposition of any positive tax on the yield to capital will distort the timing the taxpayer's consumption decisions. In other words, one need not accept the proposition that the taxation of savings is "unfair" or a type of inappropriate "double taxation" to believe that taxing the yield to capital creates an incentive to prefer current consumption over future consumption. A tax on savings is not unlike a tax on waiting – the taxpayer who consumes everything that she earns bears no burden from this tax. By contrast, if she defers her consumption to some future date, earning some economic return as compensation for her forbearance, then she is charged the tax.

II. PREPAID AND POSTPAID CONSUMPTION TAXES

A. The "Prepaid" or "Yield-Exempt" Consumption Tax

Under a so-called "prepaid" or "yield-exempt" consumption tax, individual taxpayers would be required to pay tax only on their wages. All investment gains, including interest, dividends, capital gains, etc..., would be completely exempt from tax. The tax is said to be "prepaid" because it is remitted to the government at the time the taxpayer earns wages, rather than at the later moment of consumption.

Under current law, the tax treatment of "Roth IRAs" may be viewed as an example of the prepaid consumption tax model. Subject to certain limitations not relevant here, taxpayers may deposit up to \$4,000 into a qualified Roth IRA account.¹⁸ Unlike a traditional IRA, no deduction is allowed (in calculating taxable income on federal income tax returns) for contributions to a Roth IRA. There are two main tax advantages of a Roth

¹⁸ Internal Revenue Code, 26 U.S.C. Sec. 408A.

IRA. The first is that amounts contributed to a Roth IRA are allowed to grow tax-free. The second is that distributions from a Roth IRA are tax-free. In combination, these provisions have the intended effect of imposing tax at only one point in time—i.e., the moment that wages are earned.

While the Roth IRA is a narrow provision of current law, one could easily imagine expanding the concept into a broader tax reform agenda. The Hall-Rabushka “flat tax” does exactly this.¹⁹ Under the “flat tax” concept, wages are taxed to employees when they are paid. Those wages may then be used for whatever purpose without any further tax. For example, if a taxpayer decides to deposit his wages into an account, those amounts will (like a Roth IRA) grow tax-free and will not be subject to tax when they are withdrawn from the account for consumption. [note on business level tax of the flat tax]. Thus, the key distinguishing feature of the Hall-Rabushka flat tax is that it completely exempts from tax the yield to capital, such as interest, dividends, capital gains, and so on.

B. The “Postpaid” or “Cash-Flow” Consumption Tax

By contrast, under a “postpaid” or “cash-flow” consumption tax, the taxpayer is generally permitted a current deduction for savings. The result is that she pays current tax on wages only to the extent that such wages are currently consumed; withdrawals from savings are also taxed under this model, as they too represent consumption.

¹⁹ In actuality, the Hall-Rabushka flat tax is two separate taxes—a business level tax that in most respects is identical to a subtraction method value-added tax with the exception that a comprehensive deduction for wages is allowed. The second tax is the individual level wage tax. The separation out of the wage tax from the value-added tax base allows policymakers to introduce progressivity to the wage base, which Hall and Rabushka proposed to do through the use of a zero-bracket amount. David Bradford’s “X tax” has the exact same structure, except that Bradford envisioned a more progressive rate structure for the wage tax.

The current law analog to the cash-flow consumption tax is the regular or “traditional” IRA. Under a traditional IRA, taxpayers are allowed a deduction (subject to certain limitations not relevant here) of up to \$4,000 for contributions to the account. As is the case with a Roth IRA, income earned within a traditional IRA is exempt from tax. Unlike a Roth IRA, however, all distributions from a Roth IRA are taxable as ordinary income.

As is commonly observed in debates over fundamental tax reform, there is a relatively straightforward path to consumption taxation via the traditional IRA. All that would be needed to convert the current income tax to a cash-flow consumption tax would be to repeal the limitations on the amount that may be deducted for contributions to a traditional IRA.²⁰ This was, in effect, the strategy of the Nunn-Domenici “USA” tax proposed in 1995. “USA” here was not a patriotic reference but rather stood for “unlimited savings allowance” to indicate the central feature of the tax: an unlimited deduction for contributions to savings.

C. Equivalence of Prepaid and Postpaid Consumption Taxes

It is commonly observed that, under certain assumptions, the prepaid and postpaid models of taxing consumption are mathematically equivalent.²¹ To illustrate, consider Taxpayer Dora who has \$10,000 in wages to invest. Further assume that the tax rate in effect is 40% and that Dora can earn a rate of return of 10% by investing. Using these simple assumptions, Dora should be indifferent between a prepaid and postpaid consumption tax.

²⁰ This is actually not quite right, since some provision would need to be adopted to ensure that debt-financed consumption is included in the tax base.

²¹ This is the familiar “Cary Brown hypothesis.” See E. Cary Brown, *Business-Income Taxation and Investment Incentives*, in *INCOME, EMPLOYMENT AND PUBLIC POLICY: ESSAYS IN HONOR OF ALVIN H. HANSEN* (1948).

Under a prepaid or yield-exemption consumption tax, Dora's \$10,000 in wages would be subject to the 40% tax at time period 1 and she would have \$6,000 left over to invest. Investing this amount at the 10% rate of return, her investment will increase from \$6,000 to \$6,600. Therefore, at time period 2 Dora would have \$6,600 available to consume.

Under a postpaid or cash-flow consumption tax, Dora could avoid taxation during time period one on her \$10,000 in wages by investing the entire amount. At the 10% rate of return, this amount would grow to \$11,000 in time period two. However, this entire amount would be subject to tax in time period two, with the result that Dora would owe \$4,400 in taxes, leaving her with \$6,600 to consume, the same as above.

D. Precommitments Implicit in the Argument for Consumption Taxes

Note that under both the prepaid and postpaid consumption tax models discussed above, Dora should be indifferent between current and future consumption. Consider first the prepaid consumption tax model. Under this approach, Dora must pay tax of 40% on her wages and thus will have \$6,000 left for consumption during time period one. Alternatively, she could save that \$6,000, letting it grow to \$6,600 and consume that larger amount in time period two. The \$600 additional amount may be thought of as compensation for Dora's forbearance in delaying her consumption, which is simply to say that \$6,600 of consumption in time period two is equivalent to \$6,000 of consumption in time period one. Put differently, the prepaid consumption tax is identical to a no-tax world in regard to the question of whether one should prefer current or future consumption. Under both the no-tax world and the prepaid consumption tax, Dora should be indifferent between consuming today or waiting to consume in the future.

The same is true for the post-paid consumption tax. Again, consider Dora's choice between consuming \$10,000 in time period one versus time period two. If Dora decides to consume in time period one, she will not be entitled to any deduction for savings, with the result that she will owe \$4,000 in taxes, leaving only \$6,000 to consume in time period one. Alternatively, she can save the \$10,000, which entitles her to a \$10,000 deduction; however (as noted above) the 40% tax will apply to the full \$11,000 in time period two, leaving her \$6,600 to consume. So again, as was the case with the prepaid consumption tax, Dora should be indifferent (tax-wise) between current and future consumption. She can either consume \$6,000 in time period one or \$6,600 in time period two.

To summarize:

$t=.40; r=.10$	T1 tax	T2 tax	Consumption in T1	Consumption in T2
Prepaid consumption tax (consume in T1)	\$4,000	\$0	\$6,000	\$0
Prepaid consumption tax (consume in T2)	\$4,000	\$0	\$0	\$6,600
Postpaid consumption tax (consume in T1)	\$4,000	\$0	\$6,000	\$0
Postpaid consumption tax (consume in T2)	\$0	\$4,400	\$0	\$6,600

Despite the formal mathematical equivalence between prepaid and postpaid models, it should be apparent that the two types of consumption taxes rely on quite different assumptions in producing the equivalent results.

Note that prepaid consumption tax depends upon a commitment by the government not to tax the yield to capital (whatever form that might take). Thus, the government must commit not to tax interest, dividends, capital gains, etc... So long as the government makes such a commitment and taxpayers find that commitment credible, the analysis above will hold. Note that the government could decide in time period two to change the tax rate from, say, 40% to 60%, and that this change in tax rates would have no bearing on Dora's decision in time period one regarding whether to spend or save.²² All that is necessary for the analysis to hold is a "yield-exemption commitment" – i.e., the government must credibly commit not to tax the yield to capital.

By contrast, under the postpaid model, the precommitment that is necessary in order for the analysis above to hold is a constant tax rate commitment. That is, in order for Dora to be truly indifferent regarding the choice between consumption in time period one and consumption in time period two, the government must credibly commit not to alter tax rates between the two periods. To illustrate, assume for the moment that the government makes such a commitment but Dora believes, for whatever reason, that the tax rate in period two will be 60% rather than 40%. In this situation, Dora will have to pay \$4,000 in taxes if she decides to consume in time period one, leaving her \$6,000 to consume. However, waiting to consume in time period two means a *perceived* future tax liability of \$6,600, or only \$4,400 available in time period two for consumption. Note that this is true regardless of what tax rate actually will be in time period two. The

²² Note that there is a slightly different issue that might be implicated here – i.e., Dora may shift her *labor supply* from one period to another if she anticipates changes in tax rates over the two periods. This question of the intertemporal substitution of labor supply has been the subject of empirical investigation by economists. There appears to be substantial disagreement regarding the extent to which individuals shift labor supply across time.

relevant variable here is not what the government promises, but rather what Dora finds to be credible. That is, for the analysis above to hold, Dora must believe that the government will not change tax rates between time period one and time period two.

III. PRECOMMITMENT NORMS IN U.S. TAX POLICY

A. Yield-Exemption Precommitment Norms

Here consider some examples from current law of how Congress has promised not to tax a particular amount – e.g., Roth IRAs, tax-exempt bond interest under section 103.

Consider the effect of the *South Carolina v. Baker* decision on municipal tax-exempt bond yields. That decision of the U.S. Supreme Court essentially held that Congress *could*, if it wanted to, tax the interest on state-local bonds and that it could do so retroactively (that is, it could tax interest on existing bonds). In other words, the only thing protecting investors in tax-exempt bonds post-*South Carolina v. Baker* was a Congressional *promise* not to tax interest – a “yield-exemption commitment.” Hunch is that *South Carolina v. Baker* had little or no effect on interest rate on tax-exempt bonds. That is, the commitment was credible.

Poterba (1989) presents interesting data relating to the effect of the Supreme Court’s decision in *South Carolina v. Baker* on the pricing of tax-exempt bonds. The Court’s decision was announced at 10:08 a.m. on April 20, 1988. Within the hour, the price of municipal bond futures dropped in apparent reaction to the Court’s decision. See Figure 2 below. Early that afternoon, however, “key Congressional leaders indicated support for retaining the tax-exempt treatment of interest...and by the end of the trading

day the rapid decline in municipal bond prices had been reversed.”²³ While hardly wholesale confirmation of the theory, the story here suggests that the possibility of Congressional repeal of an exemption *could* have some influence on value of tax-preferred investments; however, a political commitment to the tax preference can reduce, perhaps even eliminate, any negative effect that the option to repeal might have.

Figure 2: Reaction of Municipal Bond Prices to *South Carolina v. Baker*

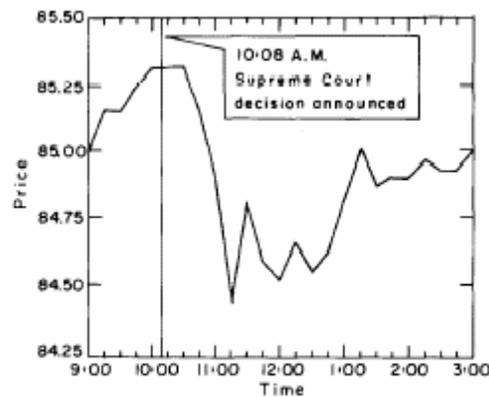


Fig. 2. Price reaction of municipal bond futures prices to the *South Carolina* decision.
Source: Knight-Ridder Tradecenter and Wall Street Journal.

Source: J.M. Poterba, *Tax Reform and the Market for Tax-Exempt Debt* (1989).

Explanation/Theory: yield-exemption commitments have more of a character of a “contractual” bargain between taxpayers and the government— i.e., the taxpayer agrees to make a particular investment and the government “agrees” not to tax the income from that investment.

²³ James Poterba, *Tax Reform and the Market for Tax-Exempt Debt*, 19 REGIONAL SCIENCE AND URBAN ECONOMICS 537, 557 (1989).

B. Constant Tax Rate Precommitment Norms

In contrast to the yield-exemption commitment norms discussed above, it would seem that constant tax rate norms are quite underdeveloped, perhaps even non-existent. Tax rate variation over time is a persistent feature of the U.S. tax system.²⁴

²⁴ Tax Policy Center, Tax Facts, *Historical Marginal Tax Rates on Capital Income, 1953-2002* (available at <http://www.taxpolicycenter.org/TaxFacts/>) (data showing how marginal tax rates on capital income have fluctuated over time).

For example, consider the fluctuation over time in the top marginal tax rate on ordinary income,²⁵ shown in Table 1 below:

Table 1: Historical Highest Marginal Income Tax Rates

Year	Top Marginal Rate	Year	Top Marginal Rate	Year	Top Marginal Rate
1913	7.0%	1944	94.00%	1975	70.00%
1914	7.0%	1945	94.00%	1976	70.00%
1915	7.0%	1946	86.45%	1977	70.00%
1916	15.0%	1947	86.45%	1978	70.00%
1917	67.0%	1948	82.13%	1979	70.00%
1918	77.0%	1949	82.13%	1980	70.00%
1919	73.0%	1950	91.00%	1981	69.13%
1920	73.0%	1951	91.00%	1982	50.00%
1921	73.0%	1952	92.00%	1983	50.00%
1922	56.0%	1953	92.00%	1984	50.00%
1923	56.0%	1954	91.00%	1985	50.00%
1924	46.0%	1955	91.00%	1986	50.00%
1925	25.0%	1956	91.00%	1987	38.50%
1926	25.0%	1957	91.00%	1988	28.00%
1927	25.0%	1958	91.00%	1989	28.00%
1928	25.0%	1959	91.00%	1990	31.00%
1929	24.0%	1960	91.00%	1991	31.00%
1930	25.0%	1961	91.00%	1992	31.00%
1931	25.0%	1962	91.00%	1993	39.60%
1932	63.0%	1963	91.00%	1994	39.60%
1933	63.0%	1964	77.00%	1995	39.60%
1934	63.0%	1965	70.00%	1996	39.60%
1935	63.0%	1966	70.00%	1997	39.60%
1936	79.0%	1967	70.00%	1998	39.60%
1937	79.0%	1968	75.25%	1999	39.60%
1938	79.0%	1969	77.00%	2000	39.60%
1939	79.0%	1970	71.75%	2001	38.60%
1940	81.10%	1971	70.00%	2002	38.60%
1941	81.00%	1972	70.00%	2003	35.00%
1942	88.00%	1973	70.00%	2004	35.00%
1943	88.00%	1974	70.00%	2005	35.00%

Note: This table contains a number of simplifications and ignores a number of factors, such as a maximum tax on earned income of 50 percent when the top rate was 70 percent and the current increase in rates due to income-related reductions in value of itemized deductions. Perhaps most importantly, it ignores the large increase in percentage of returns that were subject to this top rate.

Sources: Eugene Steuerle, The Urban Institute; Joseph Pechman, Federal Tax Policy; Joint Committee on Taxation, Summary of Conference Agreement on the Jobs and Growth Tax Relief Reconciliation Act of 2003, JCX-54-03, May 22, 2003

²⁵ These data are taken from the Brookings-Urban Tax Policy Center website. For more detail, see <http://taxpolicycenter.org/TaxFacts>.

Additional examples may include: (1) how the maximum tax rate on long-term capital gains has changed over time, (2) how tax rates on dividends have changed over time. Discuss data.²⁶

[include discussion here of Bradford's 1998 paper arguing for a "grandfathering" scheme to allow for "tax-rate variation" in cash-flow consumption tax].

IV. POLICY OPTIONS AND IMPLICATIONS FOR TAX REFORM

[Mechanisms for Making Tax Policy Commitments Across Time: additional discussion of Bradford analysis of tax-rate variation; possibility of grandfathering tax rates or otherwise insulating taxpayers from tax-rate changes].

V. CONCLUSIONS AND OBSERVATIONS

²⁶ Tax Policy Center, Tax Facts, *Historical Capital Gains and Taxes, 1954-2002* (available at <http://www.taxpolicycenter.org/TaxFacts/>) (data showing how capital gains tax rates have fluctuated over time).

Bibliography (partial)

Carol Ann Rogers, *Expenditure Taxes, Income Taxes, and Time-Inconsistency*, 32 *Journal of Public Economics* 215 (1987)

David F. Bradford, *Transition to and Tax-Rate Flexibility in a Cash-Flow-Type Tax*, in *Tax Policy and the Economy* (1987).

Finn E. Kydland & Edward C. Prescott, *Rules Rather than Discretion: The Inconsistency of Optimal Plans*, *J. POL. ECON.* (1977).

Edward J. McCaffery, *A New Understanding of Tax*, *MICHIGAN LAW REVIEW* (forthcoming 2005).

Edward J. McCaffery, *Ten Facts About Fundamental Tax Reform*, *TAX NOTES* 1463 (2003).

Edward J. McCaffery, *Three Views of Tax*, *CANADIAN JOURNAL OF LAW & JURISPRUDENCE* (forthcoming 2005).

William Andrews, *A Consumption-Type or Cash-Flow Personal Income Tax*, 87 *HARV. L. REV.* 1113 (1974).

ROBERT HALL & ALVIN RABUSHKA, *A FLAT TAX* (19??).

Alvin C. Warren, *How Much Capital Income Taxed Under an Income Tax Is Exempt Under a Cash Flow Tax?*, 52 *TAX L. REV.* 1 (1996).

Dan Shaviro, *Replacing the Income Tax with a Progressive Consumption Tax*, *TAX NOTES* (2004)

Joseph Bankman & Thomas Griffith, *Is the Debate Between an Income Tax and a Consumption Tax A Debate About Risk? Does it Matter?*, 47 *TAX L. REV.* 377 (1992).

Alvin C. Warren, *Would a Consumption Tax Be Fairer than an Income Tax?*, 89 *YALE L. J.* 1081 (1980).

William M. Gentry & R. Glenn Hubbard, *Distributional Implications of Introducing a Broad-Based Consumption Tax*, in JAMES M. POTERBA, ED. ,*TAX POLICY AND THE ECONOMY*, vol. 11 (1998).

Joseph Bankman and Thomas Griffith, *Is the Debate Between an Income Tax and a Consumption Tax a Debate About Risk? Does it Matter?*, 47 *TAX LAW REV.* 377 (1992).