III Taxes on Capital Income

A Survey

Edward H. Gardner

This chapter surveys the international taxation of income from capital and the measures and proposals for its harmonization in the EC, with particular attention to the taxation of corporate income and of financial investment income. The first section describes the basic tax principles that apply to international taxation of income from capital; discusses the allocative distortions that arise from differential taxation across countries; and defines the possible neutrality objectives of tax harmonization. The apportionment of the tax liability of a corporation operating in more than one country is also addressed in the context of intercountry equity. The second and third sections review current EC taxation of income from capital and proposals for harmonization, respectively. The fourth and last section reviews the allocative and budgetary implications of the EC harmonization proposals, as well as possible effects on nonmember countries.

Theoretical Background

Residence Principle Versus Source Principle

Because the ownership and the location of factors of production can fall under different jurisdictions, an important distinction in international taxation arises between the residence and the source principles of taxation. Under the residence principle, a country exercises a tax claim on all income earned by residents. Under the source principle, a country asserts the right to tax the income generated within its borders regardless of the residence of the income recipient. Most countries follow a mix of the two principles that exposes foreign income recipients to the risk of double taxation. Because in practice the source country has first opportunity to tax, it is typically the responsibility of the country of residence to establish provisions for relief from double taxation. Such provisions can take the form of a credit for foreign taxes against the domestic tax liability, a deduction of foreign taxes from the domestic tax base, or the exemption of foreign-source income from the domestic tax base—in effect following the source principle. Universal adoption of either credit or exemption would eliminate the problem of double taxation, albeit with different implications for efficiency. Although deduction does not eliminate the problem of double taxation, it can increase the national welfare of the capital-exporting country—as discussed below.

Allocative Distortions

Differences in the effective rate of capital income taxation among countries tend to create distortions in the international allocation of capital, saving, risk, and financial intermediation. In addition, as in the case of the closed economy, taxes may distort the overall level of savings and investment.

The allocative distortions brought about by differences in the tax burden on the income from capital can be regarded as: real distortions, to the extent that they affect saving and investment, or the composition of production and spending, or both; or as financial distortions, to the extent that they alter portfolio and financing choices and thereby affect the international allocation of risk. In addition, tax systems can affect the degree of economic integration because they influence intercountry and intracountry cooperation among enterprises, including mergers.

The real allocative implications of differential tax burdens on the income from capital depend on the incidence of the tax and on whether taxes are levied according to the location of investment or the residence of the saver. If, in the short run, the tax can be shifted to the immobile factor of production (for example, labor), no distortions will arise from the application of the source principle, whereby the tax burden varies according to the location of the investment. If the tax cannot be

1 Although conceptually useful, the distinction between real and financial distortions loses significance in the economic choice of agents, given the close integration of the financing and investment decisions of enterprises and the saving and portfolio decisions of households.
shifted—for example, because of short-run rigidity of real wages—and capital is mobile, source taxation at differential rates would result in an inefficient allocation of capital. In the long run, differential tax burdens on capital are absorbed by labor in the form of differential labor productivity and real wages. This allocation of capital violates the principle of capital-export neutrality, which states that taxes should not alter the locational choice of investment.

If the tax burden is not shifted and varies according to the residence of savers or investors, the tax-induced wedge between the marginal rates of time preference of different savers will force an inefficient allocation of global saving and affect the distribution of global capital ownership. This type of distortion violates capital-import neutrality, by which income from capital originating in a certain country should be subject to the same tax burden, irrespective of the country of residence of the savers or investors. An overall reduction in foreign investment, with possible efficiency costs, also results from double taxation of foreign investment income arising from the imposition of separate and not fully integrated source and residence taxes.

Financial distortions can be identified as tax-induced distortions in the financial structure of enterprises and in the portfolio composition of individuals that impede the efficient distribution of risk and allocation of financial intermediation across countries. To the extent that the tax systems of capital-importing countries discriminate against equity flows in international transactions, the capital-importing countries will rely more heavily on debt financing and will assume a portion of economic risk greater than is socially desirable. Moreover, to the extent that the investment and financing decision are interdependent, tax distortions on the financing or portfolio side are also likely to interfere with the efficient allocation of real capital and savings, as discussed above.

Tax systems can also interfere with the optimal level of international economic integration when they discriminate between domestic and cross-country mergers or acquisitions. Such discrimination can arise from two sources. First, international mergers incur a higher tax burden than domestic mergers if the capital gains attributable to the contributing or acquired company are taxed at the time of the merger rather than upon realization, as is the practice for domestic mergers. The second tax obstacle results from different degrees of personal and corporate tax integration. Specifically, the acquiring company may face a higher cost of capital if the tax advantages of dividend distributions are not extended to foreign-source income, and the after-tax value of dividend distributions of the acquired company may decline if the imputation system is not extended to foreign shareholders.

**Tax Neutrality**

As a general proposition, capital-export neutrality would obtain if the residence principle were uniformly applied to all income from capital accruing to resident investors, however the tax burden is split between the personal and the corporate taxpayer. In this case, intercountry differences in the corporate and personal tax burdens would not affect the locational choice of investment. Conversely, capital-import neutrality would obtain under uniform source taxation of investors. In this case, residents of all countries would face the same tax burden on savings directed to any particular country. Intercountry differences in effective source tax rates would distort the location of investment but would not induce differences in the saving propensity of individuals residing in different countries.

Unless effective tax burdens on the income from capital are equalized across countries, tax systems can be targeted to meet only one of the two neutrality criteria. From the standpoint of global welfare maximization, the choice between the two criteria depends on the degrees of intertemporal substitution in consumption and of international substitutability of investment. With relatively low intertemporal substitution in consumption (that is, demand for capital is relatively insensitive to substitution effects), capital-export neutrality would obtain if the residence principle were extended to foreign shareholders. Conversely, capital-import neutrality would obtain if the residence principle were not extended to foreign shareholders.

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2The extent to which the tax is borne by labor also depends on the relative factor intensity of the sectors producing tradable and nontradable goods. If the tradables sector is relatively capital intensive, labor will bear more than the full burden of the tax. See Harberger (1982).

3For an example relating to German and U.K. companies, see Chown (1989).

4Taxes on the income from capital can be levied at the corporate and personal levels. In the classical system, the corporate and personal tax systems operate independently, and income is effectively taxed twice. Alternatively, the corporate and personal tax systems can be integrated by imputing corporate income, in whole or in part, to the shareholders and taxing it as personal income. In this case, the corporate tax acts as an advantage tax, allowing taxes on undistributed profits to be collected on an accrual basis. The method of integration can take the form of a tax credit at the shareholder level, or of a deduction or preferential tax rate for distributed profits at the corporate level. Because of interest deductibility at the corporate level, there is no difference between the two systems in the case of debt financing.

5If claims on domestic and foreign capital are not perfect substitutes, the international pattern of investment would, however, be affected.

6Again, saving incentives would be equalized only if claims on domestic and foreign capital were perfectly substitutable.
III TAXES ON CAPITAL INCOME

low interest elasticity of savings) and relatively high international capital substitution (that is, high elasticity of investment with respect to differences in after-tax rates of return), violations of capital-import neutrality should be less costly than violations of capital-export neutrality.7

The identification of capital-export neutrality with the residence principle, and of capital-import neutrality with the source principle, holds under a very general definition of residence and source, and only if profit taxes are not shifted either to rewards of other factors or to goods prices, and if profit taxes are not benefit charges (that is, the tax burden is not offset by proportional benefits—for example, in the form of better infrastructure). The taxation of income from capital at both the corporate and personal levels, allowing for international direct and portfolio (debt and equity) investment, involves a high degree of complexity in the design of a tax system that meets one of the two basic criteria of neutrality. Consistent application of one of the two principles is easier at the corporate level than at the personal level. Enforcement of the residence or source principle at the company level can achieve neutrality in the case of foreign direct investment. For foreign portfolio investment by individuals, enforcement of the residence or source principle becomes necessary at the personal level.

At the corporate level, tax exemption by the country of residence, consistent with the source principle, results in capital-import neutrality if the source country does not impose a withholding tax on dividends distributed to the parent company or a differential tax rate on resident versus foreign-owned company income. Capital-export neutrality requires, under the residence principle, that the country of residence provide a refundable credit for foreign taxes paid and recognize foreign-source losses for domestic tax purposes. All foreign-source profits should be attributed to the parent company without any domestic tax deferral on retained foreign-source income. In practice, however, deferral is ordinarily extended to foreign subsidiary income, and the foreign tax credit is subject to limitations on a per-country or overall basis, as well as on the basis of income categories (as in the United States after the 1986 tax reform).

Harmonization of company tax systems—intended for a common neutrality objective—is desirable for allocative efficiency only if tax burdens are not correlated with the level of public sector services rendered to corporations (infrastructure, legal structure, and so forth) among the countries involved in the harmonization effort—that is, if taxes are not benefit charges. Otherwise, harmonization of effective tax rates must take place net of differences in such benefits. Furthermore, if profit taxes are actually benefit charges or if they are shifted to the rewards of other (immobile) factors of production, differential source taxation is fully compatible with allocative neutrality, since in both cases net tax burdens are zero. The conditions for efficiency when profit taxes are shifted to product prices become much more complex.8 In particular, neutrality would require source taxation of profits (that is, exemption by the residence country) and border tax adjustments on tradable goods (Chapter II). Harmonization may also prove to be more distortionary if company tax systems retain their present nonneutrality with respect to inflation and if inflationary differences exist among countries.9

Violations of the residence principle at the personal level of taxation need not always interfere with capital-export neutrality. The most common departure from the residence principle derives from the fact that, whereas most countries tax individual residents on the basis of their global income, income generated by foreign asset holdings often goes unreported to the tax authority. To the extent that foreign or offshore (notably Eurobond) markets serve as the marginal intermediation channel between individuals and enterprises from different countries, differences in tax burdens across assets at the individual level will be fully absorbed by inframarginal asset holders. Outflows of personal savings through such markets do not affect the location of investment, as long as domestic enterprises can borrow those funds on the same terms as foreign enterprises.

In the absence of full tax harmonization, neutrality depends on whether the effective tax burden borne by capital is determined by the country of residence or source, rather than on who gets the tax revenue. If the source country relinquishes its right to tax, the country of residence gets the revenue. If both countries exercise their right to tax, and if capital-export neutrality is met through the use of a foreign tax credit, the revenue is shared by the two countries, with a possible net revenue

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8See Musgrave (1967) for a full taxonomy of tax neutrality.

9Application of the residence principle with full foreign tax credit will fail to uphold capital-export neutrality if foreign exchange gains and losses are accorded a preferential (or discriminatory) tax treatment. With a difference in inflation rates between the home and foreign countries, the corresponding expected rate of depreciation (or appreciation) of the domestic currency vis-à-vis the foreign currency will result in different tax burdens on equivalent foreign and domestic financial assets, even under the residence principle. If foreign exchange gains are taxed at a different rate than interest or dividend income, or simply if they are taxed on a realization rather than on an accrual basis.
transfer to the source country if its tax burden exceeds that of the residence country. As discussed above, given the priority of the source country in determining its tax claim, capital-export neutrality effectively depends on the adoption of a foreign tax credit by the residence country. Although beneficial from the point of view of international welfare, this choice does not necessarily maximize the welfare of the residence country. From the standpoint of the national welfare of a capital-exporting country, capital will be best allocated when the after-tax foreign return on foreign investment and the domestic before-tax rates of return are equalized. This condition is met if foreign taxes are deducted from the domestic taxable base, rather than credited against the domestic tax liability (MacDougall (1960) and Caves (1982)).

**Intercountry Equity**

Equity in the distribution of the tax revenue between the source and the residence countries assumes meaning only in the context of an explicitly stated international welfare function. Intercountry equity encompasses not only corporate income taxation, but also withholding taxes on dividend and interest payments to nonresidents, as well as the degree of integration of the personal and corporate tax systems across countries. Given the priority of the source country in exercising its tax claim, the overall level of taxation and its distribution between the source and residence countries are effectively determined by the tax treatment of foreign-source income in the residence country.

The concept of intercountry equity is also at issue when differential source tax burdens can be exploited for tax fraud and evasion by individuals and by corporations, in the form of financing and pricing arrangements that shift the tax burden to low-tax jurisdictions. With implications for gross revenue and its allocation among countries. In particular, an equitable distribution of the tax base of a multinational corporation among the countries in which it operates requires an operational definition of the territorial tax base. At present, the allocation of profits of a multinational corporation operating in many countries follows the *separate accounting* method, which assigns profits to the different countries in which the multinational corporation operates, applying arm’s-length prices to intracompany transactions of goods and services. Implementation of this method of allocating profits to the different jurisdictions is particularly difficult when the company conducts highly integrated activities across countries. Determination of arm’s-length prices of highly differentiated finished or semifinished products and intangibles (such as royalties, brand names, marketing, and research and development) is particularly difficult in the absence of comparable transactions among unrelated buyers and sellers. Thus, differences in tax rates can be exploited to reallocate taxable profits to low-tax jurisdictions by means of transfer-pricing manipulations and financing arrangements, such as shifting debt burdens and the associated interest deductibility to high-tax jurisdictions. To prevent such practices, countries apply arm’s-length pricing rules and often impose restrictions on thin capitalization (that is, the reliance on debt financing for subsidiaries in the high-tax jurisdictions) in the form of limits on debt-equity ratios.

An alternative approach to the definition of the territorial base is that of formula apportionment, by which profits are allocated for tax purposes according to the geographic distribution of easily identifiable factors, such as the value of assets, payroll, or sales across jurisdictions. Under unitary taxation, the apportionment formula is imposed on the global income of the parent corporation and its affiliates, with a consequent risk of double taxation (or undertaxation) if the same apportionment formula is not adopted by all jurisdictions. Whether formula apportionment offers an equitable distribution of tax revenues depends on the correlation between the factors entering the formula and the economic concept of taxable income. As is the case with many presumptive income tax rules, it is debatable whether formula apportionment provides an adequate proxy for taxable income (for example, it assumes the same profit margin for all tax jurisdictions). Although formula apportionment has gained acceptance within federal systems such as Canada and the United States, it has been widely rejected at the international level. Factors typically used for the apportionment of the taxable base may be easy to identify conceptually, but their determination becomes particularly onerous and, possibly, arbitrary in the absence of a common currency and a common accounting and legal framework among tax jurisdictions (Kopits and Mutén (1984)).

The Canadian example of a uniform definition of taxable income and a common apportionment formula is a more attractive model than the United States example, where significant differences remain in the definition of the formula across states. The Canadian approach eliminates double taxation and reduces the compliance costs of corporations operating across borders. In any event, whether adhering to separate accounting or adopting formula apportionment, uniform tax accounting would be a logical companion to more uniform business accounting practices. Besides removing technical barriers to capital flows, uniform tax accounting may
render income measures more informative and comparable across countries.\textsuperscript{10}

Intercountry equity is also a relevant criterion in the field of taxation of portfolio investment income. Again, the basic question over the fair distribution of revenue between the source and residence countries depends on the choice of international welfare function. Tax-induced portfolio investments to low-tax countries clearly violate intercountry equity if the associated income flow goes unreported to the residence country. Such flows need not, however, entail investment distortions. To illustrate, consider two situations, one with a uniform rate of taxation across countries and the other with one low-tax country acting as the financial intermediation center for savers and investors from different countries, de facto under the source principle. As long as all participants have access to this financial center on the same terms, the two situations would be identical in terms of locational decisions, except for the location of financial intermediation. The differences would be in the overall tax burden, the distribution of tax revenue among jurisdictions, and the overall level (but not distribution) of savings and of investment.

\textbf{Present Tax Treatment}

\textbf{Corporate Income Taxation}

Table 19 summarizes the main features of the corporate tax systems of EC member countries. The table broadly illustrates the degree of diversity of these systems, although a more succinct measure of tax burden differentials is presented below, in the discussion of the effects of the Commission’s proposals, where estimates of the effective tax burdens on new investments are presented for each EC member country. Although no formal process of harmonization has yet been agreed upon, a certain degree of convergence is evident in the reduction of corporate and personal statutory income tax rates begun in the United Kingdom and outside the EC in the early 1980s and followed in most industrial countries (Table 20). The reduction in statutory tax rates has been coupled with base broadening, mainly through phasing out accelerated depreciation allowances and investment tax credits. Considerable differences in the degree of integration between personal and corporate taxation remain, however, with little apparent movement toward convergence (Table 21). The degree of enforcement also varies across EC member countries, with enterprises being given a considerable degree of discretion over the taxes they pay in some cases.

As regards the tax treatment of foreign direct investment income, Table 19 indicates the variety of methods used by residence countries to alleviate double taxation. In addition to taxing corporate income, source countries typically impose a withholding tax on dividend distributions to foreign shareholders. Such withholding taxes violate the principle of capital-import neutrality. Although the possibility of channelling dividend payments through a third (treaty) country can reduce the impact of high bilateral withholding rates, attempts to limit this form of “treaty shopping” have been undertaken by several countries (OECD (1987)).

Double taxation is minimized by the exemption and credit provisions established by the residence country, often in the context of bilateral treaties. The global allocative implications of these various provisions for double taxation relief are ambiguous given the complexity of the arrangements. Even under the credit system, however, the tax burden will often coincide with that of the source country. On the one hand, because of limitations on the foreign tax credit, enterprises typically pay the source-country tax when this is higher than the tax that would be borne under the residence principle. On the other hand, because companies can often defer the taxation of foreign subsidiary income (but not branch income) until repatriation, they can effectively elect to be taxed in the source country only, if its tax burden is lighter than the one that would be borne under the residence principle.

\textbf{Taxation of Financial Investment Income}

Table 22 shows the present system of taxation of personal financial investment income in the EC. All countries, in principle, tax residents on their global income. Relief from foreign-source taxes (withholding taxes on dividends and interest) is generally provided through a credit or deduction system. But the general absence of withholding taxes on interest paid to nonresidents and of reporting requirements to foreign tax administrations has enhanced the scope for tax evasion through foreign investment, leaving source taxes the only form of taxation. Member countries’ administrative practices have adjusted to the situation in a number countries’ of ways. Before 1990, revenues were protected by capital controls in a number of countries (France, Greece, Ireland, Italy, Portugal, and Spain) or by the requirement that foreign assets be purchased or held through domestic financial institutions (Denmark and Italy). With the liberalization of all capital flows in 1990, full taxpayer identification and communication of all financial

\textsuperscript{10}Steuerle (1990) emphasizes the link between improvements in financial and tax accounting.
<table>
<thead>
<tr>
<th>Country</th>
<th>Statutory Corporate Income Tax Rate (^1) (in percent of income)</th>
<th>Net Worth and Capital-Based Tax Rate (^2) (in percent of asset value)</th>
<th>Investment Incentives (^3) (in percent of asset price)</th>
<th>Loss Carryover Carryforward</th>
<th>Carryback</th>
<th>Taxation of Foreign Source Income (Foreign Branch Income and Remitted Subsidiary Income) (^4)</th>
<th>Taxation of Foreign Source Income (Foreign Branch Income and Remitted Subsidiary Income) (^4)</th>
<th>Capital Cost Recovery Allowances (^5) (in percent per year)</th>
<th>First-year convention (^6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>39</td>
<td>—</td>
<td>5 (D)</td>
<td>5</td>
<td>E</td>
<td>10</td>
<td>20</td>
<td>5</td>
<td>Full Year</td>
</tr>
<tr>
<td>Denmark</td>
<td>40</td>
<td>—</td>
<td>—</td>
<td>5</td>
<td>C or E^8</td>
<td>30</td>
<td>6/2^9</td>
<td>2/3 of year</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>37/42^10</td>
<td>0.62^11</td>
<td>—</td>
<td>5</td>
<td>E or C</td>
<td>10</td>
<td>25</td>
<td>5</td>
<td>Prorated^12</td>
</tr>
<tr>
<td>Germany</td>
<td>57/45^10</td>
<td>0.13/0.58^13</td>
<td>—</td>
<td>5</td>
<td>D or E^14</td>
<td>10</td>
<td>25</td>
<td>4</td>
<td>Half year</td>
</tr>
<tr>
<td>Greece</td>
<td>35^16</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>C</td>
<td>10</td>
<td>5</td>
<td>—</td>
<td>Prorated^12</td>
</tr>
<tr>
<td>Ireland</td>
<td>10^17</td>
<td>—</td>
<td>—</td>
<td>No limit</td>
<td>C or D^18</td>
<td>10/25^19</td>
<td>50/4^19</td>
<td>Full year</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>46</td>
<td>—</td>
<td>—</td>
<td>5</td>
<td>C or E</td>
<td>15/10^20</td>
<td>15/3^20</td>
<td>Prorated^12</td>
<td></td>
</tr>
<tr>
<td>Luxembourg</td>
<td>37^14</td>
<td>0.11/0.88^13</td>
<td>12 (C)^23</td>
<td>5</td>
<td>C or E^13</td>
<td>20</td>
<td>30</td>
<td>—</td>
<td>Half year</td>
</tr>
<tr>
<td>Netherlands</td>
<td>35</td>
<td>—</td>
<td>—</td>
<td>8</td>
<td>C, D, or E^24</td>
<td>10</td>
<td>25</td>
<td>3</td>
<td>Prorated^12</td>
</tr>
<tr>
<td>Portugal</td>
<td>40</td>
<td>—</td>
<td>—</td>
<td>5</td>
<td>C</td>
<td>15</td>
<td>4</td>
<td>Full year</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>35</td>
<td>—</td>
<td>5 (C)</td>
<td>5</td>
<td>C, D, or E^23</td>
<td>8</td>
<td>16</td>
<td>3</td>
<td>Prorated^12</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>35</td>
<td>—</td>
<td>—</td>
<td>No limit</td>
<td>C or D</td>
<td>25</td>
<td>4</td>
<td>Full year</td>
<td></td>
</tr>
</tbody>
</table>

Sources: International Bureau of Fiscal Documentation, OECD, and various national sources.

1 National and local income tax combined.
2Staff estimates of effective tax rates on the value of capital, excluding local property taxes on land and buildings.
3C = tax credit; D = tax deduction; E = exemption.
4Methods: SL = straight line; DL = declining balances.
5SHARE of the year over which depreciation is allowed in the first tax year.
6Exemption applies to foreign branch income (under treaty) and to 90 percent of net foreign dividends received from a permanent foreign participation.
7Denmark allows depreciation to start at the time the capital is ordered or construction initiated. Also the depreciable base is indexed to the price level.
8Exemption if from France, Germany, Ireland, Portugal, Spain.
9The first rate applies to the first ten years.
10Split rate system; first rate applies to realized earnings, second rate to distributed earnings.
11Tax professionelle.
12Prorated from date of acquisition or installation.
13Gewerbeertrag and net worth tax. Rates for debt- and equity-financed capital, respectively.
14Exemption under treaty and for dividends from substantial participation in foreign companies.
15The first rate applies to the first four years; the second to the following three years; and the third to the remaining life of the asset.
16Rate for industrial companies quoted on the Athens stock exchange.
17Rate for industrial companies, to remain in effect until the year 2000. The standard rate for other companies is 43 percent.
18Credit under treaty.
19The first rate applies to the first year.
20The first rate applies to the first three years.
21Net worth tax and business capital tax. Rates for debt- and equity-financed capital, respectively.
22Machinery only.
23Exemption from foreign branch income under treaty and for remitted income from subsidiaries with at least a 10 percent participation.
24Credit when participation in foreign company exceeds a certain level.
25Credit or exemption under treaty.
transactions to the tax authority (Denmark, France, and Spain) has become the only administrative form of control now available in EC member countries (Greece, Ireland, and Portugal having been granted a derogation to the complete elimination of capital controls). Concerns about the adverse effects of administrative controls on interest rates, capital outflows, and the financial markets led other countries to allow complete taxpayer anonymity and unrestricted capital flows, relying fully upon income declaration by the individual investor for revenue collection (Germany and Luxembourg). The remaining three countries, absent capital controls, have relied on some form of enforcement at source— withholding with various degrees of coverage (Belgium and the United Kingdom), or reporting of income (of interest income in the Netherlands and the United Kingdom when no withholding applies). Relatively high succession taxes, combined with the possibility of reporting to the tax authority by domestic financial institutions, have provided further incentive toward foreign financial investment (Table 22).

Discriminatory provisions in national tax systems that favor individual investments in domestic securities—for example, in the form of security composition requirements on tax-exempt retirement funds or accounts and on tax-exempt small savings accounts—can partially offset the tax advantages of capital flight. However, such schemes may induce additional distortions in the composition of portfolios.

Other Taxes

In addition to taxes levied on the income from capital, capital is taxed directly in several ways in the EC. Property taxes are imposed at various levels of government. Some countries levy a personal wealth tax, and, at the corporate level, taxes based on an assessed value of capital or net worth are levied in France, Germany, and Luxembourg. Capital duties (indirect taxes on the raising of capital) constitute another burden on capital formation. The capital duty was harmonized in the EC in 1969 (EC Commission (1969c)). In a 1985 amendment (EC Commission (1985d)), countries were given the possibility to lower the rate between 0 percent and 1 percent.\footnote{1}

Although taxes levied on labor income are not treated explicitly here because of the lesser international mobility of labor, they are relevant to the discussion of capital income taxation because of the unavoidable link in the taxation of income from corporate and noncorporate entities. Thus, pressures to harmonize capital income taxation have implications for countries' discretion over labor income taxation. Moreover, because differential tax burdens on highly mobile forms of labor in managerial positions can be shifted onto capital in the short run, differences in the taxation of labor income can have the same adverse allocative implications as differences in the taxation of capital income.

Proposals for Tax Harmonization

As discussed above, large differences remain among member countries in all areas of taxation of capital income. Concern over the distortionary effects of such differences has long motivated efforts by the EC Commission to advance pro-

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\footnote{1}Only Belgium, which reduced its rate to 0.5 percent, and the United Kingdom, which eliminated the capital duty, have taken advantage of this amendment.
<table>
<thead>
<tr>
<th>Country</th>
<th>Statutory Corporate Income Tax Rate</th>
<th>Nonresident Institutional Investor</th>
<th>Payout Rate for Resident Individual Investor</th>
<th>Method of Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>u</td>
<td>θ</td>
<td>wt</td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>0.39</td>
<td>1.00</td>
<td>0.15</td>
<td>0.46</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.40</td>
<td>1.00</td>
<td>0.15</td>
<td>0.43</td>
</tr>
<tr>
<td>France</td>
<td>0.37</td>
<td>1.00</td>
<td>0.15</td>
<td>0.43</td>
</tr>
<tr>
<td>Germany</td>
<td>0.57</td>
<td>1.28</td>
<td>0.15</td>
<td>0.47</td>
</tr>
<tr>
<td>Greece</td>
<td>0.35*</td>
<td>1.54</td>
<td>0.15</td>
<td>0.58</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.10*</td>
<td>1.00</td>
<td>—</td>
<td>0.90</td>
</tr>
<tr>
<td>Italy</td>
<td>0.46</td>
<td>1.00</td>
<td>0.15</td>
<td>0.46</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.37</td>
<td>1.00</td>
<td>0.15</td>
<td>0.54</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.35</td>
<td>1.00</td>
<td>0.15</td>
<td>0.55</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.40</td>
<td>1.00</td>
<td>0.15</td>
<td>0.51</td>
</tr>
<tr>
<td>Spain</td>
<td>0.35</td>
<td>1.00</td>
<td>0.15</td>
<td>0.55</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.35</td>
<td>1.33</td>
<td>0.15</td>
<td>0.73</td>
</tr>
</tbody>
</table>

Sources: International Bureau of Fiscal Documentation and OECD.

Note: Rates are expressed in decimal form.

Typical rate under treaty.

Share of gross corporate income that reaches the resident shareholder after corporate and personal income taxes (top marginal tax rate) and any form of integration. Computation is similar to payout ratio for nonresident investor, on the basis of relevant data on dividends in Table 22.

Parentheses indicate that integration applies only to domestic shareholders.

+Corporate income tax inclusive of local taxes.

+Rate on industrial company quoted on the Athens stock exchange.

+Special rate for industrial enterprises.

If the withholding tax on dividends is taken as a final tax, no dividend credit can be claimed; a 7 percent dividend credit can otherwise be claimed, against regular income tax (at a top marginal rate of 40 percent).
Table 12. Taxation of Financial Investment Income of EC Resident Individuals, 1991
(In percent)

<table>
<thead>
<tr>
<th>Country</th>
<th>Bond Interest</th>
<th>Dividends</th>
<th>Marginal Rate on Long-Term Capital Gains</th>
<th>Reporting of Financial Investment Income</th>
<th>Declaration in Case of Succession</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Withholding tax rate</td>
<td>Top marginal income tax rate or withholding if final</td>
<td>Withholding tax rate</td>
<td>Top marginal income tax rate or withholding if final</td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>10</td>
<td>10</td>
<td>25</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>Denmark</td>
<td>0</td>
<td>57</td>
<td>30</td>
<td>57</td>
<td>0.5%</td>
</tr>
<tr>
<td>France</td>
<td>17.5%</td>
<td>17</td>
<td>25</td>
<td>57/36%</td>
<td>16%</td>
</tr>
<tr>
<td>Germany</td>
<td>0</td>
<td>53</td>
<td>25</td>
<td>53/27%</td>
<td>6%</td>
</tr>
<tr>
<td>Greece</td>
<td>10</td>
<td>10</td>
<td>42</td>
<td>42</td>
<td>0</td>
</tr>
<tr>
<td>Ireland</td>
<td>6/30%</td>
<td>52</td>
<td>0</td>
<td>52/33%</td>
<td>30%</td>
</tr>
<tr>
<td>Italy</td>
<td>12.5%</td>
<td>12.5</td>
<td>10</td>
<td>50/22%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0</td>
<td>50</td>
<td>15</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0</td>
<td>60</td>
<td>25</td>
<td>60</td>
<td>0</td>
</tr>
<tr>
<td>Portugal</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>0%</td>
</tr>
<tr>
<td>Spain</td>
<td>0/25%</td>
<td>56</td>
<td>25</td>
<td>56/52%</td>
<td>8%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0/25%</td>
<td>40</td>
<td>0</td>
<td>40/20%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Sources: Conseil National du Crédit, OECD, IMF staff estimates, and various national sources.

- Capital gains on ordinary financial transactions.
- "(Yes)" indicates if declaration is not automatic but only upon request by the tax authority.
- Interest only.
- Bonds quoted on the stock exchange.
- Second rate includes the dividend credit.
- Stocks held over three years and bonds.
- Zero rate for government bonds.
- Rates for assets held over six years.
- For assets held over 18 months.
- A dividend credit of 11.25 percent can be claimed if dividend income is globalized with other income.
- For shares held over 12 months.
- Zero rate for Treasury notes.
- The marginal rate declines with the length of the holding period and reaches a minimum of 8 percent.
- Zero rate for certain public loans.
- Zero rate for certain public loans.
- A €3,000 exemption applies. Capital gains taxed on real rather than nominal basis.
- Bank interest only.
Proposals for a more uniform tax treatment of income from capital. Such efforts at harmonization of direct taxes gained momentum under the liberalization of capital movements in mid-1990.

**General Objectives**

The Commission has identified three areas for convergence in the taxation of income from capital: company income taxation; taxation of interest income; and specific provisions that favor domestic financial investments (EC Commission (1988a)).

The Commission has favored not only increased coordination in the area of company taxation in the EC but also an approximation of tax practices and statutory rates. for several reasons. First, approximation in this area would enhance the transparency of tax systems, reduce compliance costs, and promote intercompany cooperation in the form of joint ventures and mergers. Second, tax competition among jurisdictions, in the absence of a formal approximation process, would force a process of convergence that may be too slow, leaving the EC open to the distortions inherent to the present tax systems, and that may lead to an overall suboptimal level of taxation. This may be true, particularly in light of the potential repercussions of effective corporate tax rates on personal income tax rates, if a link between personal and corporate income taxes must be maintained to avoid unintended breaks between incorporated and unincorporated forms of business activity. Third, although the precise neutrality objective underlying the Commission's proposals remains ill-defined, both criteria—capital-export and capital-import neutrality—could be met simultaneously within the EC through approximation of effective tax rates.

The call for some form of coordinated tax enforcement derives from the pressures of tax evasion that result from full capital mobility, with differential tax burdens at source. and tax controls that remain constrained by national boundaries. Under such pressures, the traditional channels of financial intermediation would be dislocated, and tax revenue would be redistributed in a way that is incompatible with the objectives of intra- and intercountry equity and efficiency. The opportunity for tax evasion provided by differential tax burdens underscores the role of externalities in the taxation of mobile factors and the inherent risk of an excessive bidding down of rates in an uncoordinated solution. This concern centers mostly around the taxation of nonresident interest income, which, unlike dividends, is usually exempt from withholding at source.

The Commission has yet to advance proposals for the elimination of discriminatory provisions favoring investment in domestic securities. Such provisions result from regulations and portfolio composition requirements applying to institutional investors and to investment funds that benefit from particular tax advantages (for example, tax-exempt retirement funds and small-size tax-exempt bank deposits).

**Corporate Income Taxation**

Proposals and directives in the area of corporate income taxation address two main goals: the elimination of double taxation and the harmonization of tax systems. The Commission initially proposed the elimination of double taxation of foreign-source corporate income in 1969 (EC Commission (1969a)). The directive adopted in July 1990 (EC Commission (1990d)) allows member states to choose between exemption and domestic taxation with credit for foreign taxes (including withholding taxes), up to the amount of the corresponding domestic tax. The directive prohibits source countries from imposing withholding taxes on the dividends distributed by the subsidiary to the parent company. Derogations are granted to countries that provide preferential tax treatment for distributed profits, such as Germany and Greece, and to Portugal, for budgetary reasons. As mentioned above, the two systems of double tax relief permitted under the directive correspond to different allocative criteria—capital-export neutrality in the case of a credit system, and capital-import neutrality in the case of a deduction system. No definite choice between the two principles has yet emerged. Under the recently proposed statute on the European company (EC Commission (1988d)), cross-border mergers and joint ventures incorporating as European companies would be able to consolidate the group’s income for taxation purposes, effectively allowing enterprises to opt for the credit system even in countries where it is not presently in use.

The inconsistency between the two allocative goals of capital-import neutrality and capital-export neutrality at the corporate level would disappear if the corporate tax burdens were equalized across countries. Such equalization, or at least approximation, of corporate tax systems was the object of an ambitious 1975 proposed directive (EC Commission (1975a)).

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12Germany may maintain a compensatory withholding tax of 5 percent on profits distributed by subsidiaries to foreign parents as long as its corporate tax rate on distributed profits is at least 11 points below the rate on retained profits; Greece may maintain withholding taxes provided for in double taxation treaties for as long as it allows for the deduction of distributed profits from the corporate income tax; Portugal is permitted to apply a maximum withholding tax rate of 15 percent until 1995 and of 10 percent until 1998.
III TAXES ON CAPITAL INCOME

Commission (1975a)). The main features of the proposed directive were a single statutory corporate income tax rate, set between 45 percent and 55 percent; a common (partial) imputation system along the lines of the French avoir fiscalt method, with a single rate of credit to the shareholder for the company tax underlying the distributed dividends; the source principle with respect to the imputation system, with the tax credit set and its budgetary cost borne by the host country, unless differently agreed under a bilateral treaty, and with a clearinghouse mechanism set up to deal with the intercountry transfers resulting from the extension of tax credits to foreign-source dividends; and a 25 percent withholding tax on all dividends except for dividends distributed by a subsidiary to a parent corporation in the EC, and where own-resident investors are known to the tax authority or shares are registered.

The proposed directive on rate harmonization was never adopted because the European Parliament stressed the prior need to harmonize the rules of computation of the company tax base (EC, European Parliament (1987)). Some of the concerns expressed by the European Parliament were addressed by a proposed directive on the harmonization of the provisions for the carry-over of losses (EC Commission (1984, 1985a)). The proposal would limit the carry-back of losses to three years and place no limits on their carry-forward.

More recently, the Commission drafted a comprehensive proposal on the harmonization of rules for the determination of taxable profits of enterprises: depreciation allowances, capital gains, stocks, provisions for reserves, inventory valuation adjustment, and deductible charges and expenditures. The basic purpose of the proposal was to establish greater transparency in the tax treatment of corporate income—to meet the objections to the 1975 proposed directive and to prevent, through the harmonization of the rules underlying the computation of the tax base, indirect subsidization or taxation. Under this draft proposal, tax incentives would have to be administered in a more transparent fashion through an investment tax credit or preferential statutory company income tax rates or both, rather than through generous depreciation allowances or other alterations of the tax base. Sectoral or regional subsidies could still be used to remedy genuine structural problems.

In April 1990 the Commission temporarily abandoned the broad objective of corporate tax harmonization to focus instead on the elimination of remaining forms of double taxation. As a result, the 1975 proposal for the harmonization of company tax systems was formally withdrawn, and a committee of experts was established in 1991 to advise the Commission on future proposals. The committee released its findings in March 1992, supporting the view that total harmonization is not justified at this stage, though a common system of corporate taxation remains a desirable long-term objective. The committee recommended that action be concentrated on three areas: removal of remaining discriminatory features that impede intra-EC cross-border investment and shareholding; establishment of a minimum statutory corporate tax rate of 30 percent and common rules for the computation of the tax base to avoid excessive tax competition; and greater transparency of investment incentives granted through the tax system (EC Commission (1992)).

Some progress has already been achieved on the first point with the adoption, in July 1990, of two directives and a multilateral convention. The two directives, dating back to proposals made by the Commission in 1969, are the directive on parent companies and subsidiaries described above (EC Commission (1969a, 1990d)) and the directive on the taxation of mergers (EC Commission (1969b, 1990c)). The multilateral convention, based on a 1976 proposed directive, sets out common rules for transfer pricing and establishes a binding arbitration procedure to eliminate the risk of double taxation at the enterprise level (EC Commission (1976, 1990f)). The directive on mergers eliminates the tax disadvantages of international mergers by deferring the taxation of any capital gains relating to the assets of the contributing or acquired company until they are realized, as is done for domestic mergers. Moreover, to safeguard the tax interests of the country in which the company is established, the proposed directive requires that the original value of the assets of the contributing company be carried separately in the books of the new permanent establishment.

Taxation of Interest Income

The liberalization of capital flows was widely expected to exercise pressures on tax revenue collection in all member countries, but particularly in those that had been relying on capital controls. In response to these concerns, the Commission considered three possible, and not necessarily mutually exclusive, ways to prevent tax-induced portfolio reallocation and corresponding loss of tax revenue: 

13The rate of the tax credit is to fall in a range set between 45 percent and 55 percent of the amount of corporation tax at the normal rate on a sum representing the distributed dividend increased by the tax.

14The draft directive was never published, but a description of an earlier draft of the proposal is found in Kuiper (1988).
first, automatic disclosure of interest earnings to the tax authority of the country of residence of the investor, supported by tighter limits on bank secrecy and bearer securities; second, a common minimum withholding tax imposed at source, applicable to all EC residents; and third, increased coordination and exchange of information between the tax authorities of the source and residence countries.

The first solution was seen as placing a heavy administrative burden on financial institutions and running counter to a long-standing tradition of bank secrecy in some member states. The third approach would be limited by the provisions of a 1977 directive whereby tax authorities are not required to obtain from, and transmit to, other tax authorities information that they are prevented from collecting under their own laws or administrative practices (EC Commission (1977b)). A proposed amendment to this directive (EC Commission (1989a)), however, would no longer allow tax authorities of member states to refuse to share information on the grounds of administrative impediments. The Commission initially opted for the second approach (EC Commission (1989b)), but, in the face of strong opposition by some member countries, it shifted the emphasis to measures falling under the third approach. Interest in increased cooperation and exchange of information is, however, also limited. The concern over tax evasion can still be addressed at the national level, where tax enforcement can take the form of tax identification of all asset holdings of residents, and thus possibly capital transfers abroad by residents. Such provisions, as practiced in Denmark and France, are of course fully consistent with the projected liberalization of capital movements.

Following the second approach, the Commission’s initial proposal (1989b) envisaged the establishment of a common minimum withholding tax on interest income for EC residents that would be set at 15 percent. The tax could be imposed as a final tax or as an advance payment creditable against the ordinary income tax. Where the withholding tax is allowed as a credit or is refunded in another member state, the source country bears the budgetary cost of crediting or refunding the tax, unless differently agreed under a bilateral treaty. In consideration of the risk of inducing capital outflows to third countries, with adverse effects on interest rates in member countries and on EC financial institutions, the proposal provides for numerous exemptions that would dilute its effectiveness considerably. The proposed directive only applies to debt instruments issued by EC residents, and it defers to national authorities the tax treatment of interest from Eurobonds, interest received from non-EC residents, interest on small savings deposits, interest received by non-EC residents, interest received by own residents when full taxpayer identification exists, and intra-enterprise interest income. Although in principle the proposed directive also applies to the interest income derived from investment unit trusts, some ambiguity remains over the tax treatment of interest capitalized through the share value of an investment unit trust that does not redistribute the interest. The proposal does not preclude the possibility of multiple rates, or of rates on own residents that are higher than those on non-residents. The proposal also views the minimum withholding tax as a possible prototype for a common tax on financial investment income in a wider international context, to be negotiated with the main EC partners (primarily in the OECD area).

### Effects of Corporate Income Tax Proposals

In order to analyze the economic effects of corporate income tax harmonization, the complexities of the tax system must be reduced to a succinct measure of the effective tax burden. The concept of the corporate tax wedge—defined as the difference between the market rate of return on financial assets and the gross or before-tax rate of return on investment required to cover the cost of financing—provides a useful summary measure of the effect of tax systems on marginal investment decisions. (Estimates of corporate tax wedges for the 12 EC member countries, derived from the statutory tax treatment of corporate profits and capital—including the statutory corporate income tax rate, capital cost recovery allowances, grants and investment credits, wealth and net worth taxes—are presented in Chapter IV.) The absolute value of the tax wedge (subsidy, if negative) under current tax systems or announced and proposed tax reforms, describes the situation that would prevail in the absence of any harmonization.

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15 Bank secrecy is widely protected by banking tradition, although Germany and Luxembourg gave bank secrecy legal protection in 1989.

16 However, the proposed directive (EC Commission (1989b)) explicitly disallows interest capitalization through discount bonds, requiring that withholding be applied to the notional interest component of the capital gain on such instruments.

17 The reforms considered are: for Belgium, reduction of the investment deduction from 13 percent to 5 percent and the corporate income tax rate from 43 percent to 38 percent; for Denmark, reduction of the corporate income tax rate from 50 percent to 35 percent; for Germany, reduction of the corporate income tax rate on retained earnings from 56 percent to 50 percent.
III TAXES ON CAPITAL INCOME

In the EC context, the locational decisions of U.S. multinational enterprises will also become more sensitive to intra-EC differences in effective tax rates because of the U.S. Tax Reform Act of 1986. Under the U.S. foreign tax credit provisions, U.S. corporations pay the highest of the U.S. and foreign tax liability on branch income and subsidiary dividends from abroad. The 1986 Tax Reform Act lowered the U.S. effective rate of taxation on foreign income and, therefore, may have increased the number of firms in an excess credit position for whom the foreign tax rate is the marginal tax rate (although excess credits can be deferred by not repatriating subsidiary income). See Ault and Bradford (1989).

In their view, the phenomenon of tax competition suggests indirectly that tax rate differentials do influence locational choices. In all, tax factors appear to have the expected effect on capital flows, although the statistical weakness of the empirical results may reflect the more significant differences in a host of other factors affecting capital movements.

With inflation differentials and different tax rates applicable to foreign exchange gains and losses, firms of different member states could alter their cost of financing by assuming foreign exchange debt. Where discriminatory provisions on the financing side favor domestic over foreign enterprises—preferential credit, tax incentives for the purchase of domestic assets—capital-export neutrality would be maintained if the tax benefits are entirely absorbed by domestic (inframarginal) savers, or, in the case in which the tax benefits reduce the cost of capital to the firm, if the same tax conditions for financing prevail regardless of whether the enterprises invest at home or abroad.


conditions for investment neutrality. Given the difficulty of enforcing the residence principle for the taxation of portfolio income in the EC (as discussed below), the equalization of effective company tax rates would be necessary for complete neutrality. The merits of harmonization or approximation of company tax systems should be assessed by the likely gain in the allocative efficiency for EC member countries.

Approximation of effective rates of company taxation is likely to produce some efficiency gain, but its quantification remains highly controversial given the ambiguous empirical evidence on the allocative effects of tax rate differentials across countries and in federal systems. In principle, investment flows across jurisdictions should respond to tax-induced changes in the net rate of return in the same way as they do to changes attributable to other economic factors. Statistical investigation of the effect of taxes on direct foreign investment by multinational enterprises indicates that capital flows are in fact responsive to tax burden differentials, although some studies fail to find statistically significant effects. Similarly, tax rate differentials appear to have the expected effect on dividend remittance or retention of earnings of foreign subsidiaries (Kopits (1972) and Hartman (1981)). Evidence from cross-state differences in effective tax rates in the United States indicates that state taxes do affect the geographical pattern of business location, although, again, the effects are usually small (Papke and Papke (1986) and Papke (1989)). Some observers have argued that competition among tax authorities prevents taxes from diverging sufficiently to have a statistically measurable impact on locational decisions (Benson and Johnson (1986)). In their view, the phenomenon of tax competition suggests indirectly that tax rate differentials do influence locational choices. In all, tax factors appear to have the expected effect on capital flows, although the statistical weakness of the empirical results may reflect the more significant differences in a host of other factors affecting capital movements.

18 In the EC context, the locational decisions of U.S. multinational enterprises would appear to prevail within the EC. Germany is estimated to have by far the highest corporate tax wedge, at about 4 percent; Denmark, Ireland, and Luxembourg stand at the other end of the spectrum, with wedges ranging between zero and 1 percent. Analysis of the effect of tax harmonization on the tax wedges (discussed in detail in Chapter IV) indicates that harmonization of the tax base, along the lines suggested by the EC in its draft proposal of 1989, would not appear to reduce greatly the degree of dispersion of effective tax rates across countries and, hence, the potential for a misallocation of capital; and that the added harmonization of statutory tax rates, leaving methods and degrees of integration between personal and corporate tax systems, depreciation rates and investment incentives unchanged, would reduce the degree of dispersion of effective rates of taxation but only to a limited extent. More important, the country ordering would change considerably as a result of rate and base harmonization. In particular, Germany would lose its high-tax position, moving closer to the EC average, and would be replaced by Italy, Spain, and the Netherlands. Ireland and Denmark would also move closer to the average, and the low-tax position would be taken by Luxembourg, France, and the United Kingdom.

Allocative Effects

The creation of the single market in the EC and the removal of the remaining impediments to intra-EC trade (border controls, differential standard requirements) should increase the locational responsiveness of enterprises to differential tax burdens. With the complete integration of financial markets, moreover, differences in effective company rates would become the primary source of allocative distortion. In particular, if financial market integration in the EC will give enterprises from all member countries access to the same financing opportunities, the approximation of effective company tax rates would go a long way toward meeting the
among countries or within federal systems. The omission of any such factor would bias the empirical results. One factor that is difficult to capture empirically is the level of tax-financed benefits that enter the production function. To the extent that taxes are benefit charges, a measure of net tax burden would be necessary in modeling the locational choice of enterprises.

Estimates of the effects of tax harmonization on the allocation of capital in the EC have been derived (Chapter IV) on the basis of simplified assumptions about fixed and immobile labor force; fixed but mobile capital stock; a neoclassical, constant-returns-to-scale technology; profit maximization by enterprises; and nonbenefit, nonshifted corporate taxes. The main conclusion drawn from these estimates is that the static efficiency gain from harmonization appears to be relatively small, especially in light of the degree of adjustment required for some EC member countries. For example, tax base harmonization alone would produce capital erosion of around 8 percent in Denmark and Luxembourg, offset by capital accumulation of nearly 4 percent in Greece, France, and Portugal, without any significant increase in output at the EC level. Harmonization of the statutory tax base and rate would produce the largest cumulative loss of capital in Ireland (16 percent) and the largest gain in Germany (9 percent), with barely any static efficiency gain in EC output.

Although harmonization of the rules for computation of taxable corporate income may not reduce the dispersion of effective tax rates, it could, nevertheless, achieve significant efficiency gains from increased transparency and reduced tax compliance costs of multinational firms. The harmonization of the rules for computation of taxable income may also enhance the locational sensitivity of investment to tax rate differentials, thus increasing the pressures towards convergence of statutory tax rates.

Revenue and Distributional Effects

Government revenue from corporate income taxation accounts for about 6 percent of total revenue on average in the EC (Chart 1), with considerably larger shares in Luxembourg and the United Kingdom. In any case, because of the necessary link that must be maintained between corporate and personal income taxation, any reduction in effective corporate tax rates may undermine the tax base of those countries relying on relatively high rates of personal income taxation.22

The EC directive on parents and subsidiaries will eliminate the double taxation of intercompany dividends through the taxation of direct investment income (EC Commission [1969a, 1990d]). On the one hand, capital-importing countries would be prevented from extracting excess taxes from capital income accruing to nonresident parent companies (in the form of withholding taxes on remitted interest and dividends). On the other hand, capital-exporting countries will be forced to grant full relief against double taxation (in the form of full credit or exemption). The net budgetary effect of this proposal on each country depends on its net foreign asset position (net capital exporter versus net capital importer) and on the effective tax treatment of direct investment income defined in its bilateral treaties.

Related to the issue of tax base harmonization is the question of apportionment rules for the attribution of the tax base of multinational enterprises among competing jurisdictions. As noted, EC member countries at present adopt separate accounting to determine corporate tax liability. In light of the experience of Canada and the United States, however, the EC may find it difficult to maintain separate accounting once the internal EC market is established and firms operating across national borders become increasingly integrated. The complete liberalization of capital movements may also increase the scope for tax avoidance or evasion through the shifting of deductible interest expenses to high-tax jurisdictions, although this problem is likely to be less severe than the appropriate pricing of highly differentiated goods and intangibles. Continued application of separate accounting in the EC will thus require greater coordination among tax authorities—exchange of information, transfer-pricing arbitration procedures.

22Some observers have proposed to harmonize corporate tax systems by assigning the tax to the central level. Centralization could imply that a central EC tax authority would collect the corporate tax and return revenue to member countries on the basis of a tax-sharing formula reflecting the source of the revenue. This would be equivalent to a system of national taxes levied on a uniformly defined base at a uniform rate by each country's tax authority under the source principle. Alternatively, revenue could be shared with member countries under an arrangement whereby revenue would be distributed on the basis of factors other than source. See, for example, Musgrave (1983) and McLure (1983). McLure (1983) also argued that decentralized levels are poorly suited to carry out stabilization and redistribution duties that may be associated with corporate taxes.
common accounting standards, and controls on the assignment of deductible interest expenses across jurisdictions—to uphold the territorial definition of the tax base, as addressed in part by the multilateral convention on transfer-pricing arbitration (EC Commission (1990f)). Alternatively, some observers have pointed to the possibility of moving to unitary taxation of groups of affiliated firms (McLure (1989)). Such a step would protect revenue of EC member countries by reducing the elasticity of their corporate tax collections with respect to the national tax rate, preserving some degree of sovereignty over rates because multinational corporations would lose some opportunities for tax evasion or avoidance. As noted above, however, the legal and administrative complexities of administering unitary taxation among jurisdictions that do not share a common currency or common legal and accounting practices make this solution much less desirable in practice. Conflicts and costly negotiations between taxpayers and authorities about arm’s-length transfer pricing would be replaced by conflicts over the appropriate assessment of the factors of apportionment.23

An assessment of the equity implications of corporate income taxation must take into account the question of the short-run and long-run incidence of capital income taxation. In general, the higher international mobility of capital relative to labor implies that differential rates of capital income taxation will be borne to some extent by labor in the form of lower wages. This would argue against the use of corporate income taxation for redistributive purposes, particularly in small open economies. Hence, any reduction in effective corporate tax rates resulting from harmonization or competitive convergence would not necessarily have adverse distributive effects. But the degree to which labor will effectively bear the burden of capital income taxation in the steady state also depend on a host of other factors.24 Moreover, because the process of capital reallocation takes time, the steady-state results of incidence may be inappropriate over shorter time horizons, and changes in corporate income taxation can have lasting effects on the distribution of income and the tax burden between labor and capital.25

Effects on Non-EC Countries

Adoption of the proposals for capital income tax harmonization in the EC would have several ramifications for non-EC countries. Harmonization of the base of corporate tax systems would reduce the compliance costs of multinational enterprises in the EC. In the adjustment to the single market, multinational firms based inside or outside the EC would be better placed to take advantage of this reduction in compliance costs than would national enterprises.

The more ambitious proposal for the harmonization of company tax systems could have an important effect on the pattern of capital flows between the EC and non-EC countries if the provisions for the integration of personal and corporate income taxes are not extended to investors from non-EC countries or to dividends paid out of non-EC income. In this case, the total tax burden on intra-EC investment would clearly fall relative to other investments. The distribution of the reduction in the tax burden between the corporate and personal sectors depends on the degree of integration and the size of the EC capital market vis-à-vis that of the rest of the world. Under the assumption of a small open economy, with the return from capital determined in international markets and fully substitutable domestic and foreign capital, integration would have no effect on international market returns and EC investment; its effects would be captured solely by higher after-tax rates of return to EC savers. Saving incentives would rise in the EC, but integration would not alter the pattern of investment. Under the more realistic assumption of the EC as a large open economy, integration within the EC would also reduce the cost of EC investments, thus raising both saving and investment incentives in the EC.

Effects of Interest Income Tax Proposals

Allocative Effects

Differences in the level of source taxation of financial investment income will affect portfolio composition, capital allocation among countries, interest rates, and tax revenue if the residence principle is not enforced in practice. In some EC member countries, barriers to capital flows have limited the use, for tax evasion purposes, of low source tax rates accorded to nonresidents in other countries. Accordingly, the liberalization of capital flows in the EC, completed by July 1990 except for postponements granted to Greece, Ireland, Portu-
gal, and Spain, was expected to affect some countries more than others. Although long-term portfolio investment had, for the most part, already been liberalized, it was the restrictions on short-term capital and monetary flows that prevented some countries (France and Italy, most notably) to be fully exposed to tax-induced capital flows. The placement of financial assets abroad, which is necessary for tax evasion or fraud, was impeded by restrictions on foreign deposits or by the outright requirement that foreign assets be held through domestic financial institutions. The scope for tax evasion was thus greatly enhanced by the removal of these restrictions in 1990 and may be given further stimulus by the process of financial integration, allowing financial institutions from low-tax jurisdictions to provide cross-border financial services anywhere in the EC. However, as mentioned earlier, countries may still require domestic financial institutions to report (automatically or upon request) income and asset holdings, thus improving detection and control over tax evasion through capital outflows.

In principle, capital liberalization should exercise upward pressures on the rates of return of highly taxed assets that were (or are) currently protected by capital controls or by the high cost of access to substitutable foreign financial instruments. Conversely, the rates of return on the assets that serve as a conduit for tax evasion—particularly bearer securities that protect the anonymity of the taxpayer—could be subject to some downward pressures. The extent of such interest rate adjustments depends on the interaction between investors for whom capital liberalization increases the opportunity for tax evasion and those for whom it does not—tax-exempt investors, non-EC residents, and others who comply with the residence principle of taxation. The larger the size and the interest elasticity of financial asset demand of the former group, the greater will be the necessary interest rate adjustments.

Tax evasion—in the absence of obligatory disclosure—through capital flight clearly displaces intermediation from high-tax countries to countries offering a more favorable tax treatment to nonresidents, inside and outside the EC. Because of the generally more favorable withholding tax treatment of interest compared with dividend income, tax evasion through capital flight induces an inefficient allocation of economic risk in the EC. with individual investors holding more debt free of withholding tax—particularly government paper and Eurobonds—than they would in a neutral tax environment.

Tax-induced capital flight and the attendant loss of domestic financial intermediation may also force some countries to allow more channels for domestic tax avoidance (such as tax-exempt retirement accounts and capitalization of interest and dividend income through mutual funds), or even to tolerate the emergence of income capitalization schemes through instruments whose tax treatment remains ill-defined (swaps, repurchase agreements, and the like). Under competitive pressures from foreign financial markets and intermediaries, these measures and schemes help high-tax open economies retain some of the domestic financial intermediation that would otherwise be lost to low-tax jurisdictions. At the same time, however, such schemes further contribute to erosion of the tax base. Therefore, the position of some high-tax countries with respect to such schemes has been rather ambiguous.

Investment unit trusts or mutual funds that capitalize the financial income they receive in the value of their shares constitute an important channel for tax avoidance. First introduced in Luxembourg in the early 1980s, and subsequently marketed in neighboring countries by local commercial banks that feared a loss of market shares, these trusts have operated freely anywhere in the EC since October 1, 1989. In response to the threat of a displacement of financial intermediation to Luxembourg, France and Belgium recently decided to permit the establishment of such institutions there, rather than simply allow their marketing.

The aim of the proposed minimum withholding tax, or of measures to strengthen administrative cooperation, including exchange of information, is to reduce allocative distortions ensuing from capital liberalization by removing or reducing the implicit tax advantage accorded by most EC member countries to the residents of other member countries. Notably, EC member countries, with the exception of Italy, Portugal, and Spain, exempt nonresidents from withholding tax on some form of interest income. However, because of the limited coverage that any proposal at the EC level would have in a global financial market—with Eurobonds and third-country assets remaining outside the scope of the withholding tax—allocative distortions and budgetary leakage are inevitable.

Because in principle the proposed withholding tax or alternative measures in this area do not change the tax liability of savers, the effect on asset

26 Much of this capital outflow may flow back into the high-tax country as tax-exempt nonresident investment.

27 Countries retain control over the laws regulating their advertisement.
demand and interest rates depends on the extent of (potential or actual) tax evasion. According to some estimates, in Germany taxation is evaded on three fourths of financial investment income (Conseil National du Crédit (1988)), whereas in Belgium the proportion was close to 90 percent in 1978, before the withholding tax became a final tax (Delporte (1987)). In light of these estimates, the introduction of a withholding tax or of reporting requirements is likely to have significant allocative and interest rate implications for those countries that do not at present impose either. The gross-up effect of such measures on the interest rates of taxable assets would be limited, however, by the presence of investors not affected by it—non-EC residents and tax-exempt institutional investors. The magnitude of the gross-up effect is inversely related to the share of assets held by such investors and to the interest elasticity of their asset demand. Where asset prices (interest rates) do not adjust sufficiently to the induced changes in asset demand, net capital outflows will also come about. The cases of Belgium, Germany, and the Netherlands provide useful examples of the potential effects of withholding taxes (for the first two) or of reporting requirements (in the case of the Netherlands).

Germany levied a 10 percent withholding tax on interest income during the first half of 1989. In reaction to the announcement of the withholding tax on October 1987, long-term interest rates on public bonds rose by as much as 50 basis points relative to comparable Euro-deutsche-mark issues, and long-term capital outflows nearly trebled from their 1987 level. The precise contribution of the withholding tax to capital outflows cannot be easily determined, but the pressures engendered by it in the presence of widespread tax evasion, investor anonymity, and easy access to neighboring tax havens were obviously considerable. The effect of the withholding tax was further enhanced by its wide coverage over asset holders, affecting both residents and nonresidents. In the Netherlands, the introduction of a reporting system on interest payments to domestic residents by Dutch banks in January 1988 also induced a drop in domestic savings deposits and large short-term capital flight—short-term capital exports increased by 1.4 percent of GDP in the period following the announcement of the reporting system in July 1987 (Italianer (1989)). In March 1990, Belgium reduced its final withholding tax rate on interest income for residents from 25 percent to 10 percent. The measure had the intended effect of reducing domestic interest rates and stemming the tax-induced flight of portfolio capital, which was gradually eroding the tax base. The interest differential vis-à-vis comparable foreign bonds narrowed considerably, although this also reflected the simultaneous firming of the exchange rate policy. In fact, any gross-up effect of the withholding tax on domestic interest rates had already been greatly diminished with the expansion of the holdings of investors not affected by the withholding tax, principally domestic financial institutions and nonresidents. Even more pronounced, however, was the reversal in the outflow at portfolio capital, which moved from a deficit exceeding 3 percent of GNP in 1989 to a small surplus in 1990, mostly because of the liquidation of foreign assets by domestic residents.

Violations of the residence principle at the personal level, as manifested by tax-induced capital flight, do not interfere with capital-export neutrality as long as such funds can finance domestic and foreign investments on the same terms. Capital exported to the Euromarkets obviously meets this criterion. The virtual absence of private bond issues in Belgium is an indication that the Belgian withholding tax is not borne by large domestic enterprises. Similarly, the intermediation of domestic savings through foreign markets does not have significant balance of payments effects. Capital outflows are easily repatriated in another form, as evidenced by the apparent direct roundtripping of short-term capital through the interbank market in Belgium and the Netherlands. Complications may arise if foreign intermediation, for institutional or other reasons, also involves currency substitution.

In all, opposition to the Commission’s proposal for a minimum withholding tax stems in large part from concerns about the potential adverse effects on interest rates and about capital flight, given the continued presence of channels of tax evasion or avoidance through third countries, offshore markets, and (possibly) interest capitalization through investment unit trusts. Attempts to limit these effects by restricting the coverage of the directive (EC Commission (1989a)) would simply exacerbate tax-induced distortions on assets that bear the tax. An additional argument against the Commission’s proposal is the probable compliance cost of a measure that may be largely ineffective—unless buttressed by increased cooperation and exchange of information among tax authorities.

Indeed, the case for a common withholding tax would be strengthened considerably if its coverage were to be extended to a wider range of financial assets and to a broader group of countries—say, OECD member countries. Distortions would continue to exist, however, if the withholding tax at source were not considered to be a final tax by the country of residence, or if residents continued to be subject to a higher rate of withholding than nonresidents. In this case, tax-induced capital flight would continue to prevail.
The debate over tax evasion in the EC has highlighted the fact that measures against tax evasion can be most effectively pursued at a global level—through the use of a universal withholding tax, some limitations on bank secrecy, improved cooperation, or some combination of these measures. A number of bilateral and multilateral conventions have addressed the issue of administrative assistance among tax authorities. Most notable at the multilateral level, besides the EC directive and proposed suggested amendment mentioned above, is a Council of Europe-OECD draft convention on mutual assistance for the exchange of information and recovery of tax claims (OECD 1981 and Council of Europe and OECD 1989). The convention has been signed in part by the United States but has found considerable opposition in several other countries. To the extent that measures pursued in the Community provide reinforcement for agreement in a wider context such as the OECD, they could have important implications for limiting capital flight worldwide.

**Budgetary Effects**

The net budgetary effect of liberalization under the present tax systems depends both on the direct tax revenue effect and on the interest rate effect on public debt service. In general, liberalization is bound to cause a net budgetary loss for countries where the potential for tax evasion has not yet been fully exploited because of remaining barriers to capital movements. In these countries, the budgetary loss, in the form of a reduced taxable base and higher domestic interest rates, will be proportional to the size of potential flight capital and to the interest elasticity of asset demand of tax-evading investors facing more favorable tax treatment abroad. Revenue from withholding taxes on interest and dividends accounts for only a part of the total tax revenue from interest and dividend income—except where the withholding tax is final (Table 22). Hence, the tax loss in countries exposed to increased tax evasion could be large and would not be directly offset by tax gains elsewhere, since capital flight would seek markets with complete tax exemption.

The budgetary loss of countries facing existing or potential new competition from low-tax jurisdictions would possibly be contained with the adoption of a common withholding tax on interest income, although it is difficult to estimate the size of the budgetary effect of liberalization and of a common withholding tax relative to the present system. The same considerations would apply to the adoption of EC-wide reporting requirements. The following discussion of the budgetary effect of the withholding tax subsumes, therefore, the analysis of the effects of alternative tax-enforcement measures.

The extent to which a withholding tax would contain the budgetary loss of high-tax countries depends on the availability of other channels of tax evasion or avoidance (through Eurobonds, small tax-exempt bank deposits, tax-haven investment, capitalization schemes); on the relative elasticities of investors for whom the withholding tax would constitute a net tax burden and of those for whom it would not; and on the relative size of each of these types of investor. Because of the proximity of financial centers outside the EC (Switzerland, the Channel Islands) and the exclusion of Eurobonds from the proposed directive, the proposed minimum withholding tax would do little to stem the budgetary loss resulting from tax evasion on portfolio investments. The proposed withholding tax is likely to have more of an effect on tax evasion on short-term deposits, since such evasion would have to rely primarily on the easy access to such deposits in other EC member countries.28 Countries that have the administrative setup and legal tools for the verification of capital transfers abroad—most notably Denmark, France, and Spain—may be more successful in detecting and deterring tax-evading capital outflows.

All EC member countries, with the exception of Germany and Luxembourg, have either a withholding tax or interest reporting requirements, or both, and thus also have incentives for tax evasion through capital outflows and for tax avoidance through domestic asset substitution, although the potential for tax evasion through foreign investment is still contained in Greece by capital controls. The extent to which such tax evasion has occurred (or could potentially occur) also depends on other country-specific factors such as tax morality and proximity to tax havens.

Some of the countries whose tax regimes already incorporate a withholding tax and where tax evasion is widespread or potentially high stand to gain from a common withholding tax or reporting requirements, especially upon full removal of capital controls. The effect on other countries of this group is likely to be ambiguous. Denmark does not, at present, impose a withholding tax, but its reporting system is relatively extensive. A common withholding tax would probably not constitute an additional tax burden and may prevent tax-induced capital flight.

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28The tax exemption of nonresident deposits in other member countries would be disallowed under the current proposed directive (EC Commission 1977b, 1989a). Restrictions on short-term deposits in non-EC countries could still apply.
outflows in a more integrated European capital market. The recent introduction of a final withholding tax in Greece limits the potential revenue losses of complete capital liberalization and, as in the case of Denmark, a common withholding tax would not impose an additional tax burden. Ireland still maintains some restrictions on short-term capital and monetary flows and imposes a withholding tax with a more limited coverage than that envisaged under the Commission's proposal. A common withholding tax with broader coverage might stem potential tax evasion when capital restrictions are lifted but also might worsen the attractiveness of Ireland relative to non-EC tax havens if the withholding tax is extended to previously exempt assets such as government bonds. The same advantages and risks apply in Spain, where capital controls were removed in 1990.

The Netherlands introduced interest reporting requirements for its financial institutions as of 1988. The common withholding tax may constitute a new form of taxation, particularly of interest from bearer securities. If so, it would worsen the attractiveness of some domestic assets vis-à-vis assets held in non-EC tax havens. However, it would also reduce the relative attractiveness of bank deposits in neighboring countries. In the United Kingdom, despite a withholding tax on interest paid to residents, the elimination of exchange restrictions in 1979 did not, allegedly, motivate tax-induced capital flows to the extent experienced by Belgium or Germany in 1988. For the United Kingdom, the withholding tax thus appears to have no direct adverse effects.

The net budgetary impact of the proposed withholding tax system on countries that have liberalized all capital flows and do not impose withholding taxes or reporting requirements—Germany and Luxembourg—is ambiguous. The withholding tax would enlarge the taxable base to include tax-evading investment income, but this effect would be offset by outflows of taxable capital and upward pressure on interest rates. If the interest elasticity of tax-evading investors is sufficiently large relative to other investors and their share of assets is sufficiently small, the introduction of a withholding tax could even lead to an adverse budgetary outcome (as shown in the appendix below).

**Distributional Effects**

As with corporate income taxation, the equity consequences of capital income taxation at the personal level must account for the incidence of the tax. In a closed economy, the taxation of portfolio income reduces capital formation in the same way as corporate income taxation, with the same implications for incidence. In a small open economy, a tax on the portfolio investment income of residents will not affect the cost of capital or the domestic capital stock if the residence principle is enforced or, lacking that, if domestic and foreign capital can be financed in the world market on the same terms (for instance, through the Eurobond market). Under these conditions, the tax on portfolio income is borne entirely by domestic asset holders. If the residence principle is not enforced, tax-induced portfolio outflows will have a direct redistributive effect, reducing the tax burden of asset holders and, should compensating revenue measures be necessary, raising the tax burden on labor—whether through commodity or labor income taxation.

In a large open economy or in an economy with a closed capital market, the taxation of portfolio investment income is borne in part by labor because such taxation affects the supply of financial capital and, hence, the financing cost of enterprises. The same holds true in a small open economy that imposes a tax on the portfolio investment income of residents and nonresidents alike, if the latter cannot credit the tax against their domestic tax liability.29

Hence, the reduction in the average effective tax burden on asset holders that is likely to result in the absence of increased cooperation or harmonization of tax policies in the EC will largely benefit asset holders. Because of the relatively large size of the EC and the imperfect substitution of EC and non-EC capital, lower taxation of portfolio investment income could increase the supply of financial capital to EC enterprises, with positive effects on capital growth, labor productivity, and real wages. This would partially offset the adverse income-distribution effect of lower taxation of portfolio investment income. As mentioned earlier, because of the time lags inherent in the process of capital formation, these steady-state effects are of limited relevance in a medium-term policy context.

The potential reallocation of financial intermediation induced by a common withholding tax on interest income in the EC would clearly benefit non-EC countries, especially neighboring ones. Although this reallocation would displace some of the financial intermediation activity in the EC, it would have an ambiguous effect on gross saving and on the external balance of the EC vis-à-vis the rest of the world.

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29See Brean (1984) for an analysis of the effects of the Canadian withholding tax on nonresident income.
Appendix: Net Budgetary Effects of a Withholding Tax on Interest from Government Bonds

Consider a simple model in which only the interest from government bonds is subject to the tax and in which investors can be classified by three broad categories: (type 1) tax-exempt institutional investors; (type 2) tax-evading individual investors who are taxed only at source and for whom the withholding tax (at a rate of $t_2$) constitutes a final tax; and (type 3) individual and other tax-paying investors who report all income, are taxed on the residence principle (at a rate of $t_3$), and for whom the withholding tax on domestic assets does not constitute an additional tax burden.

Define the demand for government bonds by type $i$ investors as $B_i$; and let $B$ be the outstanding stock of bonds. From the asset market equilibrium condition $B = B_1 + B_2 + B_3$, one can derive

$$
\frac{dG_i}{dt_2} = B_2 r \left[ B_1 + B_2 (1-t_2) + B_3 (1-t_3) \right],
$$

where $r$ is the domestic interest rate and $B_i$ is the derivative of investor $i$'s demand for bonds with respect to the domestic interest rate.

Let $S$ be the interest expenditure of the government, net of tax revenues from interest earnings, or

$$
S = r(B - t_2 B_3 - t_2 B_2).
$$

Solving for $dS/dt_2$, the following condition obtains:

$$
dS/dt_2 > 0 \text{ if } [b_1(1-e_1/e_2) + b_3(1 - e_3/e_2 - t_3)] > 0,
$$

where $b_i$ is the share of bonds held by type $i$ investors and $e_i$ is the interest elasticity of bond demand of type $i$ investors—that is,

$$
e_i = B_i r (1 - t_i)/B_i.
$$

Under the assumption that type 2 and type 3 investors have the same elasticity of demand, condition (3) reduces to

$$
dS/dt_2 > 0 \text{ if } [b_1(1 - e_1/e_2) - b_3 t_3] > 0.
$$

Condition (4) states that the net interest cost of the introduction of a withholding tax will be negative if the induced interest rate effect outweighs the tax revenue effect, which can occur if there is a large share of type 1 (tax-exempt) investors, and such investors have a sufficiently low interest elasticity of demand relative to other investors, and if there is a low share of type 3 investors (taxed on their global income) and the tax rate applicable to them is sufficiently low.