



Working Paper

Toward a Consumption Tax, and Beyond

Roger Gordon

Department of Economics University of California, San Diego

Laura Kalambokidis

Department of Applied Economics University of Minnesota

Jeffrey Rohaly

Urban Institute Washington, DC

Joel Slemrod

Stephen M. Ross School of Business at the University of Michigan

Ross School of Business Working Paper Series Working Paper No. 915 December 2004

This paper can be downloaded without charge from the Social Sciences Research Network Electronic Paper Collection: http://ssrn.com/abstract=902447

UNIVERSITY OF MICHIGAN

TOWARD A CONSUMPTION TAX, AND BEYOND

Roger Gordon
Department of Economics
University of California, San Diego
9500 Gilman Drive
La Jolla, Ca 92093
858-534-4828
858-534-7040 (fax)
rogordon@ucsd.edu

Laura Kalambokidis
Department of Applied Economics
University of Minnesota
217f Classroom-Office Building
1994 Buford Avenue
St. Paul, MN 55108-6040
612-625-1995
612-625-6245 (fax)
lkalambo@apec.umn.edu

Jeffrey Rohaly Urban Institute 2100 M Street NW Washington, DC 20037 202-261-5877 202-833-4388 (fax) JRohaly@ui.urban.org

Joel Slemrod University of Michigan 701 Tappan Street, Room A2120 Ann Arbor, MI 48109-1234 734-936-3914 734-763-4032 jslemrod@umich.edu

Session Title: Taxation, Investment, and Saving

Word-Processing Program: Microsoft Word

TOWARD A CONSUMPTION TAX, AND BEYOND

Roger Gordon, Laura Kalambokidis, Jeffrey Rohaly, Joel Slemrod*

Amid the academic debate about whether a tax based on consumption or income is superior, it has long been recognized that the U.S. federal tax system is in reality a hybrid of an income and consumption tax, with some elements that do not fit naturally into either system. In recent decades tax law changes that altered the nature of the hybrid were generally not discussed as part of a plan to establish either a pure income tax or a pure consumption tax, but as attempts to establish a "level playing field" or to improve "incentives to save."

As of 2003, the outline of an explicit plan to move toward a consumption tax is emerging. Under the original Bush administration proposals in 2003, dividends would become tax-exempt if corporate tax had been paid on the earnings supporting the dividends, and a new tax-exempt Lifetime Savings Account, with no restrictions on use, would be created.

The proposed expansion of tax-exempt savings accounts was not passed, although it will likely be re-introduced in some form. What did become law were two provisions to expand expensing of qualified property: (1) an increase in the fraction of equipment investment that can be immediately written off from 30 percent (which became law in 2002) to 50 percent, and (2) an increase through 2005 of the limit on the expensing of new depreciable assets by small businesses allowed under IRC Section 179. The 2003 tax law also reduced the rate of tax on dividends and realized capital gains received by an individual shareholder to be no more than 15 percent, compared to a top rate on "ordinary" income of 35 percent.

The acceleration of depreciation, the reduction of personal tax on dividends, and an expansion of tax-favored savings accounts can be seen as part of a strategy to shift the tax base from income to consumption.² If the ultimate destination of this set of tax reforms is a consumption tax base, then the most glaring omission from the discussion to date concerns interest deductibility. The continuation of interest deductibility, in spite of other moves toward a consumption tax base, raises two issues. The first is that interest deductibility plus expensing for businesses, plus exemption of financial returns of individuals produces not a zero tax on capital income, as under a consumption tax, but rather a subsidy. The second is that this tax structure allows a range of tax arbitrage opportunities among individuals and across corporations and individuals. For example, even under pre-2002 tax law, when high-tax-bracket investors borrowed from those in low (or zero) tax brackets they generated an arbitrage gain equal to the difference between the tax rates. Reducing the tax rate on interest income, but not interest deductions, to zero vastly expands this opportunity. These tax arbitrage opportunities reduce tax revenue without necessarily providing a concomitant reduction in the effective tax rate on saving and investment.

I. Methodology

In this paper we investigate the extent to which the U.S. income tax system of 2004 collects tax on capital income, and the implications of extending tax-preferred savings accounts. We do so by applying a methodology originally proposed in Roger Gordon and Joel Slemrod (1988) and there applied to the U.S. tax system of 1983. The methodology estimates how much tax is collected on capital income by calculating how much tax revenue would change if the tax system were modified to exempt income from capital in present value—specifically by adopting

what the Meade Committee (1978) called an "R-base tax"--while leaving the tax rate structure and tax incentives otherwise unchanged. The difference between actual revenue and revenue under this alternative tax system is a measure of how much tax on capital income is collected under current law.

There are many tax structures that imply no distortions at the margin to saving and investment decisions. For several reasons discussed in Roger Gordon et al. (2004a), we examine the R-base. Shifting to an R-base tax would involve replacing current deductions for depreciation, amortization, and depletion with immediate expensing for new investment. In addition, it requires eliminating interest, dividend, and capital gains from the tax base and also eliminating all interest deductions. Finally, it is necessary to allow an immediate deduction when goods are added to inventory rather than a deduction when goods are withdrawn from inventory.³ How this measure relates to an average effective tax rate on saving and investment is discussed at length in Roger Gordon et al. (2004b).

Strikingly, Gordon and Slemrod (1988) concluded that in 1983 in the United States the switch to an R-base tax would have cost little or no revenue, suggesting that the tax burden on capital was at that time small or non-existent. The methodology was refined in Gordon et al. (2004a, hereafter GKS) and applied to the U.S. tax system of 1995. The findings for 1995 were less stark: a switch to an R-base tax in 1995 was estimated to cost \$108.1 billion in tax revenues. Much had happened between 1983 and 1995, including the passage of the Tax Reform Act of 1986 and a significant drop in nominal interest rates that reduced the tax savings arising from any tax arbitrage through use of debt.

II. Results

In this paper we apply the GKS methodology to the U.S. economy in 2004 in order to estimate how much tax on capital income is now being collected. Furthermore, we estimate the impact on the tax on capital income of the law changes passed in 2002-3. Finally, we estimate the implications of expanding tax-free accounts, as was proposed but not passed in 2003.

Table 1 contains our key results. As a standard for comparison, Columns 1 and 2 present estimates of individual and corporate income tax revenues for 2004, in the absence of and including the main capital income tax changes of 2002-3, respectively.

The basic approach is to begin in Column 2 with estimates of 2004 corporate and individual tax revenue.⁵ We adjust both corporate and individual tax revenue to reflect the fact that the short-term revenue cost of the expensing provisions passed in 2002 and 2003 will exceed the steady-state revenue cost because future-year revenues will be higher reflecting lower tax depreciation in later years.⁶ Next, we obtain estimates of revenue *before* the capital-incomerelated provisions of the 2002-3 tax laws by adding to the adjusted 2004 law revenue estimates in Column 2 the (adjusted) official estimates of the revenue cost of these provisions in the 2002 and 2003 laws. Thus, the difference between Column 1 and Column 2 is our estimate of the long-run implications of the capital income tax provisions of the 2002-3 tax law changes: a reduction of \$49.9 billion in individual income tax revenues, and a reduction of \$25.0 billion in corporation income tax revenues.

We then apply the GKS methodology to estimate how much revenue would be collected in 2004 if the United States had an R-base tax. Because of data limitations, we use slightly

had to rely on 2000 data aged to reflect changes in profit, value of inventories, and capital expenditures, but not the tax law changes. We convert 2000 law into the tax collected under an R-base tax with a series of steps that are detailed in Table 2.⁷ These steps produce an estimate that moving from 2000 law to an R-base corporation tax would reduce revenues by \$55.1 billion; this is reflected in the difference between the first and third columns of the first row of Table 1.

To estimate 2004 individual income tax liabilities, we use the Urban-Brookings Tax

Policy Center Microsimulation Model. Table 3 provides detail on the steps taken to convert

actual 2004 tax revenue to the revenue that would be collected under an R-base individual tax.

Moving to an R-base would exempt \$626.1 billion of interest receipts and other capital income,
but also disallow \$357.8 billion of interest deductions, for a net drop of \$268.2 billion in taxable
income. The total reduction in taxable income is \$293.3 billion, resulting in a decline of \$33.7

billion in tax liability, as reflected in the difference between the second and third columns of the
second row of Table 1. The ratio of the change in tax liability to the change in taxable income is
just 11.5%, similar to the ratio in 1995, reflecting the fact that the disallowed interest deductions
are concentrated among those in the top tax brackets whereas the exempted capital income tends
to be received by those in low tax brackets.

Table 1 provides the numbers we need to draw conclusions about how much tax on capital income is now collected, and the role of the 2002-3 tax changes in that result. The difference between tax collected and what would be collected under an R-base tax forms the basis of the estimates. Thus, we estimate that the current tax law collects \$63.8 billion (\$1034.3 - \$970.5) on capital income. This compares to \$138.7 billion (\$1109.2 billion - \$970.5 billion)

in tax collected on capital income if neither the expensing provisions nor the preferential rate on dividends and capital gains had been enacted. Thus, the 2002-3 provisions affecting capital income reduced the tax on capital income by \$74.9 billion. These 2002-3 changes therefore took us very close to collecting no revenue at all from capital income, just \$63.8 billion in total.

Finally, we estimate the capital income tax revenue implications of significantly expanding tax-free savings accounts, as was proposed in 2003 and is likely to be reconsidered in 2004. We estimate the revenue consequences in two ways. First, we allow married couples filing jointly to exempt from taxable income up to \$25,000 (\$12,500 for single filers) of currently taxed interest, dividends, and capital gains. This is meant to approximate the long-term consequences of allowing up to \$50,000 per year of contributions (\$25,000 for single filers), figuring ten years of contributions and a five percent rate of return. Second, we simulate the revenue effects of imposing **no** individual tax on interest income, dividends, or capital gains.

Depending on which simulation procedure we employ, the expanded tax-free savings accounts push the U.S. tax system *beyond* a consumption tax in the sense that revenue would be lost from taxes on capital income. Comparing the fourth and second columns of Table 1 shows that exempting \$25,000 (\$12,500) of interest, dividends, and capital gains from taxable income would in the long run reduce individual income tax revenue by \$43.3 billion and, as shown in parentheses, completely exempting these items (in both cases retaining interest deductibility) would cost \$107.6 billion in individual income tax revenue.¹⁰ The net result is that, depending on how we model the long-run revenue cost of expanded tax-free savings accounts, the total

revenue collected from capital income will either be just \$20.5 billion (\$991.0 - \$970.5) or will be **minus** \$43.8 billion (\$926.7 – \$970.5).

III. Conclusions

As of 2004, the U.S tax system has returned to the situation of the mid-1980's wherein our income tax system raises little revenue from taxing capital income. If extensive tax-free savings accounts were to be introduced, the system would raise almost no revenue from capital income and possibly subsidize, rather than tax, capital income. The main culprit in this state of affairs is the retention of interest deductibility. Although the revenue from taxing capital income is small, the gains that would result from a clean consumption tax have not been attained, as there remain distortions to both saving and investment decisions, and distortions across capital assets, portfolios, corporate financing, and choice of organizational form under the patchwork of provisions that have been adopted.

Table 1

Capital Income Tax Revenue Consequences of Recent and Proposed Tax Reforms

(billions of dollars in calendar year 2004)

	2004 tax law			
	with 2001			2004 tax law
	capital income			with expanded
	provisions	2004 tax law	R-base tax	savings accounts
Corporate				
income tax	226.5	201.5	171.4	201.5
Personal income				
tax	882.7	832.8	799.1	789.5 (725.2)
Total	1109.2	1034.3	970.5	991.0 (926.7)

8

Table 2

Change in corporate tax base and liability between pre-2002 tax law and an R-base tax, using data aged to 2004, for non-financial C-corps

(\$billions)

Step	amounts
1. plus: net interest payments	66.1
2. plus: depletion, amortization and depreciation	682.1
3. less: new capital investment	766.0
4. less: net dividend income	10.6
5. less: net capital and noncapital gains	68.2
6. less: inventory adjustment	60.9
7. equals: net change in taxable income	-157.6
8. times: average effective tax rate (before credits)	34.95%
9. equals: net change in tax liability (before credits)	-55.1

Table 3

Change in individual tax base and liability under an R-base tax calendar year, 2004

(\$billions)

Step	amount
Current-law taxable income	4,818.6
2. Less: Schedule B interest income	208.1
3. Less: Other capital income	418.0
4. Plus: Schedule A interest deductions	357.8
5. Net direct change in taxable income	-268.2
6. Indirect change in taxable income	-25.1
7. Total change in taxable income	-293.3
8. R-Base taxable income	4,525.3
9. Implied change in tax liability	-33.7

References

Becker, Johannes and Clemens Fuest. "The GKS-Measure of the Effective Tax Rate on Investment: Theory and Empirical Evidence for Germany." Working paper, University of Cologne, November 2003.

Gordon, Roger and Joel Slemrod. "Do We Collect Any Revenue from Taxing Capital Income?" in Lawrence Summers, ed., <u>Tax policy and the economy</u>, Vol. 2. Cambridge, MA: MIT Press, 1988, pp. 89-130.

Gordon, Roger et al. "Do We <u>Now</u> Collect Any Revenue from Taxing Capital Income?" <u>Journal of Public Economics</u>, April 2004a, <u>88(5)</u>, pp. 981-1009.

Gordon, Roger et al. "A New Summary Measure of the Effective Tax Rate on Investment," in Peter Birch Sorensen, ed., Measuring the tax burden on capital and labour. Cambridge, MA: MIT Press, forthcoming 2004b.

Kalambokidis, Laura. "What is Being Taxed? A Test for the Existence of Excess Profit in the Corporate Income Tax Base." Ph.D. dissertation, University of Michigan, 1992.

McLure, Charles E., Jr. "The Tax Reform Act of 1986: Tax Reform's Finest Hour or Death Throes of the Income Tax?" National Tax Journal, September 1988, 41(3), pp. 305-15.

Meade Committee Report. The structure and reform of direct taxation. Boston: Allen & Unwin, 1978.

Shoven, John. "Using the Corporate Cash Flow Tax to Integrate Corporate and Personal Taxes," in <u>Proceedings of the 83rd annual conference of the national tax association</u>. Columbus, OH: National Tax Association-Tax Institute of America, 1991, pp. 19-26.

Weisman, Jonathan. "Anti-Tax Crusaders Work for Big Shift." <u>Washington Post</u>, June 14, 2003, p. A01.

FOOTNOTES

*Roger Gordon, Department of Economics, University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093, 858-534-4828 (phone), 858-534-7040 (fax), rogordon@ucsd.edu; Laura Kalambokidis, Department of Applied Economics, University of Minnesota, 217f Classroom-Office Building, 1994 Buford Avenue, St. Paul, MN 55108-6040, 612-625-1995 (phone), 612-625-6245 (fax), lkalambo@apec.umn.edu; Jeffrey Rohaly, Urban Institute, 2100 M Street NW, Washington, DC 20037, 202-261-5877 (phone), 202-833-4388 (fax), JRohaly@ui.urban.org; Joel Slemrod, Office of Tax Policy Research, University of Michigan, 701 Tappan Street, Rm. A2120, Ann Arbor, MI 48109-1234, 734-936-3914 (phone), 734-763-4032 (fax), jslemrod@umich.edu.

¹ The Tax Reform Act of 1986, which in many ways moved the definition of taxable income closer to economic income, may be an exception. See Charles E. McLure, Jr. (1988).

² Jonathan Weisman (2003) reported that the Bush administration was debating whether to push "a plan for stealth tax reform in 'five easy pieces'--lower marginal income tax rates, including capital gains tax rates; eliminate taxes on dividends; accelerate the speed with which businesses can write investment expenses off their tax bills [ultimately to the point of 100 percent first-year expensing of business capital investment]; expand the Roth individual retirement account to all personal saving; and exclude export and other foreign trade income of American companies from taxation.

³ These changes are made for nonfinancial C-corporations only, since an R-base is not an appropriate measure of the labor income generated in financial intermediaries.

⁴ John Shoven (1991) applied this methodology to U.S. data for 1986. Laura Kalambokidis (1992) looked at the implications for corporate tax payments by industry for each year from 1975 to 1987. Johannes Becker and Clemens Fuest (2003) apply it to Germany.

⁵ These estimates apply to calendar year 2004. The Congressional Budget Office does not report fiscal year estimates of corporate tax revenues, but they do report both calendar year and fiscal year projections of corporate profits. The pre-adjustment number for 2004 corporate tax reported in Table 1 is derived by assuming that the ratio of calendar year revenue to fiscal year revenue (1.012) is the same as the ratio of calendar year profit to fiscal year profit. The individual tax revenue estimates come from the Urban-Brookings Tax Policy Center Microsimulation Model, described in more detail below.

⁶ Specifically, we reduce depreciation deductions for earlier equipment investment, reflecting the fact that in steady state half of equipment investment would have been expensed previously. Our calculations assume that the expensing provisions will be extended indefinitely, rather than expire as current legislation provides.

⁷ Unfortunately, due to a change in the industrial classification codes in 1998, these figures cannot be compared to those from Gordon et al. (2004a) or Gordon and Slemrod (1988), since the definition of "non-financial" corporations changed. In particular, we estimate that this

change in industrial classification resulted in a drop in reported net interest payments from approximately 192.1 to 66.1. As a result, with a comparable industrial classification, we estimate that corporate tax revenue figures would have been lower by 44.0 billion dollars in both columns 1 and 2 in Table 1, reducing the net tax revenue from taxes on capital income by this amount under both 2004 tax law and 2001 tax law.

The Tax Policy Center model is based on data from the 1999 public-use file produced by the Statistics of Income Division of the Internal Revenue Service. The file contains about 132,000 records with detailed information from federal individual income tax returns filed in the 1999 calendar year. A statistical match with the March 2000 Current Population Survey provides demographic and other information to supplement the tax data. The tax model has two components: a statistical routine that uses forecasts from the Congressional Budget Office, the IRS, and the Bureau of the Census to "age" or extrapolate the 1999 data to create representative samples of the filing and non-filing population for future years; and a detailed tax calculator that computes individual income tax liability for all tax units in the sample under current law and under alternative policy proposals. See http://taxpolicycenter.org/taxmodel for additional details.

⁹ There is a further \$25.1 billion indirect reduction in taxable income due to the effect of the phaseout of itemized deductions and personal exemptions based on adjusted gross income (AGI) and the limitation on itemized deductions—the \$357.8 billion in disallowed interest deductions is a gross value before the limitation on itemized deductions is applied. When calculating the revenue impact of moving to an R-base tax, due to data limitations it is assumed that all capital income that is subject to the regular tax is excluded from both the regular base and the alternative

minimum tax base (AMT). Because the AMT taxes some forms of capital income differently than the regular tax, this leads us to slightly underestimate the revenue loss from moving to the R-base tax.

¹⁰ For the first estimate, we assume that individuals first deposit into the accounts assets yielding interest income, short-term capital gains, and dividends not eligible for the preferential rates, and then deposit assets yielding dividends and long-term capital gains, until the limit is reached.

That behavior would minimize tax liability. We ignore any increase in borrowing to finance further deposits in these accounts.