

Why and How to Tax Corporate Income

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INTRODUCTION

The question whether countries should tax corporations on their income is an old one, yet it has never been more topical than it is today. Tax competition is driving down corporate tax rates in a race to the bottom, and 12 countries today levy no corporate income tax at all. The pressure from tax competition and the major complications that arise in administrating and enforcing current corporate income tax systems are so vast that one may wonder whether it is worth dealing with them or whether it would not be much easier simply to give up on taxing corporate income, replacing lost revenues with other taxes.

This chapter starts by discussing why it is worthwhile for countries to maintain a corporate income tax, even if possibly in a reformed manner. It starts, in the first section, by discussing the role of the corporate income tax as part of the broader income tax system. Corporate income is a subset of capital income, and so the first question to answer is whether capital income should be taxed or not (“Why Tax Capital Income?”). If that is answered in the affirmative, the next question is whether there is a role for the corporate income tax in the enforcement of capital income taxation (“Why Tax Corporate Income?”). If one accepts that, the subsequent issue that arises is how corporate income should be taxed and how such a tax should be implemented. While details of corporate income tax systems around the world differ, there are some common principles underlying them—including with respect to the taxation of international business income (“The Standard Corporate Income Tax”). Yet there are alternative systems that are based on different principles and that might avoid some of the distortions and complexities of the current corporate income tax. The chapter discusses in particular the comprehensive business income tax, which broadens the base of the corporate income tax by disallowing deductions for interest expenses (“Comprehensive Business Income Tax”). Finally, the chapter discusses various implementations of rent taxes, which exempt the normal return on capital at the corporate level.

WHY TAX CAPITAL INCOME?

Income generally arises from labor effort, be it wages or entrepreneurial activity, and capital returns in the form of interest, dividends, or capital gains. The distinction between labor and capital income is not always easy to make. For instance, self-employed entrepreneurs do not distinguish between payment for the labor effort they put into their own company and their capital investment. The entrepreneurial income they earn is simply the sum of both. Attempts to distinguish labor and capital income for tax purposes then become arbitrary and prone to avoidance: entrepreneurs can easily present income as either labor or capital income, depending on which is being taxed least.

This arbitrage between capital and labor income is at the heart of discussions on the design of the income tax system. For some, the theoretical ideal is to tax the sum of labor and capital income at a progressive rate structure, consistent with the ability-to-pay principle. This “global income tax” prevents arbitrage between labor and capital that could otherwise arise for the taxation of self-employed entrepreneurs.

Others have argued, however, that only labor income should be taxed, while capital income should be exempt. Their argument goes as follows: a tax on (the normal return to) saving increases the relative price of future consumption relative to present consumption. Chamley (1986) and Judd (1985) show that, in an infinite horizon model, this is inefficient and violates horizontal equity principles: it is always better to tax only labor income and avoid the intertemporal distortion to savings. The optimal tax on the normal return is therefore zero (see also Atkinson and Stiglitz 1976). This result has led economists to argue for an exemption of the normal return (see, for example, Mirrlees and others 2011). However, the income tax literature has also criticized the Chamley–Judd outcome for relying on too-specific assumptions, such as optimization over an infinite horizon. Models that relax the assumptions arrive at different conclusions and offer several rationales for a positive capital income tax rate, both for efficiency reasons and to address equity concerns (see, for example, Banks and Diamond 2010). Recent contributions further suggest that the classical Chamley–Judd results are misinterpreted, providing further theoretical ground for the taxation of capital income (Straub and Werning 2020). Overall, the theoretical consensus has been shifting away from the question whether capital income should or should not be taxed towards the question to what extent it ought to be taxed.

Yet others favor an intermediate position between comprehensive taxation of income and zero taxation of capital income. They support separate taxation of labor and capital income under a “dual income tax,” with a progressive rate scheme applying to labor income, and with a flat rate applying to capital, usually at a relatively low rate. The motivation for this is twofold: first, the lower tax on capital mitigates distortions in saving and investment, which tend to be relatively severe; second, flat capital income taxes do not need to be personalized, which eases enforcement by using withholding schemes.

When discussing the taxation of capital income, it is useful to distinguish between the normal return on capital and economic rents. The normal return on capital is generally defined as the minimum return required to make investors

equally well off (with an adjustment for risk) compared to some benchmark investment, such as a government bond. The remaining profit, over and above the normal return, is called “rents.” While the normal return can be called capital income, rents might in fact be subject to bargaining between workers and capital owners—and thus can be reflected either as capital income or as labor income (in the form of higher wages).

Public finance literature is unanimous in advocating taxes on rents as they are in principle nondistortionary. A classic result from theory is therefore that they should in fact be taxed at 100 percent. Practical considerations lead to lower tax burdens, however, because rents are also often “quasi rents,” arising from specific investments with a fixed cost. Rent taxes are also deemed equitable since assets are typically owned by the well-off. The more controversial debate outlined earlier in this section on whether capital income should be taxed thus refers to the normal return, not to economic rents.

Another important dimension of capital income taxes arises in open economies, as the supplier of the capital might be based in a different country from where capital is demanded and used. Here, there are two principles of taxation: source or residence. “Source” refers to the country where the capital is installed and where it yields its return. “Residence” is the country where the owner of the capital resides (see Chapters 3 and 4). Residence-based capital income taxes are consistent with taxation based on the ability to pay of domestic residents, as they are taxed on their worldwide capital income—irrespective of where the source of that return is. This generally applies to the personal income tax. Source-based taxes impose tax on investment returns irrespective of their residence. This generally applies to the corporate income tax, which thus imposes tax on the return earned by foreign investors. Again, the distinction between normal returns and economic rents is important. For instance, if after-tax normal returns on investment are fixed on world capital markets, any source-based tax on the normal return will lead to adjustment in the amount of capital such that the before-tax return rises enough to restore equilibrium. Less capital means lower wages, and so the incidence of a source-based tax on the normal return will fall on workers. This, however, will not apply to location-specific rents: to the extent that a source-based tax reduces this rent, the foreign owner will not be able to escape the tax and will bear its full incidence.

WHY TAX CORPORATE INCOME?

There are different types of systems to tax capital income (detailed in the following paragraphs). The so-called classical corporate income tax considers corporations as separate entities from their ultimate owners. As wages and interest are generally deductible, the corporate income tax effectively becomes a withholding tax on equity returns at the company level. Corporate income tax is thus levied separately, besides the personal income tax on equity returns (in the form of dividends and capital gains). Hence, the classical corporate income tax system implies double taxation. If the combined burden of corporate income tax and

personal income tax is higher for corporate businesses than for sole proprietorships, it could induce entrepreneurs to run their businesses in the latter legal form so as to avoid paying the double tax. To mitigate such distortions from the double-tax burden on equity returns, classical systems often apply relatively low flat personal income tax rates on equity income.

In contrast to the classical corporate income tax system, the so-called integration system looks through the corporation and acknowledges that, ultimately, legal entities are owned by people. As only people can ultimately bear the true incidence of taxes, this clearly makes more economic sense. The corporate income tax then operates as a withholding mechanism for the full income tax, and imputation credits are provided for individuals when calculating their personal income tax liability. The difficulty with integration systems, however, arises from international transactions: imputation credits are generally not provided for foreign corporate income tax paid. This can lead to distortions in international capital markets. In the European Union, imputation systems have therefore been abolished, as they are an infringement to the freedom of establishment.

As the integration system illustrates, governments do not necessarily have to tax capital income through corporations. Indeed, the alternative would be to tax capital income solely and directly on the income that people receive, that is, through personal income tax, without any withholding of tax at the corporate level. So why is there a corporate income tax? There are two main reasons—none of which is of a fundamental nature; they rather provide a pragmatic case for its existence.¹

The first reason is based on the relative ease of administration and particularly the withholding role of the corporate income tax. Corporations are convenient collection agents for governments. For instance, besides corporate income tax, value-added tax (VAT) and personal income tax (through pay-as-you-earn schemes) are also often withheld by corporations, as they hold proper books and records and can efficiently be monitored by tax inspectors. Relying on individuals or consumers to pay their tax, based on filed tax returns, would be considerably costlier to enforce. The withholding role is especially important for profits that are retained in the company, as distributed profits can also be taxed through a withholding tax on dividends. Retained profits, however, simply lead to higher value of the firm and, therefore, to capital gains for the owners. For practical reasons, capital gains at the personal level are seldom taxed on an accrual basis but rather upon realization. Capital owners can then postpone their tax payment by not realizing these gains. Moreover, capital gains in small nontraded companies are especially hard to value and might escape taxation altogether. The attraction of the corporate income tax is that it withholds tax on all profits as they arise, thus eliminating the difficulty in taxing capital gains and the distortions it would induce.

¹ Other reasons that are often mentioned are less convincing. These include (1) the benefit principle, that is, the idea that corporates should pay something for the use of public goods, and (2) the value of limited liability. The weakness of these arguments is that the amount of tax paid has little relationship to these benefits.

The second reason for taxing corporations relates to taxing the rents earned by international businesses. Under the current international tax convention, source countries have the primary taxing right to tax multinational income. To the extent that this reflects a normal return, it might be shifted onto employees—as was noted before. But to the extent that it reflects economic rent, it would fall on foreign capital owners. For an individual country, taxing foreign capital owners on their rents has significant appeal and provides a major attraction to the corporate income tax. The taxation of rents that accrue to foreigners is particularly important if rents arise from natural resources. Numerous developing countries have abundant resources that are extracted by multinational companies that have their residence elsewhere. Fiscal regimes are generally in place to ensure that a significant portion of these natural resource rents accrues to the local governments.

THE STANDARD CORPORATE INCOME TAX

The most common corporate income tax system applies tax on corporate profits, defined along similar principles as accounting profits but with some adjustments. The tax definition may, for example, be more prescriptive to reduce the amount of judgment in calculating tax bases² and to simplify compliance and enforcement. Deviations could also occur for policy reasons, as governments can encourage or discourage certain behaviors by changing their tax implications.

Using a definition of profits as the tax base has the implication that, as in accounting, investment is not a deductible expense. As the company merely changes one type of asset (cash) for another (capital), such a transaction is not a cost. The cost to the company is, instead, the loss of value of the capital due to obsolescence or wear and tear, and this depreciation is deductible. The permissible deduction for depreciation is in many countries specified by law, for example as an annual percentage of the acquisition cost (“straight line”) or the written-down value (“declining balance”). Such rules are meant to prevent abuse and to reduce compliance and administrative costs, but they can also be used to purposefully encourage investment. Hence, the exact depreciation allowance for tax purposes is likely to differ from true economic depreciation, that is, the exact loss in value of the asset, and it may also differ from accounting depreciation, although in some countries both are aligned.

Also, following the accounting logic, issuing or repaying debt is treated as a change in the asset composition with no impact on profit, while interest is treated as a deductible expense. Profits are taxed, irrespective of whether they are retained in the company or distributed as dividends. The result is a difference in treatment in interest and dividends, only the former of which is deductible. This generally implies

² Judgment is often allowed in accounting, and, combined with explanatory notes, can improve the quality of information. It would not be good to allow firms judgment in determining their tax base; moreover, there is a strong benefit to the quality of accounting if judgmental decisions can be made without impact on taxation.

a debt bias in corporate income tax systems, although this also depends on the integration with personal-level income taxes: if personal income tax on interest is higher than on dividends, this may offset the discriminatory effect associated with the corporate income tax. It is unlikely to completely undo it, though, because there are typically some taxpayers (for example, pension funds, foreign investors) who benefit from a tax exemption or rate reduction on both interest and dividends.

Debt bias is not only a distortion that exists in theory but has been shown to be of significant importance empirically. A meta-analysis by Feld, Heckemeyer, and Overesch (2013) finds that the debt ratio of nonfinancial firms increases on average by 0.27 percentage point for each percentage point increase in the corporate income tax rate. Another metastudy by De Mooij (2011) finds that these responses are increasing over time, suggesting that distortions relating to debt bias have become more important. De Mooij and Keen (2016) and Luca and Tieman (2016) analyze debt bias among, respectively, banks and nonbank financial firms. Both find significant and sizable effects on leverage ratios, which is particularly worrisome in light of the implications high debt can have on financial stability. The IMF (2009; 2016) argues that such biases are hard to justify, and alternative systems have been proposed by economists that address this bias.

Standard corporate income tax systems not only distort the financial structure of corporations, but also the level of investment. By allowing a deduction for both depreciation and interest, marginal investments that just break even and that are financed by equity are discouraged by taxation as taxes increase the cost of capital.

COMPREHENSIVE BUSINESS INCOME TAX

If interest deductibility creates debt bias, the obvious solution is not to allow it. A US Treasury report (Department of the Treasury 1992) works out a concrete proposal for how such a system would work, including its international implications. Clearly, to prevent double taxation, such a proposal also means that interest receipts of corporations are untaxed. This would also apply to banks and other financial intermediaries, which would no longer be taxed on profit associated with the interest margin between lending and borrowing. Moreover, the personal income tax on interest might be abolished or reduced to bring it in line with dividends and capital gains. The main impact of a comprehensive business income tax is hence to move the point of ultimate taxation from the lender to the borrower. So instead of collecting corporate income tax from financial intermediaries and personal income tax on interest from any savers providing funds, the comprehensive business income tax would collect the tax in one step from the borrower.³ This would thus mirror the treatment of dividends, which are equally

³ The specific comprehensive business income tax proposal by the US Treasury argues for exempting interest and dividend income throughout, but, in principle, additional personal-level taxation could be maintained, as long as treatment on interest and dividend is the same. Such treatment would be required if progressive taxation of comprehensive income is desired. A governmental commission in Sweden proposed the introduction of a comprehensive business income tax in 2014.

nondeductible, and—at least under certain circumstances—typically nontaxable when received by corporations.

A comprehensive business income tax would effectively mean that the normal return on capital, irrespective of whether financed by debt or equity, is taxed in the source country and at the level of the firm. This would raise taxes and redistribute revenues across countries. The increase in taxation would be the result of current tax structures, under which some interest recipients are exempt from tax or are tax favored. Pension funds, for example, are often tax exempt, implying that their interest income is not taxable. A shift to a comprehensive business income tax would change this, as the pension funds' interest income would be taxed at the corporate level of the firms in which they invest. International redistribution would occur because foreign debtors are currently only subject to a possible withholding tax on interest in the country where they invest. These tax rates are typically lower than full corporate income tax or personal income tax rates and may even be zero in some cases (notably if the investor is a sovereign wealth fund). The country where the investor is located may, in turn, collect taxes, typically crediting the withholding tax. A move to a comprehensive business income tax would mean higher revenues for the source country, and either lower revenues in the residence country (if the system is adapted there too) or higher total taxation of interest (assuming no credit is given for corporate income tax).

A comprehensive business income tax effectively taxes the return on debt at the level of the corporation, instead of at the level of the owner of the capital. If this is to be integrated with the personal income tax, it serves as a withholding tax for the personal income tax. Yet a comprehensive business income tax can also serve as a final withholding tax on all capital returns if the personal income tax on interest, dividends, and capital gains is abolished. By taxing the normal return, a comprehensive business income tax would discourage investment. The incidence of the comprehensive business income tax might thus to a significant extent be shifted onto workers in the form of lower wages.

RENT TAXES

Instead of taxing the full normal return to capital at the corporate level, as under a comprehensive business income tax, another class of corporate tax systems exempts the normal return entirely at the corporate level. These can be labeled “rent taxes.” There are different ways to implement rent taxes, as this section will discuss. Note that normal returns can still be taxed at the personal level. The systems discussed here refer only to the taxation of capital returns at the corporate level.

Cash-Flow Taxes

One class of rent taxes is known as cash-flow taxes, first systematically classified in Meade (1978). The simplest form is the real (“R”)-base cash-flow tax, first described by Brown (1948). As suggested by its name, it is defined as the net sum of all real—meaning nonfinancial—flows. On the incoming side, this is simply a company's sales, including of capital goods. On the outgoing side, this includes

all costs, such as labor and purchases of intermediate and capital goods. Financial flows, such as interest payments, net debt issuance, and net dividends, are excluded from the tax base.

Compared to the standard corporate income tax, there are two key differences: First, disregarding financial flows means that interest is nondeductible. This aspect of the cash-flow tax is similar to a comprehensive business income tax, and it means that there is no debt bias in the system, as dividends also remain nondeductible. Second, investment can be immediately expensed. This deduction of the cost of capital goods is significantly more generous than the depreciation allowances under the standard corporate income tax system: while such allowances also permit deduction of the full cost over the lifetime of a capital good, the amount is worth less in net present value terms (and if, as is typically the case, there is no adjustment for inflation, there is a real erosion of the cumulative value of deductions). This more generous treatment of investment implies an exemption of the normal return on assets from tax, restricting the tax base to economic rent (see Box 2.1). As a result, the cash-flow tax is neutral with respect to investment: any investment that is worthwhile in the absence of taxation remains profitable under such tax, because the investors are not taxed on their required rate of return.

Various tax reform proposals incorporating R-base cash-flow taxes have been made. For example, the Hall and Rabushka (2007) flat tax is essentially an R-base cash-flow tax combined with a flat-rate tax on wages. Bradford's (2004) X tax is equally an R-base cash-flow tax, but in this case combined with a graduated tax on wages. Moreover, Bradford discusses a destination-based version of this tax, a topic that is covered in Chapter 13.

A second type of cash-flow tax is levied on real and financial ("R+F") cash-flows. The inclusion of financial flows means that interest deductibility is back, but changes in net debt are also included. Specifically, any inflows from issuing loans are taxed, while outflows, such as repayments, are deductible. This ensures the neutrality of the tax: if interest deductibility were simply combined with expensing of investment, the result would be subsidized investment, as the expensing alone already achieves neutrality. By taxing the debt issuance, this effect is undone.

The R and R+F cash-flow taxes thus both tax economic rents. The difference is mostly in implementation and in where tax is collected, but there is one exception. Suppose the financial sector earns economic rents in its lending activity. Under an R+F base, such rents are always taxed. Under an R-base tax, the taxation of rents depends on the type of borrower. If the borrower is a taxable business, then rents are taxed because interest is not deductible. If the borrower is, however, an individual not covered by the cash-flow tax, then rents would go untaxed, unless another mechanism to recover tax on them is introduced (for example, if interest is not deductible for individuals, it is covered by the personal income tax).

A third type of cash-flow tax discussed by Meade (1978) is the share transactions ("S")-base cash-flow tax. This simply taxes the net distributions of companies; that is, dividends and share buybacks are taxable, while capital increases are deductible. In net present value terms, this tax can be shown to be identical to an R+F-base tax. It is therefore also neutral. To see this intuitively, note that capital raised is deductible, which results in the same effect as the deduction of investment in Box 2.1.

Box 2.1. Why Does Expensing Capital Imply Rent Taxes?

The R-base cash-flow tax, which allows expensing of investment but no deduction for interest, is an example of a tax on economic rents. As it may not be intuitive why expensing implies rent taxation, the following provides an illustration.

Suppose a firm plans an investment I held for one year, yielding a rate of return p , and facing a cost of capital r . In the absence of taxes, the economic rent of such an investment would be:

$$R = -I + \frac{I(1+p)}{1+r} = I \frac{p-r}{1+r}. \quad (1)$$

A cash-flow tax imposed at rate t would then raise the following present value tax payment T :

$$T = -tI + \frac{tI(1+p)}{1+r} = tI \frac{p-r}{1+r}. \quad (2)$$

This equation shows that no tax is payable in present value terms whenever the rate of return equals the cost of capital at which the firm discounts future flows. If the government's discount rate is lower, the present value of tax revenue would still be positive.

Rent-earning investments would be taxed, but tax would never turn a profitable investment into a loss-making one. The cash-flow tax is therefore a neutral tax. This can also be seen by deducting tax (equation (2)) from pretax rents (equation (1)), which yields $R(1-t)$.⁴ Another interpretation is that the government turns into a silent partner of the investment, cushioning the firm's losses in case of a bad outcome and receiving a share of the upside. To achieve neutrality in practice, tax authorities need to refund (or carry forward with interest) negative tax liabilities when investment is undertaken (left part of equation (2)).

In a traditional tax system, investment is not deductible, so the tax payment would be:

$$T = \frac{tIp}{1+r}. \quad (3)$$

The rent net of tax would then be:

$$R = I \frac{p(1-t) - r}{1+r}. \quad (4)$$

Hence, a project that just breaks even before tax ($p = r$) turns unprofitable. To be undertaken, an investment needs to yield a higher return, specifically, the cost of capital is increased from r to $r/(1-t)$.

⁴ These results continue to hold if the asset is held forever or is subject to depreciation d . In that case, the pretax rent would be $R = -I + \sum_{i=1}^{\infty} \frac{p(1-d)^i I}{(1+r)^i} = I \frac{p-d-r}{r+d}$. The cash-flow tax allows deduction of investment.

Depreciation is not deductible, so that the posttax rent is still $R(1-t)$. With or without tax, the investment is worthwhile if the real return $(p-d)$ exceeds the cost of capital r .

Allowances for Corporate Equity or Capital

A different class of rent taxes achieves the exemption of the normal rate of return by offering directly an allowance for it (see Boadway and Bruce 1984). One way to implement this in a way that is relatively close to the current system is the allowance for corporate equity. This maintains deductibility of interest on debt and

complements it with a deduction for notional interest on equity, where the notional interest rate is fixed administratively. This method achieves approximate rent taxation, and works better the more closely the prescribed notional interest rate matches the normal rate of return. It also reduces the debt bias but may not fully eliminate it if the interest rate on debt exceeds the notional interest rate on equity.

A related further step is the allowance for corporate capital, which is similar to an allowance for corporate equity, but replaces the deductibility of actual interest on debt with the same notional interest rate as applied on equity. This always achieves a full abolition of debt bias at the corporate level, and achieves rent taxation, whenever the notional rate is set at the level of the normal rate of return.

The allowance for corporate equity and the allowance for corporate capital are consistent with rent taxation (assuming an appropriate notional rate is chosen) without a need for expensing. Hence, the current depreciation system can be kept in place. Interestingly, one of the features of these taxes is that the depreciation rate becomes irrelevant for tax purposes. A higher depreciation rate provides a greater initial deduction but also reduces a firm's equity and hence the amount on which the notional interest is applicable. It therefore even allows expensing, in which case investment does not add to equity at all, and the allowance for corporate equity or allowance for corporate capital mirrors a cash-flow tax.

Practical Experiences with Rent Taxes

In practice, only the allowance for corporate equity has been implemented, sometimes only for a few years, in a number of countries (for example, Belgium, Croatia, Cyprus, Italy, Latvia, Liechtenstein, Malta, Turkey). Other countries moved partially toward an allowance for corporate equity by allowing a reduced tax rate on the notional return (Austria), by offering it to small firms (Portugal), or by restricting it to dividends paid out (Brazil).⁵

Pure cash-flow taxes are rare, but there are many examples of countries implementing some of their features. Many countries, for example, have temporarily allowed expensing of investment, but without restricting interest deductibility. This leads to subsidization of marginal investments rather than neutrality. Some countries use cash-flow tax features on surtaxes, for example in the natural resource sector, to capture resource rents. Mexico had a tax that came close to an R-base cash-flow tax,⁶ but it served as a minimum rather than final corporate tax. A few countries have taxes that are charged only on distributions, thus resembling S-base cash-flow taxes (for example, Estonia), but they do not offer a deduction for capital increases.

Finally, the VAT also allows expensing of investment and denies interest deductibility. It thus resembles an R-base cash-flow tax, with the major difference

⁵ For details of the years these taxes were applicable, as well as their main features, see Table 2 in Hebous and Klemm (2020).

⁶ Impuesto Empresarial a Tasa Única (IETU, "Flat Rate Business Tax"), applicable from 2008 to 2013.

being the nondeductibility of labor costs. Value added is the sum of profits and wages, but the VAT is actually a tax only on rents and wages, leaving normal profits untaxed.

CONCLUSION

While taxing corporate income is common around the world, the case for doing so is certainly not undisputed. First, the role of the corporate income tax as a withholding mechanism at the source of profits has come under intense pressure due to profit shifting, distortionary effects on (international) investment and corporate finance decisions, and ongoing tax competition. Second, economists have raised serious doubts as to the fundamental question of whether the normal return to capital income should be taxed at all, in light of the distortionary effects these taxes have on saving and investment. This latter view is disputed among economists, however, especially in recent contributions that question the validity of the classical zero-tax results. One option to tax the normal return might be a comprehensive business income tax, which taxes interest at the corporate level. This would eliminate the inherent bias toward debt finance in current corporate income tax systems, and it could eliminate the need to have complicated schemes for taxing the normal return at the personal level. Given that such a system would increase the tax base, it could come along with a lower tax rate to yield the same corporate tax revenue.

Consensus does exist on the taxation of economic rents, which provides a strong rationale for some type of corporate income tax. Moreover, there is generally broad support for the withholding function of the corporate income tax for enforcing the income tax, most notably for developing countries where administrative capacity is limited. These motivations do not, however, unequivocally support a corporate tax system as countries currently have it. More efficient design would point, for instance, to some kind of rent tax—with the possibility to tax the normal return at the personal level. A corporate rent tax can be based on a simple cash-flow tax system. Alternatively, it can be implemented by allowing a deduction for the normal return on equity. To the extent that rent taxes at the source are subject to spillovers, for example from profit shifting or tax competition, they can also be based on a destination basis, which is generally more robust to spillovers. These aspects are discussed in more detail in subsequent chapters.

REFERENCES

- Atkinson, Anthony B., and Joseph E. Stiglitz. 1976. “The Design of Tax Structure: Direct versus Indirect Taxation.” *Journal of Public Economics* 6(1–2): 55–75.
- Banks, James, and Peter Diamond. 2010. “The Base for Direct Taxation.” In *Dimensions of Tax Design*, edited by Stuart Adam, Tim Besley, Richard Blundell, Stephen Bond, Robert Chote, Malcolm Gammie, Paul Johnson, Gareth Myles, and James Poterba, 548–674. Oxford, UK: Oxford University Press.

- Boadway, Robin, and Neil Bruce. 1984. "A General Proposition on the Design of a Neutral Business Tax." *Journal of Public Economics* 24: 231–39.
- Bradford, David F. 2004. "The X Tax in the World Economy." NBER Working Paper 10676, National Bureau of Economic Research, Cambridge, MA.
- Brown, E. Cary. 1948. "Business Income Taxation and Investment Incentives." In *Income, Employment and Public Policy*, edited by Lloyd A. Metzler and others, 300–16. New York: Norton.
- Chamley, Christophe. 1986. Optimal Taxation of Capital Income in General Equilibrium with Infinite Lives. *Econometrica* 54(3): 607–22.
- De Mooij, Ruud. 2011. "The Tax Elasticity of Corporate Debt: A Synthesis of Size and Variations." IMF Working Paper 11/95, International Monetary Fund, Washington, DC.
- De Mooij, Ruud, and Michael Keen. 2016. "Debt, Taxes, and Banks." *Journal of Money, Credit, and Banking* 48(1): 5–33.
- Department of the Treasury. 1992. *Integration of the Individual and Corporate Tax Systems: Taxing Business Income Once*. Washington, DC: Government Printing Office.
- Feld, Lars P., Jost H. Heckemeyer, and Michael Overesch. 2013. "Capital Structure Choice and Company Taxation: A Meta-Study." *Journal of Banking and Finance* 37(8): 2850–66.
- Hall, Robert E., and Alvin Rabushka. 2007. *The Flat Tax*. Stanford, CA: Hoover Institution Press.
- Hebous, Shafik and Alexander Klemm. 2020. "A Destination-Based Allowance for Corporate Equity." *International Tax and Public Finance* 27: 753–77.
- International Monetary Fund (IMF). 2009. "Debt Bias and Other Distortions: Crisis-Related Issues in Tax Policy." IMF Policy Paper, Washington, DC.
- International Monetary Fund (IMF). 2016. "Tax Policy, Leverage and Macroeconomic Stability." IMF Policy Paper, Washington, DC.
- Judd, Kenneth L. 1985. "Redistributive Taxation in a Simple Perfect Foresight Model." *Journal of Public Economics* 28(1): 59–83.
- Luca, Oana, and Alexander Tieman. 2016. "Financial Sector Debt Bias." IMF Working Paper 13/217, International Monetary Fund, Washington, DC.
- Meade, James. 1978. *The Structure and Reform of Direct Taxation*. London: George Allen and Unwin.
- Mirrlees, James, Stuart Adam, Tim Besley, Richard Blundell, Stephen Bond, Robert Chote, Malcolm Gammie, Paul Johnson, Gareth Myles, and Jim M. Poterba. 2011. *Tax by Design*. Oxford, UK: Oxford University Press.
- Straub, Ludwig and Ivan Werning. 2020. "Positive Long-Run Capital Taxation: Chamley-Judd Revisited." *American Economic Review* 110(1): 86–119.