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4 The Importance of Income Shifting to the Design and Analysis of Tax Policy

Roger H. Gordon and Jeffrey K. MacKie-Mason

4.1 Introduction

The academic public finance literature—and the advice academics offer to policymakers—has been dominated by a particular approach to tax analysis. A well-defined tax base is taken as given, and then the scholar studies the effect that taxation of that base has on taxpayer behavior and the distribution of income. For example, if we impose a tax on labor income, by how much are individuals likely to change hours worked? Changes in hours worked in response to tax distortions generate an efficiency loss that must be traded off against any distributional gains from the tax. In order to measure the size of the efficiency loss from labor income taxes, past research has focused on measuring labor supply elasticities.

There is another type of response, however, that is rarely considered. Rather than change work hours in response to taxes, individuals can simply change the way in which their pay is reported for tax purposes in order to reduce tax liabilities. For example, if the corporate tax rate is lower than the individual's personal tax rate, then a self-employed individual can save on taxes by incorporating, retaining his earnings within the corporation where they are taxed at the lower corporate rate, and then bequeathing ownership of the corporation to his heirs so that his earnings entirely escape personal taxes. During his lifetime, his consumption needs can be financed by loans from the corporation, which

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results in a further reduction in tax liabilities since certain types of interest deductions under the personal tax save more in taxes than are due in corporate taxes on this interest income. Similarly, an employee in a firm can be paid through qualified stock options rather than through wage payments. Under existing tax law, the firm receives no corporate tax deductions in this case, so that the earnings are implicitly taxed at the corporate rate. Personal taxes are due only when the shares are ultimately sold, at capital gains rates, and again these taxes can be avoided entirely if the shares are bequeathed to one's heirs.

This income-shifting response to tax policy has been widely ignored in the past literature, yet this response may be at least as important as changes in real behavior such as hours worked. In a recent paper (Gordon and MacKie-Mason 1995), we incorporated income shifting into a model of labor income taxes, to see its implications for the design of tax policy. We allowed not only for shifting of income between the corporate and the personal tax bases, but also for income shifting between domestic firms and foreign subsidiaries. The results were quite striking. Prior theories of optimal tax design make strong predictions that are inconsistent with most observed tax systems. When we take income shifting explicitly into account, many features of existing tax systems start to make sense. Our success in rationalizing major puzzles regarding current tax policy suggests that income shifting has had an important influence on existing tax policy even if it has been ignored in the academic discussions.

In this paper, we describe our study of the implications of income shifting for tax policy. We summarize the results of the prior literature and describe how they conflict with actual tax policies. We then discuss the pressures placed on a tax system by income shifting between the corporate and the personal tax bases. In contrast to existing theories that predict a zero corporate tax rate, we find an important role for a cash-flow corporate tax at the same rate as the labor tax. Next we discuss the additional pressures that cross-border income shifting between a parent firm and a foreign subsidiary (through transfer pricing and other mechanisms) imposes on tax systems. With the combined effects of domestic and cross-border shifting, we find that we can explain a number of otherwise puzzling features of existing tax codes, including most importantly the very existence of corporate taxes.

4.2 The Role of the Corporate Tax in an Open Economy

A corporate income tax is usually viewed as a supplement to personal taxes on capital income. Existing tax systems attempt to tax the return to savings on equity grounds. But for a variety of reasons, effective tax rates on capital gains are much lower than those on other forms of income from capital. Since much of the income from corporate capital takes the form of capital gains, corporate capital would be tax favored unless the tax system compensates by imposing a separate layer of tax on corporate income.

A number of complications arise in an open economy, however. To begin

with, how should the tax system treat income earned by foreigners on capital invested in the country? One clear finding from the theoretical literature (e.g., Gordon 1986; Razin and Sadka 1991) is that a capital income tax should exempt foreign owners if the country is small enough to be a price taker in world capital markets. If the country is a price taker, then any tax on income earned by foreign-owned capital in the country will not be borne by foreigners—foreigners will invest in the country only if the net-of-tax return they earn there is at least as high as what they can get elsewhere. They would continue to invest there in spite of the tax only if the pretax return rises by enough to compensate, which requires that other corporate deductions (primarily wage and rental payments) fall by enough to offset the effects of the tax. This implies that the corporate tax is ultimately borne by domestic workers and landowners. If so, even these groups would be better off if the corporate tax were replaced by direct taxes on wage and rental income. With direct taxes on wage and rental income, capital investment in the country is no longer discouraged, making the country more competitive in world markets.

Another clear prediction from the prior literature is that, if a country's residents are taxed on their capital income, capital income earned at home and abroad should be taxed at the same rate (Razin and Sadka 1991). This generally means that foreign-source income should be taxed when it is earned, rather than when it is repatriated; deferral until repatriation lowers the effective tax rate relative to that on domestic-source income. Further, in order to equate the pre-domestic-tax rates of return from investing at home or abroad, foreign taxes paid should be deductible from foreign-source income (Hamada 1966).

If income from foreign subsidiaries is effectively exempt from domestic taxes, however, as suggested by the evidence in Hines and Hubbard 1990, then the theory concludes that domestic corporate profits should not be taxed—doing so simply drives capital abroad with no compensating benefit. Even if income from foreign subsidiaries is in fact taxed at rates comparable to those on domestic corporate income, if individual investors can effectively escape domestic taxes when they buy financial securities abroad (since the government cannot independently monitor an individual's foreign-source income), then again the theory argues that domestic profits should not be taxed—such taxes simply reduce investment by domestic residents in domestic firms, with no compensating benefits.

These predictions regarding optimal tax policy in an open economy are diametrically opposed to the actual tax laws we observe in most developed countries. Contrary to the theory, most countries have a positive corporate tax rate; they tax foreign-owned corporations; they allow their citizens to defer taxation of foreign-source income until repatriation; and they allow a credit rather than a deduction for foreign taxes paid. Should we conclude that nearly all governments have implemented the wrong policies, and consistently maintained those wrong policies for many years? Or is the theory missing something important?

Not only do the existing theories conflict with actual government behavior,

but they also predict that firms should behave differently than they do. For example, multinationals from high-tax countries face a competitive disadvantage in low-tax countries: they pay the same low local taxes as do all firms, but they also pay a high surtax to their home government when they repatriate profits. Yet Hines and Rice (1994) show that U.S. multinationals invest heavily in countries with the lowest tax rates.

Given that multinationals do put subsidiaries in low-tax countries, the standard theories have a clear prediction about the pattern of pretax profit rates on investments in low-tax and high-tax countries. The domestic tax on foreign earnings is postponed until repatriation, so multinationals face lower effective tax rates in countries with lower statutory rates. This implies that the pretax competitive rate of return should be lower in low-tax countries. But Hines and Hubbard (1990) and Grubert and Mutti (1987) find that pretax profit rates of U.S. subsidiaries are *higher* in low-tax countries.

The clear explanation for the above observations is that multinationals are able to shift their accounting profits from high-tax to low-tax countries through transfer pricing, loans between parent and subsidiary, and other devices, thereby reducing their global tax liabilities. The shifted income explains the higher *reported* profit rate in the low-tax countries. The U.S. government's repeated efforts to tighten transfer pricing rules and enforcement, in part through provisions in the 1986 Tax Reform Act that limit income shifting (particularly through interest and R&D allocations), indicate that tax authorities believe cross-border income shifting is an important activity.

Unfortunately, cross-border income shifting alone does not help explain why corporate taxes exist. According to the theory, the mobility of physical capital alone, along with the difficulties in taxing foreign-source income, should be enough to force governments to eliminate taxes on corporate profits. Once we recognize that *accounting* income is also mobile, the tax policies we observe make even less sense. Apparently we need to look yet more closely at what taxpayers are doing.

Our hypothesis is that individuals can easily shift their form of pay so that it is taxed as corporate rather than personal income, just as multinationals can easily shift their internal transactions so that income is taxed abroad rather than at home. As a result of these income-shifting opportunities, we argue below, a corporate tax serves as a backstop to taxes on labor income, thereby enhancing the efficiency of the tax system as a whole. Musgrave (1959) proposed this justification for the existence of a corporate tax, but the idea has been largely ignored since; as a consequence, a number of recent papers argue that corporate taxation should be altogether eliminated.

4.3 Pressures Created by Domestic Income Shifting

If domestic individuals can shift income between the corporate and the personal tax bases, what can we say about the appropriate use of a corporate tax?

Suppose that the prior theories are accepted, so that there are no taxes on corporate income because capital is mobile. Then individuals will have a strong incentive to find ways to report their earnings as corporate income. For example, rather than working as an employee earning taxable wages, an individual could instead become self-employed, incorporate, and accrue income within the corporation free of tax. Alternatively, an employee without entrepreneurial acumen might ask his or her employer for pay in stock options rather than wages, leading under existing tax law to an increase in corporate and a decrease in personal taxable income.

These forms of income shifting lower tax payments, but at a cost. Changing careers from being an employee to being an entrepreneur involves many nontax considerations, while receiving pay through stock options has risk and liquidity implications. As a result, any differences between corporate and personal tax rates not only lead to a loss in tax revenue but also generate efficiency losses.

In a simple model, we have shown the optimal policy response: a cash-flow tax on corporate income at a rate equal to the labor income tax rate.[1] Under such a tax system, individuals can no longer reduce their tax liabilities by changing their form of pay, so would have no tax incentive to pursue costly income-shifting strategies. Such a cash-flow tax would also leave investment decisions undistorted.

As forecast, the corporate tax rate in most countries is very similar to the top personal tax rate, largely eliminating the gain from shifting income from the personal to the corporate tax base. The role of the corporate tax as a backstop for the labor income tax also explains why foreign-owned firms in a country should be subject to the same tax rate as domestic-owned firms, contrary to prior theories. If foreign-owned firms faced a lower rate, then domestic entrepreneurs could easily shelter their earnings by finding a foreign investor to act as a nominal owner of the firm they set up.

A similar argument clarifies another puzzling feature of most international tax systems: why give a credit for foreign taxes paid on foreign-source income, rather than a deduction? First, if foreign-source income were taxed at a lower rate than domestic labor income, then domestic entrepreneurs could reduce their taxes by using their ideas to open subsidiaries abroad rather than at home. By combining this possibility with the previous example in which foreign owners might acquire domestic firms to shift income out of the domestic labor tax base, we can see that subsidiaries would need to be taxed at the maximum of the corporate tax rates prevailing in the host and home countries in order to prevent either form of income shifting. This is precisely what happens under existing crediting schemes.

A number of complications would modify the conclusion that governments

1. More specifically, the corporate tax should be coordinated with any personal taxes on corporate income so that the net tax rate on corporate cash flow equals the personal labor income tax rate.

should tax corporate cash flow at the labor tax rate in order to avoid wasteful income shifting. For example, a major activity of entrepreneurs is to develop new ideas. The entrepreneur's private return can differ substantially from the social return, if, for example, others can learn from observing the entrepreneur and use his ideas to compete with him. Thus, inducing the socially optimal level of entrepreneurial activity might require different tax rates on employees and entrepreneurs.

4.4 Pressures Created by Cross-Border Income Shifting

As we mentioned above, there is clear evidence that firms use transfer pricing in order to shift income from high-tax to low-tax locations. What does such cross-border shifting imply for the design of a corporate income tax? We assume that domestic income shifting is also possible, and thus start with a corporate cash-flow tax rate equal to the labor tax rate. Now consider the case of a high-tax home country, with multinationals that own subsidiaries in low-tax host locations. In our model, we assumed that transfer prices were used on inputs purchased by the domestic parent firm from the foreign subsidiary, so ignored transfer pricing of output sold abroad by the domestic parent. In this case, the firm will use too large an accounting price for these inputs, in order to shift taxable income from the high-tax to the low-tax location. The resulting income shifting both lowers domestic tax revenues and creates inefficiencies, because the firm uses too much of the overpriced input in order to reduce tax liabilities and because the effective tax rate on entrepreneurs is now below that on employees.

The home country's efficient policy response is to lower the tax rate at which inputs are deductible, to reduce the incentive to use transfer pricing. We see such a policy response in the income tax rules in the United States, which restrict the amount of deductions a parent firm can take for interest, R&D, and overhead expenses against the U.S.-source income. Another implication of our model is that the corporate tax rate should be somewhat below the labor income tax rate, since use of the corporate tax now introduces additional distortions to those considered previously. In fact, the corporate tax rate in most countries is somewhat lower than the top personal tax rate.

Another policy response to cross-border income shifting is to increase the effective corporate tax rate on foreign-source income, lessening the gain to firms of shifting income abroad. By making the tax rate on foreign-source income equal to that on domestic-source income, the home country could eliminate entirely the incentive to use transfer pricing. Under U.S. tax law, the main difference between the tax treatment of domestic and foreign-source income is that domestic income is taxed year by year, whereas foreign-source income is taxed only at repatriation. One policy response is therefore to tax foreign-source income at accrual, rather than at repatriation.

Much of the gains from this policy change could be achieved by implementing it selectively for income earned in jurisdictions deemed to be tax havens. While some opportunities for transfer pricing would still exist, the main pressures would be eliminated. We see just such a policy in the U.S. subpart F rules that tax passive foreign-source income when it is earned rather than repatriated. A further gain from this policy change is that it reduces countries' gain from being tax havens. Even in tax havens, maintaining low corporate tax rates undermines their domestic taxes on labor income, and would be attractive only if there were enough of a compensating gain through attracting investments by foreign multinationals.

Another policy response to transfer pricing would be to continue to tax foreign-source earnings at repatriation but to lessen the gains from deferral of tax liabilities on foreign-source income. Deferral of taxes on foreign-source earnings is valuable only to the extent that the net-of-local-tax rate of return earned on funds kept abroad is higher than the net-of-tax return available on funds invested at home. If the two rates of return were the same, then there would be no advantage to deferral. If there were no domestic taxes on the return to savings at home, then capital mobility would imply that the net-of-tax rate of return abroad could be no higher in equilibrium than that available at home, eliminating any gain from deferral. Past theoretical work already suggests that capital income taxes should not exist in a small open economy; that capital income taxes increase incentives for transfer pricing only strengthens this conclusion.

4.5 Closing Remarks

Capital mobility between open economies creates strong pressure to eliminate *capital* income taxes. However, this is not the same thing as eliminating *corporate* income taxes. To the extent that individuals can shift their form of pay so that it would be taxed as corporate income rather than as personal wage income, the corporate income tax serves as a backstop to the personal income tax. Incentives to shift income between the corporate and the personal tax bases would be eliminated through use of a corporate cash-flow tax at the same rate as the labor income tax. Cross-border income shifting can be discouraged in a variety of ways, such as modifying the tax treatment of items susceptible to transfer pricing.

We have not attempted in this study to add anything to the discussion concerning whether *capital* income taxes should be used in an open economy. What we do argue is that the primary role of the corporate tax appears to be as a backstop to the personal tax on labor income rather than as a tax on the return to capital invested in the corporate sector. In fact, Gordon and Slemrod (1988) found that U.S. corporate taxable income would increase if we shifted to a cash-flow corporate tax, which in present value exempts capital income,

suggesting that the normal return to corporate capital is a minor (in fact negative) component of the existing corporate tax base.[2] Our hypothesis in this paper, consistent with the Gordon and Slemrod evidence, is that reported corporate income is primarily labor income left within the firm to escape personal tax liabilities.

Implicitly supporting the important role of income shifting in the design of tax policy is the fact that many otherwise puzzling aspects of corporate tax systems around the world appear quite sensible once income shifting is taken into account. While it would appear from the nature of government tax policy that income shifting must be important, is there any direct evidence on the importance of income shifting?

While there is a growing body of work documenting the importance of cross-border income shifting within a multinational,[3] there has been relatively little work attempting to measure the extent of income shifting between the corporate and personal tax bases. In related research (MacKie-Mason and Gordon 1993; Gordon and MacKie-Mason 1994), we report evidence that a firm's decision whether to incorporate is significantly affected by tax considerations. This says nothing about the extent of income shifting within an existing corporation, however. Given the systematic downward trend in personal tax rates relative to corporate rates in recent years, if income shifting were important then there should have been a decline in the corporate tax base and an increase in the personal tax base in response to this trend in tax rates. In fact, a number of papers have reported such evidence. For example, Poterba and Auerbach (1987) document a decline in the reported pretax rate of return earned on corporate capital between 1959 to 1985, during which time the difference between the top personal marginal tax rate and the top marginal corporate rate fell from 40 percent to 4 percent. In addition, Feenberg and Poterba (1993) report a sharp jump in the relative income of the richest 0.25 percent of U.S. households in the 1980s, during a period when their personal tax rate fell substantially relative to the corporate tax rate. Our view is that income shifting provides the most plausible explanation for these income trends.

Given that many otherwise puzzling aspects of existing tax policy can be rationalized quite easily if income shifting is important, it would be highly valuable in future research to document the extent and the efficiency costs of income shifting, in order to judge whether the existing policy response to the threat of income shifting is the appropriate one. Since past work has virtually ignored the possibility of income shifting, this would involve a major shift in research effort.

2. This study looked at data for only 1983. Subsequent work by Kalambokidis (1992) covering 1975–87 also found that a cash-flow tax base would exceed the existing tax base in all years except 1975.

3. See, for example, Harris et al. 1993.

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