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**Article**

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NBER Reporter Online

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National Bureau of Economic Research (NBER), Cambridge, Mass.

*Suggested Citation:* Gordon, Roger H. (2003) : Capital income taxes, NBER Reporter Online, National Bureau of Economic Research (NBER), Cambridge, MA, Iss. Fall 2003, pp. 16-19

This Version is available at:

<https://hdl.handle.net/10419/61837>

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# Capital Income Taxes

Roger H. Gordon\*

In public economics the conventional wisdom has been that taxes on capital income generate high efficiency costs with few offsetting benefits.<sup>1</sup> Average tax rates on the return to capital are measured to be very high,<sup>2</sup> as are marginal tax rates on savings and investment.<sup>3</sup> There is a large body of research indicating that these high capital taxes have important effects on the rate of corporate investment, on the allocation of capital across uses, on whether profits are reported in the United States or offshore, and on corporate and personal financial decisions.<sup>4</sup>

Consistent with these forecasts of very high efficiency costs, Slemrod and I find that tax revenue would have been virtually unchanged if the United States had shifted in 1983 to an R-base under the personal and corporate income tax, thereby exempting capital income from tax.<sup>5</sup> Thus, adjustments that taxpayers made to reduce their tax liabilities were extensive enough to wipe out all tax revenue from taxes on capital income.

Are there any obvious distributional benefits that compensate for these high efficiency costs? At least in a small open economy, the answer is no.<sup>6</sup> Capital can easily escape taxation by going abroad, so that domestic workers, rather than capital, end up bearing taxes imposed on capital. Even if the economy is closed, Atkinson and Stiglitz argued, there are no distributional gains from taxing the return to savings as long as utility functions are weakly separable between leisure and consumption.<sup>7</sup>

Using data from 1983, Slemrod and I examined the distribution of gains and losses to individuals that would result from shifting to an R-base. We found that the existing U. S.

tax system, relative to an R-base, imposed higher taxes on lower-income investors, who largely invest in taxable bonds, while imposing lower taxes on higher-income investors, who borrow heavily to buy more lightly taxed assets. These results suggest that the existing tax treatment of capital income has perverse distributional effects.

Thus, capital income taxes have large efficiency costs, collect little revenue, and have no obvious distributional gains. So, the case for using them appears to be very weak. Yet actual tax rates on capital income remain high, implying a sharp contrast between theory and practice. A major focus of my research during the last few years has been to look more closely at these above arguments, to see if there are important omissions from the theory that could call into question its implications for capital income taxes.

## Capital Immobility

One questionable assumption of the standard model is that the United States is a small open economy. As documented by French and Poterba<sup>8</sup>, individual portfolios show strong "home bias:" investors invest far more in financial securities from their own countries than can be explained easily, given the standard forecast of worldwide portfolio diversification. However, the implications of capital immobility for tax policy depend on *why* capital is immobile.

One possible reason for home bias in portfolios is real exchange rate risk. Gaspar and I examine the implications of random fluctuations in the relative values of goods produced in different countries for both portfolio choice and tax policy.<sup>9</sup> If random relative values of goods are reflected in random fluctuations of the domestic price level but stable exchange rates, then the model forecasts substantial

home bias in equity portfolios, as a hedge against random consumer prices. But since domestic investors buy equity as a hedge, they end up bearing too much production risk from domestic firms. Capital taxes exacerbate this misallocation of risk-bearing. The fact that capital is immobile does not make taxation of capital income a plausible policy *per se*.

## Distributional Effects

In two other recent papers, I reexamine whether the distributional effects of capital income taxes are as perverse as has been argued. Kalambokidis, Slemrod, and I (hereafter GKSb) recalculated the distributional effects of capital income taxes found in my 1988 paper with Slemrod, using data from 1995.<sup>10</sup> In spite of the major tax reform in 1986, the data for 1995 still imply rather perverse distributional effects of existing taxes, relative to an R-base. Lower income individuals still lose, middle income individuals still gain, and more so the higher their income, but now the highest income group also loses from taxes on capital income.

In another recent paper, I looked more carefully at the distributional effects of existing taxes on interest income/payments in a standard theoretical setting.<sup>11</sup> Unlike GKSb, this study accounts for changes in asset prices. Interest income has faced a higher effective tax rate than any other source of income from savings, because the nominal income is fully taxable. Yet at least in a closed economy, high taxation may provide distributional gains. To begin with, taxes on interest income cause the market-clearing interest rate to rise, helping lower income lenders and hurting higher-income creditors. Yet this redistribution has no efficiency cost at the margin, starting from a situation with no distortions to portfolio choice, so that it dominates using additional taxes

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on earnings to redistribute income. In addition, if higher ability individuals invest more in equity, even given their labor income, then portfolio distortions can help redistribute from more able to less able individuals.

In GKSb we also reestimated the revenue collected from existing taxes on income from savings and investment. In contrast to the earlier results for 1983, we find in 1995 that these taxes collected additional revenue of \$91.7 billion, now positive but still very small.

## Efficiency Costs

The fact that so little revenue is collected in principle could imply that the effective tax rate on capital investment is low. Kalambokidis, Slemrod, and I (hereafter GKSa) develop a theoretical model to explore the links between the revenue collected from these taxes and the size of the resulting distortion discouraging capital investment.<sup>12</sup> In a standard setting, there is a simple formula to go from one to the other. Since very little revenue is collected from capital taxes, the GKSa formula implies a very low effective tax rate on new investment. Apparently, investors use tax avoidance strategies not accounted for in the standard user-cost formula (as in King, Fullerton) so that the revenue collected on a marginal investment is found to be very low.<sup>13</sup> But tax avoidance itself can have high efficiency costs.

One mechanism for tax avoidance is debt arbitrage: investors and firms in high tax brackets borrow heavily from investors in low tax brackets in order to buy lightly taxed assets. Economists have found it very hard to test this forecast. Time-series evidence is unrevealing, because tax rates change so seldom, while cross-section evidence on publicly traded firms (reported in Compustat) works badly because effective tax rates vary among publicly traded firms largely for reasons that can independently affect firm borrowing behavior. Lee and I instead use published data from corporate tax returns for *all* corporations over 37 years, reported separately for various size categories of firms, to test whether firms borrow more when

their tax rate is relatively high.<sup>14</sup> Even though the top corporate tax rate has not changed much over time, corporate tax rates on lower levels of earnings have changed frequently, allowing us to identify the effects of taxes by seeing how the relative use of debt changes for small versus large firms as their relative tax rates change. We find quite large effects. For example, cutting the corporate tax rate by five points (from 35 percent to 30 percent), holding personal tax rates fixed, is predicted to cause a shift from debt to equity finance of 2 percent of corporate assets.

Another mechanism for tax avoidance is income shifting between the corporate and personal tax bases. When personal and corporate tax rates differ, firms with profits tend to choose the organizational form that has a lower tax rate on profits, while firms with losses choose the form that allows them to deduct their losses subject to a higher tax rate. This income shifting was the basis for the tax shelter industry in the 1980s. Slemrod and I provided evidence on the extent of this income shifting by looking at how reported corporate rates of return have changed over time in response to differences between corporate and personal tax rates.<sup>15</sup> We found substantial evidence of income shifting between the corporate and personal tax bases.

While debt arbitrage and income shifting both appear to be very responsive to tax incentives, the efficiency cost arising from tax distortions to these choices appears to be small, because the size of the tax distortion affecting each choice is typically small. In fact, I point out a potential efficiency gain from the difference in corporate versus personal tax rates, through the resulting subsidy to entrepreneurial activity.<sup>16</sup> Given the *option* to incorporate, firms can take advantage of the lower corporate tax rates when they are profitable *and* the higher personal tax subsidy for losses when they are unprofitable. Undertaking added risk then lowers expected taxes, implying a net subsidy to risk-taking.

Cullen and I examine how the interaction between the personal and corporate tax schedules, and tax incen-

tives more broadly,<sup>17</sup> affect individuals' incentives to become entrepreneurs. We measure entrepreneurial activity by the presence of noncorporate losses. Estimated effects, using data on individual tax returns from 1964 to 1993, are remarkably large. For example, a shift to a 20 percent flat tax is forecast to virtually triple the rate of entrepreneurial activity.

## Capital Taxation by Local Governments

This discussion has focused on national taxes on capital income. Any discussion of subnational taxes on capital also has to take into account the possibility that individuals migrate across jurisdictions in response to tax changes. Individual migration decisions depend on differences in government expenditures as well as on differences in taxes. Wilson and I examine the effects of a marginal change in local property taxes. We find that the effect of raising taxes and expenditures together causes a drop in housing consumption per household but an increase in the number of households sufficient enough to leave the equilibrium housing stock unchanged.<sup>18</sup> In this setting, in contrast to a setting without migration, taxation of capital does *not* discourage capital investment.

We argue further that use of the property tax gives favorable incentives to local government officials: by providing higher quality local public services, property values and property tax payments both rise, so the budget controlled by local officials gets larger. The property tax thus can yield efficiency gains through improved incentives for public officials.<sup>19</sup>

## Tax Evasion

These papers largely ignore tax evasion. Yet in poorer countries, underreporting of capital income is widespread: often only a small fraction of the economic income that in principle is taxable ever gets reported. Li and I document one possible response to this problem that the China government used during the 1990s.<sup>20</sup> Rather than taxing interest income, the

Chinese government restricted the interest rate that it paid on bank deposits. Rather than taxing the income of corporate shareholders, the government restricted the supply of equity to the market, and collected higher revenue from the issuance of new shares. In theory, these regulations are equivalent to capital income taxes, yet they can be much easier to enforce.

## Offsetting Subsidies

I recently noted that distortion costs from taxes on capital income can be avoided in part through subsidized credit for new investment projects, coming perhaps from a state-owned bank.<sup>21</sup> While not something observed in the United States, directed credit has been common in Europe. When capital tax rates are sufficiently high, even poorly informed government subsidies to new investment may lessen the efficiency costs of these high tax rates.

## Summary

Taken together, these papers provide a much less stark view of the role for capital income taxes, suggesting some distributional gains, smaller efficiency costs than have been claimed in the past, and even some reasons for efficiency gains from these taxes. In sum, theory and practice may not be as dramatically different as they have appeared.

<sup>1</sup> For a summary of these arguments, see R. H. Gordon, "Taxation of Capital Income vs. Labour Income: An Overview," in *Taxing Capital Income in the European Union: Issues and Options for Reform*, S. Cnossen, ed., Oxford: Oxford University Press, 2000.

<sup>2</sup> See, for example, M. Feldstein and L. H. Summers, "Is the Rate of Profit Falling?" *Brookings Papers on Economic Activity*, 1977, pp. 211-27; and E. G. Mendoza, A. Razin, and L. Tesar, "Effective Tax Rates in Macroeconomics: Cross-Country Estimates of Tax Rates on Factor Income and Consumption," *Journal of Monetary Economics*, 34 (1994), pp. 297-323.

<sup>3</sup> See, for example, M. A. King and D. Fullerton, eds., *The Taxation of Income*

from Capital: A Comparative Study of the United States, the United Kingdom, Sweden, and West Germany," Chicago: University of Chicago Press, 1984.

<sup>4</sup> For recent surveys of this literature, see the chapters by Poterba, Bernheim, Auerbach, and Hassett-Hubbard, and Gordon-Hines in A. J. Auerbach and M. Feldstein, *Handbook of Public Economics*, Vol 3 and 4, New York: Elsevier, 2002.

<sup>5</sup> As defined by the Meade Commission, an R-base allows new investment to be immediately expensed rather than depreciated, and eliminates all taxes on net income from financial securities. See *The Structure and Reform of Direct Taxation*, Meade Committee Report, Boston: Allen & Unwin, 1978; and R. H. Gordon and J. Slemrod, "Do We Collect any Revenue from Taxing Capital Income?" in *Tax Policy and the Economy*, 2 (1988), pp. 89-130.

<sup>6</sup> See, for example, R. H. Gordon, "Taxation of Investment and Savings in a World Economy," *American Economic Review*, 76 (1986), pp. 1086-102.

<sup>7</sup> In this case, individuals with the same labor income have the same consumption patterns, regardless of their underlying ability. If the goal is to tax unobserved ability, then taxing both labor and capital income is no more effective than taxing only labor income, yet introduces added distortions. See A. B. Atkinson and J. E. Stiglitz, "The Design of Tax Structure: Direct versus Indirect Taxation," *Journal of Public Economics*, 6 (1976), pp. 55-75.

<sup>8</sup> K. R. French and J. M. Poterba, "Investor Diversification and International Equity Markets," in *Advances in Behavioral Finance*, R. Thaler, ed., New York: Russell Sage Foundation, 1993.

<sup>9</sup> R. H. Gordon and V. Gaspar, "Home Bias in Portfolios and Taxation of Asset Income," NBER Working Paper No. 8193, March 2001, and in *Advances in Economic Analysis & Policy*, 1 (2001), pp. 1-28. Also reprinted in *Economic Policy in the International Economy*, E. Helpman and E. Sadka, eds., 2002.

<sup>10</sup> R. H. Gordon, L. Kalambokeidis, and J. Slemrod "Do We Now Collect any Revenue from Taxing Capital Income," NBER Working Paper No. 9477, February 2003, forthcoming in *Journal of Public Economics*.

<sup>11</sup> R. H. Gordon, "Taxation of Interest Income," NBER Working Paper No. 9503, February 2003, forthcoming in

*International Tax and Public Finance*.

<sup>12</sup> R. H. Gordon, L. Kalambokeidis, and J. Slemrod, "A New Summary Measure of the Effective Tax Rate on Investment," NBER Working Paper No. 9535, March 2003, forthcoming in *Tax Burden on Capital and Labor*, P. Birch Sorensen, ed.

<sup>13</sup> GKSA does show that for some more complicated distortions, for example to portfolio choice, the true effective tax rate on investment should be between the figures implied by GKSA and King-Fullerton.

<sup>14</sup> R. H. Gordon and Y. Lee, "Do Taxes Affect Corporate Debt Policy? Evidence from U.S. Corporate Tax Return Data," NBER Working Paper No. 7433, December 1999, and in *Journal of Public Economics*, 82 (2001), pp. 195-224.

<sup>15</sup> R. H. Gordon and J. Slemrod, "Are 'Real' Responses to Taxes Simply Income Shifting between Corporate and Personal Tax Bases?" NBER Working Paper No. 6576, May 1998, in *Does Atlas Shrug: The Economics of Taxing the Rich*, J. Slemrod, ed., 2000, New York: Russell Sage Foundation.

<sup>16</sup> R. H. Gordon, "Can High Personal Tax Rates Encourage Entrepreneurial Activity?" *IMF Staff Papers*, 45 (1998), pp. 49-80.

<sup>17</sup> For example, progressive tax schedules discourage risk taking; risk sharing with the government can facilitate risk taking; while the payroll tax encourages entrepreneurial activity, because successful entrepreneurs can avoid this tax by incorporating and then receiving their income in the form of capital gains rather than wages. See J. B. Cullen and R. H. Gordon, "Taxes and Entrepreneurial Activity: Theory and Evidence for the U.S.," NBER Working Paper No. 9015, June 2002.

<sup>18</sup> R. H. Gordon and J. D. Wilson, "Expenditure Competition," NBER Working Paper No. 8189, March 2001, and in *Journal of Public Economic Theory*, 5 (2003), pp. 399-418.

<sup>19</sup> R. H. Gordon and J. D. Wilson, "Tax Structure and Government Behavior: Implications for Tax Policy," NBER Working Paper No. 7244, July 1999.

<sup>20</sup> R. H. Gordon and W. Li, "Government as a Discriminating Monopolist in the Financial Market: The Case of China," NBER Working Paper No. 7110, May 1999, and in *Journal of Public Economics*, 87 (2003), pp. 283-312.

<sup>21</sup> R. H. Gordon, "Taxes and Privatization," in *Public Finance and Public Policy in the New Century*, S. Cnossen, ed., 2003.