

**REPORT
OF THE COMMITTEE
OF INDEPENDENT EXPERTS
ON COMPANY TAXATION**



COMMISSION
OF THE EUROPEAN
COMMUNITIES

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COMMISSION OF THE EUROPEAN COMMUNITIES

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Preface

Background to the establishment of the Committee

This report has been prepared for the Commission of the European Communities in accordance with the Committee's mandate which is reproduced after this preface. The Committee was set up following the Commission communication 'Guidelines on company taxation' (SEC(90) 601) of 20 April 1990. The Committee received its mandate in January 1991.

Membership of the Committee

Bill Robinson resigned from the Committee in February 1991, following his appointment as special adviser to the Chancellor of the Exchequer in the United Kingdom. The Committee would like to thank him for his contribution to the initial stage of its work.

Secretariat

The Secretary of the Committee was Michael Daly, who was ably assisted by Luc De Hert (Assistant Secretary), Philippe Pelle, Mary Clynes, and David Carr (who joined the secretariat in November 1991).

Professors Michael Devereux (Keele University and Institute for Fiscal Studies, London) and Peter Sørensen (the Copenhagen Business School) advised and assisted the secretariat both in the drafting of the report and in the preparation of background material for the Committee.

Operation of the Committee

The Committee met on 12 occasions. The first seven meetings, in January, February, April, May, July, September, and October 1991, were for one day, while the meetings held in November and December 1991, and in January 1992, lasted two days. Two final one-day meetings took place in February 1992. All meetings were held in Brussels.

Consultations

The Committee's consultations mainly involved informal contacts between individual members of the Committee or the secretariat and various persons and organizations, some of whom provided written submissions. These are listed in Annex 1A of this report.

Acknowledgements

The Committee is especially indebted to the Fiscal Affairs Division of the OECD, which laid much of the groundwork for the analysis used in this report and made available its computerized tax model for calculating marginal effective tax wedges. As a consequence, the estimates of the tax wedges found in Chapters 4 and 8 of this report correspond to those published in the OECD's recent study entitled 'Taxing profits in a global economy'. The Fiscal Affairs Division also provided the Committee with information concerning tax rules in non-EC countries.

In addition, the Committee is very grateful to Michael Devereux (Keele University and Institute for Fiscal Studies) and Mark Pearson (Institute for Fiscal Studies) who performed the computer simulations reported in Chapters 4 and 8 of this report, and undertook the business survey on the Committee's behalf.

A special acknowledgement is also due to Unice, which greatly facilitated the Committee's business survey by providing advice on the questions addressed, and by distributing the questionnaire to its members.

Furthermore, the Committee would like to acknowledge the cooperation of the national tax administrations of the EC, as well as those non-EC countries (Austria, Canada, Japan, Sweden, Switzerland, and the United States) which provided the Committee with specific details of their tax legislation.

The Committee is also grateful to Joann Weiner (Harvard University) and Philippe Thalmann (University of Geneva) who prepared background studies concerning taxation in the United States and Switzerland, respectively.

Finally, the Committee wishes to acknowledge the helpful suggestions and comments offered by a very large number of persons and organizations in oral or written submissions, either to the Committee itself or to its individual members. A complete list of the names of these individuals and organizations is found in Annex 1A of this report.

Format of the report

The report consists of 10 chapters. The first nine chapters are essentially factual and analytical, while the 10th summarizes the Committee's main conclusions derived from the previous chapters and presents a number of recommendations. These 10 chapters were endorsed unanimously by the Committee. Much of the rather more detailed background material considered by the Committee (but not necessarily endorsed by it) is contained in the annexes, which are referred to in the relevant chapters.

The Committee

| | |
|-------------|--|
| Members | Onno Ruding, Chairman Donal de Buitleir Jean-Louis Descours Lorenzo Gascon Carlo Gatto Ken Messere Albert Rädler Frans Vanistendael |
| Assistants | Francisco Berruguete Jens Blumenberg Yves Darolles Marco Tucci Olf Van Laar |
| Secretariat | Michael Daly (Secretary) Luc De Hert (Assistant Secretary) Philippe Pelle David Carr Mary Clynes |

CHRISTIANE SCRIVENER
*Member of the Commission
of the
European Communities*

Rue de Loi 200
1049 Bruxelles
(02) 236 33 29

Brussels, 25 October 1990

**Mandate given to Mr Onno Ruding for the Committee
established to examine company taxation
in the European Community**

The Committee will evaluate first and foremost the importance of taxation for business decisions with respect to the location of investment and the international allocation of profits between enterprises. An assessment of the impact of taxation relative to other factors on such decisions is necessary in order to determine whether existing differences in corporate taxation and the burden of business taxes among member countries lead to major distortions affecting the functioning of the internal market.

If such distortions do arise, it is essential to examine all possible remedial measures, taking into account the influence that other policies (e.g. economic and monetary union) might have on the extent of the tax-induced distortions. In order to determine the most appropriate action at the Community level, it is necessary to distinguish clearly between the main elements of the corporate tax system, namely the type of tax system, the tax base, and the statutory tax rate. Moreover, since some businesses are not subject to corporation taxes as a consequence of their legal status, the question also arises as to what action is required concerning non-corporate income taxes.

In this regard, it is essential to define the priorities among the different measures that the Committee envisages, preferably with proposed dates for their implementation. The Committee will also have to give its opinion on the legal nature of any envisaged measure in order to determine whether the objective is to harmonize certain aspects or to limit it to the establishment of a framework for national tax legislation.

Finally, the Committee should consider the demands placed on the tax system by other political objectives, such as those pertaining to the environment, health and social affairs, to address the question of how and to what extent it will still be possible to take into account non-tax considerations.

Other questions could also be addressed, if need be.



Ch. Scrivener

Executive summary

This report is the work of the Committee, chaired by the Honourable Onno Ruding, which was set up by the Commission of the European Community in December 1990, on the initiative of Mrs Scrivener, Member of the Commission, following the communication of the Commission 'Guidelines on company taxation' of 20 April 1990. The Committee met 12 times between January 1991 and February 1992. The Committee's mandate was to evaluate the need for greater harmonization of business taxation within the European Community. In carrying out its work, and on the basis of its mandate, the Committee considered the following questions:

1. Do differences in taxation among Member States cause major distortions in the internal market, particularly with respect to investment decisions and competition? Special attention is focused on those distortions considered to be discriminatory.
2. In so far as such distortions arise, are they likely to be eliminated simply through the interplay of market forces and tax competition between Member States, or is action at the Community level required?
3. What specific measures are required at the Community level to remove or mitigate these distortions?

The Committee's main findings are briefly summarized below.

1(a) Principal tax differences (Chapter 3)

There are major differences in the corporate tax systems operated by each Member State, as well as considerable variations in the statutory corporation tax rates and corporation tax base (which determine the level of taxable income).

In addition to these basic differences, there are, more specifically, differences in the tax treatment of cross-border income flows (dividend, interest and royalty payments). These not only concern the imposition of withholding taxes at the point of payment, but also methods and extent of relief for double taxation in the hands of the recipient. And on the other side of the coin, there are differences in the methods of allowing losses incurred by a branch or subsidiary in one Member State to be offset against the profits of the parent in another Member State.

(b) Distortions

The Committee reviewed the evidence which included a simulation study and an empirical survey to establish how far the differences identified caused major distortions or were discriminatory.

The simulation study (Chapter 4) examined how far each Member State's tax system provided incentives to both domestic and foreign direct investment, and modelled the corporate tax component of the cost of capital in each country from domestic and foreign sources. It suggested that withholding taxes levied by source countries on cross-border dividend payments between related companies are the main reason for bias against inward and outward direct investment.

Other significant sources of bias are:

- (i) differences among Member States in the method of providing relief for double taxation on cross-border income flows;
- (ii) differences in corporation tax rates between countries; and
- (iii) the discriminatory effect of unrelieved imputation taxes (*précompte*, advance corporation tax, etc.) related to distributions by parent companies from profits earned abroad.

The empirical survey (Chapter 5) examined how far location decisions are influenced by tax considerations. The evidence suggested that tax differences among Member States distort foreign location decisions of multinational firms, and cause distortions in competition, especially in the financial sector. The strength of the evidence suggested that the distortions could be large, but it was not possible to quantify the consequent misallocation of resources in a satisfactory way.

(c) Other considerations (Chapter 2)

In examining the differences and distortions arising, the Committee was aware of the need for any recommendations to take into account considerations of fairness, administrative feasibility, compliance costs and transparency. This latter point was considered particularly important to avoid distortions of competition within the Community through the use of hidden tax incentives.

Experience in non-EC federal countries was also taken into account (Chapter 9).

2. Convergence and competition (Chapters 7 and 8)

The Committee found that there has been some convergence of different countries' tax regimes despite the absence of concerted action. However, many of the changes seem to have arisen from a general desire by the countries concerned to establish tax regimes which are more neutral from a domestic viewpoint. This has involved cutting both corporate and personal statutory tax rates and reducing tax concessions.

Overall, the corporate tax component of the average cost of capital across Member States converged over the past decade. However, much of this convergence was attributable to downward convergence of interest and inflation rates rather than deliberate action on the part of tax authorities. (The exceptions were Germany and the United Kingdom where tax reform also made a significant contribution.)

There is no evidence to suggest that independent action by national governments is likely to provoke unbridled general tax competition leading to erosion of the corporate tax revenues of Member States. However, the Committee was concerned about the

tendency of Member States to introduce special tax schemes designed to attract internationally mobile business, particularly in the financial sector.

There was also specific concern about tax competition in the area of withholding taxes on cross-border flows of interest from portfolio investment.

3. Conclusions and recommendations (Chapter 10)

Despite the observed convergence over the past decade, wide differences in tax regimes remain. Some of these differences distort the functioning of the internal market both for goods and for capital, and it is unlikely they will be reduced significantly through independent action by Member States. Accordingly, action is needed at Community level.

However, other considerations, such as the need to allow Member States as much flexibility as possible to collect revenue through direct taxes, and the principle of subsidiarity, argue in favour of focusing Community harmonization on the minimum necessary to remove discrimination and major distortions.

So at this stage in the Community's development, action should concentrate on the following priorities:

- (a) removing those discriminatory and distortionary features of countries' tax arrangements that impede cross-border business investment and shareholding;
- (b) setting a minimum level for statutory corporation tax rates and also common rules for a minimum tax base, so as to limit excessive tax competition between Member States intended to attract mobile investment or taxable profits of multinational firms, either of which tend to erode the tax base in the Community as a whole; and
- (c) encouraging maximum transparency of any tax incentives granted by Member States to promote investment with a preference for incentives, if any, of a non-fiscal character.

A programme of total harmonization is not justified at this stage. None the less the Committee believes that the adoption by all Member States of a common system of corporation tax is a desirable long-term objective.

Detailed recommendations

These fall into three categories. Each proposal in each category is classified as falling in one of three phases according to the urgency of implementing it. Phase I should be implemented by the end of 1994. Work on Phase II should commence immediately with a view to implementation during the second phase of economic and monetary union. Implementation of Phase III is envisaged as being concurrent with full economic and monetary union. The recommendations are to be found in Chapter 10 of the report, which sets out the Committee's conclusions and recommendations in more detail.

A — Elimination of the double taxation of cross-border income flows

To ensure the elimination of withholding taxes levied by source countries on dividends paid by subsidiaries to parent companies, the Committee recommends:

- that the scope of the ‘parent/subsidiary’ Directive be extended to cover all enterprises subject to corporate income tax irrespective of their legal form (Phase I). The Directive should subsequently be extended to all other enterprises subject to income tax (Phase II); and
- a substantial reduction in the participation threshold as prescribed in the ‘parent/subsidiary’ Directive (Phase II).

To combat evasion, a sufficient level of taxation at source should be ensured, so the Committee recommends:

- that the Commission propose by way of directive a uniform withholding tax of 30% on dividend distributions by EC-resident companies subject to waiver where appropriate tax identification is provided (Phase II).

To eliminate other withholding taxes levied by source countries on payment between enterprises in different Member States, the Committee recommends:

- that the proposed ‘interest and royalties’ Directive be adopted and that the scope of the Directive be extended to encompass all such payments between enterprises together with accompanying measures to ensure that the corresponding income is effectively taxed within the Community in the hands of the beneficiary (Phase I).

To eliminate double taxation arising from transfer-pricing disputes, the Committee recommends:

- that the Commission urge all Member States to ratify the Arbitration Convention as soon as possible (Phase I); and
- that the Commission take action together with the Member States to establish appropriate rules or procedures concerning transfer-pricing adjustments by Member States (Phase I).

To reduce impediments to cross-border investments likely to generate losses in early years, the Committee recommends:

- that Member States adopt the draft directive dealing with losses of permanent establishments and subsidiaries in other Member States (Phase I);
- that all Member States introduce full vertical and horizontal offsetting of losses within groups of enterprises at the national level (Phase II); and
- extension of the draft directive to allow full Community-wide loss offsetting within groups of enterprises (Phase III).

To ensure that bilateral agreements for minimizing double taxation are on a proper footing, the Committee urges:

- Member States not only to conclude bilateral income tax treaties where none exist between them, but also to complete those where coverage is limited (Phase I);

and recommends

- action by the Commission in concert with Member States aimed at defining a common policy on double taxation agreements with respect to each other and also with respect to third countries (Phase I).

B — Corporation taxes

To reduce discrimination between the tax treatment of domestic- and foreign-source income, the Committee recommends:

- that existing discrimination in the taxation of dividends from profits earned in another Member State be removed. To this end:
- Member States which apply imputation taxes on the distribution of profits earned in another Member State should be obliged, on a reciprocal basis, to allow such tax to be reduced by corporate income tax paid in another Member State in respect of dividends remitted by a subsidiary, or profits earned by a permanent establishment (Phase I); and
- Member States with various forms of tax relief for dividends received by domestic shareholders from domestic companies should be obliged, on a reciprocal basis, to provide equivalent relief for dividends received by domestic shareholders from companies in other Member States (Phase I).

To achieve a more fully harmonized corporation tax system within the Community, the Committee recommends:

- that the Commission and the Member States examine in the course of Phase I alternative approaches to determine the most appropriate common corporation tax system for the Community (Phase III).

To reduce the risks of serious erosion of corporate tax revenues, the Committee recommends:

- that a draft directive be prepared by the Commission prescribing a minimum statutory corporation tax rate of 30% in Member States for all companies, regardless of whether profits are retained or distributed as dividends (Phase I);
- adoption by all Member States of a maximum statutory corporation tax rate of 40% (Phase II); and related to this,
- that there should be only one kind of tax on corporate income in Member States. If this cannot be achieved, local income taxes should be taken into account when fixing the statutory corporation tax rate so that the combined rate of tax falls within the range of 30 to 40% prescribed by the Committee (Phase II).

In addition there should be

- a set of minimum standards for the tax base to cover:
depreciation practices (to include intangibles such as goodwill),
leasing,
stock valuation,

provisions,
business expenses,
headquarters costs of enterprises,
pension contributions by or for expatriate workers,
carry-over of tax losses, and
capital gains
(Phases I and II).

Since the time at which corporation taxes are payable varies from one Member State to another, the Committee recommends:

- that the Commission should seek to establish common rules by way of directive to harmonize the dates at which taxes of common application are payable (Phase II).

To improve neutrality between different forms of business organizations, the Committee recommends:

- that the Commission should seek to establish common rules which would permit unincorporated enterprises the option of being taxed as if they were a company, with the proviso that such a regime should apply for a minimum period of time (Phase II).

C — Other issues

To remove different burdens arising from additional mixed-base taxes, the Committee recommends:

- that Member States having such multibase local business taxes replace them by an on-profits tax levied on the same base as the central government corporation tax (Phase II).

Glossary of terms

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| <i>Marginal effective tax wedge:</i> | the difference between the required pre-tax and the post-tax rates of return on a prospective marginal investment over its lifetime. |
| <i>Marginal effective tax rate:</i> | the marginal effective tax wedge divided by the real required pre-tax rate of return. |
| <i>Marginal investment:</i> | a project whose return is just sufficient to cover its cost inclusive of taxes. |
| <i>Cost of capital:</i> | the minimum inflation-adjusted pre-tax rate of return that an investment project must earn in order for it to be undertaken. The cost of capital is also commonly known as the 'hurdle' or 'break-even' rate of return. |
| <i>Real interest rate:</i> | the nominal interest rate minus the rate of inflation. |
| <i>Capital import neutrality (CIN):</i> | CIN occurs when taxation is neutral with respect to the import of capital because domestic and foreign suppliers of capital to any national market obtain the same after-tax rate of return on similar investments in that market. |
| <i>Capital export neutrality (CEN):</i> | CEN prevails where taxation is neutral towards the export of capital since investors in the capital-exporting country face the same marginal effective tax rate on income from similar investments, whether they are undertaken domestically or abroad. |
| <i>International double taxation:</i> | a situation where income of the same taxpayer is taxed in two different countries. |
| <i>Economic double taxation:</i> | a situation where profits are subject firstly to corporation tax and secondly to personal income tax when received by a shareholder in the form of dividends. |

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| <i>Integration:</i> | any reduction or elimination of economic double taxation, whether granted at the company or individual shareholder level. |
| <i>Classical corporation tax system:</i> | a system under which little or no relief is provided for economic double taxation. |
| <i>Imputation system:</i> | a system whereby a (full or partial) tax credit is given to shareholders under the personal income tax for the amount of corporation taxes actually paid on profits distributed as dividends. |
| <i>Imputation tax:</i> | the term used to describe the mechanism by which Member States which operate an imputation system ensure that any dividend distribution which carries a tax credit has been subject to domestic tax at the corporate level. It includes <i>précompte</i> (France), <i>Ausschüttungsbelastung</i> (Germany), <i>imposta di congualio</i> (Italy), and advance corporation tax (Ireland and UK). Although these taxes work in different ways, which in part reflects differences in the way the underlying systems work in practice, they are intended to achieve the same objective. |
| <i>Dividend-deduction system:</i> | a system whereby a (full or partial) deduction from the corporate tax base is allowed for distributed dividends. |
| <i>Split-rate system:</i> | normally a system analogous to a dividend deduction system whereby a lower corporation tax rate is levied on dividend distributions. (It is possible for a higher corporation tax rate to be levied on dividend distributions but the effects are different.) |
| <i>Subsidiarity:</i> | as now defined in the Maastricht Treaty, the principle that in areas where the Community does not have exclusive competence, that it should only act when and to the extent that the objectives cannot be achieved to a sufficient extent by the Member States, because of the scale of the measure envisaged, the objectives can best be achieved at the Community level. No Community measure should exceed what is necessary to achieve the objectives of the Treaty. |

- Convergence:* a process or series of developments where Member States' tax bases, rates, systems, revenue yields, etc. become closer together ('divergence' being the term used to indicate the contrary), irrespective of whether this happens as a result of EC coordination or the interplay of market forces.
- Harmonization:* the occurrence of greater convergence as a result of action at the Community level by the Commission or other agencies of the Community such as the European Court of Justice. 'Full harmonization' describes the situation where identical tax bases, rates, systems, etc. are proposed or achieved among Member States. By contrast, 'partial harmonization' involves something less than identical bases, rates, systems, etc. (such as approximation of the base, minimum or maximum statutory tax rates).
- Coordination:* any action or measures taken by the Commission or some or all EC countries to influence the tax practices of member countries, (such actions might take the form of directives, conventions, recommendations, guidelines, etc.).
- Competition:* a process where, in contrast to tax coordination, the interplay of market forces might achieve similar goals (generally that of convergence).

Chapter 1

Introduction

I — Background

One of the main objectives of the founding fathers of the European Community, as laid out in the Treaty of Rome, was to raise the living standards in all Member States, by removing barriers to the efficient allocation of resources, and thereby establishing a single internal market. In such a market, competition, the mechanism for allocating economic resources, would not be distorted. The internal market was subsequently defined in the Single European Act as ‘an area without internal frontiers in which free movement of goods, persons, services and capital is ensured ...’¹ The Single European Act, which came into effect in 1987, provided added impetus to the attainment of this objective, by aiming for the completion of the internal market by the end of 1992. Not surprisingly, the objective of creating a single internal market may have profound implications for tax policy in the Community, both in the immediate term prior to 1993, and afterwards in the longer term.

As recognized in the Treaty of Rome, competition can be distorted not only by protectionist trade policies, government subsidies, public procurement policies, and market imperfections (such as business collusion), but also by discriminatory taxes on products, that is, indirect taxes.² Although not mentioned explicitly in the Treaty, direct taxes can have equivalent effects.³ However, whereas harmonization of indirect taxes is explicitly provided for in Article 99 of the Treaty of Rome, there is no such explicit reference in the Treaty to the possible goal of harmonizing direct taxes.

Nevertheless, the Treaty does require the removal of all restrictions on the movement of capital within the Community (Article 67), on the freedom of establishment of firms (Article 52) and on the ‘approximation of laws’ that directly affect the ‘establishment or functioning of the common market’ (Article 100), or create distortions in the ‘conditions of competition’ (Article 101).⁴ In addition, Articles 220 and 221 of the Treaty require ‘so far as is necessary, ... the abolition of double taxation within the Community’ and non-discriminatory treatment ‘as regards participation in the capital of companies and firms within the meaning of Article 58’. (The latter article also requires that companies and firms be treated in the same way as individuals who are nationals of Member States.)

While considerable progress has been made in the removal of the wide range of barriers to the establishment of a single market, with over three-quarters of the measures

¹ Single European Act, Article 13 (Article 8a, Treaty of Rome).

² Treaty of Rome, Articles 95, 96, 97 and 99. These and other relevant articles are found in Annex 1B.

³ Factor-based tax incentives can serve as substitutes for commodity-based incentives and direct subsidies in protecting domestic producers.

⁴ It is noteworthy that whereas Council decisions pertaining to tax matters require unanimity, Article 101 enables the Council and Commission to issue necessary directives on the basis of a qualified majority.

contained in the Commission's 1985 White Paper having already been adopted by the Council, the single market objective is becoming increasingly dependent on the abolition of tax impediments to cross-border activities within the Community.¹ Until recently, progress in this regard was limited to the taxation of goods, that is, indirect taxes involving VAT and excise duties. In the field of direct taxation, that is, taxes on income, profits, capital, and wealth, substantial progress was made during the past two years, especially with respect to the problem of international double taxation.² Notwithstanding this progress, a number of potential tax obstacles remain to the realization of the full benefits from the completion of a single internal market between now and the end of 1992.

Furthermore, over the longer term, in the aftermath of the expected removal of fiscal and other barriers to the mobility of goods, services, persons, and capital, and as the Community moves towards economic and monetary union, differences in taxation between Member States may well assume an increasingly important influence on decisions regarding the location financing, or legal form of investment. (Obviously, taxation is just one of many factors that may influence the location of investment.)³ The closer integration of product and factor markets also means that the spillover effects of taxation can be more easily transmitted from one country to another, thus possibly increasing Member States' vulnerability to tax competition.

The key issue that needs to be addressed, therefore, is the extent to which tax harmonization within the Community is necessary or desirable in the long run. And if further harmonization of Member States' tax laws is necessary or desirable, should the required action be taken at the Community level, or can the necessary adjustments be accomplished through the free play of market forces, that is, tax competition, or a combination of both.

Competition between different countries already constitutes a stimulus to tax harmonization, particularly with respect to corporations, and the gradual completion of the internal market may be expected to amplify that phenomenon. For example, in recent years statutory corporate tax rates have undergone reductions in most Member States following tax reform in the United Kingdom and United States, which consisted of cutting nominal tax rates and at the same time broadening the tax base, and in particular by removing or curtailing various forms of tax relief, including investment tax credits. With many major differences between Member States remaining as regards tax systems, tax bases, tax rates, tax compliance and enforcement, the question arises as to whether the convergence currently under way will be sufficient to satisfy the

¹ See Commission of the European Communities (1990), p. 11.

² More specifically, this progress involves three proposals: the parent/subsidiary Directive, aimed at eliminating the double taxation of dividends; the arbitration procedure Convention, designed to eliminate the double taxation resulting from adjustments in transfer-pricing; and the mergers Directive, providing for any capital gains arising from a merger, or a similar operation, to be taxed only upon realization. Furthermore, in November 1990, the Commission submitted two additional draft directives to the Council: the interest and royalties Directive, involving the abolition of withholding taxes on such payments within groups of companies; and the foreign losses Directive, enabling Community enterprises and groups of companies to offset losses incurred as a result of transborder activities.

³ As discussed in Chapter 5, these factors include, for example, the need to locate a project close to customers and suppliers, the economic outlook in different markets in the short, medium, and long term, the availability of finance and government assistance, differences in the cost and quality of labour, and the scope and quality of supporting infrastructure, such as, telecommunications, transportation, and other private and public services to business.

needs of a single internal market, and also whether it will lead to acceptable and sustainable taxation. Any attempt by Member States to 'beggar-my-neighbour' by cutting business taxes (either by reducing statutory tax rates or by providing tax concessions relating to the base) would tend to erode capital income taxation in Member States,¹ which could have deleterious consequences for national budgets and undermine the fairness of countries' tax laws. These possible consequences may, of course, restrain Member States from adopting such beggar-my-neighbour policies.

II — Evolution of the Commission's views concerning corporate tax harmonization

The issue of corporate tax harmonization at the Community level has been debated by the Commission for almost 30 years, taking into account advice provided by independent experts.² The first proposals in this regard were those contained in a report prepared in 1962 by the Neumark Committee, which recommended that corporation tax systems be harmonized along the lines of a split-rate system, similar to that then in place in Germany, with a lower rate of tax on dividend distributions than on retained profits. In 1969, proposals for directives on parent/subsidiaries and mergers were tabled. This was followed by the van den Tempel Report of 1970, which advocated a classical corporation tax system (similar to that then in existence in Luxembourg, the Netherlands, and the United Kingdom) throughout the Community. The principal reason for this recommendation appears to have been the report's emphasis on international considerations regarding corporation tax systems. A subsequent resolution by the Council in 1971, concerning economic and monetary union, called for the harmonization of corporation tax systems, and of those types of taxes likely to have a direct influence on the movement of capital within the Community, namely withholding taxes on dividends and interest.

Then in 1975, in a draft directive, the Commission itself proposed a common partial imputation system of company taxation, similar to that in France, with statutory rates within a band of 45 to 55%, and a tax credit (also within a band of 45 to 55%) for dividend recipients, irrespective of the Member States in which they resided. At the same time, it was also proposed that all Member States should levy a 25% withholding tax on the dividends distributed by their resident companies, unless the identity of the recipient was known to the tax authorities. This draft directive got stranded in the European Parliament, however, where it was criticized on the grounds that it made little sense to harmonize corporation tax systems and statutory tax rates as long as differences continued to exist among Member States in the rules for computing taxable company profits, that is, the tax base.³ The importance of a common tax base was subsequently acknowledged by the Commission in its 1980 'Report on the scope for convergence of tax systems in the Community'.

¹ Such an erosion is already occurring in the case of interest income of individuals.

² The discussion focused on corporate taxes, which were considered to have a direct influence on capital flows.

³ See 'Harmonization of systems of company taxation and of withholding taxes on dividends', interim report of the European Parliament drawn up on behalf of the Committee on Economic and Monetary Affairs (Doc 104 of 2.5.1979).

Since that time, and particularly in the wake of the Single European Act (1987), the Commission decided to give priority to measures required to eliminate or reduce obstacles to cross-border activities by 1993, an approach which accords with the principle of subsidiarity.¹ Furthermore, in its communication of 1990, the Commission officially announced the withdrawal of its 1975 proposal and, at the same time, the establishment of a committee of independent experts, which would discuss what should be done in the longer term, once the internal market has been established.²

III — Purpose of the report

The purpose of this report is to evaluate the need for greater harmonization of business taxation in Member States. In accordance with the mandate of this Committee set out by the Commission, the report will address three main questions.³

- (a) Do differences in business taxation among Member States cause major distortions in the functioning of the internal market, particularly with respect to investment decisions and competition? Special attention will be focused on those distortions that the Committee considers to be discriminatory with respect to enterprises and shareholders of other Member States.
- (b) In so far as such distortions do arise, are they likely to be alleviated or eliminated simply through the interplay of market forces and competition between national tax regimes, or is action at the Community level required?
- (c) What specific measures are required at the Community level to remove or mitigate these distortions?

In addition to these three key questions, the Committee has been mindful of the extent to which tax measures should be used to implement other social and economic objectives, such as those pertaining to the fair treatment of small and medium-sized businesses, and regional development.

Any action at the Community level will be considered by the Committee in the light of the capacity of Member States' tax regimes to collect revenue, and widely agreed objectives and criteria relating to the economic efficiency, fairness, administrative feasibility, simplicity, certainty, and transparency of their tax rules, as well as the extent to which such action encroaches upon Member States' freedom to pursue their own policy objectives through the use of tax measures. Careful attention will also be paid to relations with non-EC countries and Member States' tax competitiveness *vis-à-vis* these countries.

¹ Subsidiarity encompasses the principle that policies should be forged at the most local level that is feasible. Clearly the feasibility of implementing a policy at the local level is closely related to the magnitude of any interjurisdictional spillover effects associated with it. In the context of the Community, the greater the spillover effect of a particular national policy *vis-à-vis* other Member States, the greater the need for coordinating that policy at the Community level. Another issue concerning this principle is, of course, whether it should still prevail when implementation costs are much higher than for Community legislation.

² See Commission of the European Communities (1990a).

³ See terms of reference.

IV — The Committee's interpretation of the scope of its mandate

The scope of the mandate clearly encompasses, not just direct investment, but also portfolio investment, and requires an assessment of the effects on both types of investment of all direct taxes (including local taxes) that are levied on corporate and non-corporate businesses. Such taxes include corporate and personal income taxes, withholding taxes, and other levies not necessarily related to profits.

However, personal taxes are discussed only in so far as they directly affect unincorporated businesses and company shareholders. Broad issues concerning the taxation of savings and social security levies, though important, are considered by the Committee to be beyond the scope of its mandate.

Also considered to be beyond the scope of the mandate is an assessment of the distortions to competition that may be caused by non-tax measures, such as direct subsidies and public procurement policies.

Nor does the Committee feel that its mandate extends to the broader issue of net fiscal benefits. (The concept of net fiscal benefits reflects the difference between the benefits in the form of public goods and services that a firm receives in a particular country and the taxes it pays there. In so far as taxes are used to finance direct assistance or the provision of public goods and services for businesses, then effective tax rates are perhaps less relevant for firms' location decisions than are net fiscal benefits.)

The Committee also presumes that Member States wish to retain their existing income-based corporate (and personal) taxes for the foreseeable future. Hence, the Committee did not consider in depth the desirability of switching to other types of corporate taxation, such as cash-flow taxes, the ACE system proposed by the Institute for Fiscal Studies, and the various prototypes, including the dividend exclusion scheme and the comprehensive business income tax (CBIT), discussed in the report published this year by the US Treasury.¹ Given the one-year deadline laid down by the Commission for the completion of the Committee's work, the Committee decided to focus its attention instead on the more modest objective of finding ways to mitigate or eliminate the main distortions to cross-border investment that arise within the Community under Member States' current corporation tax systems, while allowing these various systems to co-exist, at least for the time being.

V — Organization of the report

Chapter 2 identifies the main tax problems posed by the removal of barriers to the free movement of goods, persons, services, and capital in the Community's endeavour to establish a single internal market. These problems relate to the economic efficiency, fairness, administrative feasibility, simplicity, certainty, and transparency of taxation in Member States as well as the possible constraints imposed by such a situation on the capacity of countries to levy taxes and their freedom to pursue their own policy objectives.

¹ See Institute for Fiscal Studies (1989) and US Department of the Treasury (1992).

Chapter 3 provides a summary of the principal differences in the taxation of business income that exist between Member States, highlighting those features of countries' tax laws that could be considered discriminatory with respect to other Member States. The summary covers the taxation of incorporated and unincorporated businesses, and focuses on corporate and personal income taxes, as well as on other taxes not related to profits, such as wealth taxes. The features of each type of tax are categorized under the headings: tax systems, which is particularly relevant in the case of corporation taxes, tax rates, tax base, and the tax treatment of foreign-source income.

Chapter 4 assesses the overall distortionary impact of differences in business taxation between countries by reference to marginal effective tax wedges,¹ that is, the tax component of firms' cost of capital. The cost of capital, which is also commonly known as the 'hurdle' or 'break-even' rate of return, is the minimum inflation-adjusted rate of return (inclusive of taxes) that an investment project must earn in order for it to be profitable. This required rate of return is clearly a potentially important determinant of firms' marginal investment decisions and competitiveness.

The computation of marginal effective tax wedges facilitates comparisons of the tax component of the cost of capital for different types of domestic and transnational investments in each Member State as well as in relation to the Community's main trading partners. It provides an indication of the pattern of investment incentives provided by Member States' tax regimes, and it allows a rough assessment of the extent to which taxation in each country discriminates in favour of or against inward and outward investment. It also permits the Committee to determine which aspects of taxation constitute the main sources of non-neutrality with respect to transnational direct investment flows within the Community.

Chapter 5 discusses the extent to which potential distortions embodied in countries' tax codes have actually influenced the location of investment, using empirical evidence gathered from a number of disparate sources. These sources include econometric, simulation, and case studies, together with the results of a European-wide business survey undertaken on behalf of this Committee.

The impact of differences between countries' tax regimes on international tax planning and the allocation of profits between related enterprises operating in different countries is discussed in Chapter 6. Of particular interest are various forms of tax arbitrage, including 'treaty shopping', as well as rules concerning transfer-pricing and financial transactions within related groups of companies.

Chapter 7 evaluates the seriousness of the threat posed by tax competition to Member States' revenue raising capacity.

The extent to which tax differences between EC (and other) countries have narrowed during the past decade is examined in Chapter 8. Here again, attention is focused on corporation tax systems (that is, the degree to which corporate and personal income taxes are integrated), the tax treatment of foreign-source income, tax bases, statutory tax rates, marginal effective tax wedges, the cost of capital, and tax burdens, as measured by taxes as a proportion of gross domestic product.

¹ The marginal effective tax wedge (METW) is the difference between the pre- and post-tax rates of return on a prospective marginal investment project over its lifetime. (A marginal investment project is one whose returns are just sufficient to cover its costs inclusive of taxes.)

Chapter 9 investigates the experience of three non-EC federal countries (Canada, Switzerland, and the United States) in order to throw further light on the degree of tax diversity that is consistent with an integrated market involving a common currency, and the different approaches to tax harmonization adopted in these countries.

Finally, Chapter 10 contains the Committee's conclusions regarding the measures that need to be taken in order to remove what it considers to be major tax obstacles to the achievement of the internal market by the end of 1992. Moreover, it summarizes the Committee's views concerning the nature and magnitude of the tax problems attributable to the establishment of the internal market in both the short term and the long term, and their implications for tax policy in the Community. Chapter 10 also contains the Committee's recommendations in this regard, together with proposals concerning the timing of their implementation. More specifically, the Committee considers that Phase I recommendations ought to be implemented by the end of 1994. Preparatory work on Phase II recommendations should also begin at once with a view to their implementation during the second phase of monetary union. The Committee envisages that Phase III recommendations might be implemented concurrently with full economic and monetary union.

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Chapter 2

Tax problems in a single European market

I — Introduction

The removal of barriers to the movement of goods, services, labour and capital within the European Community, as part of a concerted effort to create a single internal market by the end of 1992, and the increased integration of world markets have far-reaching implications for tax policy in Member States. As obstacles to factor mobility are removed, firms and individuals will have greater freedom to move their capital to locations where the highest after-tax returns can be obtained. This is likely to enhance the responsiveness of investment, as well as other economic and financial decisions, to differences in effective tax rates between countries, thus distorting the allocation of capital within the Community.

The greater sensitivity of business decisions to differences in taxation poses a number of potentially serious problems. These problems relate to Member States' ability to tax mobile factors (especially capital, because it is the most mobile factor), as well as to the economic efficiency, fairness, administrative feasibility and simplicity of their tax laws, and their vulnerability to tax competition. The latter occurs if national governments attempt to attract capital and taxable income, by offering tax incentives and cutting tax rates.

The purpose of this chapter is to identify these and other potential problems attributable to the greater openness of Member States' economies, and their implications for tax policy in the Community. The scale and seriousness of these problems are assessed in subsequent chapters of the report. Before discussing such problems, however, a brief overview of the main tax impediments to the completion of a single European market will be provided. The role of the corporation tax, which is the main tax examined in this report, together with the rationale that may or should underlie it, will also be considered.

II — Some potential fiscal impediments to the completion of a single market

As other barriers to the location of investment are dismantled, differences between Member States' tax rules may well assume a greater importance in influencing trans-border investment and merger decisions, and thus the allocation of resources within the Community. These differences, which will be discussed at length in the next chapter of this report, relate to methods of providing relief for double taxation at both the domestic and international levels, the nature of taxes, tax bases, statutory tax rates, and other tax rules concerning savings and investment.

A number of Member States (including France, Germany, Ireland, Italy, and the United Kingdom) reduce or eliminate double taxation of profits distributed as dividends by providing credits to shareholders for corporation taxes paid (imputation systems), by levying reduced or zero rates of corporation tax on distributed profits (as in Germany and Greece), or by taxing dividends at a reduced rate at the individual shareholder level (as in Belgium, Denmark and Portugal).¹ While existing imputation systems do address the problem of double taxation of corporate profits at the domestic level, in general, they do not deal with the problem at the international level for two reasons.

Firstly, foreign corporate taxes are not normally recognized for imputation purposes when foreign-source income is distributed to shareholders. Hence, imputation systems provide an incentive for domestic savers to invest in shares at home rather than abroad and for companies to generate profits domestically, thereby discriminating against outbound foreign investment. Secondly, in most countries that operate imputation systems, the imputation credit is not usually extended to non-resident shareholders (the United Kingdom, Ireland, and, to a lesser extent, France, Germany and Italy being exceptions, in some cases as a result of bilateral tax treaties with certain countries.) Both these aspects of imputation systems tend to fragment the European capital market.

Differences among Member States in the rules for computing the corporation tax base, in statutory tax rates, and in incentives like accelerated depreciation allowances and investment tax credits, result in effective tax rates on investment varying across countries. Moreover, quite apart from their potential effect on actual investment flows, differences in Member States' tax bases and statutory corporate tax rates (which currently range from zero in certain regions to an overall rate of 50% in Germany, on retained earnings) can also provide an incentive for multinational firms to devise ways of shifting profits from high- to relatively low-tax jurisdictions in order to reduce their total tax burdens.

The interaction of inflation with taxation also tends to accentuate differences in effective tax rates between Member States since some Member States adjust taxes for inflation more than others. Furthermore, to the extent that differences in inflation rates between Member States result in compensating changes in exchange rates, in order to preserve purchasing power parity across countries, differences in the taxation of exchange rate gains and losses associated with commercial and financial transactions may affect not only the allocation of capital within the Community, but also provide opportunities for tax arbitrage.²

The problem of double taxation at the international level also arises with respect to withholding taxes, which again represent a potential obstacle to capital flows within the Community. As mentioned earlier, considerable progress has been made in eliminating such taxes, at least as far as intra-Community investment flows are concerned. This progress involves the parent/subsidiary Directive aimed at eliminating the double taxation of intercompany dividends, which was adopted by the Council in 1990, and the draft interest and royalties Directive requiring the abolition of withholding taxes on such payments within groups of companies. While multilateral relations between Member States with respect to withholding taxes are becoming increasingly harmonized by means of Community directive, no such harmonization has been accomplished in

¹ In this context, the expression 'double taxation of dividends' is used to describe what is sometimes called 'economic double taxation'.

² See Giovannini (1989).

the case of Member States' relations with non-Community States. Consequently, Member States continue to conclude bilateral treaties with third countries, which contain provisions (such as Article 16 of the USA — Model Treaty 1981) that exclude cross-border dividend, interest, and royalty payments from treaty protection in the case of 'treaty shopping'. Such agreements can and do discriminate against enterprises of other Member States.¹

Double taxation of foreign-source income can be avoided using either the exemption method or the credit method. Under the exemption method, the country of residence does not tax income that is taxed or taxable in another country. By contrast, under the credit method, the country of residence computes its tax on the basis of the taxpayer's total income, including foreign-source income, and permits taxes paid abroad to be deducted from its own tax. In practice, most Member States use a combination of both methods: the exemption method for some types of foreign-source income, such as dividends from a substantially owned subsidiary, or branch profits, and the credit method for some other types of foreign-source income, such as interest and royalties. Only a few States (e.g. Greece and the United Kingdom) rely exclusively on the credit method for relief of double taxation of foreign-source income. As discussed in Section IV, each method has different implications concerning the efficient allocation of capital resources within the Community.

III — The role of the corporation tax

Since income taxes levied on companies will, like any other taxes, ultimately be borne by individuals, it may well be asked whether the complications involved in taxing companies could not be avoided by Member States abolishing the corporation tax altogether, and relying instead on personal income taxes. The answer to this question is not only relevant to the nature and structure of Member States' corporation tax, but it also throws a great deal of light on whether this particular tax can be expected to survive in a single European market, or, indeed, in a more integrated world economy.

There are in fact three important reasons for relying on the corporation tax as a source of tax revenue. First and foremost, the corporation tax is an essential adjunct to the personal income tax, because it serves as a withholding tax at source for some forms of capital income that would escape taxation at the personal level.² Secondly, the corporation tax is considered to be a convenient way of taxing the pure profits or economic rents of companies. Thirdly, it can be used as an instrument of economic policy to influence the allocation of resources within the private sector.³ The question arises as to what, if any, is the most appropriate role for Member States' corporation taxes in the context of a single European market, and in relation to non-EC countries.

¹ Indeed, 'anti-treaty shopping' clauses may contravene Articles 52 and 58 of the Treaty of Rome.

² The Carter Commission, for example, considered withholding to be the only real function of the corporation tax. See Canada, Royal Commission on Taxation (1966).

³ In the absence of perfectly efficient capital markets, the corporation tax can also facilitate risk-taking. Furthermore, it may be viewed as an instrument for the achievement of equity under an income tax. See, for example, Economic Council of Canada (1987).

The corporation tax as a withholding tax

The main justification for levying a tax on income at the corporate level is that it serves as a withholding device for some forms of capital income that would not otherwise be taxed at the personal level. Income taxes could be avoided at the personal level, because they can be deferred by companies retaining and reinvesting profits rather than paying them out to shareholders as taxable dividends, thereby generating capital gains, realization of which can often be postponed until a time chosen by shareholders. A source-based corporation tax restricts shareholders' ability to defer (and thus to reduce) their tax liabilities. It follows that the corporation tax rate should not be too far below the personal tax rate applicable to self-employed persons so as not to provide them with a tax inducement to incorporate, and thus erode the personal tax base. If the sole purpose of the corporation tax were to prevent the tax-free accrual of capital gains within the company, then the tax should be levied on retained earnings only, not on dividend distributions.

However, the corporation tax is also a useful device for withholding taxes on dividends paid to non-residents. Furthermore, where corporation tax liabilities can be credited abroad, the taxes withheld constitute a pure revenue gain for the source country (that is, the country in which the income is generated), without affecting the tax incentive for non-residents to invest in that country. Hence, inasmuch as they are creditable abroad, it is in the interest of the capital-importing country to levy such taxes on non-residents.

Use of the corporation tax as a withholding tax on income accruing to foreign investors is consistent with the principle that the source country has the prior right to tax income earned within its jurisdiction. This principle may, in turn, partly reflect the view that such tax revenues may be used by the source country to finance the provision of public services (for example, roads, infrastructure, manpower training, etc.) that are of benefit to these foreign companies. Thus, in the case of firms, the benefit criterion is more consistent with the source principle of taxation than it is with the residence principle.

If one accepts this dual withholding role of the corporation tax, then all equity income should be included in the tax base. A corollary of the twin withholding functions of the corporation tax is that domestic shareholders' personal tax liabilities should be adjusted to take into account taxes already withheld at the corporate level. Such integration can be achieved by operating an imputation system of corporate taxation, whereby resident dividend recipients receive a credit against their personal tax liabilities for corporation taxes actually paid, or by providing other forms of tax relief for dividend income at the personal level.

The corporation tax as a tax on pure profits or economic rent

The second main argument in favour of the corporation tax relates to the desirability of taxing pure profits or economic rents. The latter are defined to be firms' revenues in excess of the full opportunity costs of all inputs, including capital. Pure profits or rents can be location-specific or firm-specific. Location-specific rents arise in connection with special advantages in one location that cannot be transferred elsewhere, such as the values of natural resources (net of all costs of exploration, extraction, and processing), or other scarce factors in fixed supply, infrastructure, as well as profits attributable to

monopoly power. By contrast, firm-specific rents are intrinsic to a particular firm or group of firms and may be attributable to such factors as know-how, management efficiency, and organization.

The taxation of location-specific rents can be justified on equity grounds, if one views the rents (or the assets generating them) as being part of the common property rights of a nation. Consequently, in the case of natural resources or where the rents are directly attributable to government expenditures on education and infrastructure, it is legitimate for national governments to appropriate some of these rents through some form of taxation.

Traditionally, however, taxation of pure profits or economic rents has been justified on economic efficiency grounds. It is argued that if the corporate tax base could be restricted to pure profits or economic rents, the corporation tax would not affect investment decisions, and would therefore be completely neutral in this regard.¹ As mentioned above, pure profit or rent is the difference between the accrued revenue of a firm and the full imputed cost of producing that revenue. Unfortunately, imputed costs, such as the true rate of economic depreciation, the replacement cost of inventories used, and the real cost of financing, are not readily observable, and therefore difficult to calculate.²

The corporation tax as an instrument of economic policy

The corporation tax is also used by governments in a deliberately non-neutral fashion to influence the allocation of capital within the private sector, by imposing it so as to affect the profitability of marginal investments. (Such an influence would not be possible with a pure profits tax, because the latter would have no effect on the profitability of marginal investments.) Needless to say, the use of the corporation tax as an instrument of economic policy begs the question of whether incentives can be delivered more effectively as tax measures, or whether direct grants should be used instead. Doubts concerning the effectiveness of tax incentives are discussed later in this chapter.

The relevance of the type of corporation tax for investment decisions

If the objective is indeed to levy a tax in a non-distortionary fashion on pure profits or economic rents in order to supplement personal taxes on income from capital, then a corporation tax with some resemblance to a classical type of system would appear to be more appropriate than one corresponding to an imputation system. Unfortunately, for the reasons mentioned earlier, it is extremely difficult, in practice, to design a

¹ This neutrality property applies only if rents are location-specific, but not necessarily if they are firm-specific.

² A corporation tax that would be equivalent to a tax on pure economic profits or rents in present-value terms, and much simpler to administer, is a cash-flow tax. The base for this tax is simply the difference between receipts from the sale of goods and services and the purchases of inputs required in the production process, including capital. At the same time, an 'R-based' cash-flow corporation tax would not permit any deduction for the financing of investment, notably interest payments. By contrast, an 'R + F-based' tax would allow net interest payments to be deductible but include the proceeds for net borrowing. A more detailed description of the various types of cash flow taxes can be found in the Meade Committee report published by the Institute for Fiscal Studies (1978).

classical type of corporation tax system that is confined to pure profits, so that corporation taxes also end up being levied on the normal returns on investments paid out by companies in the form of dividends. If dividends are also taxed at the personal level, companies financing decisions may be distorted. This creates an incentive for companies to finance investments either through debt, because interest payments are tax-deductible for corporation tax purposes, or by using retained earnings, because capital gains are taxed at the personal level only when they are realized and frequently at a lower rate, rather than through new share issues. The effect of this financial distortion on the incentive to invest is obviously dependent upon the extent to which marginal investments are actually financed by injections of new equity, which in turn depends on whether the firm (parent or subsidiary) is a new one, or one that is well established and has sufficient profits from which to finance the marginal investment. In so far as marginal investments are financed by retained profits, it does not matter whether a country operates a classical or an imputation system. What is more relevant is the taxation of capital gains from shares. This conclusion is in accordance with the new view of dividend taxation. By contrast, if marginal investments are financed by new equity, the type of corporation tax system is of great importance. This reflects the traditional view of dividend taxation.

However, it is not entirely clear which view is most appropriate. The new view is consistent with the fact that retained profits are the predominant source of equity finance for companies in OECD countries, even in those that provide relief for double taxation of dividends. On the other hand, the traditional view is probably more relevant for investment by newly established or immature subsidiaries that have relatively little retained earnings and are therefore more heavily dependent on injections of new equity from their parents in order to finance new investment.

IV — Taxation and the intra-Community allocation of investment

The absence of tax neutrality with respect to the location of investment within the Community constitutes a potential impediment to the realization of the full benefits from the completion of a single internal market. By according preferential treatment to domestic investments, or by discriminating against investments in some Member States, non-neutral tax rules can distort the allocation of capital within the Community. Resources are misallocated in so far as capital inputs are directed from their most productive uses — that is, those with the highest rates of returns before taxes — to locations where such inputs are less productive, but yield greater after-tax returns as a consequence of their relatively favourable tax treatment. The resulting economic inefficiency manifests itself in reduced capital productivity, which impairs the Community's international competitiveness, and lower levels of total output and living standards in the Community as a whole.

There are two, sometimes competing, sometimes complementary, principles concerning the proper basis for tax policy with respect to locational efficiency in the Community and worldwide. These principles are commonly known as 'capital import neutrality' (CIN) and 'capital export neutrality' (CEN). If marginal effective tax rates on investment income were identical across Member States, CEN and CIN would be accomplished

simultaneously. Since it is unrealistic to expect such far-reaching tax harmonization in the foreseeable future, the following question arises: under which circumstances should the Community aim for CIN, and under which circumstances is CEN more appropriate?¹ Each principle has its own implications for the taxation of cross-border income flows.² While there is no agreement as to which principle of neutrality is the appropriate basis for tax policy, with both principles being reflected in Member States' tax legislation, the two notions of neutrality provide useful benchmarks for evaluating the intra-Community allocative efficiency of Member States' existing tax regimes and the effect of any tax changes. Chapter 4 assesses the extent to which Member States' tax regimes diverge from CIN and CEN.

Capital import neutrality (CIN)

CIN requires that the marginal effective tax rate on suppliers of capital in any given country be the same, irrespective of the suppliers' nationality.³ With this type of tax neutrality, international capital mobility would tend to equalize the after-tax returns obtained by savers across different countries, thereby ensuring an efficient allocation of savings between countries.⁴

CIN also ensures that domestic multinational enterprises are not placed at a competitive disadvantage compared to foreign firms in markets abroad. Such a situation could arise if, in accordance with CEN, a domestic multinational investing in a relatively low-tax country had to pay tax at the domestic rate on the resulting income. This could be considered unfair to domestic multinational enterprises because it would impair their ability to compete with local firms, or with multinationals based in other countries that do not tax foreign income. Since competition among multinationals is an important element of Community policy aimed at achieving greater economic efficiency, it follows that tax policy should not distort competition by discouraging the most efficient multinationals from establishing their production facilities in what would otherwise be the least cost location. No discouragement of this kind would occur if CIN were the basis for Member States' tax policy with respect to multinational firms.⁵

In the absence of any tax discrimination between domestic and foreign firms in the capital-importing country (that is, the country where the investment is undertaken), CIN is achieved if income from investment abroad is exempt from taxation in the capital-exporting country (that is, the country where investors reside) and the source

¹ The choice between CIN and CEN as a basis for taxation may depend on a wide range of factors, including whether direct or portfolio investment is involved, the manner in which the investment is financed, the type of investor, and whether a country is a net capital importer or exporter. These factors are quite apart from any considerations concerning fairness or administrative feasibility.

² A third principle of locational tax neutrality involves national neutrality (NN). Advocates of NN argue that foreign taxes should be regarded as costs of employing capital abroad. Such taxes should therefore be deductible for domestic tax purposes, just like any other expenses. However, the Committee does not consider this principle to be an appropriate basis for tax policy in the Community, as it discriminates against cross-border investment. See Frisch (1990) for a more detailed discussion of NN.

³ It is not necessary for all countries to have the same tax rate.

⁴ See OECD (1991).

⁵ It is noteworthy, however, that the Commission has not hitherto concerned itself with matters involving reverse discrimination. The latter situation arises where a Member State chooses to impose restrictions on its own firms or individuals in the conduct of their domestic business that are not imposed on foreign firms.

of income is easily determined. This approach reflects what is known as the 'source' or 'territorial' principle of taxation. According to this principle, a government taxes all income originating within its jurisdiction, regardless of whether that income accrues to residents or non-residents.

If, in accordance with the principle of CIN, foreign income were tax-exempt, domestic firms and capital owners would have an incentive to invest in relatively low-tax countries. As a consequence, too much capital would flow to low-tax locations, with the result that it might be less productive on a before-tax basis, at the margin, than capital used domestically.¹

Capital export neutrality (CEN)

In contrast to CIN, the principle of CEN reflects the goal that tax policy ought not to affect the decisions of businesses or individuals as to where they should invest. Ideally, this would require a tax regime in each Member State that multinational firms and individuals could ignore when making decisions on whether to invest at home or abroad, and therefore, presumably, undertake investment in the least-cost location. This goal is achieved by ensuring that investors pay the same taxes no matter where their investments are located. Under such tax rules, and other things being equal (which is seldom the case), free mobility of capital would tend to equalize the required pre-tax rates of return on investment across Member States, thereby eliminating differences in the cost of capital, and thus intra-Community distortions in the demand for capital.² If pre-tax rates of return are equalized between Member States, no gain in output could be accomplished by reallocating capital from one State to another.

CEN would be achieved if income were taxed only in the investors' country of residence, and if there were no discrimination between domestic and foreign-source income in the capital-exporting country. Such a basis for taxing international income is known as the 'residence' or 'worldwide' principle. According to this principle, tax is levied on all income accruing to domestic residents, regardless of whether that income is from domestic or from foreign sources.

Where taxes are levied at source by the capital-importing country, CEN would also be achieved if foreign taxes could be fully offset against domestic taxes on foreign-source income, so that net domestic tax is payable only to the extent that domestic tax liabilities on the same income, had it been earned at home, would have exceeded the foreign taxes actually paid. In this case, total foreign and domestic taxes on income from foreign investment would equal domestic taxes payable on income from capital used at home. Such a situation would arise if firms and individual investors were taxed on the basis of their residence, with relief for international double taxation being

¹ Multinational firms usually, but by no means always, prefer the exemption method because it enables them to take full advantage of tax incentives for investment provided by the capital-importing country, and of lower taxation in that country. By contrast, the credit method does not always enable multinational firms to take advantage of such incentives and lower taxation. See Business and Industry Advisory Committee to the OECD (BIAC) (1990).

² See OECD (1991). However, if the elasticities of saving and investment are roughly identical across Member States, tax distortions will be minimized by neither CIN nor CEN. The 'optimal' taxation of cross-border investment income will instead lie somewhere in between the benchmarks implied by CIN and CEN. See Horst (1980).

granted by means of a full credit (refundable if necessary) for foreign taxes without any deferral.

In practice, however, foreign tax credits are limited to the amount of tax that would have been paid domestically, and domestic taxes on foreign-source income can generally be deferred until the income is actually repatriated by the parent company from its subsidiary. Consequently, the credit method of providing relief for international double taxation can have an outcome that is similar in effect to the exemption method. Moreover, not only is residence-based taxation, which involves credits, more difficult to administer than source-based taxation, but in the absence of exchange of information between national tax administrations, it can be extremely difficult, and in some instances impossible, to enforce. Not surprisingly, therefore, and as pointed out earlier, most Member States use a combination of both methods of taxation with respect to foreign-source income.

Of course, for many reasons, some of which have already been mentioned, it may be that differences in taxation between Member States have little, if any, effect on the location of investment, a key issue that will be addressed at greater length in Chapter 5. Taxation may instead affect the manner in which investments are financed, and result in other forms of tax planning behaviour that serve to minimize investors' tax liabilities. The scope for such behaviour is examined in Chapter 6.

V — Distributive aspects of taxation

Two equity-related problems arise in connection with the taxation of intra-Community flows of income from capital. Considerations of fairness are relevant both to the distribution of tax revenue among Member States, and to the tax treatment of different types of income as far as individual taxpayers are concerned.

Inter-country equity

Inter-country equity can be defined as the equitable distribution of tax revenues between capital-importing and capital-exporting countries. However, such a concept provides little guidance to tax policy because it is often difficult to argue that one distribution of tax revenue among Member States is fairer than another. Fairness may be viewed as a problem only in so far as some distributions of tax revenue resulting from the greater mobility of factors and tax bases are politically unacceptable to certain Member States.¹

In practice, therefore, inter-country equity has traditionally involved the principles of source-country entitlement, non-discrimination, and reciprocity. As discussed in Section II, under the first principle the source country has the prior right to tax profits earned within its jurisdiction. This principle is consistent with the benefit criterion of taxation whereby source-based profit taxes are viewed as a quid pro quo for public infrastructure and services provided for businesses by the source country. The principle

¹ See Devereux and Pearson (1989).

of source-country entitlement can also be justified on the grounds that the proportion of businesses that are foreign owned is generally higher in relatively poor countries than in richer countries.

Under the second principle, countries agree usually on a bilateral basis not to discriminate against foreign firms and shareholders in their tax laws. Discriminatory tax laws also contravene the Treaty of Rome. (See, for example, Articles 52, 58, 67, 220 and 221 of the Treaty.)

The principle of reciprocity usually refers to equality of the rates of withholding tax levied on interest, dividends, and royalties by contracting States, although in a wider sense of reciprocity, mirror-image rates of withholding tax may be abandoned for some other concession, or lack thereof (e.g. the non-granting of imputation credits to non-residents). This broader definition of reciprocity is known as effective reciprocity; that is, the equality of effective tax burdens on foreign-owned investment between countries. For example, it might be appropriate for one country to use a flexible or variable withholding tax to compensate for the difference between two countries' tax regimes. Thus, a country with a relatively low corporate tax rate might be expected to apply a relatively high rate of withholding tax on dividends, and vice versa. It is interesting in this regard that, notwithstanding the 1990 Directive abolishing withholding taxes on dividends paid by a subsidiary to its parent, Greece will still be allowed to levy such a withholding tax for as long as it does not subject distributed profits to corporation tax.

Taxpayer equity

As far as individual taxpayers are concerned, greater capital mobility could reduce Member States' ability or willingness to levy source-based taxes on dividends and interest earned by non-resident capital owners, if the latter are not actually subject to tax in their country of residence. Foreign capital owners may be exempt from tax in their country of residence either because that country specifically exempts foreign income from tax, or because they can conceal foreign income from domestic tax authorities.¹ Such a situation could lead to the erosion of the capital income tax base and insufficient taxation of capital income both in individual Member States and in the Community as a whole. The burden of capital income taxes might instead be shifted to relatively immobile factors, such as labour, land, and real estate, or to consumers. As a result, the capacity of Member States to tax income from capital on the basis of recipients' ability to pay, or at all, could be undermined, thereby jeopardizing the fairness, and thus the acceptability, of their income tax laws.

¹ Concealment of foreign income from tax authorities constitutes tax fraud. The free movement of capital within the Community, together with the existence of bank secrecy and blocking laws, will increase the potential for tax evasion by individuals. If Member States are unable to collect taxes on the foreign-source income of their residents, and at the same time are reluctant to impose withholding taxes on the interest income of foreign investors, perhaps due to their desire to attract or retain financial service industries, portfolio investment income may escape tax altogether. Countries appear to be much more inclined to levy source-based taxes on dividends than on interest. Such taxes are either in the form of corporate income taxes, withholding taxes, or a combination of both. Needless to say, the nature of tax evasion is such that it is extremely difficult to quantify it.

Such a problem would not arise where residence-based taxes can be implemented (at either the national or Community levels); that is, those involving the pure credit method of providing relief for double taxation of international income. Under residence-based taxation, two taxpayers with the same worldwide incomes residing in the same Member State pay identical amounts of tax, regardless of the division of total income between domestic and foreign sources. Consequently, not only would the full credit method accomplish CEN, it would, in theory, also lead to an equitable tax treatment of individuals in any given country.

VI — Tax planning

The creation of a single internal market together with the increased integration of the world economy pose potentially serious problems with respect to an individual Member State's ability to defend its tax base against other countries. Quite aside from the obvious problem of revenue loss caused by the flight of mobile factors from a Member State in response to taxation, the ability of governments to levy taxes is more likely to be undermined by the greater potential for tax planning as barriers to mobility are removed. Tax planning also gives rise to concerns among taxpayers about the fairness of tax laws. Issues related to tax planning are discussed more fully in Chapter 6.

Tax arbitrage

The greater the mobility of financial capital between Member States, the greater are the opportunities for international tax arbitrage and 'treaty shopping' that arise as a consequence of differences in the tax treatment of various investors and alternative investments.¹

While opportunities for international tax arbitrage already exist, the scope for such activities is likely to increase as a result of the removal of barriers to cross-border financial flows associated with the creation of a single internal market, which is exacerbated by carefully targeted tax advantages offered by Member States. This has important implications for the Community. In the absence of a sufficient degree of tax harmonization, it could seriously undermine the revenue-raising capacity of Member States. Of course, the revenue losses of some Member States will to some extent offset the gains in others. However, the total amount of taxes collected in the Community could drop as capital owners seek the lowest tax rates.

The greater scope for tax arbitrage is also undesirable from an economic efficiency standpoint, because it encourages taxpayers to devote real resources to tax avoidance activities involving cross-border financial flows.

Needless to say, the existence of cross-border tax arbitrage possibilities and a rough calculation of the associated tax saving do not constitute proof that such arbitrage does in fact take place on a wide scale. Transaction costs, lack of information, and

¹ For some examples of tax arbitrage opportunities, see Giovannini (1989) and Slemrod (1988, 1990).

other remaining impediments to capital flows might offset the benefits from tax arbitrage. Still, any narrowing of the differences in tax bases and statutory tax rates between Member States would obviously reduce the potential for tax arbitrage activities.

Transfer-pricing and profit allocation between countries

In order to administer source-based taxes effectively, Member States must have clearly defined rules for calculating the amount of income earned within their jurisdictions, so that the global profits of multinational enterprises can be allocated among them. To determine where profits have been earned, tax authorities have traditionally relied on separate accounting methods and required that multinational firms adhere to the 'arm's-length' standard. According to the 'arm's-length' standard, the appropriate transfer price for transactions between various related parts of a firm is whatever price would have prevailed if those related parts of the firm had not in fact been related. The 'arm's-length' standard is essentially a fair market value criterion that requires the hypothetical determination of prices.

While transfer-pricing is a necessary business practice in integrated groups of firms, it can sometimes be very difficult to ascertain the correct range of 'arm's-length' prices, because there may be no comparable market prices for the transactions in question. Hence, in some cases, the determination of such prices may be extremely subjective and, therefore, controversial. A similar problem arises with respect to the correct allocation of common overhead costs among the related parts of a multinational firm. Consequently, the use of separate accounting methods for determining taxable profits may present firms with the opportunity to shift profits from high- to relatively low-tax countries by adjusting transfer prices, and by allocating overhead costs and interest payments to subsidiaries or branches in relatively high-tax countries, thus reducing the firm's overall tax burden. The problem of profits being shifted to comparatively low-tax jurisdictions through what is sometimes euphemistically referred to as 'creative' accounting practices will be compounded by the increased cross-border integration of business activities within the Community. In the longer term, this will tend to make it increasingly difficult to determine taxable profits separately for each part of a multinational enterprise in every Member State on the basis of separate accounting methods.

If such manipulative accounting is considered to be a serious problem, which is by no means obvious, the implication for international tax policy is that Member States should operate a residence-based tax alongside a source-based tax, because the residence-based tax limits the incentive for multinationals to report taxable income in low-tax countries. Unfortunately, the simultaneous use of source- and residence-based taxes results in double taxation. This problem is compounded by the fact that source-based taxes often give rise to disputes over transfer-pricing and other intra-firm transactions across borders, when different Member States apply different rules for the pricing of intra-firm transactions. Hence, there is a need for some form of arbitration procedure to ensure that an upward adjustment by one Member State to the profits of a multinational enterprise is accompanied by a corresponding downward adjustment in another State, as provided for in the recently adopted arbitration procedure Convention.

VII — Administrative aspects of taxation

The existing tax differences between Member States also have administrative implications in a single market. Of particular relevance are problems involving enforcement, taxpayer compliance costs, and uncertainty.

Enforcement

As mentioned earlier, national tax authorities probably find it more difficult to levy taxes on activities undertaken in other Member States. Hence, source-based taxes are easier to administer than residence-based taxes. Since the establishment of a single market will undoubtedly encourage cross-border activities, it follows that those Member States relying on residence-based taxes are likely to incur higher enforcement costs as a result. On the other hand, source-based taxes inevitably encounter problems of their own when separate accounting methods are used to determine where the profits of an integrated multinational firm are earned, particularly if wide differences in taxation exist across Member States. Not only do source-based taxes tend to induce multinational firms to shift profits from high- to relatively low-tax countries (using the various methods discussed in Chapter 6), they also encourage tax competition between Member States.

Taxpayer compliance costs

With regard to taxpayer compliance costs, whilst they are difficult to measure, it is evident that the simpler the tax laws, the less these costs will be at both the domestic and international levels. The greater the differences in tax rules between Member States, the higher the overall costs of compliance, which can be especially onerous for small and medium-sized businesses as well as for small investors, thus discouraging them from making cross-border investments.

Certainty

Another important problem for businesses, and therefore an impediment to investment, concerns the lack of certainty surrounding Member States' tax rules. Such uncertainty arises not only as a consequence of frequent changes in tax legislation and its interpretation, but also as a result of the interaction between taxation and inflation (in the absence of indexation) and differences in inflation rates among countries. An additional source of uncertainty with respect to cross-border activities is the fact that Member States can unilaterally adjust transfer prices on intermediate products and services flowing across borders within a multinational firm, and that these adjustments may not be offset by a corresponding change by another Member State, a practice that the recently agreed arbitration convention is designed to address.

VIII — Transparency

As the freedom of individual Member States to influence the allocation of resources within the Community through direct subsidies becomes increasingly limited as a result of closer scrutiny of such measures by the Commission, States may instead become more inclined to resort to tax incentives. The hidden nature of many tax incentives works against the principle of transparency, which is essential to ensure accountability of governments in democratic societies and thereby to minimize administrative discretion.¹ Hidden incentives tend to hamper the establishment of the internal market by distorting competition within the Community.

IX — The effectiveness of tax incentives

The final point in the previous section raises the important question as to whether taxation affects the ability of firms in Member States to compete within the Community as well as in third countries. One of the main arguments made in favour of tax reductions for business investment is that they will somehow improve a given country's international competitiveness by increasing its attractiveness to foreign investors, or by reducing the overall tax burden, and thus the tax-inclusive production costs, of domestic firms.

The tax incentive (or disincentive) to new investment depends on a country's marginal effective tax rates and cost of capital relative to those of other countries. Marginal effective tax rates and the cost of capital depend not only on statutory tax rates, but also on the rules concerning the computation of taxable income and tax credits, and the degree to which tax liabilities are adjusted for inflation. Thus, a country wishing to attract new investment can attempt to do so by using a variety of different measures, including reductions in statutory tax rates, accelerated depreciation allowances, and investment tax credits. However, such measures have drawbacks, and under certain conditions may be totally ineffective.

In the case of foreign multinational firms that are taxed in their own countries on a residence basis (that is, they receive a full credit for taxes paid abroad), tax cuts would have no effect on the incentive to those firms to invest in the country offering such tax relief. They merely transfer revenue from the latter country's treasury to foreign treasuries. Consequently, the existence of residence-based taxes, particularly in major capital-exporting countries (like the United Kingdom, the United States and Japan), limits the effectiveness of tax incentives in attracting foreign investment.

On the other hand, if the foreign multinationals at which the tax incentives are aimed are in an excess foreign credit position (that is, their foreign tax liabilities exceed the credits provided by their country of residence) and excess credits are not refundable, or if taxes on repatriated dividends can be deferred, then tax incentives can reduce marginal effective tax rates and the cost of capital, thereby increasing the attractiveness of a country for new investment.

An equivalent situation arises if the multinational's home country exempts foreign-source income from tax. Even in this situation, however, a strategy involving the use

¹ During the 1960s, concerns about such tax breaks spawned the development of 'tax expenditure' accounting, which attempts to place such tax breaks on a comparable footing to direct subsidies.

of tax incentives to attract foreign investment may turn out to be a beggar-my-neighbour policy, which could be vitiated if other countries react by introducing similar incentives.

In any event, a country that implements tax incentives for new investment would tend to experience a drop in its tax revenues, at least in the short run. From the government's standpoint, the loss of tax revenue needs to be compared with the actual amount of investment that is induced by tax incentives, so that their effectiveness can be assessed.¹ (The revenue loss might, of course, be offset if the tax incentive involves a cut in the statutory tax rate, because this could induce an inward flow of taxable income as a result of tax planning and possible manipulative accounting practices by multinational firms.) In this regard, there appears, for once, to be broad agreement that, in the absence of any significant financing constraints, cuts in statutory tax rates result in less new investment for a given amount of forgone tax revenue than accelerated depreciation allowances or investment tax credits.² But, even in the case of accelerated depreciation allowances and investment tax credits, empirical evidence suggests that the tax revenue forgone generally exceeds the amount of long-term investment attributed to such incentives.³ On the other hand, in a situation where capital market imperfections result in severe constraints on firms' ability to finance new investment from external sources, cuts in statutory tax rates assume a greater importance, since they increase the amount of retained earnings available to finance new investment.

If the tax revenue forgone by a Member State as a result of its implementing investment incentives is not made up by raising other taxes, then the country's budget deficit will increase, unless public expenditures are cut by an equivalent amount. In so far as any increased budget deficit is financed from abroad, there will be a tendency for the country's real exchange rate to appreciate, at least in relation to third countries. This appreciation would tend to make the Member State's tradable goods and services more expensive in relation to foreign tradable goods, thus leading to a decline in its international competitiveness as far as goods and services are concerned. Any consequent deterioration of its trade balance would reinforce the similar deterioration resulting from whatever inflow of new investment is attributable to the tax incentives. Hence, not only is the effectiveness of tax incentives in stimulating investment rather dubious, but such incentives can have unintended adverse side-effects on a country's international competitiveness with respect to goods and services.

¹ The forgone tax revenue (or 'tax expenditure') as a proportion of the amount of investment expenditure attributable to a particular tax incentive is a measure commonly used by governments to evaluate the cost-effectiveness of such incentives.

² This outcome can be explained by the fact that, although cuts in statutory tax rates do encourage new investment by reducing the taxes paid on income from such investment, they also reduce the tax liability on income earned by existing capital, thereby resulting in windfall gains to owners of such capital. By contrast, tax credits and accelerated depreciation allowances can be limited to new investment projects. For further discussion of these points, see, for example, the testimony by Eisner and Jorgenson in the US Congress (1975), Auerbach and Summers (1978), Bird (1980) and Kopcke (1985). An extensive survey of the empirical literature in this regard can be found in the study by Chirinko (1987).

³ To the extent that incentives succeed in attracting new investment, and thereby generating new employment, tax revenues from employment income will rise, thus tending to mitigate any reduction in business taxes attributable to the incentives. At the same time, the creation of new jobs would reduce expenditures on unemployment benefits.

X — Implications of a single market for Member States' tax revenues: the problem of tax competition

One of the main issues that emerges is whether the creation of a single internal market and the increased integration of the world economy will lead to competitive pressures that result in the erosion of capital income taxation in the Community. This situation could arise if Member States become more reluctant to levy source-based taxes on income generated by capital located within their borders, so as not to induce such capital to move to relatively low-tax countries, and residence-based taxes on income from foreign sources can be evaded.

As mentioned in Section IV, if, in accordance with the source (or CIN) principle of international taxation, foreign income is exempt from tax, domestic firms and capital owners would have an incentive to invest in relatively low-tax countries. This would increase the likelihood of tax competition by countries in a bid to retain investment, thus resulting in a fall in effective tax rates.

By contrast, if, in accordance with the residence (or CEN) principle of international taxation, a credit is granted for foreign taxes paid, this limits the incentive for capital-importing countries to engage in tax competition in order to attract investment. Instead, the granting of a credit for foreign taxes increases the potential for capital-importing countries to extract tax revenues from the treasuries of capital-exporting countries, without discouraging investment from abroad. Such 'tax exportation' tends to exert upward pressure on tax rates in capital-importing countries, although this pressure is limited in so far as the credits allowed for domestic tax purposes fall short of the actual amount of foreign taxes paid. On the other hand, in the case of multinational firms, it should be noted that most countries using residence-based taxes require parent companies to pay taxes on profits earned by their foreign subsidiaries only when such profits are repatriated. This option of deferring taxes reduces the effectiveness of residence-based taxes in limiting tax competition. Moreover, to the probably limited extent that firms are likely to change their country of residence because of tax rate differentials, downward pressure will be exerted on tax rates in those countries where taxation is relatively high.

It follows that the existence in major capital-exporting countries of residence-based taxes, involving limited credits for taxes paid abroad, provides an impetus for the approximation of tax rates between capital-importing and capital-exporting countries. The impetus for the approximation of tax rates is particularly strong if there is a dominant capital-exporting country, whose tax regime then acts as a magnet for other countries' tax rates. During much of the postwar period, the United States filled such a role. But this is no longer the case, since the United States is now a large net importer of capital. In the absence of a single dominant capital-exporting country and in the increasingly integrated global economy, the question arises as to whether an alternative way of facilitating Community and worldwide tax stability needs to be found.¹ This issue is addressed in Chapters 7 and 8 of the report.

¹ See Gordon (1990).

XI — Obstacles to tax harmonization

In view of the wide differences in taxation between Member States and the tax problems posed by the establishment of the internal market with regard to economic efficiency, distributive fairness, administrative feasibility, simplicity, certainty and transparency, the question arises as to whether it is necessary or desirable to harmonize business taxation within the Community. This question is addressed in Chapter 10 of this report. Cooperation among Member States with regard to direct tax matters is currently confined to an extensive network of bilateral tax treaties, designed to alleviate double taxation of cross-border income flows and transactions, together with some exchange of information. Any attempt to achieve more comprehensive tax harmonization at the Community level would encounter a number of major obstacles, however.

Firstly, taxation is one of the few areas of Community policy where unanimity is required in order for new legislation to be implemented. Member States remain extremely reluctant to cede any of their sovereignty in tax matters to the Community (even though such sovereignty is being eroded in any case, owing to the increased integration of Member States' economies and by jurisprudence of the European Court of Justice concerning non-discrimination issues. This reluctance may be partly attributable to the fact that whereas national governments are currently accountable to their legislatures for taxation and expenditure matters, such democratic control is much weaker at the Community level.

Moreover, the choice of tax regime in each Member State is determined by different perceptions of the role of taxation in raising revenue and in serving as an instrument of economic and social policy. A State's choice of tax regime also reflects its own views concerning the economic efficiency, fairness, feasibility and acceptability of various taxes and types of tax measures, as well as its perceptions of other countries' likely reaction to its particular use of tax policy instruments. The existing tax diversity across Community countries is the outcome of trade-offs between such considerations, which also reflect differences in national preferences for one tax over another, and differences in economic and social structures. The overall level of taxation in each Member State depends on its revenue requirements and capacity to levy taxes.

Secondly, in accordance with the movement towards greater economic and monetary union, Member States will have to relinquish control over monetary and exchange rate policies, in addition to their earlier surrender of control over tariff and trade policy. The burden on tax and expenditure instruments for the achievement of short-term stabilization and long-term adjustments will therefore increase, if individual Member States wish to pursue independent social and economic policies.

Thirdly, the prospect of increased harmonization of national tax laws within the Community would be difficult to accept for any Member State which expects to experience serious losses in tax revenue, investment, or employment as a result. In order to be acceptable, therefore, any proposals to harmonize taxation may have to be accompanied by established mechanisms that have been designed to ensure the economic and social cohesion of the Community, and which exist in federal countries, such as Canada and Switzerland.

Fourthly, the increased mobility of capital throughout the world means that any efforts to harmonize the taxation of dividend and interest income within the Community could result in the flight of capital and the tax base to countries outside the Community, if

taxes in the Community were harmonized at relatively high levels. Hence, tax harmonization should not lead to a situation where Member States' tax rules are too far out of line with those of the Community's main trading partners. Furthermore, any harmonization achieved at the Community level should be sufficiently flexible to enable the Community to take appropriate action in response to major tax changes in non-member countries (as happened after the 1986 Tax Reform Act in the United States).

Fifthly, taxes that appear to be identical on the statute books may differ widely in practice owing to differences in effective enforcement by tax authorities. Therefore, even if the tax base and statutory tax rates were ostensibly identical, actual tax rates may vary widely across the Community, depending on the different degrees of enforcement and taxpayer compliance.

A similar type of problem arises concerning the scope of application of the corporation tax in different Member States. Even if corporation tax bases and statutory tax rates were harmonized throughout the Community, the number and the nature of businesses subject to the tax, and thus its potential economic impact, would differ considerably between, for example, the Netherlands, where many, even small, businesses are incorporated, and Germany, where many businesses, including some very large ones, are unincorporated. Since the tax bases for incorporated and unincorporated businesses are very similar within each Member State, if both tax bases and statutory corporation tax rates were harmonized, differences in effective tax rates between Member States would arise only in so far as the personal tax rates applicable to proprietors of unincorporated businesses differed across countries.

XII — Conclusions

The remainder of this report is devoted to an assessment of the significance of the distortions attributable to differences in Member States' tax laws, and the attendant problems that arise in the context of the internal market. Three types of distortion need to be distinguished.

The first type of distortion involves investment decisions. Differences in business taxation between Member States are reflected in the pattern of marginal effective tax wedges and the associated cost of capital across the Community. As explained in more detail in Chapter 4, the cost of capital, or 'hurdle' rate of return, is the minimum inflation-adjusted pre-tax rate of return that an investment project must earn in order for it to be profitable. Clearly, the cost of capital has an important bearing on the incentive to undertake marginal investments. What is of particular concern to the Committee in this regard is the extent to which Member State's tax laws discriminate against foreign investment. Also of interest, however, is the degree to which the tax burden on purely domestic investment varies among Member States, and how such burdens compare with those in non-EC countries.

A second category of distortion relates to cross-border transactions, especially those involving transfer-pricing adjustments and the diversion of financial flows as a consequence of differences in taxation between Member States. Chapter 6 focuses attention on this particular category of distortion.

The third type of distortion concerns impediments to foreign operations arising as a result of the costs to taxpayers of complying with the various complexities of tax laws in more than one country.

The crucial issue that needs to be addressed, therefore, is the extent to which the foregoing distortions are likely to be reduced or eliminated in the internal market simply through the interplay of market forces and competition between national tax regimes, or whether instead, or in addition, some form of concerted action is necessary at the Community level in order to alleviate such distortions.

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Chapter 3

The taxation of business income in the European Community and its main trading partners

I — Introduction

This chapter provides a brief summary of the key features of business taxation in the European Community and in some of its main trading partners. The description relates, unless otherwise indicated, to the legislation in force on 1 August 1991.

It mostly provides an overview of the corporate business taxation, providing details of the structure of countries' corporation tax rates, the tax base, the nature of corporation tax systems, the domestic and international taxation of groups of enterprises and some other specific items.

There is also a brief description of the taxation of unincorporated businesses and of SMEs (both corporate and unincorporated businesses). Details of the taxation of individuals' investment income are largely confined to Annex 3A.

Recent measures proposed by the Community to remove obstacles to transborder activities are mentioned where appropriate.

The importance of the national corporate income tax compared to other tax receipts is illustrated in Table 3A.1. An analysis of trends is given in Chapter 8.

Some basic tables are contained in this chapter. Other tables are referred to in the text, but placed in Annex 3A. Most of the information is based on data contained in the recent OECD report 'Taxing profits in a global economy', completed and updated by the Committee members and national administrations. Whenever reference is made to non-EC countries in this chapter, the commentary is restricted to the countries shown in the relevant tables.

II — Taxation of incorporated businesses

Scope of application of corporation taxes

Companies are liable to corporation tax if they are incorporated in a Member State or have a registered seat or place of management in the country. The most common form of business company, which exists in all Member States, is the limited liability company. A detailed list of legal forms liable to corporation tax within the Community is given in Table 3A.2 of Annex 3A. Table 3A.3 shows the evolution of the number of companies in the two most important legal forms in each country from 1986 to 1990. With the

exception of Spain, private companies are of greater importance in all Member States than public corporations.

The scope of application of corporate taxes is far from uniform throughout the European Community. Generally speaking, corporations are always subject to corporate income tax. Limited companies may, however, be subject to personal income tax or to corporate tax. The tax base of these latter companies is always calculated in accordance with the tax rules of the corporate income tax. Where they are subject to the personal income tax the total amount of taxable profit (distributed and retained earnings) is taxed directly as business income to the shareholder in proportion to the holding in the company's capital.

Structure of corporation tax rates

All countries levy corporation taxes at the central government level. The rates vary in the EC from 33 to 50%, except in Ireland, where in some cases (manufacturing and certain internationally traded services), the rate can be as low as 10% (Table 3.1). In other countries, the rates vary from 30 to 38% except in Switzerland, where it is lower. Reduced rates are also levied on firms making small profits in Belgium, the United Kingdom and in non-EC countries, Canada and Switzerland.

No EC country levies income tax at the intermediate level, although four countries (Germany, Italy, Luxembourg and Portugal) levy income tax at the local level. Within Germany and Luxembourg the rates at the local level vary from one subnational level to another. The tax revenue raised by the federal government in Germany is shared between the *Länder* and the federal level (for the purpose of this chapter, however, a specific jurisdiction is chosen). Only in Portugal are local taxes not deductible in computing central government taxes. Canada, Switzerland and the United States levy corporation tax at the intermediate (i.e. province, canton, State) level while Austria, Japan and Switzerland levy such a tax at the local level.

Overall the corporation tax rate is between 34 and 57.5%¹ in EC countries (except in Ireland as already noted). In non-EC countries the overall tax rate ranges between 30 and 49.98% (except Switzerland).

III — Corporation tax base

Definition of taxable income

Taxable income is calculated in similar ways under the different tax regimes. Income arising from all sources, including business or trading income, as well as non-business income, is normally included in the base. Although the concept of income is usually not defined, taxable income is, as a rule, computed on the basis of ordinary principles of sound commercial accounting practice, and is generally based on the profits shown in the company accounts. In a number of EC countries (Belgium, France, Spain,

¹ In Germany the overall tax rate can be higher depending on the particular subjurisdiction.

Germany, Greece, Luxembourg and Italy) the annual accounts determine the amount of taxable income unless the tax statutes provide otherwise, while in others (Denmark, Ireland, the Netherlands and the UK) there is no explicit linkage between both sets of accounts. In order to arrive at the profit for tax purposes, some adjustments are often required by statute.

The general rule is that expenses incurred in earning taxable income, and in maintaining the assets used in the company's activities, are deductible.

In all Member States there are some measures which have the effect of correcting for inflation, although none provides a complete correction. The rationale for such an adjustment is primarily that it prevents effective tax rates on investment income from depending on the rate of inflation in ways that vary across asset types, industries, and methods of finance. Inflation correction may be particularly relevant in the treatment of depreciation, stocks, working capital gearing and capital gains.

In practice, however, the objective of taxing real income is achieved in a somewhat mixed way in most countries, e.g. capital gains are partly exempt, but taxation is at the same time based on nominal gains; depreciation rules and rates may be favourable (e.g. accelerated depreciation), but depreciation allowances are at the same time based on historical cost. As regards the treatment of stocks, the use of the LIFO method in some countries provides some adjustment for the impact of inflation on the cost of stock replacement.

Correcting for inflation is inevitably complex, because for example, of the need to design indexing procedures. This complexity is probably one of the main reasons why actual methods are rather unsystematic.

Treatment of interest

Interest payments are deductible in all Member States if incurred for business purposes, and if the capital amount is used for generating taxable income (Table 3A.4). Belgium and Portugal provide for some restriction on the amount of interest that may be deducted. Italy only allows interest payments to be deductible up to an amount corresponding to the ratio of gross taxable income to total gross income.

Treatment of trading losses

All EC countries allow a company to carry forward trading losses (Table 3A.5). The number of years over which trading losses can be carried forward ranges from five years to an indefinite period. Five Member States (Germany, Ireland, the Netherlands, the United Kingdom, and France) also allow a carry-back, varying from one to three years. All other non-EC countries allow a carry-forward from seven years to an indefinite period, and some allow a carry-back from one to three years. In some countries there are, however, limitations for certain types of losses. Further aspects of the treatment of losses are considered in a background paper (Annex 3B).

Treatment of capital gains and losses

Most EC countries provide for taxation of corporate capital gains at the full corporate tax rate, though a number of countries exempt capital gains which are reinvested in the corporation, or require a minimum holding period after which a special tax rate is

applied. Most other non-EC countries tax the corporate capital gains at the full corporate tax rate except Canada (Table 3A.6).

Belgium, Germany, Italy, Luxembourg, the Netherlands and Spain treat capital losses as ordinary losses, which can be carried forward (or eventually carried back). By contrast, in France, a distinction is made between short-term and long-term capital losses; only the former can be considered as ordinary losses. In Portugal only capital losses not connected with the sale of fixed assets are treated as ordinary losses (Table 3A.7).

Depreciation allowances

An allowance for the depreciation of assets is given in all countries. The large number of special provisions and exceptions currently in existence are not detailed here. Table 3A.8 provides only a summary of the main features of present depreciation systems (mainly straight-line and declining-balance methods). In a number of cases, the depreciation method is optional, and the rate varies over time for a given asset and between different types of assets.

A neutral depreciation system would provide depreciation for tax purposes corresponding to actual economic depreciation which takes into account the wearing out of all assets, as well as obsolescence.

Stocks

There are a variety of methods to value stock for tax purposes (e.g. actual cost, weighted average price, LIFO, FIFO, indexed FIFO, etc.), although essentially these are mostly variants on the LIFO/FIFO methods. Inventories can be valued according to the FIFO method in all EC countries. The LIFO method is allowed in nine countries (Belgium, Denmark, France, Germany, Greece, Italy, Luxembourg, the Netherlands, Portugal) though four (Belgium, Denmark, France, Luxembourg), impose more or less severe restrictions on the use of this method (Table 3A.9).

Treatment of provisions

The rules for the treatment of provisions (Tables 3A.10 and 3A.11) vary considerably from one country to another. National legislations normally authorize the creation of certain provisions. Germany, the Netherlands, and Luxembourg could be considered as liberal while countries such as Italy, Belgium and France are rather restrictive. According to some estimates, the percentage of the tax-free provisions as a proportion of balance sheet value is 27% in Germany and only 6% in Italy and Belgium.

Treatment of goodwill

The tax treatment of goodwill varies widely across countries (Table 3A.12). Only three Member States do not have any provisions for depreciation of goodwill (Ireland, Portugal, and the UK). Three countries (Denmark, Germany and Italy) provide specific,

but various depreciation systems; in Italy, for example, a depreciation system for goodwill is possible only in the case of the acquisition of a business. Belgium, France, and Luxembourg require proof of diminished value. In the Netherlands depreciation of acquired goodwill is allowed in five years (straight-line). However as long as the total value of goodwill does not go below the price paid for acquired goodwill, there is no obligation to depreciate. Greece also allows a specific form of depreciation, and where available, the depreciation is always on a straight-line basis.

Tax payment

The effective tax burden on an enterprise is determined not only by the way the tax base is calculated, and statutory tax rates, but also by the time-lag between the time the income was generated and the tax on that income paid over. Substantial differences exist across countries in the timing of tax payments (Table 3A.13). Nine Member States require regular instalments. Only in Denmark, Ireland and the UK is tax paid after the end of the fiscal or accounting period.

Special incentives

Investment relief can be provided in different ways (Table 3A.14). Such relief can be in the form of accelerated depreciation allowances, where the whole or part of the investment cost is deductible from taxable income; or it can be in the form of credits, which are deducted from tax liability, and which may be either refundable, (i.e. is, paid out to the company in cash in so far as the credit exceeds the tax liability), or non-refundable. Finally, investment relief could take the form of cash grants. Allowances are available in Greece, the Netherlands, and Belgium, while credits are available in Luxembourg and Spain. General cash grants are not provided in any EC country.

Current expenditure on research and development is generally deductible in the year in which it is incurred. When research results or patents have been bought, costs must often be spread over a number of years. Research assets qualify for accelerated depreciation or shorter agreed useful lives in a number of countries (e.g. in the United Kingdom), whereas in others (e.g. France) special tax credits apply.

Certain countries have special tax regimes for specific locational zones. In these limited areas significantly reduced tax rates, or additional allowances such as for accelerated depreciation, may apply. Generally these provisions are also of limited duration. Some examples are the Shannon Free Airport Development Zone, the Dublin International Financial Services Centre in Ireland, the special enterprise zones located near Dunkirk, Aubagne-La-Ciotat and Toulon La Seyne in France, the enterprise zones in the United Kingdom, the reconversion zones and T-zones in Belgium, and the free zones of Madeira and Santa Maria Island in Portugal.

Almost all Member States have special incentive provisions designed to foster regional development. An example is the 10-year exemption from local taxes for new or expanding manufacturing activities in the Mezzogiorno region of Italy.

A number of Member States (Belgium, Ireland, and Luxembourg) have created special advantages for financial and management activities. These advantages may be in the form of partial or total exemption from corporate tax, special definition of the tax

base, etc. The changing availability of special allowances is briefly considered in Chapter 8.

IV — Integration of corporation and personal taxes

Corporation tax systems

Corporate tax systems are generally classified by reference to how they interact with the personal income tax. On this basis, Table 3.2 sets out in a simplified way central government corporate tax systems actually in operation, placing each within three broad categories.

The first category includes classical systems which provide no relief for distributed profits at either company or shareholder level, as well as other systems (modified classical) which have shareholder relief provisions which bear no relation to the amount of corporate tax paid on distributions.

The second category, imputation systems, includes those where there is a direct link between the credit given to the shareholder in respect of dividends received and the corporation tax paid by the distributing company. Full imputation refers to the case where all the domestic corporate tax on distributed profits is reflected in the shareholder's credit. Otherwise the system is one of partial imputation. Since in the real world distributions are not restricted to the amount of taxable profits, these systems normally involve an imputation tax of one form or another. These are described further below.

The third category includes systems which provide some relief at the company, rather than the shareholder level (though it should be noted that Germany does both). The dividend-deduction method is where a deduction is made from the corporate tax base in assessing tax to be paid on profits. A split-rate method provides for a lower rate of tax on distributed profits than on retained profits. Under the zero-rate method, no corporation tax is charged at all on distributed profits.

Imputation taxes, mentioned above, ensure that all dividends paid out, and for which the shareholder receives a tax credit, have actually been subject to domestic corporate tax. These taxes include *précompte* in France, *imposta di congualio* in Italy, equalization tax (*Ausschüttungsbelastung*) in Germany, and advance corporation tax (ACT) in Ireland and the UK. However, these taxes do not normally take into account foreign corporate taxes already borne when foreign-source income is redistributed. Although the systems work in different ways, the effect is that imputation tax has generally to be paid when foreign-source income is redistributed, so that overall, foreign-source income is taxed in much the same way as under a classical system. The UK/Irish systems highlight this, because the imputation tax (paid at the time distribution is made) is creditable against corporation tax, and so remains visible in the system as 'surplus ACT' if it cannot be utilized (because, for example, the corporation tax liability is already covered by credit relief for foreign taxes paid). This surplus ACT is a peculiarity of the UK/Irish systems, because of the way in which they work, but the underlying approach is similar in the other Member States with imputation systems,

albeit that the effective consequences are not so explicit because the imputation taxes are paid and largely forgotten about.

The degree of integration between corporate and personal taxation in different countries is considered in Chapter 8.

Treatment of non-resident shareholders

Where the full or partial credit for corporation tax paid is given to resident shareholders, domestic law generally does not grant the same relief to non-residents (Table 3A.15). However, bilateral treaties provide in some cases, for the extension of the tax credit to individual and corporate portfolio shareholders. The French and UK credit is extended to a number of Member States. Where both countries require a restricted holding for granting the credit to corporate portfolio shareholders, the UK gives a half credit to direct investors of a limited number of Member States. France refunds under all treaties which do not benefit from the extension of the tax credit to individual shareholders, and to all direct corporate shareholders under any treaty. The German tax credit is normally reserved for residents (including permanent establishments in Germany) but most recent treaties provide for a 10% refund (United States and Switzerland) while the Irish and Italian tax credit is only extended in a very limited way.

V — Other (non-corporate) taxes on business

A number of countries levy taxes on business which are only indirectly related to business profits or not related at all. Some of these taxes are levied by central governments, others at lower levels, and for the latter such taxes may constitute an important source of revenue.

Partially or non-profit related taxes

These are usually levied by lower levels of government. The most important examples are the German *Gewerbesteuer* and the French *taxe professionnelle*.

Taxes on immovable property

These taxes exist in almost all countries. The base of the tax is usually the capital value of the property although in a few countries (e.g. the United Kingdom and Ireland) an annual rental is used. Immovable property taxes on business are generally local taxes and are usually limited to buildings and land (although in a few States they are also levied on machinery and equipment). They are usually allowed as a deductible expense in calculating corporate income tax.

Taxes on net wealth

A tax on net wealth is levied in a number of countries (Table 3A.16). Germany and Luxembourg levy a tax on both individual wealth and corporate wealth. The statutory rates vary between 0.5% (individuals) and 2%, but the effective rate is generally lower because of the way wealth is valued. Austria, Switzerland, and Sweden also levy a tax on individual and corporate wealth. Canada only levies such taxes on corporate wealth.

Unearmarked employer payroll taxes

These are found in Denmark, France, Greece, Ireland and Italy.

VI — Withholding taxes

Withholding taxes for residents

All Member States except Denmark, Germany, France, Luxembourg and the Netherlands levy a withholding tax on interest ranging between 10 and 38% (Table 3A.17). However, in France the beneficiary can opt for a final withholding tax ranging between 18.1 and 38.1%. With the exception of Ireland, France, and the United Kingdom, all Member States levy a withholding tax on dividends, ranging between 15 and 50%.

Withholding taxes on cross-border payments

The tables provide information on the treaty rates of withholding tax levied on cross-border payments of dividends (Table 3A.18), interest (Table 3A.19) and royalties (Table 3A.20). Table 3A.20 reflects the assumption that the subsidiary is wholly owned by the parent company so that the withholding taxes are the lowest possible.

Unilateral measures and bilateral agreements generally allow withholding taxes to be set against the tax payable by recipient companies. However, administrative formalities normally need to be completed to benefit from these measures and they may also have cash flow consequences.

The Council Directive 90/435/EEC of 23 July 1990 on the common system of taxation applicable in the case of parent-subsidiaries of different Member States provides for the exemption from withholding tax on profits distributed by the subsidiary to its parent company, where the parent company holds a minimum of 25% of the capital of the subsidiary. The Directive came into force on 1 January 1992.

In November 1990 the Commission also proposed a directive with the aim of exempting from withholding tax, interest and royalty payments made between parent companies and subsidiaries which are resident in different Member States.

VII — Taxation of foreign-source income

The treatment of foreign-source income from other Member States is governed by domestic law and existing bilateral agreements designed to reduce or eliminate double taxation. Nine out of the 66 bilateral relations in the EC are not yet covered by such an agreement (Table 3A.21).

Dividends and interest income

The main rules governing the treatment of dividend and interest income from foreign sources are outlined in Table 3A.22 for treaty countries, and Table 3A.23 for non-treaty countries. It should be noted that almost all countries apply special provisions to particular circumstances, which diverge from the main rules shown in the tables (e.g. dividend income is exempted if a minimum percentage of shares is held).

The main types of treatment applied are the following:

- (i) Deduction method: the domestic tax on foreign dividends is calculated on the net dividend (as reduced by the foreign tax paid).
- (ii) Credit by source method: domestic tax is calculated on the gross income before foreign tax. But domestic tax is reduced by a credit for foreign tax paid. This credit is calculated separately for each source and allowed only against liability on that source. (A variation is to give credit by country where there is more than one source in each country.)
- (iii) Worldwide credit: all foreign income is added together and the total foreign tax on that income calculated. The credit against the domestic tax is then granted for all the total foreign tax.
- (iv) Exemption method: foreign income, irrespective of whether or not corporation tax has been paid, is exempted from tax.

Royalties

Although royalty payments are generally deductible as business expenses, excessive royalty payments may be considered to be hidden distributions of profit (Table 3A.24).

VIII — Groups of enterprises

The approach to the taxation of groups is traditionally based on the legal structure of the businesses involved without regard to the economic ties between them. Thus permanent establishments and subsidiaries are as a general rule treated differently for tax purposes.

Domestic groups

Several Member States apply a system of tax consolidation whereby all parts of the domestic group (including legally independent subsidiaries) are taxed as a single unit. There are other variations which achieve some of the effects of consolidation, such as the transfer of losses between members of the group. In most cases, the benefit of these arrangements depends on the parent having a substantial holding in the subsidiary company, and/or upon authorization by the tax authorities. It is usually also optional. Table 3A.25 gives an overview of the existing provisions in the EC countries.

The taxation of cash dividends received from domestic subsidiaries is outlined in Table 3A.26. Generally exemption from further taxation is available.

Multinational groups

Member States often have different rules for handling the profits of foreign permanent establishments compared with wholly domestic business (Table 3A.27). The problem of loss relief does not usually arise in Member States which take account of the results — positive or negative — of these foreign permanent establishments in calculating an enterprise's domestic tax. However, Member States which exempt the profits of a foreign permanent establishment (exemption method) do not in principle take into account any losses incurred. On the other hand, some of them allow foreign losses to be deducted, then subsequently tax any profits made by the permanent establishment up to the amount previously deducted. The latter practice is applied in Belgium, Germany and the Netherlands.

Only three Member States have specific provisions with respect to foreign subsidiaries:

- (i) Denmark, which consolidates for tax purposes 100%-owned subsidiaries;
- (ii) France, where a system of consolidation is applied under the regime of *bénéfice consolidé*. However, this is in practice of very limited application, and is only possible with authorization. Another French method allows deduction of losses incurred in the first five years of an investment in the EC, with automatic reincorporation once profits are achieved;
- (iii) in the Netherlands, losses which arise in the case of winding up a foreign subsidiary may be taken into account under certain conditions.

In November 1990 the Commission introduced a proposal allowing Member States the choice of two methods for relieving the losses of foreign permanent establishments against domestic profits of enterprises: the credit method, or the method of deducting losses and reincorporating subsequent profits.

The credit method consists of including in an enterprise's results the positive or negative results of its permanent establishments situated in other Member States and crediting the tax paid by the latter against any tax due from the enterprise on the profits of such establishments. The other method consists of deducting from an enterprise's results any losses incurred by permanent establishments in other Member States, and reincorporating any subsequent profits of these permanent establishments up to the amount previously deducted as losses.

As regards subsidiaries, Member States would have to provide for at least the method of deducting losses and reincorporating subsequent profits in a similar way to the method provided for permanent establishments. But they would also be allowed to introduce other methods (e.g. consolidation).

Tax treatment of mergers and acquisitions

In most Member States, mergers and acquisitions may be undertaken under favourable fiscal arrangements provided certain conditions are fulfilled. It should be noted that the Council Directive 90/431/EEC of 23 July 1990 on the common system of taxation applicable to mergers, divisions, transfers of assets and exchanges of shares concerning companies of different Member States, which should be effective from 1 January 1992, is likely to have some influence on Member States' domestic legislation as it effects mergers and acquisitions.

IX — Taxation of unincorporated businesses

Scope of application of personal income tax

Business enterprises not in the form of a company are usually subject to progressive income taxes. Partnerships are usually taxed according to the principle of transparency: profits are taxed in the hands of the partners in proportion to their share in the business, even when they have not actually received the corresponding amount of the profits. Partnership profits are thus taxed in a very similar way to those of sole proprietorships. (However, in Belgium, Spain and Portugal, commercial or industrial partnerships are in practice liable for corporation tax; in France, partnerships may opt to pay corporation tax.)

Structure of tax rates and tax base

As with corporate tax, personal income tax is in some countries levied at several levels. Eight EC countries levy personal income tax only at central government level: France, Germany, Greece, Ireland, Luxembourg, the Netherlands, Spain and the United Kingdom. Belgium and Italy levy personal income tax at both the central government and the local level; and Denmark at central, local and regional level. (However, in Italy the local income tax is not levied on dividends or, salaries of employees or fees in the case of self-employment.)

The personal tax rates given in Table 3A.28 reflect the highest statutory rate on dividend and interest receipts. The average marginal tax rates on dividends and interest payments are also given. The top rates vary between 60% in the Netherlands for dividends and interest and 25% for dividends in Belgium and Portugal where the individual shareholder may elect for the withholding tax to be the final tax paid. In Greece interest payments are exempt from tax. Table 3A.29 outlines capital gains tax rates on individual investors.

In all countries the tax base is generally the same as that for incorporated businesses.

Taxes on property and wealth

Net wealth taxes on individuals range from 0.5 to 2% in EC countries where levied and from 0.15 to 3% in other countries (Table 3A.16).

Domestic withholding taxes

A withholding tax on interest paid to resident individuals is levied in 10 countries and ranges between 10 and 45% (Table 3A.30). In Belgium, France and Portugal the recipient of interest can choose not to pay further tax beyond this withholding tax.

All countries, except France, Ireland, and the UK, levy a withholding tax on dividends paid to resident individuals ranging between 10 and 50%. In Belgium and Portugal the shareholder can choose the withholding tax as the final tax paid. Canada and the United States do not levy such withholding taxes.

X — Treatment of small and medium-sized enterprises

Small and medium-sized enterprises (SMEs) are defined here as firms with fewer than 500 employees (irrespective of their legal form). They account for 95% of Community businesses, and provide over two-thirds of the Community employment: about 60% of jobs in industry, and over 75% in services. There is, however, no definition of an SME for tax purposes.

Determining the tax base

The rules for determining the tax base may vary according to the size of the enterprise. Most Member States apply special tax arrangements to small and medium-sized enterprises, defined according to various criteria. These usually focus on the number of employees, turnover and/or asset value, as illustrated in Table 3A.31. The criteria used vary from one country to another, as do any thresholds which apply.

Derogations from the general rules mainly involve flat-rate arrangements of the tax base, or simplifications of tax formalities.

Flat-rate arrangements

Most Member States have flat-rate schemes for small sole proprietorships, which considerably simplify accounting obligations and taxation procedures.

In Belgium, sole proprietorships with net profits under BFR 100 000 are not required to keep normal accounts, but may agree with the tax authorities a flat-rate basis for

taxation that subsequently remains unchanged for three years. Another arrangement involves an agreement between the authorities and relevant trade associations, with an amount representing typical expenditure for that type of enterprise being deducted from gross profits.

In France, the flat rate applicable to personal-income-tax payers engaged in business is set by the authorities and communicated to the taxpayer. By contrast, in Portugal the flat rate is set by municipal joint committees and corresponds to the result that should be obtained in the best market and output conditions. Small businesses to which this applies do not need to keep accounts.

Other simplified methods

For enterprises not subject to corporation tax, there are also simplified methods for determining profits. In Germany and Luxembourg, sole proprietorships can determine their profits on the basis of cash accounting, while in Italy, sole proprietorships with gross annual profits not exceeding LIT 360 million are exempt for the next three years from normal bookkeeping requirements; their profits are determined according to special rules, with flat-rate deductions for certain items of expenditure.

In practice, sole proprietorships affected by these arrangements are craft firms or at any rate very small businesses, because of the low thresholds, which are infrequently reviewed. While the arrangements have the advantage of genuinely simplifying tax and bookkeeping requirements, they do not provide any incentive to create the management tools needed for a business to expand. These businesses are mostly operating merely on a local scale and have no real European dimension.

There are no flat-rate arrangements for enterprises subject to corporation tax. In some Member States, however, those defined as small businesses may keep simplified accounts, as provided for under the fourth Directive. They may produce an abridged balance sheet and profit-and-loss account, and supply more succinct details to the tax authorities, with a reduced number of tax forms. They are still bound, however, by the usual accounting principles and valuation methods used in the taxation of industrial and commercial profits.

Comparative tax rates

In addition to having simplified accounting arrangements applied to them, small businesses liable to corporation tax pay progressive rates in Belgium and Luxembourg; in the United Kingdom a single lower rate is applicable to any company with low profits.

In Belgium, the conditions of eligibility for progressive corporation tax have the practical effect of limiting the advantage to SMEs; elsewhere, reduced rates are part of the normal structure of corporation tax, and apply to low profits of all incorporated businesses, whether large or small, rather than to small businesses as such. In the final analysis, however, SMEs form the majority of the firms concerned.

At first sight, the progressive or reduced rates of corporation tax in the Member States mentioned above appear to be comparable to progressive rates of personal income tax

applied to sole proprietors in all the Member States. However, while the reduced rates of tax on corporate profits are substantially the same as those applied to the lowest income bands in Belgium (28% for corporation tax, 25% for income tax) and the United Kingdom (25% for both corporation tax and income tax), the progressiveness of the income bands to which they are applied is quite different. In all three Member States, the lower band of corporate profits to which the reduced rate of corporation tax is applied is at least as high as the band of income taxed at the highest marginal rate of personal income tax. Accordingly, small businesses paying corporation tax are better off than sole proprietorships.

Only in the Netherlands is this not the case. In contrast to practice in Belgium, Luxembourg and the United Kingdom, the Netherlands applies to the lowest band of corporate profits a higher rate than the standard one (40% instead of 35%). The band of profits subject to this higher rate, HFL 250 000, is wider than the lowest band of income for the purposes of personal income tax, HFL 42 123. The purpose of the structure of corporation tax in the Netherlands is to avoid too great a disparity in the way corporate and personal incomes are treated.

With the exception of the Netherlands, however, marginal rates of personal income tax in most of the Member States are higher than the standard rate of corporation tax despite the general tendency towards lower rates both for corporate and personal-income tax payers (see Table 3A.32). As a result, and with no distinction between retained and distributed profits, sole proprietorships and partnerships may well have their total income taxed at marginal rates much higher than corporation tax rates. Competition between businesses of different legal forms may thus be distorted, particularly to the extent that the self-financing capacity of sole proprietorships is reduced if it has a tax liability higher than that of an incorporated business of similar size.

A possible option

One way of eliminating this distortion would be to allow businesses, at present subject only to personal income tax, an option of taxation as if incorporated.

Such an option is already available to partnerships in France. There the decision by a partnership to pay corporation tax is irrevocable, and distributed profits are taxed at the standard rate of 42% (reduced to 34% from 1 January 1992) in the hands of the partners, as though they were dividends. Reinvested profits are taxed at the reduced rate of 34%. The remuneration of managers or partners is thus deductible from the base, and taxed in the hands of the recipients not as industrial and commercial income, but, as a category of income broadly similar to that of wages and salaries. However, unlike wages and salaries, the income concerned is not eligible for flat-rate deduction of occupational expenses.

Equivalent treatment for sole proprietorships would involve distinguishing between retained and distributed profits. The enterprise would opt for any undistributed profits to be taxed at the corporation tax rate, with only distributed profits being liable to personal income tax in the hands of the sole proprietor.

In this context it should be noted that in Denmark, an owner of a business may choose to be taxed at the corporation tax rate on undistributed profits. Distributed profits are taxed at the personal rate, giving credit for any business tax already paid.

Specific tax measures for SMEs within the Community

At this stage, it may be noted that current tax arrangements in the Community are not neutral between legal forms; however, they are mostly neutral with respect to the size of the business: firms large and small are treated in virtually the same way, barring a few reduced rates for SMEs. A look at the tax incentive measures specifically aimed at SMEs, summed up in Table 3A.33, does not call this conclusion into question. The measures involved are of all kinds and seek to encourage either the growth of SMEs at a particular stage of development, or to facilitate investment, or to help a particular sector or region. The measures taken are normally derogations from the general rules, which are subject to conditions which are normally restrictive to prevent abuse, but this also often means that take-up is limited.

Overall, apart from flat-rate methods of determining taxable profits, which are confined to very small businesses, no general tax measures apply in favour of SMEs across the Community.

XI — Taxation of individual investors

Details of the differences in tax treatment of the private investor are contained in Tables 3A.34 and 3A.35. These tables provide a country survey of the income taxation of interest and dividend payments, as well as a survey of the treatment of capital gains.

TABLE 3.1

Statutory rates of corporation tax, 1991 (as at 1 January 1991)

(%)

| | Central government | Intermediate government | Local government | Overall tax rate ¹ |
|-----------------------------|------------------------|-------------------------|-------------------------|-------------------------------|
| Community | | | | |
| Belgium ² | 39 | — | — | 39 |
| Denmark | 38 | — | — | 38 |
| Germany | 50 | — | 15 ¹¹ | 57.5 |
| | 36 ³ | — | 15 ¹¹ | 45.6 |
| Greece | 46 ⁷ | — | — | 46 ⁷ |
| Spain | 35 | — | 1.5 ⁵ | 35.34 |
| France | 34 | — | — | 34 |
| | 42 ³ | — | — | 42 ³ |
| Ireland | 43(10) ⁴ | — | — | 43(10) ⁴ |
| Italy | 36 | — | 16.2 | 47.83 |
| Luxembourg | 33 | — | 9.09 | 39.39 |
| Netherlands | 35 ⁸ | — | — | 35 |
| Portugal | 36 | — | 3.6 | 39.6 |
| United Kingdom ² | 34 | — | — | 34 |
| Other countries | | | | |
| Austria | 30 | — | 12.9 | 39 |
| Canada ² | 38(23.84) ⁹ | 11.9 | — | 49.9(35.74) |
| Japan | 37.5 | — | 12 + 6.92 | 49.98 |
| | | | 12 + 6.06 | 47.28 |
| Sweden | 30 | — | — | 30 |
| United States | 34 | 6.5 ¹⁰ | — | 38.3 |
| Switzerland ² | 3.63-9.8 ⁶ | 4.32-12.96 | 5.56-16.68 ⁶ | 13.51-39.44 |

¹ In most cases, the overall tax rate differs from the simple addition of the rates at each level because intermediate or local rates may be either deducted in computing central government taxes or calculated on a different base.

² These countries apply lower rates to corporations with profits below a certain threshold.

³ On distributed profits (France from 1.1.92: 34%).

⁴ 10% for the manufacturing sector and certain services (projects in the International Financial Services Centre and the Shannon Free Airport Development Area), otherwise 43%.

⁵ Levied by the Chamber of Commerce.

⁶ Progressive rate schedule.

⁷ Varies with activity, status and nature of investment (productive or not).

⁸ A higher rate of 40% is applied on the first HFL 250 000 of profits.

⁹ 23.84% for the manufacturing sector, otherwise 38%.

¹⁰ Includes typical tax rate for local governments.

¹¹ The level varies between 13 and 21% depending on the *Länder*, 15% represents the average.

TABLE 3.2

The tax treatment of distributed profits at central government level

| 1. Classical system | | 2. Imputation systems | | 3. Reduced taxation of distributed profits at company level | | |
|---|---|--|---|---|---|---|
| (a) Unmodified classical | (b) Modified classical | (c) Partial imputation systems | (d) Full imputation systems | (e) Split-rate method | (f) Dividend-deduction method | (g) Zero-rate method |
| No or little relief for personal income tax on dividends | Shareholder relief of various kinds for personal tax on dividends unconnected with corporation tax paid on the distribution | Partial credit is given for shareholder income tax liability in respect of corporation tax paid on distributed profits | Full credit is given for shareholder income tax liability in respect of corporation tax paid on distributed profits | A lower rate is applied to distributed profits than to retained profits | A deduction is provided from the corporation tax base for distributed profits | Corporation tax is not charged on distributed profits |
| Luxembourg Netherlands Switzerland United States | Belgium Canada Denmark Japan Portugal | France Ireland United Kingdom | Finland Germany Italy New Zealand | Germany | Spain Sweden | Greece Norway |

Country amplifications
 France Between 1989 and end 1991 a lower rate on retained than on distributed profits.
 Germany Since 1976 has both full imputation and split rate.
 Greece Though formally providing total relief of corporation tax on distributions, there are withholding taxes ranging from 42 to 50 %, which exceeds the usual 35 % domestic corporation tax charge.
 Spain In addition to a dividend deduction there is a 10 % shareholder relief provision (considered too small to be shown under column (b)).
 Sweden Dividend deduction applies only to new share issues.
 Source: K. Messere 'Tax policy in OECD countries 1965-90' (forthcoming 1992).

Chapter 4

The pattern of tax distortions to investment

I — Introduction

Chapter 3 reveals the main differences between Member States' corporate and personal tax regimes, statutory tax rates, and tax bases, as well as between withholding taxes and methods of providing relief for double taxation of foreign-source income. However, the overall effect of taxation on the incentive in each country to undertake new investment, either at home or abroad, remains unclear, since some features of taxation tend to counteract the effects of others. For example, high statutory corporate tax rates may be offset by more generous tax allowances or low withholding taxes. Hence, a summary measure is required of the overall relative incentive (or disincentive) provided by each country's tax laws to undertake various types of new investment at home or abroad, taking into account all aspects of taxation. The concept of a marginal effective tax wedge (or tax rate) constitutes such a summary measure. Another useful summary measure is the cost of capital.

In this chapter, marginal effective tax wedges (METWs) and the cost of capital are computed for different types of domestic and transnational investments in each Member State as well as for those in the Community's main trading partners. This provides an indication not only of the general pattern of distortions to investment that are attributable to Member States' tax laws, but, more importantly, of the extent to which taxation in each country discriminates in favour or against inward investment (that is, the absence of capital import neutrality) and outward investment (the absence of capital export neutrality). Using CIN and CEN as benchmarks for locational tax neutrality, one can then determine which aspects of taxation constitute the main sources of non-neutrality or distortion with respect to investment within the Community.

II — Marginal effective tax wedges

It should be mentioned at the outset that the estimates of marginal effective tax wedges reported in this chapter are greatly simplified depictions of reality, and, as such, ignore many of the complexities associated with international tax arrangements. Moreover, the methodology used is not the only way of estimating the potential distortions to investment caused by taxation. Alternative assumptions and methodologies can give somewhat different results. Hence, the numerical estimates of marginal effective tax wedges presented in the rest of this chapter should be interpreted with extreme caution. Nevertheless, the methodology adopted here does have the advantage of being the most widely used and familiar of such methodologies, having been developed initially by King and Fullerton (1984) for application to purely domestic investment in four

countries (the United States, the United Kingdom, Sweden, and the FR of Germany), and subsequently extended by the OECD (1991) to transnational direct investment in all 24 OECD countries, including the 12 Member States of the European Community. A detailed description of this methodology can be found in OECD (1991).

For the purposes of this report, the marginal effective tax wedge (METW) is defined as the difference between the required inflation-adjusted pre-tax rate of return (p) on a marginal investment project and the after-tax rate of return received by the ultimate supplier of funds (s). (The marginal effective tax rate (METR) is defined as the METW divided by the real required pre-tax rate of return.)

It is important at the outset to make a clear distinction between METWs (and METRs) on the one hand, and the average tax rate (ATR). The latter measures the amount of total taxes paid as a proportion of total profits. While the ATR may be an accurate measure of the overall burden of business taxation, it can be extremely misleading because it ignores the interaction between corporate and personal income taxes and, more importantly, because it fails to reflect the relative incentive (or disincentive) to undertake one type of new investment rather than another, which is the focus of this chapter.

Differences in marginal effective tax wedges indicate the degree to which countries' tax rules are non-neutral in so far as firms' investment decisions are concerned. The absence of tax neutrality with respect to the location of investment constitutes a potential distortion of competition, and therefore a possible impediment to the realization of the full benefits from the completion of a single internal market. By according preferential treatment to domestic investments, or by discriminating against investments in some Member States, a non-neutral tax regime can distort the allocation of resources within the Community. Resources are misallocated to the extent that capital inputs are directed from their most productive uses — that is, those with the highest rates of returns before taxes (p) — to locations where such inputs are less productive, but yield greater after-tax returns (s) as a consequence of their relatively favourable tax treatment. The resulting economic inefficiency manifests itself in reduced capital productivity and lower levels of total output and living standards in the Community as a whole.

The 'effective' tax wedge takes into account not just the statutory corporate tax rate, but also other tax provisions, such as, depreciation allowances, stock replacement, and tax credits, which also determine the amount of tax paid, and thus the expected after-tax profitability of investment. Effective tax wedges may also encompass personal taxes, together with the extent to which corporate and personal income taxes are integrated. In addition, effective tax wedges reflect the rules for computing taxable income in the presence of inflation.

A marginal investment project is one whose expected rate of return is just sufficient to convince investors that the project is worthwhile. Clearly, all investments must be expected to yield the supplier of finance a rate of return (r) that is at least as much as could have been earned in some alternative use (such as a bank deposit or through the purchase of a government bond), since, otherwise, the more lucrative alternative would be chosen. In this regard, suppliers of finance always have the option of obtaining the prevailing rate of interest from either bank deposits or government bonds, so that in the absence of any taxes, the risk-adjusted return on an investment would have to be no less than the (risk-adjusted) market interest rate.

Taxes on corporate income generally raise the pre-tax rate of return that a company must earn on an investment in order to be able to match the gross yield on a bank

deposit or government bond. At the same time, personal income taxes reduce the gross amount paid by a company to suppliers of funds, as well as the yield on a government bond. The difference between the pre-tax rate of return earned by a company and the after-tax return received by the supplier of finance constitutes a measure of the total distortion or wedge attributable to taxation. The total wedge can be separated into corporate and personal tax components. With perfect capital mobility between countries, the corporate tax wedge provides an indication of the disincentive to undertake new investment, while the personal tax wedge captures the disincentive to save.

As the foregoing discussion illustrates, three rates of return determine the extent to which taxation may distort the incentive to invest: the real pre-tax rate of return (p); the real interest rate (r), which is the return on a government bond or bank deposit before personal taxes; and the real return net of personal taxes received by the ultimate financiers of the investment (s). Once r is known, or fixed at a typical rate of 5%¹ for example, then the p (real pre-corporate tax rate of return) required to generate that r can be found by applying economic theory of investment and taking into account the relevant provisions of the tax code and other considerations, as can s (the after-tax return to savers supplying the funds for the investment). The real pre-tax rate of return that is required in order for an investment project to be undertaken is also known as the cost of capital.

III — Cost of capital

A profit-making firm that is contemplating a new investment project has, on the one hand, to compute the overall cost of the asset, taking into account not just the initial outlay, but also any reduction in that outlay owing to tax relief received immediately or in the future. On the other hand, the firm must also calculate the after-tax returns that it expects the investment to generate in the future. The nominal value of these returns increases with inflation and decreases with the rates of economic depreciation of the physical asset involved in the investment. Since depreciation allowances for investment and expected returns will be received in the future, they have to be discounted by some factor to obtain their present values. One would expect the firm to undertake the investment provided the present value of the after-tax profits from the investment is greater than the initial cost of the asset minus the present value of any tax relief. A marginal investment is one whose net returns are just sufficient to cover its costs. Hence, given the value of tax relief and tax rates, together with the discount rate that is applied to the particular project, the required pre-tax rate of return is the one that equalizes the net costs of the project with the present value of its after-tax profits. Any project that is expected to earn such a pre-tax rate of return would be viewed as marginal, because it is the minimum return that is necessary in order for an investment to be undertaken. This minimum pre-tax rate of return is widely referred to as the cost of capital. It is also commonly known as the 'hurdle' or 'break-even' rate of return.

¹ A rate of return of 5% is in line with the average interest rate on long-term government bonds in the 12 Member States in 1991.

As a result of differential tax treatment, the cost of capital depends too on the industry in which an investment is undertaken, the type of asset purchased (e.g. machinery, buildings, or inventories), the method of finance used (e.g. debt, retained earnings, or new share issues), and the tax status of the saver supplying the funds for the investment.

While the real market interest rate (r) and the tax code are obviously key determinants of the cost of capital, they are not its only determinants. The cost of capital in a particular country may also depend on macroeconomic variables other than the real interest rate, notably expected inflation and currency movements, which are, of course, to a large degree reflected in prevailing interest rates. Moreover, microeconomic factors may play a role in determining the cost of capital. These factors include the risks specific to firms and industries, the efficiency of financial markets together with the relationship between firms undertaking investments and their financiers together with their capacity to spread risk, and the availability of various forms of government assistance. Such factors are largely ignored, since the focus of this report is on the tax component of the cost of capital.

Needless to say, firms' investment decisions are influenced not just by the cost of capital, but also by other supply-side considerations, such as, the relative prices (and availability) of other inputs (labour, materials, and energy), the state of industrial relations, the scope and quality of supporting infrastructure, and legal arrangements, as well as by demand conditions.

IV — Method of determining the impact of taxation on the cost of capital

As discussed above, three rates of return are relevant for determining the impact of taxation on investment and saving: the real pre-corporate tax rate of return (p); the real post-tax rate of return received by suppliers of finance (s); and an intermediate return reflecting the real rate of return before personal taxes that must be paid by the company to suppliers of finance so as to equate the yield on an investment with the opportunity cost of finance (r). In order to calculate the difference between these rates of return, and hence the impact of taxation on the cost of capital, it is necessary to choose a value for one of these three rates of return, and then compute the implicit values of the other two.

As implied in the previous two sections, a 'fixed- r ' approach is adopted; that is, a value of r is chosen, and then the implied values of p and s are computed. The intuition underlying the fixed- r approach is that suppliers of finance require a return from the company undertaking the investment that is at least as high as the return that they could have obtained elsewhere, by purchasing a government bond, for example. This opportunity cost of funds will be the same irrespective of the type of investment made by the company, which implies that the return (p) depends on the method of finance used.¹

¹ An alternative approach (the 'fixed- p ' case) would be to fix the required pre-tax rate of return at the same value for all investments, thus implying that suppliers of funds receive different rates of return depending on the type of investment. Neither approach is entirely satisfactory, however, because both fail to explain observed financial behaviour.

In general, r is fixed at a value of 5%, although some calculations are provided in Annex 4C using actual interest (and inflation) rates in different countries (see Tables 4C.1 and 4C.2). However, as barriers to capital mobility within the Community are dismantled and Member States move towards monetary union, one would expect rates of interest and inflation among States to converge. Hence, the main calculations presented in this chapter are based on the assumption of common rates of interest and inflation among Member States. This assumption also permits attention to be focused on differences in the cost of capital between Member States that are directly attributable to taxation.

The calculations of marginal effective tax wedges and cost of capital (or hurdle rates of return) reported in the next section are based on a number of simplifying assumptions and restrictions that are summarized in Annex 4A. These simplifications are necessary in order to keep the number of results manageable. Obviously, the King-Fullerton methodology can never fully reflect all the complexities of business taxation in different countries. Nevertheless, the estimates provided in the remainder of this chapter do reveal many of the potential distortions that arise as a consequence of taxing corporate profits, namely the bias against certain types of assets and financing arrangements, the effects of inflation, and, more generally, the extent to which EC and other countries' tax laws encourage or discourage outward or inward investment, that is, the absence of CEN and CIN.

V — Taxation of domestic investment: main results¹

The base case is one where all personal taxes are ignored.² There are three good reasons for choosing this as a base case. Firstly, it is the simplest case permitting the impact of corporate taxes to be isolated. Thus, attention is focused on marginal effective corporate tax wedges. Secondly, in an open economy, where the interest rate is primarily determined on the international capital market and where shares are efficiently traded across borders, it is unclear, at least for mature companies, as to who is the marginal shareholder — residents of the country in question, or non-residents? Consequently, it can be difficult to decide which country's personal taxes are relevant for the calculations. Thirdly, if portfolio capital is perfectly mobile internationally, which implies that a small economy faces a fixed world rate of interest, personal taxes may not affect companies' investment decisions. Note, however, that while most of the results reported in this chapter reflect these base-case assumptions, the policy simulations discussed in the next section, involving changes to corporation tax systems, are based on the assumption that the marginal investor faces the top marginal personal tax rate, since the interaction between corporate and personal taxes is the issue being addressed. In all cases, inflation is set at the average rate for the Benelux countries, Germany, and France, in 1991 — 3.1% — so that all the variation in marginal effective tax wedges and the cost of capital between Member States is due entirely to differences in taxation.

¹ These results and those in the next section are based on the summary tax parameters given in Annex 4B.

² Note that for purposes of these calculations imputation credits are considered to be part of the corporation tax system.

In the base case, since personal taxes are ignored, the most appropriate measure of the potential distortion caused by the taxation system is the pre-corporate tax rate of return necessary to earn a given post-corporate tax return. By assumption, this will also be the return to the financier. The given post-corporate tax real return is assumed to be 5%.

Thus, Tables 4.1 and 4.2 capture the extent to which corporate taxation in the EC and its main trading partners affects the incentive to undertake domestic investment by responding to the following question:

‘Given a real interest rate of 5% in each country, what is the required pre-tax rate of return (the cost of capital) for different types of investment financed by different methods, and what is the difference between the pre- and post-tax rates of return (the tax wedge)?’

Under a completely neutral tax regime, the cost of capital could be 5% and the tax wedge would be zero, so that taxation would not affect investment decisions. Judging from the following results, countries’ tax regimes are not neutral, and therefore they constitute a potential distortion to domestic investment decisions.

Tables 4.1 and 4.2 give some idea of the magnitude of these potential distortions. For example, as shown in Table 4.1, in the case of Portugal, using the financing weights given in Annex 4A (35% for debt, 10% for new share issues, and 55% for retained earnings) the average cost of capital associated with investments by companies in machinery, buildings, and inventories, respectively, are 5.2, 6.1, and 6.4%.¹ Similarly, using the weights for assets (50% for machinery, 27% for industrial buildings, and 23% for inventories), the average cost of capital associated with a project financed by retained earnings or by new share issues is 7.3%, whereas it is 2.9% if the project is financed by debt.² Overall, across nine asset and finance combinations, the average cost of capital is 5.7%. The (weighted) standard deviation in the last column measures the degree of variation within each country for the nine possible combinations of assets and types of finance — the greater the standard deviation the greater the variation across the nine combinations.

Likewise, the tax wedges are reported in Table 4.2. Ignoring personal taxes means that the post-tax rate of return, s , is the same as r , so that the tax wedge ($p - s$) is the same as the difference between the pre-corporate tax rate of return and the real interest rate. With the latter fixed at 5%, the tax wedges are simply the required pre-tax rate of return (cost of capital) minus 5%. These wedges thus constitute the corporate tax component of the cost of capital.

According to Tables 4.1 and 4.2, there is considerable variation in the tax treatment of different forms of investment not only within EC countries but also between them. Judging from the standard deviation, Ireland exhibits the least variation, and Germany the greatest. As shown in the penultimate column of Table 4.2, the tax component of the cost of capital for domestic investment ranges from 0.1% in Greece and Ireland to 1.2% in Luxembourg.

¹ The required pre-tax rate of return on an investment in machinery financed either by retained earnings, new share issues or debt are 6.6, 6.6, and 2.7%, respectively. Hence, an investment in machinery financed by the weighted combination of retained earnings, new shares, and debt is 5.2%.

² For marginal investments financed by debt, the combination of capital allowances and nominal interest deductibility results in the government effectively subsidizing such investments.

Interestingly, there is a remarkable similarity between countries in the pattern of tax incentives for domestic investment. Without exception, investments financed by equity are treated less favourably than those financed by debt because interest costs are tax-deductible, whereas equity costs are not. Moreover, if personal taxes are ignored, investments financed by new shares are, on average, treated more favourably than those financed by retained earnings because a majority of Member States allow an imputation credit or a deduction for distributed dividends. Furthermore, investment in machinery tends to be treated more generously than investment in buildings owing to differences in depreciation allowances. Investment in inventories is generally discriminated against, often as a consequence of the fact that purely inflationary increases in the value of inventories are taxed.

Whereas it is a fairly straightforward matter to explain the variation in the cost of capital and tax wedges associated with domestic investments involving different assets and methods of finance, an explanation for either a relatively high or low overall cost of capital or tax wedge is much less obvious. Hence, Table 4.3 ranks EC countries according to their overall average tax component of the cost of capital and indicates the key features of their corporate tax regimes. Not surprisingly, there is no single aspect of Member States' tax laws that accounts for a high or low tax component as far as domestic investment is concerned.

Although not the main focus of this report, the wide variation in Member States' tax treatment of different domestic investments is noteworthy because it demonstrates that differential taxation exists even within countries. While this variation constitutes a potential source of distortion in the allocation of resources within countries, and may therefore impair their overall efficiency, all countries are considered single markets despite the fact that they tax different domestic investments differently. On the other hand, as Table 4.3 amply illustrates, there is much greater scope for variation in the tax treatment of different investments between countries simply because the features of tax laws vary a great deal more across countries than within them. This is especially true in the case of transnational investment, which is the subject of the remainder of the chapter.

VI — Taxation of transnational direct investment: methodology and main results

Methodology

The taxation of investment across national frontiers is much more complex than that of investment within a country. Whereas the tax treatment of purely domestic investment is solely dependent upon the country's domestic tax law, investment by one country in another may be affected not only by two (or more) countries' tax rules, but also by the interaction between these tax rules and bilateral tax treaties between countries.

In this section, attention is focused on a parent company that invests in a foreign country by means of a wholly-owned subsidiary.¹ In order to simplify the analysis, it

¹ Taxation of foreign investment by means of a branch is less relevant, since most foreign direct investment in the manufacturing sector is undertaken through subsidiaries. The assumption that the subsidiary sector is wholly owned by the parent implies that withholding tax rates are the lowest possible on direct investments by one country in another.

is assumed that the relevant supplier of funds involved in the marginal investment by the parent company resides in the same country as the parent. As a consequence, only the taxation of transnational direct investment is examined.

Under these assumptions, income earned by the subsidiary can be subject to four (or more) levels of taxation, at least as far as profits distributed in the form of dividends are concerned. Firstly, a corporation tax may be levied by the country in which the subsidiary is located (the source country). Secondly, the source country may also levy withholding taxes on dividends (or interest) distributed by the subsidiary to the parent company. Thirdly, the country where the parent resides (the residence country) may impose an additional corporation tax on the parent's foreign-source income. Fourthly, individual investors in the residence country may be subject to taxes on the income they receive from the parent company. Furthermore, in some countries withholding taxes may be levied on dividends distributed by the parent to its domestic shareholders.

The relevance of each level of taxation for the after-tax profitability of a new transnational investment clearly depends on the manner in which the investment is financed. Numerous financing arrangements are possible. The parent company could finance the investment by its subsidiary by injecting new equity into it or by lending to the subsidiary and charging interest on the loan. In both cases, the parent itself also needs to raise the required funds, which it could do by issuing new shares, retaining profits, or by borrowing on its own account. Alternatively, finance could be provided by the parent company foregoing the receipt of dividends from its subsidiary (that is, the latter could retain its profits rather than distribute them to its parent), in which case it is assumed that the parent also reduces its own dividend distributions.¹ The tax treatment of the profits earned by the subsidiary on a new investment will be different in each case.

The subsequent calculations are based on the assumption that if the parent supplies the funds for the subsidiary's investment, either by lending or by injecting new equity into the subsidiary, it raises such funds in exactly the same proportions as those assumed earlier, namely, 35% debt, 10% new share issues, and 55% retained earnings. Moreover, it is assumed that the investment by the subsidiary is financed in equal proportions by its own retained earnings, injections of new equity from the parent, and lending by the parent.

As in the previous calculations for domestic investment, it is assumed that real interest and inflation rates are the same in all countries. Moreover, exchange rates are assumed to be fixed. Once again these assumptions permit the potential distortions in transnational investment caused by taxation to be isolated from those attributable to the interaction of taxation with prevailing economic conditions. In addition, the assumption of perfect portfolio capital mobility implies that companies' investment decisions are independent of personal taxes, and so the latter are again ignored in these calculations.

All the caveats discussed in Annex 4A concerning this methodology are, of course, still applicable when the analysis is extended to transnational investments. But there are

¹ Two other forms of financing are ignored on the grounds that they are already reflected in the domestic calculations. They involve local financing of the subsidiary's investment, either by issuing shares locally or by borrowing locally. If the subsidiary finances the investment locally by issuing new shares or borrowing, then the suppliers of finance who require a particular rate of return are the residents of the country in which the subsidiary operates. In these cases the investment can be viewed as being no different from a purely domestic investment.

several additional ones. The restriction that the parent raises finance only in its country of residence is one; others are the neglect of thin capitalization rules, the assumption that assets are transferred between enterprises in the same group at their true economic values, the absence of any attempt to assess the effects of the taxation of exchange rate gains and losses, and the confinement of the analysis to the simplest form of group relations — parent subsidiary — rather than looking at more complex group structures and possibilities for treaty shopping. Nevertheless, the estimates in this study give some indication of the potential distortion of transnational investment (attributable to taxation). The fact that companies may use more complex financial arrangements and group structures in order to minimize tax burdens indicates that the potential distortions reported in this chapter can be sufficiently large to alter company financial behaviour from that which would otherwise prevail.

Main results

Table 4.4 contains the key matrix of transnational pre-tax rates of return that are required to earn a 5% post-tax real rate of return when a parent company in one country invests in a wholly-owned subsidiary located in another. The country in which the parent is located (the residence country) is indicated down the left-hand side of the matrix, and the country in which the subsidiary undertaking the investment is located (the source country) is shown across the top of the matrix. (Similar matrices are found in Annex 4C in cases where the investment is financed by the subsidiary's own retained earnings, by new equity from the parent, and by funds lent by the parent to its subsidiary; the figures given in Table 4.4 are a simple average of those contained in these three tables.)

The results reported in Table 4.4 can be interpreted as follows. For a Belgian parent company to expand the operations of a Danish subsidiary, it must on average earn a pre-tax rate of return in Denmark of 6.7% in order to be able to provide the Belgian parent with a real post-corporate tax rate of return of 5%. By contrast, the pre-tax return required by the Belgian parent in order to expand the operations of a Dutch subsidiary is 6.1%. It follows (by deducting 5%) that the tax component of a Belgian parent's cost of capital is 1.7% for an investment through a Danish subsidiary compared with 1.1% through a Dutch subsidiary. Consequently, the Netherlands is a more attractive location for investments by a Belgian parent company than Denmark.

The information contained in Table 4.4 can be summarized as in Table 4.5. The first column of Table 4.5 gives the purely domestic required pre-tax rates of return as shown in the diagonal of Table 4.4 (which corresponds to the overall average reported in the penultimate column of Table 4.1). The second column shows the average required rate of return when a parent company from the named residence country invests in all other EC countries. This rate of return is the average of the figures given in the row of Table 4.4 (excluding the purely domestic case) corresponding to the named residence country. Likewise, the third column indicates the average required rate of return when companies from all other EC countries invest in the named country. This rate of return reflects the average of the figures given in the column of Table 4.4 (again excluding the domestic case) corresponding to the named source country. Thus, for example, a French company investing in the rest of the EC requires on average a pre-tax return of 6.2% in order to yield a real post-tax return of 5%, whereas companies from other EC

countries investing in France require, on average, a pre-tax return of 7.6% in order to earn the same post-tax yield.

Table 4.5 captures the extent to which the taxation of investment in EC countries diverges from capital export neutrality (CEN) and capital import neutrality (CIN). CEN prevails if the required return of a company is independent of the location of its investment. Such a situation exists if the cost of capital for a company resident in a particular country on investments abroad (column 2) is the same as the cost of capital associated with domestic investments, and the standard deviation of the cost of capital related to investments abroad (column 4) is zero. Similarly, CIN prevails when all companies operating in a particular country are treated equally for tax purposes. This would indeed be the case if the average cost of capital for all foreign companies investing in that country (column 3) is the same as that applicable to domestic companies in the same country undertaking domestic investments, and the standard deviation (column 5) is zero.

Clearly, both CEN and CIN are absent to varying degrees in all Member States as well as in other non-EC countries. More specifically, the average cost of capital for domestic investment is, in all countries, below that for investments undertaken abroad (column 2), which indicates that all countries discriminate against foreign investment by domestic companies. Likewise, in all countries, the tax component of the average cost of capital for domestic investment is lower than that faced by foreign companies investing in that country (column 3), which shows that countries also discriminate against investment from abroad. As can be inferred by comparing Tables 4C.5 and 4C.6 with 4C.4, it is the taxation of investment financed by means of injections of new equity or borrowing from the parent, rather than the taxation of investment financed from the subsidiary's own retained earnings, that is mainly responsible for the absence of CIN or CEN. This absence of locational tax neutrality applies much more to immature than to mature subsidiaries, given the relatively greater reliance of the former on parent companies for financing.

The features of taxation contributing to this lack of tax neutrality with respect to the location of investment are explored in the next subsection.

Sources of non-neutrality

The contribution of various features of Member States' tax laws to the lack of CEN and CIN can be assessed by means of a series of simulations. Essentially, this involves harmonizing particular features of taxation in isolation, and determining whether such a step results in greater neutrality of one type or the other, or both. These simulations are grouped according to whether they involve harmonization of: (a) corporation tax systems; (b) statutory corporate tax rates; (c) corporate tax bases; (d) tax relief for foreign-source income; and (e) withholding taxes. The results of these experiments are reported in Tables 4.6 to 4.13.

According to the calculations shown in Tables 4.6 and 4.7, which, unlike the base case, assume that suppliers of funds for the marginal investment are subject to the top rates of personal tax in their country of residence, if all EC countries adopted either a common classical corporation tax or a common imputation system (without extending their imputation credits to non-residents), the difference between the average cost of capital for domestic and transnational investment within the Community would remain unchanged, or even rise somewhat in the case of a common imputation system (Table 4.6), although

the average standard deviation would increase slightly (Table 4.7). Hence, there would be no apparent improvement in the overall degree of locational tax neutrality, as far as CEN and CIN are concerned. Interestingly, if all EC countries adopted an imputation system and extended the associated tax credit to non-residents, not only would the gap between the average cost of capital for domestic and transnational investment fall from 0.3 to 0.2 percentage points, but the existing tax discrimination in favour of domestic investment would be reversed. By contrast, if all EC countries currently operating imputation systems were to extend their imputation credits to each other on a reciprocal basis, there would be no noticeable improvement in either CEN or CIN. These calculations suggest, therefore, that adoption of a common corporation tax system by Member States would do little, if anything, to enhance CEN or CIN.¹ Nor would such a step have much impact on differences between countries in the average cost of capital associated with domestic investment.

Tables 4.8 and 4.9 reveal that harmonization of statutory corporation tax rates would increase the degree of locational tax neutrality (judging from the decline in the gap between the average cost of capital for domestic investment and that for foreign investment, together with the drop in the average standard deviation). On the other hand, harmonization of depreciation allowances and stock valuation alone in the tax base (combined with the elimination of investment tax credits) appears to have little impact on the degree of tax neutrality. This demonstrates that harmonization of certain aspects of the tax base in isolation does not always increase tax neutrality. Harmonization of depreciation allowances and stock valuation combined with uniform statutory tax rates, however, would enhance locational tax neutrality. It is also perhaps noteworthy that harmonization of statutory corporation tax rates as well as depreciation allowances and stock valuation would considerably reduce the variation in the corporate tax component of the cost of capital across countries as far as domestic investment is concerned.

As shown in Tables 4.10 and 4.11, abolition of withholding taxes on cross-border dividend and interest payments between related companies within the Community (as required by the parent/subsidiary Directive and envisaged in the interest and royalties Directive respectively) would accomplish a greater degree of CEN as well as CIN, since the difference between the average cost of capital for domestic investment and that for transnational investment drops from 1.4 to 0.7 percentage points, and the average standard deviations drop also. Elimination of withholding taxes on cross-border interest payments between related companies within the Community (as envisaged in the interest and royalties Directive) would make only a small contribution to locational tax neutrality. In this case, the difference between the average cost of capital for domestic investment and that for transnational investment would fall from 1.4 to 1.3 percentage points, with the standard deviation declining by a similar amount.

Finally, Tables 4.12 and 4.13 suggest that adoption by all EC countries of a common exemption for foreign-source income would improve CEN and CIN in the Community, and that this improvement would be greater than if all countries adopted a common credit method.

¹ It is noteworthy that the calculations reported in Tables 4.6 and 4.7 do not take into account the possibility that in certain Member States which operate imputation systems, companies may not be relieved of advance corporation tax liabilities in respect of foreign-source income distributed to domestic shareholders in the form of dividends (the so-called surplus ACT problem).

VII — Main conclusions

As emphasized earlier in this chapter, the numerical estimates of marginal effective tax wedges and cost of capital reported in the previous two sections are obviously a greatly simplified depiction of the manner in which business profits are actually taxed in different countries. Consequently, these results should be interpreted with extreme caution. Nevertheless, they do provide an indication of the nature of the bias against foreign direct investment and the features of Member States' tax laws that cause such bias. The following three conclusions are particularly noteworthy.

Firstly, judging from the simulation results reported in the previous section of this chapter, all Member States levy a lower effective corporate tax rate on marginal investments undertaken at home by domestic companies than on investments undertaken in their own jurisdictions by non-resident companies. Furthermore, all Member States impose higher effective corporate tax rates on marginal investments undertaken abroad by resident companies than those undertaken at home by the same companies. This constitutes discrimination by Member States against inward and outward investment, respectively.

Secondly, as regards the causes of such discrimination within the Community, it would appear from the simulation results that withholding taxes levied by source countries on cross-border dividend payments between related companies are the main reason. It follows, therefore, that the abolition of such withholding taxes, as required by the parent/subsidiary Directive, is an important step towards the removal of discrimination in favour of domestic, as opposed to foreign, investment. Other significant, although relatively less important, sources of bias against transnational investment are differences among Member States in the method of providing relief for double taxation on cross-border income flows (adoption of the exemption method by all Member States would improve the degree of locational tax neutrality), and differences in corporation tax rates between countries. By contrast, withholding taxes levied by source countries on cross-border inter-corporate interest payments together with variations in the Member States' corporate tax bases arising as a consequence of differences in depreciation allowances and stock valuation constitute relatively minor sources of non-neutrality. Moreover, apart from the existence of unrelieved advance corporation taxes with respect to dividends distributed by parent companies from profits earned abroad, which also results in discrimination against direct transnational investment, differences between Member States' corporation tax systems do not appear to be a significant source of such discrimination.

Thirdly, differences among Member States in both the statutory corporation tax rate and the tax base appear to account for most of the variation in the tax component of cost of capital associated with domestic investment. Only a small portion of this variation can be attributed to differences in countries' corporation tax systems. The relative unimportance of corporation tax systems as a source of variation in the cost of capital is attributable to the low weight attached to new share issues as a method of financing marginal investment.

Finally, it should be pointed out that the pattern of tax incentives for direct transnational investment described in this chapter may be more apparent than real in so far as multinational firms can circumvent high levels of taxation in some jurisdictions by using tax planning methods to reduce their taxable incomes in relatively high-taxed jurisdictions. Obviously, the opportunities for tax planning are likely to be greater across national boundaries than within a country, a subject that will be discussed in Chapter 6.

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TABLE 4.1

Cost of capital for domestic investment¹

| | Average for each type of asset | | | Average for each type of finance | | | Overall average | Standard deviation |
|-------------|--------------------------------|-----------|-------------|----------------------------------|------------|------|-----------------|--------------------|
| | Buildings | Machinery | Inventories | Retained earnings | New shares | Debt | | |
| Belgium | 5.4 | 4.2 | 8.3 | 6.9 | 6.9 | 2.8 | 5.4 | 2.5 |
| Denmark | 6.0 | 5.3 | 6.8 | 7.2 | 7.2 | 3.2 | 5.8 | 2.0 |
| Germany | 5.1 | 5.2 | 6.9 | 8.8 | 2.2 | 1.4 | 5.6 | 3.8 |
| Greece | 5.0 | 4.8 | 5.9 | 7.1 | 2.7 | 2.7 | 5.1 | 2.2 |
| Spain | 5.7 | 5.5 | 7.9 | 7.5 | 7.5 | 3.5 | 6.1 | 2.1 |
| France | 5.4 | 4.6 | 7.3 | 7.0 | 3.5 | 3.5 | 5.4 | 2.1 |
| Ireland | 4.9 | 5.0 | 5.5 | 5.4 | 5.0 | 4.6 | 5.1 | 0.5 |
| Italy | 6.7 | 5.5 | 6.3 | 8.8 | 2.6 | 2.6 | 6.0 | 3.1 |
| Luxembourg | 6.9 | 4.9 | 8.4 | 7.8 | 7.8 | 3.4 | 6.2 | 2.5 |
| Netherlands | 6.0 | 5.2 | 6.2 | 7.0 | 7.0 | 3.2 | 5.7 | 1.8 |
| Portugal | 6.1 | 5.2 | 6.4 | 7.3 | 7.3 | 2.9 | 5.7 | 2.2 |
| UK | 5.8 | 5.2 | 7.4 | 7.4 | 4.7 | 3.7 | 5.9 | 1.9 |
| EC average | 5.8 | 5.1 | 6.9 | 7.3 | 5.4 | 3.1 | 5.7 | 2.2 |
| Austria | 5.4 | 4.0 | 8.3 | 6.8 | 6.8 | 2.6 | 5.3 | 2.7 |
| Canada | 6.4 | 5.3 | 7.6 | 7.7 | 5.5 | 3.8 | 6.1 | 2.1 |
| Japan | 7.0 | 5.9 | 7.2 | 8.7 | 8.7 | 2.4 | 6.5 | 3.1 |
| Sweden | 5.1 | 4.5 | 6.3 | 6.4 | 4.3 | 3.1 | 5.0 | 1.7 |
| Switzerland | 5.7 | 5.1 | 6.0 | 6.5 | 6.5 | 3.5 | 5.5 | 1.5 |
| USA | 6.6 | 5.2 | 6.4 | 7.4 | 7.4 | 3.1 | 5.9 | 2.2 |

¹ No personal taxes; inflation of 3.1%; average weights.

TABLE 4.2

Corporate tax wedges for domestic investment¹

| | Average for each type of asset | | | Average for each type of finance | | | Overall average | Standard deviation |
|-------------|--------------------------------|-----------|-------------|----------------------------------|------------|------|-----------------|--------------------|
| | Buildings | Machinery | Inventories | Retained earnings | New shares | Debt | | |
| Belgium | 0.4 | -0.8 | 3.3 | 1.9 | 1.9 | -2.2 | 0.4 | 2.5 |
| Denmark | 1.0 | 0.3 | 1.8 | 2.2 | 2.2 | -1.8 | 0.8 | 2.0 |
| Germany | 0.1 | 0.2 | 1.9 | 3.8 | -2.8 | -3.6 | 0.6 | 3.8 |
| Greece | 0.0 | -0.2 | 0.9 | 2.1 | -2.3 | -2.3 | 0.1 | 2.2 |
| Spain | 0.7 | 0.5 | 2.9 | 2.5 | 2.5 | -1.5 | 1.1 | 2.1 |
| France | 0.4 | -0.4 | 2.3 | 2.0 | -1.5 | -1.5 | 0.4 | 2.1 |
| Ireland | -0.1 | 0.0 | 0.5 | 0.4 | 0.0 | -0.4 | 0.1 | 0.5 |
| Italy | 1.7 | 0.5 | 1.3 | 3.8 | -2.4 | -2.4 | 1.0 | 3.1 |
| Luxembourg | 1.9 | -0.1 | 3.4 | 2.8 | 2.8 | -1.6 | 1.2 | 2.5 |
| Netherlands | 1.0 | 0.2 | 1.2 | 2.0 | 2.0 | -1.8 | 0.7 | 1.8 |
| Portugal | 1.1 | 0.2 | 1.4 | 2.3 | 2.3 | -2.1 | 0.7 | 2.2 |
| UK | 0.8 | 0.2 | 2.4 | 2.4 | -0.3 | -1.3 | 0.9 | 1.9 |
| EC average | 0.8 | 0.1 | 1.9 | 2.3 | 0.4 | -1.9 | 0.7 | 2.2 |
| Austria | 0.4 | -1.0 | 3.3 | 1.8 | 1.8 | -2.4 | 0.3 | 2.7 |
| Canada | 1.4 | 0.3 | 2.6 | 2.7 | 0.5 | -1.2 | 1.1 | 2.1 |
| Japan | 2.0 | 0.9 | 2.2 | 3.7 | 3.7 | -2.6 | 1.5 | 3.1 |
| Sweden | 0.1 | -0.5 | 1.3 | 1.4 | -0.7 | -1.9 | 0.0 | 1.7 |
| Switzerland | 0.7 | 0.1 | 1.0 | 1.5 | 1.5 | -1.5 | 0.5 | 1.5 |
| USA | 1.6 | 0.2 | 1.4 | 2.4 | 2.4 | -1.9 | 0.9 | 2.2 |

¹ These wedges represent the difference between the cost of capital reported in Table 4.1 and 5%.

TABLE 4.3

A comparison of the characteristics of EC countries with high and low effective corporate tax wedges¹

| Country (wedge) | Integration of corporate and personal income taxes | Overall corporate tax rate | Treatment of inventories | Depreciation rates (a) Buildings (b) Machinery |
|-------------------|--|----------------------------|--------------------------|---|
| Luxembourg (1.2) | Classical | 39.4 local | unindexed | (a) 4% SL (b) 30% DB with switch |
| Spain (1.1) | Partial dividend deduction | 35.3 | unindexed | (a) 7.5% SL plus allowance (b) 20% DB plus allowance |
| Italy (1.0) | Full imputation | 47.8 | LIFO | (a) 5% SL (b) 17.5% SL |
| UK (0.9) | Partial imputation | 34 | indexed | (a) 4% SL (b) 25% DB |
| Denmark (0.8) | Partial shareholder relief | 38 | partially indexed | (a) 6% SL then at lower rates (b) 30% DB |
| Netherlands (1.0) | Classical | 35 | indexed | (a) 6.6% DB (b) 25% DB with switch |
| Portugal (0.7) | Partial shareholder relief | 39.6 | indexed | (a) 5% SL (b) 31.25 DB |
| Germany (0.5) | Split rate/ imputation | 45.6 ² /57.5 | indexed | (a) 10% SL then at lower rates (b) 30% DB with switch |
| France (0.4) | Partial imputation | 42/34 | unindexed | (a) 5% SL (b) 35.7% DB with switch |
| Belgium (0.4) | Partial shareholder relief | 39 | unindexed | (a) 10% DB with switch + allowance (b) 40% DB with switch + allowance |
| Greece (0.1) | Zero-rate system | 0 ² /46 | indexed | (a) 8% SL (b) 20% SL |
| Ireland (0.1) | Partial imputation | 10/43 ³ | unindexed | (a) First year allowance then 4% SL (b) First year allowance then 12.5% DB |

NB: DB: declining balance; SL: straight-line.

¹ When there are no personal taxes, inflation is 3.1% and average weights are used. The depreciation rates apply to the typical assets used in the calculations in this chapter (see Annex 4A).

² On distributed profits.

³ 10% for the manufacturing sector and certain services (projects in the International Financial Services Centre and the Shannon Free Airport Development Area), otherwise 43%.

TABLE 4.4

Cost of capital for transnational investments¹

| | Source (investment to) | | | | | | | | | | | |
|-----------------------------|------------------------|---------|---------|--------|-------|--------|---------|-------|------------|-------------|----------|-----|
| | Belgium | Denmark | Germany | Greece | Spain | France | Ireland | Italy | Luxembourg | Netherlands | Portugal | UK |
| Residence (investment from) | | | | | | | | | | | | |
| Belgium | 5.4 | 6.7 | 6.2 | 5.4 | 7.5 | 7.0 | 5.6 | 7.2 | 6.5 | 6.1 | 7.2 | 6.4 |
| Denmark | 6.6 | 5.8 | 6.1 | 6.5 | 5.6 | 6.5 | 5.3 | 6.7 | 6.4 | 5.9 | 5.7 | 5.9 |
| Germany | 7.7 | 7.5 | 5.5 | 4.9 | 7.2 | 7.7 | 6.1 | 9.5 | 6.9 | 7.4 | 8.1 | 6.9 |
| Greece | 6.7 | 9.3 | 6.5 | 5.1 | 8.8 | 10.3 | 9.1 | 7.4 | 6.5 | 6.4 | 8.4 | 7.0 |
| Spain | 6.6 | 6.7 | 6.4 | 6.5 | 6.1 | 7.2 | 6.7 | 7.0 | 6.7 | 6.3 | 6.0 | 6.7 |
| France | 6.2 | 6.0 | 5.2 | 6.0 | 7.2 | 5.4 | 5.4 | 6.7 | 6.5 | 6.2 | 6.5 | 6.4 |
| Ireland | 6.6 | 6.7 | 6.4 | 11.7 | 14.2 | 7.3 | 5.1 | 6.8 | 7.0 | 6.8 | 14.0 | 7.3 |
| Italy | 7.2 | 7.7 | 5.4 | 7.2 | 8.5 | 9.5 | 9.6 | 6.0 | 8.0 | 8.3 | 7.6 | 9.0 |
| Luxembourg | 6.4 | 6.5 | 6.4 | 6.5 | 7.0 | 7.0 | 5.5 | 7.1 | 6.2 | 6.3 | 7.7 | 6.2 |
| Netherlands | 6.1 | 6.2 | 6.4 | 5.7 | 7.0 | 7.0 | 5.5 | 6.3 | 6.7 | 5.7 | 8.4 | 6.2 |
| Portugal | 6.6 | 6.7 | 6.4 | 10.9 | 7.0 | 7.6 | 8.4 | 7.1 | 9.5 | 11.1 | 5.7 | 7.0 |
| UK | 5.9 | 6.0 | 5.9 | 5.9 | 6.9 | 7.0 | 7.0 | 6.1 | 6.5 | 6.2 | 6.6 | 5.9 |

¹ Assuming the subsidiary is financed by one-third retentions by the subsidiary, one-third new equity from the parent and one-third debt from the parent; investment in a weighted average set of assets; inflation of 3.1% everywhere; real interest rate of 5% everywhere; personal taxes are zero; parent raises finance in weighted average of debt, new shares and retained earnings.

TABLE 4.5

Average cost of capital for transnational investment¹

| | Domestic (source = residence) | Average cost of capital ² | | Standard deviation | |
|-------------|-------------------------------------|--|---|--------------------|--------|
| | | Residence (investment from named country into others) | Source (investment into named country from others) | Residence | Source |
| Belgium | 5.4 | 6.5 | 6.6 | 0.7 | 0.5 |
| Denmark | 5.8 | 6.1 | 6.9 | 0.4 | 0.9 |
| Germany | 5.6 | 7.3 | 6.1 | 1.1 | 0.4 |
| Greece | 5.1 | 7.9 | 7.0 | 1.3 | 2.1 |
| Spain | 6.1 | 6.6 | 8.0 | 0.3 | 2.1 |
| France | 5.4 | 6.2 | 7.6 | 0.5 | 1.1 |
| Ireland | 5.1 | 8.6 | 6.7 | 2.9 | 1.5 |
| Italy | 6.0 | 8.0 | 7.1 | 1.1 | 0.8 |
| Luxembourg | 6.2 | 6.6 | 7.0 | 0.5 | 0.9 |
| Netherlands | 5.7 | 6.5 | 7.0 | 0.8 | 1.5 |
| Portugal | 5.7 | 8.0 | 7.9 | 1.6 | 2.1 |
| UK | 5.9 | 6.4 | 6.8 | 0.4 | 0.8 |
| EC average | 5.7 | 7.1 | 7.1 | 1.0 | 1.2 |
| Austria | 5.3 | 6.7 | 6.7 | 0.5 | 1.1 |
| Canada | 6.1 | 7.1 | 8.2 | 0.7 | 1.6 |
| Japan | 6.5 | 7.6 | 8.2 | 0.4 | 1.6 |
| Sweden | 5.0 | 6.5 | 6.4 | 0.5 | 1.5 |
| Switzerland | 5.5 | 6.4 | 6.7 | 0.6 | 1.0 |
| USA | 5.9 | 6.7 | 7.5 | 0.4 | 1.7 |

¹ Assuming the subsidiary is financed by one-third retentions by the subsidiary, one-third new equity from the parent and one-third debt from the parent; investment in a weighted average set of assets: inflation of 3.1% everywhere; personal taxes are zero; parent raises finance in a weighted average of debt, new shares and retained earnings.

² Averages for EC countries are based on investment to and from other EC countries. Averages for non-EC countries are based on investments into and from the EC countries.

TABLE 4.6

Effects on the average transnational cost of capital of adopting a common corporation tax system using top personal tax rates

| | Base case ¹ | | | Classical ² | | | Imputation ³ | | | Imputation with cross-border credits ⁴ | | | Imputation credits passed across frontiers on a bilateral basis | | |
|-------------|------------------------|-----------|--------|------------------------|-----------|--------|-------------------------|-----------|--------|---|-----------|--------|---|-----------|--------|
| | Domestic | Residence | Source | Domestic | Residence | Source | Domestic | Residence | Source | Domestic | Residence | Source | Domestic | Residence | Source |
| | Belgium | 5.1 | 5.9 | 3.6 | 5.1 | 5.8 | 3.7 | 5.1 | 5.6 | 3.5 | 5.1 | 4.4 | 3.0 | 5.1 | 5.8 |
| Denmark | 2.5 | 2.0 | 4.2 | 2.5 | 2.1 | 4.3 | 2.2 | 1.7 | 4.1 | 2.2 | 1.4 | 3.5 | 2.2 | 2.0 | 4.2 |
| Germany | 1.7 | 2.3 | 3.6 | 2.3 | 2.5 | 4.1 | 1.7 | 2.3 | 3.3 | 1.7 | 1.8 | 2.6 | 1.7 | 2.1 | 3.4 |
| Greece | 5.8 | 7.4 | 3.8 | 5.8 | 7.9 | 3.7 | 5.8 | 7.4 | 3.8 | 5.8 | 6.6 | 3.1 | 5.8 | 7.4 | 3.8 |
| Spain | 2.5 | 2.1 | 4.7 | 2.5 | 2.2 | 4.8 | 2.3 | 1.9 | 4.5 | 2.3 | 1.7 | 3.8 | 2.5 | 2.1 | 4.7 |
| France | 5.6 | 6.1 | 4.1 | 6.0 | 6.2 | 3.9 | 5.6 | 6.1 | 4.0 | 5.6 | 5.1 | 3.4 | 5.6 | 5.8 | 4.0 |
| Ireland | 2.6 | 3.3 | 3.9 | 2.7 | 3.3 | 3.8 | 2.6 | 3.3 | 4.0 | 2.6 | 2.8 | 3.9 | 2.6 | 3.2 | 3.9 |
| Italy | 5.1 | 5.7 | 3.9 | 5.4 | 5.6 | 4.2 | 5.1 | 5.7 | 3.7 | 5.1 | 5.7 | 3.0 | 5.1 | 5.7 | 3.7 |
| Luxembourg | 3.1 | 2.5 | 4.4 | 3.1 | 2.5 | 4.5 | 2.7 | 2.3 | 4.3 | 2.7 | 1.8 | 3.9 | 3.1 | 2.5 | 4.4 |
| Netherlands | 2.2 | 1.9 | 4.1 | 2.2 | 1.9 | 4.2 | 1.8 | 1.6 | 4.2 | 1.8 | 1.2 | 3.5 | 2.2 | 1.9 | 4.1 |
| Portugal | 4.3 | 5.6 | 4.1 | 4.3 | 5.5 | 4.3 | 3.9 | 5.8 | 4.0 | 3.9 | 4.8 | 3.1 | 4.3 | 5.6 | 4.1 |
| UK | 3.9 | 3.7 | 4.1 | 4.1 | 4.0 | 4.1 | 3.9 | 3.7 | 4.0 | 3.9 | 3.4 | 3.8 | 3.9 | 3.6 | 4.0 |
| EC average | 3.7 | 4.0 | 4.0 | 3.8 | 4.1 | 4.1 | 3.6 | 4.0 | 4.0 | 3.6 | 3.4 | 3.4 | 3.7 | 4.0 | 4.0 |
| Austria | 2.1 | 2.7 | 3.6 | 2.1 | 2.7 | 3.7 | 2.1 | 2.6 | 3.4 | 2.1 | 2.6 | 3.4 | 2.1 | 2.6 | 3.4 |
| Canada | 4.3 | 4.3 | 4.9 | 4.3 | 4.4 | 5.0 | 4.3 | 4.3 | 5.0 | 4.3 | 4.3 | 5.0 | 4.3 | 4.3 | 5.0 |
| Japan | 6.2 | 6.8 | 4.7 | 6.2 | 6.8 | 5.0 | 6.2 | 6.8 | 4.8 | 6.2 | 6.8 | 4.8 | 6.2 | 6.8 | 4.8 |
| Sweden | 4.4 | 5.5 | 3.6 | 4.4 | 5.4 | 3.5 | 4.4 | 5.5 | 3.7 | 4.4 | 5.5 | 3.7 | 4.4 | 5.5 | 3.7 |
| Switzerland | 3.0 | 3.1 | 3.7 | 3.0 | 3.1 | 3.7 | 3.0 | 3.1 | 3.7 | 3.0 | 3.1 | 3.7 | 3.0 | 3.1 | 3.7 |
| USA | 4.9 | 5.5 | 4.2 | 4.9 | 5.7 | 4.3 | 4.9 | 5.5 | 4.3 | 4.9 | 5.5 | 4.3 | 4.9 | 5.5 | 4.3 |

¹ Inflation of 3.1%; investment is financed by one-third retentions by the subsidiary, one-third new equity from the parent and one-third debt from the parent. Parent raises finance through a weighted average of debt, retentions and new equity. Investment is in a weighted average of buildings, machinery and inventories. Tax systems as of 1.1.1991. Figures for EC countries are of intra-EC investments. For non-EC countries, they are for investing only into the EC and from the EC.

² No imputation, and where there is currently a split-rate system, the tax rate is set at the lower of the two rates. Otherwise, assumptions as for base case.

³ Where there is currently no imputation, the central government corporate tax rate on dividends is set equal to the tax rate on retentions, and a full imputation system is imposed. Note that Greek dividends withholding taxes are set equal to zero (otherwise the ending of the zero-tax rate on dividends with very high withholding taxes results in an overall tax rate which is absurdly high). Otherwise, assumptions as for base case.

⁴ The imputation credit is assumed to be made fully available to foreign direct investment from elsewhere in the EC. Current levels of withholding taxes are applied to the gross dividends (i.e. including the imputation credit). For the UK it is assumed that there are no withholding taxes on dividends and a full credit is given. Otherwise, as for the previous case.

TABLE 4.7

Effects on the variation (measured by standard deviation) in the transnational cost of capital of adopting a common corporation tax system using top personal tax rates¹

| | Base case | | Classical | | Imputation | | Imputation with cross-border credits | | Imputation credits passed across frontiers on a bilateral basis | |
|-------------|-----------|--------|-----------|--------|------------|--------|--------------------------------------|--------|---|--------|
| | Domestic | Source | Domestic | Source | Domestic | Source | Domestic | Source | Domestic | Source |
| Belgium | 0.6 | 1.7 | 0.5 | 1.9 | 0.5 | 1.8 | 0.4 | 1.7 | 0.6 | 1.7 |
| Denmark | 0.3 | 1.9 | 0.4 | 2.0 | 0.4 | 2.0 | 0.4 | 1.7 | 0.3 | 1.9 |
| Germany | 0.3 | 1.9 | 0.3 | 2.0 | 0.2 | 2.0 | 0.3 | 1.8 | 0.3 | 1.9 |
| Greece | 0.5 | 1.9 | 0.8 | 1.4 | 0.5 | 2.1 | 0.4 | 1.7 | 0.5 | 1.9 |
| Spain | 0.3 | 2.1 | 0.3 | 2.3 | 0.4 | 2.2 | 0.5 | 1.9 | 0.3 | 2.1 |
| France | 0.5 | 2.0 | 0.6 | 1.9 | 0.5 | 2.0 | 0.3 | 1.7 | 0.6 | 2.0 |
| Ireland | 1.2 | 1.8 | 1.0 | 1.7 | 1.1 | 1.9 | 0.5 | 1.9 | 1.2 | 1.8 |
| Italy | 0.5 | 2.1 | 0.2 | 2.2 | 0.5 | 2.1 | 0.5 | 1.8 | 0.5 | 2.1 |
| Luxembourg | 0.2 | 1.9 | 0.2 | 2.0 | 0.2 | 2.0 | 0.3 | 1.9 | 0.2 | 1.9 |
| Netherlands | 0.3 | 2.0 | 0.3 | 2.0 | 0.3 | 2.3 | 0.3 | 1.8 | 0.3 | 2.0 |
| Portugal | 1.0 | 2.1 | 0.8 | 2.3 | 1.6 | 2.2 | 0.9 | 1.9 | 1.0 | 2.1 |
| UK | 0.3 | 1.9 | 0.2 | 1.9 | 0.3 | 2.0 | 0.4 | 1.9 | 0.5 | 1.9 |
| EC average | 0.5 | 1.9 | 0.5 | 2.0 | 0.6 | 2.0 | 0.4 | 1.8 | 0.5 | 1.9 |
| Austria | 0.2 | 1.9 | 0.2 | 2.1 | 0.2 | 2.0 | 0.2 | 2.0 | 0.2 | 2.0 |
| Canada | 0.3 | 2.3 | 0.4 | 2.5 | 0.3 | 2.8 | 0.3 | 2.8 | 0.3 | 2.8 |
| Japan | 0.3 | 2.5 | 0.3 | 2.7 | 0.3 | 2.1 | 0.3 | 2.1 | 0.3 | 2.1 |
| Sweden | 0.4 | 1.8 | 0.5 | 1.8 | 0.4 | 2.2 | 0.4 | 2.2 | 0.4 | 2.2 |
| Switzerland | 0.3 | 1.7 | 0.3 | 1.7 | 0.3 | 1.8 | 0.3 | 1.8 | 0.3 | 1.8 |
| USA | 0.4 | 2.3 | 0.7 | 2.4 | 0.4 | 2.7 | 0.4 | 2.7 | 0.4 | 2.7 |

¹ Assumptions as in Table 4.6. Figures are the standard deviations of required returns when investing into a country (source) and from a country (residence).

TABLE 4.8

Effects on the average transnational cost of capital of adopting common statutory corporation tax rates and tax bases with no personal taxes

| | Base ¹ | | | Common tax rate (37.5%) ² | | | Common tax base ³ | | | Common tax rate (37.5%) and tax base | | |
|-------------|-------------------|------------|--------|--------------------------------------|------------|--------|------------------------------|------------|--------|--------------------------------------|------------|--------|
| | Dom-estic | Resi-dence | Source | Dom-estic | Resi-dence | Source | Dom-estic | Resi-dence | Source | Dom-estic | Resi-dence | Source |
| Belgium | 5.4 | 6.5 | 6.6 | 5.4 | 6.7 | 6.4 | 6.1 | 6.7 | 7.3 | 6.0 | 6.9 | 7.1 |
| Denmark | 5.8 | 6.1 | 6.9 | 5.8 | 6.2 | 6.6 | 6.1 | 6.4 | 7.2 | 6.0 | 6.4 | 6.9 |
| Germany | 5.5 | 7.3 | 6.1 | 5.0 | 6.8 | 6.4 | 6.8 | 7.5 | 7.4 | 5.6 | 6.9 | 7.1 |
| Greece | 5.1 | 7.9 | 7.0 | 5.5 | 7.2 | 6.7 | 5.7 | 8.1 | 7.6 | 6.0 | 7.4 | 7.3 |
| Spain | 6.1 | 6.6 | 8.0 | 6.2 | 6.6 | 7.7 | 6.0 | 6.9 | 7.8 | 6.0 | 6.8 | 7.5 |
| France | 5.4 | 6.2 | 7.6 | 5.5 | 6.4 | 6.8 | 5.5 | 6.5 | 7.7 | 5.6 | 6.6 | 6.9 |
| Ireland | 5.1 | 8.6 | 6.7 | 5.9 | 8.0 | 6.7 | 5.1 | 8.9 | 6.8 | 6.0 | 8.2 | 6.7 |
| Italy | 6.0 | 8.0 | 7.1 | 5.6 | 6.5 | 7.3 | 6.1 | 8.3 | 7.1 | 5.6 | 6.7 | 7.3 |
| Luxembourg | 6.2 | 6.6 | 7.0 | 6.1 | 6.7 | 6.7 | 6.1 | 6.9 | 6.9 | 6.0 | 6.9 | 6.6 |
| Netherlands | 5.7 | 6.5 | 7.0 | 5.8 | 6.6 | 6.7 | 5.9 | 6.8 | 7.2 | 6.0 | 6.8 | 7.0 |
| Portugal | 5.7 | 8.0 | 7.9 | 5.7 | 8.0 | 7.4 | 6.1 | 8.3 | 8.2 | 6.0 | 8.2 | 6.8 |
| UK | 5.9 | 6.4 | 6.8 | 6.1 | 6.4 | 6.6 | 5.6 | 6.7 | 6.5 | 5.8 | 6.6 | 6.3 |
| EC average | 5.7 | 7.1 | 7.1 | 5.7 | 6.8 | 6.8 | 5.9 | 7.3 | 7.3 | 5.9 | 7.0 | 7.0 |
| Austria | 5.3 | 6.7 | 6.7 | 5.3 | 6.8 | 6.4 | 5.3 | 7.0 | 6.7 | 5.3 | 7.0 | 6.4 |
| Canada | 6.1 | 7.1 | 8.2 | 6.1 | 7.2 | 8.0 | 6.1 | 7.3 | 8.2 | 6.1 | 7.4 | 8.0 |
| Japan | 6.5 | 7.6 | 8.2 | 6.5 | 7.5 | 8.1 | 6.5 | 7.8 | 8.2 | 6.5 | 7.7 | 8.1 |
| Sweden | 5.0 | 6.5 | 6.4 | 5.0 | 6.5 | 6.0 | 5.0 | 6.7 | 6.4 | 5.0 | 6.7 | 6.0 |
| Switzerland | 5.5 | 6.4 | 6.7 | 5.5 | 6.5 | 6.4 | 5.5 | 6.7 | 6.7 | 5.5 | 6.7 | 6.4 |
| USA | 5.9 | 6.7 | 7.5 | 5.9 | 6.6 | 7.2 | 5.9 | 7.0 | 7.5 | 5.9 | 6.8 | 7.2 |

¹ Inflation of 3.1%. No personal taxes. Investment is financed by one-third retentions by the subsidiary, one-third new equity from the parent, and one-third debt from the parent. Parent raises finance through a weighted average of debt, retentions and new equity. Investment is in a weighted average of buildings, machinery and inventories. Tax system as of 1.1.1991. Figures for EC countries are for intra-EC investments. For non-EC countries, they are for investing only into the EC and from the EC.

² Corporate tax rate on distributions and retentions set at 37.5%, local taxes set at 0%. Imputation rates left at the same level as in the base case, except where it currently is greater than 37.5%, in which case it is reduced to 37.5%. Dividend withholding tax from Greece set to zero. Otherwise, assumptions as for base case.

³ Depreciation rule for machinery set at 30% declining balance, for buildings at 6% straight-line. Inventories not indexed. Otherwise, assumptions as for base case.

TABLE 4.9

Effects on the variation (measured by standard deviation) in the transnational cost of capital of adopting common statutory corporation tax rates and tax bases¹

| | Base | | Common tax rate (37.5%) | | Common tax base | | Common tax rate (37.5%) and tax base | |
|-------------|-----------|--------|-------------------------|--------|-----------------|--------|--------------------------------------|--------|
| | Residence | Source | Residence | Source | Residence | Source | Residence | Source |
| Belgium | 0.7 | 0.5 | 0.5 | 0.2 | 0.6 | 0.5 | 0.4 | 0.2 |
| Denmark | 0.4 | 0.9 | 0.3 | 0.5 | 0.7 | 0.9 | 0.5 | 0.5 |
| Germany | 1.1 | 0.4 | 1.0 | 0.3 | 1.1 | 0.4 | 0.9 | 0.4 |
| Greece | 1.3 | 2.1 | 0.6 | 1.6 | 1.2 | 2.1 | 0.7 | 1.7 |
| Spain | 0.3 | 2.1 | 0.3 | 1.8 | 0.4 | 2.1 | 0.3 | 1.8 |
| France | 0.5 | 1.1 | 0.5 | 0.4 | 0.4 | 1.1 | 0.4 | 0.5 |
| Ireland | 2.9 | 1.5 | 2.5 | 1.0 | 2.9 | 1.5 | 2.5 | 1.1 |
| Italy | 1.1 | 0.8 | 0.5 | 0.9 | 0.8 | 0.8 | 0.5 | 0.8 |
| Luxembourg | 0.5 | 0.9 | 0.4 | 0.8 | 0.7 | 0.9 | 0.4 | 0.8 |
| Netherlands | 0.8 | 1.5 | 0.6 | 1.4 | 0.9 | 1.4 | 0.6 | 1.3 |
| Portugal | 1.6 | 2.1 | 1.6 | 1.8 | 1.6 | 2.1 | 1.6 | 1.8 |
| UK | 0.4 | 0.8 | 0.3 | 0.2 | 0.3 | 0.8 | 0.3 | 0.2 |
| EC average | 1.0 | 1.2 | 0.8 | 0.9 | 1.0 | 1.2 | 0.8 | 0.9 |
| Austria | 0.5 | 1.1 | 0.4 | 0.6 | 0.7 | 1.1 | 0.4 | 0.6 |
| Canada | 0.7 | 1.6 | 0.5 | 1.5 | 0.8 | 1.6 | 0.6 | 1.5 |
| Japan | 0.4 | 1.6 | 0.3 | 1.5 | 0.3 | 1.6 | 0.2 | 1.5 |
| Sweden | 0.5 | 1.5 | 0.4 | 1.2 | 0.7 | 1.5 | 0.5 | 1.2 |
| Switzerland | 0.6 | 1.0 | 0.4 | 0.6 | 0.6 | 1.0 | 0.4 | 0.6 |
| USA | 0.4 | 1.7 | 0.4 | 1.5 | 0.4 | 1.7 | 0.4 | 1.5 |

¹ Assumptions as in Table 4.8. Figures are the standard deviations of required returns when investing into a country (source) and from a country (residence).

TABLE 4.10

Effects on the average transnational cost of capital of abolishing withholding taxes

| | Base case ¹ | | | No withholding taxes on dividends ² | | No withholding taxes on interest | | No withholding taxes ³ | |
|-------------|------------------------|-----------|--------|--|--------|----------------------------------|--------|-----------------------------------|--------|
| | Domestic | Residence | Source | Residence | Source | Residence | Source | Residence | Source |
| Belgium | 5.4 | 6.5 | 6.6 | 6.1 | 6.0 | 6.3 | 6.6 | 5.9 | 6.0 |
| Denmark | 5.8 | 6.1 | 6.9 | 5.8 | 6.4 | 6.0 | 6.9 | 5.7 | 6.4 |
| Germany | 5.5 | 7.3 | 6.1 | 6.5 | 5.5 | 7.3 | 6.1 | 6.3 | 5.5 |
| Greece | 5.1 | 7.9 | 7.0 | 6.5 | 5.5 | 7.9 | 6.6 | 6.5 | 5.3 |
| Spain | 6.1 | 6.6 | 8.0 | 6.3 | 7.1 | 6.5 | 7.8 | 6.2 | 6.9 |
| France | 5.4 | 6.2 | 7.6 | 5.8 | 7.0 | 6.2 | 7.6 | 5.8 | 7.0 |
| Ireland | 5.1 | 8.6 | 6.7 | 7.5 | 6.7 | 5.2 | 6.6 | 7.2 | 6.6 |
| Italy | 6.0 | 8.0 | 7.1 | 7.9 | 6.2 | 8.0 | 7.0 | 7.4 | 6.2 |
| Luxembourg | 6.2 | 6.6 | 7.0 | 6.0 | 7.0 | 6.6 | 7.0 | 6.0 | 7.0 |
| Netherlands | 5.7 | 6.5 | 7.0 | 6.1 | 6.6 | 6.4 | 7.0 | 6.0 | 6.6 |
| Portugal | 5.7 | 8.0 | 7.9 | 7.2 | 6.6 | 7.8 | 7.5 | 7.0 | 6.3 |
| UK | 5.9 | 6.4 | 6.8 | 6.0 | 6.8 | 6.4 | 6.8 | 6.0 | 6.8 |
| EC average | 5.7 | 7.1 | 7.1 | 6.5 | 6.5 | 7.0 | 7.0 | 6.4 | 6.4 |
| Austria | 5.3 | 6.7 | 6.7 | 6.8 | 6.4 | 7.0 | 6.7 | 7.0 | 6.4 |
| Canada | 6.1 | 7.1 | 8.2 | 7.2 | 8.0 | 7.3 | 8.2 | 7.4 | 8.0 |
| Japan | 6.5 | 7.6 | 8.2 | 7.5 | 8.1 | 7.8 | 8.2 | 7.7 | 8.1 |
| Sweden | 5.0 | 6.5 | 6.4 | 6.5 | 6.0 | 6.7 | 6.4 | 6.7 | 6.0 |
| Switzerland | 5.5 | 6.4 | 6.7 | 6.5 | 6.4 | 5.7 | 6.7 | 6.7 | 6.4 |
| USA | 5.9 | 6.7 | 7.5 | 6.6 | 7.2 | 7.0 | 7.5 | 6.8 | 7.2 |

¹ Assumptions as in the base case in Table 4.4.

² Withholding taxes on dividends for intra-EC transactions abolished except from Germany, Greece and Portugal. The UK still charges withholding tax on gross dividend where it gives an imputation credit to foreign direct investors. Note that Luxembourg had already complied with the parent/subsidiary Directive as of 1.1.1991, and this is reflected in the base case, so the effects of the Directive are slightly greater than implied by the table. Otherwise, assumptions as in the base case.

³ All withholding taxes on interest and dividends set to zero, except for the UK (see note 2). Otherwise, assumptions as in the base case.

TABLE 4.11

Effects on the variation (measured by standard deviation) in the transnational cost of capital of abolishing withholding taxes¹

| | Base case | | No withholding taxes on dividends | | No withholding taxes on interest | | No withholding taxes | |
|-------------|-----------|--------|-----------------------------------|--------|----------------------------------|--------|----------------------|--------|
| | Residence | Source | Residence | Source | Residence | Source | Residence | Source |
| Belgium | 0.7 | 0.5 | 0.6 | 0.4 | 0.6 | 0.5 | 0.6 | 0.4 |
| Denmark | 0.4 | 0.9 | 0.4 | 0.5 | 0.5 | 0.9 | 0.6 | 0.5 |
| Germany | 1.1 | 0.4 | 0.9 | 0.3 | 1.1 | 0.4 | 0.9 | 0.3 |
| Greece | 1.3 | 2.1 | 1.0 | 1.2 | 1.3 | 1.5 | 1.0 | 1.0 |
| Spain | 0.3 | 2.1 | 0.4 | 1.4 | 0.5 | 1.8 | 0.6 | 1.3 |
| France | 0.5 | 1.1 | 0.6 | 0.6 | 0.5 | 1.1 | 0.6 | 0.6 |
| Ireland | 2.9 | 1.5 | 1.6 | 1.5 | 2.3 | 1.5 | 1.3 | 1.5 |
| Italy | 1.1 | 0.8 | 1.1 | 0.3 | 1.1 | 0.8 | 1.1 | 0.3 |
| Luxembourg | 0.5 | 0.9 | 0.6 | 0.9 | 0.6 | 0.9 | 0.6 | 0.9 |
| Netherlands | 0.8 | 1.5 | 0.7 | 1.0 | 0.6 | 1.5 | 0.6 | 1.0 |
| Portugal | 1.6 | 2.1 | 1.2 | 1.4 | 1.4 | 1.9 | 1.1 | 1.3 |
| UK | 0.4 | 0.8 | 0.5 | 0.8 | 0.4 | 0.8 | 0.5 | 0.8 |
| EC average | 1.0 | 1.2 | 0.8 | 0.9 | 0.9 | 1.1 | 0.8 | 0.8 |
| Austria | 0.5 | 1.1 | 0.4 | 0.6 | 0.7 | 1.1 | 0.4 | 0.6 |
| Canada | 0.7 | 1.6 | 0.5 | 1.5 | 0.8 | 1.6 | 0.6 | 1.5 |
| Japan | 0.4 | 1.6 | 0.3 | 1.5 | 0.3 | 1.6 | 0.2 | 1.5 |
| Sweden | 0.5 | 1.5 | 0.4 | 1.2 | 0.7 | 1.5 | 0.5 | 1.2 |
| Switzerland | 0.6 | 1.0 | 0.4 | 0.6 | 0.6 | 1.0 | 0.4 | 0.6 |
| USA | 0.4 | 1.7 | 0.4 | 1.5 | 0.4 | 1.7 | 0.4 | 1.5 |

¹ Assumptions as in Table 4.10. Figures are the standard deviations of required returns when investing into a country (source) and from a country (residence).

TABLE 4.12

Effects on the average transnational cost of capital of adopting a common method of relief for the taxation of foreign-source income

| | Base case ¹ | | | Exemption system ² | | Credit system | |
|-------------|------------------------|-----------|--------|-------------------------------|--------|---------------|--------|
| | Domestic | Residence | Source | Residence | Source | Residence | Source |
| Belgium | 5.4 | 6.5 | 6.6 | 6.6 | 6.6 | 6.8 | 6.6 |
| Denmark | 5.8 | 6.1 | 6.9 | 6.5 | 6.9 | 6.7 | 7.1 |
| Germany | 5.5 | 7.3 | 6.1 | 7.3 | 6.2 | 9.2 | 6.3 |
| Greece | 5.1 | 7.9 | 7.0 | 7.5 | 6.1 | 7.9 | 6.7 |
| Spain | 6.1 | 6.6 | 8.0 | 6.6 | 7.5 | 6.7 | 7.7 |
| France | 5.4 | 6.2 | 7.6 | 6.1 | 7.7 | 6.5 | 7.7 |
| Ireland | 5.1 | 8.6 | 6.7 | 7.0 | 5.6 | 7.2 | 7.6 |
| Italy | 6.0 | 8.0 | 7.1 | 6.7 | 7.0 | 7.3 | 7.1 |
| Luxembourg | 6.2 | 6.6 | 7.0 | 6.6 | 6.7 | 6.8 | 7.0 |
| Netherlands | 5.7 | 6.5 | 7.0 | 6.5 | 6.4 | 6.6 | 6.9 |
| Portugal | 5.7 | 8.0 | 7.9 | 6.9 | 7.5 | 7.1 | 7.5 |
| UK | 5.9 | 6.4 | 6.8 | 6.2 | 6.4 | 6.5 | 7.3 |
| EC average | 5.7 | 7.1 | 7.1 | 6.7 | 6.7 | 7.1 | 7.1 |
| Austria | 5.3 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| Canada | 6.1 | 7.1 | 8.2 | 7.1 | 8.2 | 7.1 | 8.2 |
| Japan | 6.5 | 7.6 | 8.2 | 7.6 | 8.2 | 7.6 | 8.2 |
| Sweden | 5.0 | 6.5 | 6.4 | 6.5 | 6.4 | 6.5 | 6.4 |
| Switzerland | 5.5 | 6.4 | 6.7 | 6.4 | 6.7 | 6.4 | 6.7 |
| USA | 5.9 | 6.7 | 7.5 | 6.7 | 7.5 | 6.7 | 7.5 |

¹ Assumptions as in the base case in Table 4.4.

² Withholding taxes are as at present (1.1.1991).

TABLE 4.13

Effects on the variation (measured by standard deviation) in the transnational cost of capital of adopting a common method of relief for the taxation of foreign-source income¹

| | Base case | | Exemption system | | Credit system | |
|-------------|-----------|--------|------------------|--------|---------------|--------|
| | Residence | Source | Residence | Source | Residence | Source |
| Belgium | 0.7 | 0.5 | 0.7 | 0.5 | 0.4 | 0.6 |
| Denmark | 0.4 | 0.9 | 0.4 | 0.9 | 0.2 | 1.0 |
| Germany | 1.1 | 0.4 | 1.1 | 0.4 | 0.9 | 0.2 |
| Greece | 1.3 | 2.1 | 1.4 | 0.8 | 1.3 | 0.7 |
| Spain | 0.3 | 2.1 | 0.4 | 0.7 | 0.3 | 0.9 |
| France | 0.5 | 1.1 | 0.5 | 1.1 | 0.4 | 1.1 |
| Ireland | 2.9 | 1.5 | 0.9 | 0.2 | 0.7 | 1.5 |
| Italy | 1.1 | 0.8 | 1.2 | 0.9 | 0.6 | 0.6 |
| Luxembourg | 0.5 | 0.9 | 0.5 | 0.2 | 0.4 | 0.7 |
| Netherlands | 0.8 | 1.5 | 0.8 | 0.5 | 0.7 | 0.8 |
| Portugal | 1.6 | 2.1 | 0.5 | 0.7 | 0.4 | 0.8 |
| UK | 0.4 | 0.8 | 0.4 | 0.3 | 0.3 | 0.9 |
| EC average | 1.0 | 1.2 | 0.7 | 0.6 | 0.5 | 0.8 |
| Austria | 0.5 | 1.1 | 0.5 | 1.1 | 0.5 | 1.1 |
| Canada | 0.7 | 1.6 | 0.7 | 1.6 | 0.7 | 1.6 |
| Japan | 0.4 | 1.6 | 0.4 | 1.6 | 0.4 | 1.6 |
| Sweden | 0.5 | 1.5 | 0.5 | 1.5 | 0.5 | 1.5 |
| Switzerland | 0.6 | 1.0 | 0.6 | 1.0 | 0.6 | 1.0 |
| USA | 0.4 | 1.7 | 0.4 | 1.7 | 0.4 | 1.7 |

¹ Assumptions as in Table 4.12. Figures are the standard deviations of required returns when investing into a country (source) and from a country (residence).

Chapter 5

The effects of taxation on international investment

I — Introduction

In assessing the need for further coordination or harmonization of taxes on corporate-source income, a crucial question is whether the existing tax differentials seriously distort the pattern of transnational capital flows in the Community, or whether the distortions are only of minor magnitude, posing no substantial threat to the proper functioning of the single market. This chapter attempts to provide some evidence on this issue. The first part of the chapter consists of a brief survey of the existing empirical literature which has examined this question. The second part of the chapter reports the results of a survey of European businesses undertaken by this Committee.

To gain a better understanding of the effects of taxation on international capital flows, it is useful to consider briefly the various factors influencing these flows. Broadly, capital flows among countries may take the form of portfolio investment or direct investment. The factors motivating the two types of flows are likely to differ significantly.

International portfolio investment involves the purchase of securities issued in a foreign country. In the absence of institutional barriers and lack of information about investment opportunities, portfolio investors will tend to invest abroad rather than at home if — at a given level of risk exposure — the net return to foreign investment exceeds the net return on domestic investment. Portfolio investors may also choose to invest abroad because such international diversification may enable them to reduce the overall risk attached to their portfolios. In short, international portfolio investment can be seen as a normal arbitrage activity taking advantage of cross-country differentials in net returns on securities in a given risk class and exploiting international possibilities for diversification of risks. Of course, net returns are heavily influenced by domestic and foreign taxes.

While portfolio capital flows are thus governed mainly by movements in the general level of interest rates and/or stock prices in individual countries, direct investment flows are motivated more by desires to exploit specific business opportunities arising in particular markets. Apart from possible institutional barriers such as exchange controls or capital controls, other barriers of a more fundamental nature will often hamper non-financial foreign direct investment. A foreign direct investor may be at a disadvantage owing to factors such as the costs of communication between the parent firm and the foreign branch or subsidiary; incomplete knowledge of the language and culture of the host country; lack of familiarity with the local business environment in the host country; special risks such as the risk of exchange rate changes, and special costs of stationing managers or technicians abroad.

Of course, there exist different forms of direct investment which will be affected by these factors to a greater or lesser extent. One important difference is that between financial and non-financial investment. Changing the location of financial investment is much easier and less costly than changing that of non-financial investment. Consequently financial investment is more likely to respond to short-term changes, or to differences in taxation between countries.

These considerations suggest that direct investments across national borders may be influenced by many factors, and also that cross-country tax differentials will rarely be the main driving force behind non-financial investments, although they may be more important for financial investments.

II — A review of the existing evidence on the effects of taxation on international investment

The effects of taxation on international portfolio investment

It is well known that international flows of portfolio capital can be very volatile and sometimes respond quickly and dramatically to actual or expected changes in asset prices and exchange rates. Because of this volatility, it is difficult to obtain robust and reliable estimates of the quantitative effects of taxation on portfolio investment by applying formal statistical and econometric methods.

Another obstacle to the application of such methods is the fact that different categories of portfolio investors may be subject to very different tax rules, and that the identity of (and hence the effective marginal tax rate faced by) the marginal investor is generally unknown.

In assessing the importance of taxation for these capital flows, one is therefore often forced to rely on evidence of a more anecdotal and informal nature. Some evidence of this character can be found in the 1980s.

The first piece of such evidence is the huge capital inflows into the United States in the first half of the 1980s, which may indicate that tax incentives for investment are quite powerful. The US Economic Recovery Tax Act of 1981 introduced an investment tax credit of 10% and a very generous system of depreciation allowances termed the 'accelerated cost recovery system'. The combined effect of these two investment incentives was estimated to be roughly equivalent to a system of full expensing, i.e. immediate write-off of all investment expenditure. In the three years following the Economic Recovery Tax Act, the United States experienced a sharp rise in domestic private investment and domestic real interest rates and a dramatic increase in net capital imports, mostly in the form of portfolio investment. While other, and possibly more important factors, such as the combination of a tight monetary policy and a strongly expansionary fiscal policy undoubtedly contributed to the rise in US capital imports, it seems clear that the investment incentives must have played an important role, since

it would otherwise be hard to explain how US investment could recover so strongly from 1981 to 1984 in the face of a steeply rising real interest rate.¹

A systematic analysis of the relationship between tax policies and capital flows between the United States and Japan in the 1980s has been undertaken, focusing on the tax incentives faced by portfolio investors.² Tax wedges on savings and on corporate investment in the two countries were calculated for 1980, 1984 and 1987. It was found that the corporate tax burden on corporate assets located in Japan exceeded the tax burden on assets located in the United States, while a US saver faced a heavier personal tax burden than a Japanese saver for assets located in both countries. Since relatively high taxes on savings (e.g. personal taxes on interest income) and relatively low taxes on investment (e.g. corporation taxes) will tend to stimulate capital imports into a country, the authors suggested that the different tax structures in the United States and Japan can to some extent explain the bilateral flows of portfolio capital between the two countries in the 1980s.

Another recent episode in the US tax policy indicates that portfolio capital flows may be very sensitive to withholding taxes, suggesting that tax exempt investors and/or evaders of personal income tax play an important role in the international market for portfolio capital, since these investor groups will normally not be able to obtain a credit for withholding taxes paid. Until 1984, the United States imposed a withholding tax of 30% on interest payments from US debtors to non-residents. However, under a bilateral tax treaty interest paid from the United States to lenders resident in the Netherlands Antilles was exempt from the withholding tax. Further, the Netherlands Antilles imposed only a small tax on such interest income, so the tax treaty provided a means by which US borrowers could have access to the Eurodollar market without paying the withholding tax which would otherwise be due. This led many US corporations to establish financing subsidiaries in the Netherlands Antilles through which foreign funds could be channelled to the United States. The motivation of the US parent corporations was the obvious one that the interest rate on debt subject to the 30% withholding tax tended to be higher than the interest rate on loans which escaped the tax. Clearly this indicates that the lenders in the Euromarkets did not receive a full credit for the US withholding tax.

In 1984 the US Government repealed the 30% withholding tax on most interest, and as a consequence the borrowing by US parent corporations through Netherlands Antilles affiliates collapsed. The repeal also seems to have contributed to the massive flight of Latin American owned capital into the United States during the last decade.³

The recent experience of the Federal Republic of Germany confirms the impression that withholding taxes can have a powerful influence on international flows of portfolio capital. In early 1989, Germany introduced a modest 10% domestic withholding tax on interest income. This resulted in a substantial flight of assets to financial intermediaries (many of which were branches of German banks) based in Luxembourg and other neighbouring countries, where no withholding taxes are imposed. Faced with these pressures from the capital market, the German Government had to abolish the withholding tax after a few months, although it has recently proposed its reintroduction.

¹ See Sinn (1988).

² See Bovenberg et al. (1990).

³ See McClure (1989).

Although the evidence presented here is anecdotal, it strongly suggests the need for international tax coordination to avoid distortions of international portfolio capital flows.

The effects of corporate taxes on international direct investment

While portfolio capital flows often display a dramatic response to short-term opportunities for higher after-tax rates of return, international direct investment usually involves considerations of long-term business strategy, such as maintaining a presence in many countries worldwide, and is therefore likely to be less influenced by tax considerations.

As foreign direct investment (FDI) normally implies a long-term commitment by the investor, it is less volatile than portfolio investment. For this reason, FDI is more susceptible to formal statistical analysis, and a number of econometric studies of tax effects on FDI have been carried out. In addition, some authors have attempted to simulate the effects of various tax policies on FDI, using numerical simulation models incorporating 'plausible' estimates of the parameters of the equations describing the economic behaviour of firms and households. As an alternative to the more quantitative methods, some researchers have undertaken business surveys, asking corporate managers to indicate the importance of taxation for business investment decisions. Finally, as in the case of portfolio investment, there is some anecdotal evidence on the effects of taxation on international direct investment.

The numerous studies reviewed in Annex 5A suggest that it is not an easy task to identify, let alone to quantify, the effects of the corporate taxes on transnational direct investment flows. Annex 5A considers four types of evidence of tax effects on FDI: simulation studies, econometric studies, business survey studies, and a case study. Clearly, all types of studies have their limitations but, taken together, they do seem to support the view that the corporation tax does have some influence on the international location of investment.

(a) Simulation studies: Annex 5A reviews two simulation studies, based on numerical simulation models, the parameters of which were chosen such that the models could reproduce a set of economic data. The first of the two simulation studies was calibrated to reproduce a data-set relating to outward FDI from the United States in 1974.¹ It suggests that the effect of changes in corporate tax rates on the financial behaviour of multinational companies may be considerably stronger than the effects on the real investment activity of multinationals, although the latter effects may still be significant. The second simulation study, based on a model of the Canadian economy for 1980,² indicated that not only the magnitude, but even the direction of the effect on inward FDI of a change in the domestic corporate tax rate may depend crucially on the method of international double tax relief applied by the dominant capital exporting countries.

(b) Econometric studies: One obvious limitation of simulation studies is that the parameter values used are not always based on hard statistical evidence. By comparison, there are a number of econometric studies which examine the same issues, based on

¹ Horst (1977).

² Damus, Hobson and Thirsk (1991).

statistical analyses of time series or cross-section data. Unfortunately, these relate almost entirely to either outward FDI from, or inward FDI to, the United States.¹

The results of econometric analyses of tax effects on FDI can be conveniently summarized in terms of the estimated tax elasticities. The elasticity of FDI with respect to the corporate tax rate measures the percentage change in FDI induced by a 1% change in the corporate tax rate. Hence, if the elasticity of inward FDI with respect to the domestic corporate tax rate were, say -2.0 , a cut in the corporate tax rate from 40 to 36% (i.e. a 10% drop in the corporate tax burden) would increase inward FDI in the country by $2 \times 10 = 20\%$.

Econometric analyses based on US data² have typically found elasticities of inward US FDI with respect to the US corporation tax ranging from about -1.0 to about -4.0 . While these results are all negative, as predicted by the theory, they vary considerably. One reason for this variation stems from different methodologies being applied, but another is that the data used have been revised over time. One important issue, which makes estimation of such elasticities hazardous, is that the inward FDI may take the form either of new real investment or of acquisitions of existing firms.³ Clearly, these two activities may have very different tax effects. Overall, it seems fair to conclude that there is some econometric evidence of a negative effect of the US corporation tax rate on FDI into the United States, even though the quantitative effect remains rather uncertain.

There is also considerable evidence of significant tax effects on outward FDI from the United States.⁴ However, again the quantitative estimates differ considerably. This dispersion of estimates reflects a number of technical obstacles to econometric analyses of foreign direct investment, including data problems. One drawback of many of the econometric studies may be that they have been based on highly aggregated data. Thus, for example, recent evidence on the location of investment within the United States suggests that the sensitivity of location decisions to inter-State tax differentials varies greatly from one type of industry to another.⁵

A third issue that has been addressed in econometric studies has been the financial behaviour of US multinationals, in particular the effect of taxation on dividend remittance from foreign subsidiaries.⁶ Here there is convincing evidence that a US parent company in an excess credit position tends to increase its dividend remittances from abroad in response to a lower domestic corporate tax rate.

(c) Surveys: Because econometric studies of the effects of taxation often meet with considerable technical difficulties, including the lack of relevant and reliable data, it is useful to supplement the quantitative studies with studies of a more qualitative nature. A number of surveys of business executives around the early 1970s attempted to shed light on the most important determinants of location decisions,⁷ and a more recent UK

¹ An exception is Snoy (1975), which examined 14 West European countries. However, the data used in this study are fairly old, that is from the second half of the 1960s.

² See, for example, Hartman (1984), Boskin and Gale (1987), Young (1988) and Slemrod (1990).

³ This is stressed by Auerbach and Hasset (1991).

⁴ See, for example, Hartman (1981), Hartman and Frisch (1983), Boskin and Gale (1987), Jun (1990) and Grubert and Mutti (1989).

⁵ See Papke (1991).

⁶ See Hines and Hubbard (1990).

⁷ See, for example, Schollhammer (1972) (reviewed in Dunning and Yannopoulos (1973)), Falise and Lepas (1970), Van den Bulcke (1971), Irish Industrial Development Authority (1967) and Forsyth (1972).

study¹ asked business executives to assess the importance of taxation. Most of these business surveys indicate that although cross-country corporate tax differentials are typically less important for the choice of location than factors such as the availability of relevant infrastructural facilities, the tax rules of the host country are almost always considered a relevant factor, and sometimes even a major factor in location decisions.

(d) Case studies: As a supplement to other types of evidence, Annex 5A also discusses whether the recent pattern of foreign direct investment into and out of the United States is consistent with the investment effects which one might expect to follow the sweeping US Tax Reform Act of 1986. Various studies² have found that while the recent behaviour of outward US FDI seems to conform with the expected effects of the tax reform, the observed pattern of FDI into the United States in the last few years cannot easily be explained by reference to the change in corporate tax rules.

Estimates of the size and distribution of efficiency gains from corporate tax harmonization

A major purpose of the analysis of effective corporate tax rates in Chapter 4 and of the analysis in this chapter is to provide an empirical foundation for a discussion of some of the basic policy issues addressed in this report. Would partial or full corporate tax harmonization in the European Community significantly reduce distortions in transnational investment flows within Europe? Further, would corporate tax harmonization be likely to generate a noticeable economic gain to the Community as a whole, and if so, what would be the likely distribution of this gain?

One recent estimate of the effects of corporate income tax harmonization within the EC³ is based on a highly simplified simulation model of a 'world' economy consisting of the EC, the United States and Japan. Estimates of marginal effective corporate tax wedges of the type presented in Chapter 4 of this report are incorporated to capture the (dis)incentives for investment implied by corporate taxes. The simulation model is calibrated so as to be able to reproduce a data-set on the capital stocks invested in the various countries in 1985. The model is then used to simulate the reallocation of these capital stocks and the ensuing changes in net domestic products (output levels) resulting from various simulations of specific tax harmonization measures within the EC.

Because of the simplicity of the model, the precise results generated are subject to a considerable margin of error. Nevertheless, the qualitative results are of some interest.

In a world of high capital mobility, there will be a tendency for the rates of return after corporation tax to be equalized across countries. Consequently, the pre-tax rates of return on investment will tend to be relatively low in countries where effective corporate tax rates are relatively low, and vice versa. Corporate tax harmonization implies that effective tax rates would have to be raised in low-tax countries and reduced in high-tax countries. Corporate investment would then tend to be reallocated away from countries offering relatively low pre-tax rates of return towards countries offering relatively high rates of return before tax. This would reduce the income of the low-tax countries and increase the income of high-tax countries. Overall, there would be a rise

¹ Devereux and Pearson (1989).

² See Slemrod (1989), Scholes and Wolfson (1990) and Auerbach and Hassett (1991).

³ Fuente and Gardner (1990).

in the total income of the countries involved in the harmonization measures, because the fall in income in the previous low-tax countries would be outweighed by the rise in income in the previous high-tax countries. In short, capital would tend to be reallocated towards countries where it can be invested more productively, and this would imply a gain in economic efficiency for the Community as a whole.

However, this aggregate efficiency gain would be unevenly distributed across Member States. Generally speaking, Member States experiencing an export of capital as a result of harmonization would suffer a loss of national income, whereas Member States having an inflow of capital from abroad would increase their national income levels.

The simple model developed supports these hypotheses, and further suggests that most of the EC gain from corporate tax harmonization would come at the expense of the rest of the world. For example, if there were a reduction in the average value of the marginal effective corporate tax rate in Europe, there would be an increase in the demand for capital in the Community. This would drive up Community interest rates, thereby attracting capital from the United States and Japan and reducing the output and income levels of those countries.

Thus, an important point of this analysis is that the level around which effective corporate tax rates are harmonized will be crucial for the magnitude, and even the existence of the gains from harmonization. If tax rates are harmonized at a high level, capital will be driven out of Europe, and the Community as a whole could then suffer a loss of output and income. If tax rates are harmonized at a low level, capital will be attracted to Europe, and the Community as a whole could then gain at the expense of the rest of the world.

Finally, the model suggests that the impact on output within the Community will be considerably lower than the impact on the allocation of capital. This is simply because the elasticity of net aggregate output with respect to capital inputs is typically estimated to be around 0.2 or 0.3. Thus a reallocation of capital from the rest of the world to Europe which increased the European capital stock by, say, 10% (which would require a substantial investment flow), would increase European output by between 2 and 3%.

Conclusions

This section has considered the effects of capital taxation on international investment by reviewing various pieces of evidence on tax effects on international investment.

Anecdotal evidence suggests that changes in corporate tax rules may sometimes have important effects on transnational flows of portfolio capital through their impact on interest rates. Further, several episodes in recent years have indicated that portfolio capital flows as well as the financial behaviour of multinational companies can be strongly influenced by withholding tax rates.

Four types of evidence concerning the effects of taxation on foreign direct investment (FDI) were reviewed: simulation studies, econometric studies, business surveys, and a case study of the US tax reform of 1986. The overall conclusion was that although considerable uncertainty remains regarding the quantitative effects of the corporation tax on FDI, there is substantial evidence of non-negligible tax effects on the international location of business investment.

Finally, the likely effects of corporate tax harmonization on the economic welfare of individual Member States and of Europe as a whole was reviewed, using results from a simplified model. This suggests that the total gain from convergence or harmonization of corporation taxes would be unevenly distributed across EC Member States, since the present low-tax countries would in fact suffer a loss. In addition, most of the gains to the EC as a whole would tend to come at the expense of the rest of the world, and the EC gain would depend crucially on the level at which effective corporate tax rates were harmonized. Thus, harmonization at a high level could actually inflict a loss on the Community as a whole, by driving capital out of Europe.

III — Some survey evidence on the impact of taxation on the activities and costs of European business

In the absence of empirical evidence on the impact of taxation on real and financial international activity, especially that relating to Europe, the Committee decided to undertake its own survey of European business. The survey was distributed to businesses in all the EC Member States and five EFTA countries.¹

The survey investigates three principal issues regarding the impact of taxation on companies' activities and costs. Firstly, to what extent are real (as opposed to financial) activities within the European Community influenced by taxation? In particular, to what extent does the location of new activities depend on the tax treatment in different countries? Secondly, to what extent are the legal and financial structures used in international activities influenced by taxation? Thirdly, how large are tax planning and compliance costs, especially in respect of international aspects of taxation as opposed to domestic aspects?

The fourth part of the survey involves an opinion poll, in which respondents are asked their views of the route, if any, which should be taken towards the convergence of corporate taxes within the European Community.

The rest of this chapter discusses the four aspects of the survey in turn. The next subsection describes the nature of the sample of respondents. The following section presents the aggregate results for each of the issues; that is, it makes no distinction between different types of respondent. The next then discusses the extent to which responses tend to differ between respondents in a systematic way. Here the average responses are split, in turn, by several factors: turnover of the company, country of residence of the company, sector in which the company operates and position of responsibility of the respondent within the company.

The nature and position of the respondents

The survey was distributed to companies in all the European Community countries and in five other EFTA countries (Austria, Finland, Iceland, Sweden and Switzerland). The number of questionnaires distributed in each country is shown in Table 5.1, along

¹ The survey was distributed in each country by employers' federations.

with the number of responses. The differences between countries in the number of questionnaires distributed primarily reflect their size (measured by GDP). However, the smaller countries were over-sampled relative to their size in order to ensure a reasonably large number of responses from each country.

In total, there were 965 responses. Clearly there was a very mixed response to receiving the questionnaire. There were only 17 responses from France and 17 from Spain. By contrast, there were 213 responses from the UK, 144 from the Netherlands, 109 from Germany and 92 from Italy.

Of these responses, 584 were from parent companies which answered 'yes' to the question: 'Does your firm have any branches or subsidiaries abroad?' Responses from just the parent companies are analysed in Annex 5B. The results are broadly similar for parent and non-parent companies.

Table 5.1 also gives some evidence on the size of companies which participated in the survey; columns 4 and 5 give the median turnover for all the companies in each country, and just for 'parents', expressed in ecus.¹ The overall medians are ECU 54.5 million for all companies and ECU 394.6 million for parent companies. However, the table indicates that there is significant variation across countries. For example, the British companies in the sample tend to be relatively large (median ECU 105.8 million), whereas those from Italy are much smaller (median ECU 0.92 million).

The diversity of respondents can be useful, however. Below the responses are split according to various groupings — country, size, sector of the company and position of responsibility of the respondent — in order to identify whether there are any systematic differences between the responses from different groups.

Various other questions were designed to provide more information on the respondents. Some of this information is given in Tables 5.2, 5.3 and 5.4.

Table 5.2 gives a breakdown of the location of activities of respondents, again for all respondents and just for 'parents'. Overall, the activities of respondents are based heavily in their domestic country, with 63% of turnover and 84% of investment taking place domestically. Parent companies are more international, with 52% of turnover and 75% of investment taking place domestically. Most international investments take place within the EC rather than outside, and similarly, more foreign-source income is derived from within the EC rather than outside. The difference between the percentages for turnover and investment suggest that to some extent companies tend to produce more domestically and sell abroad.²

Table 5.3 indicates that the majority of the companies which responded are in the industrial sector, with relatively low proportions being in retail, financial or non-financial services or other sectors.

There may well be differences of opinion within large organizations regarding the impact of taxation on company decisions which may arise simply because different

¹ Respondents were asked to stipulate turnover in their local currencies. This was converted to ecus using exchange rates for mid-December 1991.

² It should be noted that many respondents were unable to provide figures for the breakdown of investment expenditure, so that the two groups of respondents for the two columns in Table 5.2 are not the same. However, a very similar pattern emerges even for the group of respondents who were able to provide a breakdown for both turnover and investment.

individuals witness different parts of the decision-making process. Such differences are most likely to arise between individuals in different areas of responsibility. Table 5.4 therefore indicates the type of responsibility of the individual respondent. The respondents are roughly equally split between those regarding their primary area of responsibility as taxation and those regarding it as finance. A much smaller proportion come from business strategy. Differences in the responses given by these groups are analysed below and in tables in the Appendix.

Aggregate results

The impact of taxation on the location of real activity

The first main section of the questionnaire attempts to identify whether taxation is an important factor in the location of real activities. The first question therefore asked is: 'The decision as to the location of an operation may be more or less influenced by the tax systems of the countries concerned. In deciding in which country to locate the following types of operation, how often are taxes faced by your firm in alternative locations a relevant consideration and a major factor in your decision?'

Respondents were asked to choose one category from four, labelled: always, usually, sometimes, and never. The structure of this question is therefore designed to capture two dimensions across which the effect of tax might differ. Firstly, taxation might be important for some decisions, but not for others: hence the question asking 'how often' is important.

Secondly, the relative importance of taxation may differ across decisions: hence the two separate questions, asking how often it is a relevant consideration and how often it is a major factor. The question was asked for five separate types of activity: production plant, sales outlet, coordination centre, R&D centre and financial services centre. A summary of the responses is given in Table 5.5.

As would be expected, the frequency with which taxation is always or usually a relevant consideration is always higher than the frequency with which it is always or usually a major factor. Considering the production plant, for example, 72% of respondents replied that it was either always or usually a relevant consideration; 48% replied that it was either always or usually a major factor. This must be regarded as a very high figure and one of the most important results of the survey. It suggests that for roughly half of all such decisions, taxation is a major factor as to the country in which a production plant is located. This result suggests that taxation does have an important distorting effect on location decisions, with the consequent general welfare loss outlined above. It is therefore prima facie evidence that welfare gains would be made if tax regimes across the European Community were more harmonized: in the extreme case, if tax liabilities were unaffected by location, tax could not be a major factor in the decision.

The comparable figures for the other types of activity are as follows: sales outlet — always or usually a relevant consideration 58%, always or usually a major factor 38%, coordination centre 70 and 57%; R&D centre 59 and 41%; and financial services centre 85 and 78%.

These figures lend weight to the view that the responses are generally honest for two reasons. Firstly, there is a considerable difference in the responses between the different types of activity. Secondly, the types of activity which are apparently most affected by taxation according to the responses are those which a separate analysis of the type of activity and associated tax rules would suggest. For example, the location of a sales outlet must be heavily dependent on the physical location of the market in which the goods are to be sold — hence taxation is less relevant here. By contrast, the physical location of a financial services centre is much less important, given modern communications. In addition, the opportunities for tax arbitrage by adjusting financial arrangements are great.

Respondents were also asked whether their answers to this question would be altered if it referred only to activities within the European Community. The overwhelming response was that the answers would be ‘about the same’.

The second main question concerning real activities investigated whether some aspects of tax legislation were more important than others in affecting location decisions. Thus:

‘In deciding in which country to locate a business activity, please indicate how often the following specific aspects are a relevant consideration and a major factor in your decisions ...’

The question therefore follows the same approach as previous ones in that it attempts to distinguish responses across two dimensions: how often a particular aspect of taxation is important and whether it is a relevant consideration or a major factor. The different aspects of taxation are listed below. Table 5.6 reports the results of this question.

It is worth noting here that the responses given may depend to some extent on the countries in which the respondents invest and the country of residence of the parent. Thus, for example, withholding taxes on cross-border dividends and interest may be less important to a company investing from a high-tax country which will receive credit. Further, the total tax liability clearly depends, for example, on both the tax rate and the tax base: in many cases they should be equally important. Nevertheless, the table does reveal some interesting responses.

The most important aspect of taxation in each country, ranking according to relevant consideration and major factor, is the tax rate on business profits (78% replied that the tax rate is always or usually a relevant consideration and 55% that it was always or usually a major factor). This is closely followed by withholding taxes on cross-border dividends and interest (73 and 54% respectively) and special investment allowances — such as grants, investment tax credits, soft loans or reduced tax rates — (73 and 57% respectively). Slightly less important appear to be the tax base (64 and 47% respectively) and restrictions which effectively limit the use of imputation systems — unrelieved ACT in the UK, *précompte* in France, etc. — (59 and 43% respectively).

However, the last aspect considered was the cost of complying with tax rules, with comparable figures of only 45 and 29%, respectively. This suggests that the compliance costs of operating real activities in different countries do not impose a burden on companies such as to make them reconsider location decisions. This issue is considered further below, where respondents are asked directly to identify the size of compliance and tax planning costs.

The impact of taxation on financial and legal structure

The first part of this section of the questionnaire asks questions about financial and legal structure following the same format as the questions already discussed. The main question is:

‘The financial and legal structure of your international operations may be more or less influenced by tax considerations. Please indicate how often tax considerations are a relevant consideration and a major factor in the following decisions’.

Table 5.7 summarizes the results.

The overwhelming impression it gives is that taxation is extremely important in such decisions. Furthermore, the first four decisions received very similar results. The decisions commented on by the respondents are as follows. The first decision is ‘whether to organize foreign operations through a subsidiary or a branch’; 80% of respondents replied that taxation was always or usually a relevant consideration and 66% replied that it was always or usually a major factor.

The equivalent responses to the second decision, ‘when financing foreign operations, whether to do so locally (that is, by local borrowing, local equity issues or by retained earnings in an existing foreign operation) rather than by new capital injected directly or indirectly by the parent’, were 82 and 70%. Responses to the third decision, ‘when financing foreign operations locally, whether to use local borrowing, local equity issues or retained earnings’, were also 81 and 67%. Responses to the decision ‘when financing foreign operations directly or indirectly by the parent company, whether to use new equity or debt’, were 82 and 70%. Finally, slightly lower responses were found for the last decision, ‘whether or not to route income flowing to or from foreign operations through holding companies or other intermediaries in a third country other than that where the parent or foreign operation is located’ of 74 and 69%.

Clearly, these responses confirm that taxation is an important factor in the financing and structuring of foreign operations. As might be expected, these responses are higher than those for real activities. The reason is presumably that other factors are much more important for the location of real activities: such as the availability and cost of local labour force, proximity to markets and raw materials. By contrast, the type of finance used, for example, is less likely to impose such significant costs. Financing new investment in a foreign subsidiary by retaining earnings in that subsidiary clearly avoids (or at least postpones) withholding taxes on dividends and the possibility of further tax in the residence country on repatriated dividends; consequently, it has a tax advantage over paying dividends to the parent which then injects new equity in the subsidiary. But in the absence of tax considerations, the company may be indifferent as to which route it chooses, implying that other factors are much less important.

Respondents were again asked the extent to which their replies would differ had the questions referred only to EC countries. Again, the overwhelming response was that the replies would not change.

The next section of the questionnaire asked five questions about the impact of specific aspects of taxation. There were two reasons for asking these questions. The first was simply to assess the relative importance of these aspects. The second was to relate the answers to the first set of questions concerned with real activity.

It is clear from the results in Table 5.7 that financial and legal structure is heavily influenced by taxation. Theoretically, this might mean that tax planning departments are so good at their job that the location of real activities might not matter; profits made in one location may simply be transferred through transfer-pricing or thin capitalization into profits in another, less heavily taxed, location. If this happened, then there is an important sense in which differences in taxation do not create economic distortions to real activity — that is that the location of real activity will not be influenced by tax considerations, because the location of the real activity does not affect the final tax liability. It is apparent from the results already discussed that this extreme case does not appear to reflect the real world. However, it may certainly be the case that real economic distortions are reduced by tax planning.

The questions reported in Table 5.8 are therefore designed to assess the degree to which tax planning departments feel able to use the most common techniques of shifting profits between alternative locations. Clearly, these questions are relevant for other reasons, such as the ability of governments to control the transfer of paper profits out of their jurisdictions.

The questions in Table 5.8 use a different format from the earlier questions. Here a direct question is asked and the respondent is required to choose a number from 1 to 5 to indicate the strength of the answer, where 5 means 'substantially' and 1 means 'not at all'. Thus for example, the first question asks:

'Withholding taxes on the payment of rents, technical assistance fees, royalties, interest and dividends from subsidiaries to parent companies can be very different, as can the tax treatment of different sorts of foreign-source income. To what extent does the form in which you repatriate profits depend on their relative tax treatment?'

Fifty-eight per cent of respondents replied to this by answering 4 or 5. The average response was 3.4. This confirms the importance of taxation in the type of financial flows, which is no doubt due to their very different tax treatment. Since this is one way in which companies can at least reduce the tax impact of locating real activities in a particular country, this suggests that the economic distortions on such real activities are indeed lowered.

The next two questions directly raised the importance of thin capitalization and transfer-pricing as a means of tax planning:

'To what extent do thin capitalization rules result in your firm or group of firms paying more tax in total than you otherwise would were there no such rules', and

'To what extent do transfer-pricing rules result in your firm or group of firms paying more tax in total than you otherwise would were there no such rules?'

Fifty-six per cent of respondents answered 1 or 2 to the first question and 55% answered 1 or 2 to the second question. The average answers were 2.3 and 2.5 respectively. There are two possible interpretations of these responses. The first is that companies are claiming that they simply do not use these devices in order to reduce total tax liabilities. The second, however, is that the rules which have been introduced to prevent abuses of transfer-pricing and thin capitalization are too weak to have much effect.

It is difficult to distinguish between the interpretations, particularly because this is likely to be one of the most sensitive parts of the question; it is possible that respondents would not wish to admit to using such methods even if they in fact did so.

Having noted that, however, the answers to the next question suggest that even if the second interpretation is correct, it is not the case that this means that companies can simply choose where to pay tax. The question:

‘To what extent does tax planning enable you to transfer profits between countries so as to enable you to pay tax in the country of your choosing?’

was answered with 1 or 2 by 48% of respondents. The average response was 2.5. These answers are therefore consistent with the strong impact of taxation on real activities noted above: it is possible that companies may not be very constrained in using the devices of transfer-pricing, thin capitalization and the form of income repatriation to manipulate the location of taxable profits, but there are clearly some constraints on the ways in which they can organize their operations.

The final question here considered the specific issue of the extent to which cross-border mergers within the European Community were prevented by tax considerations:

‘In considering whether or not to merge with (or acquire) a firm in another EC country, to what extent do tax considerations influence your choice?’

The responses to this question were mixed. While 18% of respondents answered 5, another 20% also answered 1. The average response was exactly 3.

Compliance and tax planning costs

The next section of the questionnaire investigates more directly the scale of the compliance costs and tax planning costs associated with international taxation as opposed to domestic taxation. This can be done by comparing the results of parts (b) and (c) of Table 5.9. These questions ask for foreign and domestic income:

‘With reference to foreign-source (domestic) income, approximately what are the costs incurred by your firm (e.g. tax accounting salaries, fees, etc.) in tax planning and complying with the provisions of the domestic tax laws. Express such costs as a percentage of the actual income flows net of foreign tax from the foreign source’ (as a percentage of total domestic-source income).

The results give some explanation of the impression given above that such costs do not have a large impact on the location of real activities. That is, the answers for domestic- and foreign-source income appear a very similar order of magnitude. Eighty-seven per cent of respondents indicate that compliance and tax planning costs for domestic-source income are less than 3% of domestic-source income. But 85% also indicate that such costs for foreign-source income are less than 3% of foreign-source income. Only 5% of respondents for domestic-source income and 5% of respondents for foreign-source income put the percentage of compliance and tax planning costs at over 5% of income.

Thus, it appears that the costs of complying with the complexities of international taxation are not substantially greater than the costs of complying with domestic taxation. This strongly suggests that there would be relatively little gain in economic welfare from simplifying the international taxation just in order to reduce such costs.

This picture does not appear to vary very much with the size of the firm of the respondent. Although there is some indication that compliance costs represent a slightly lower proportion of income for the larger companies, the differential between

compliance costs on foreign-source income and domestic-source income is roughly constant across different sizes of firm.

In attempting to distinguish between tax planning costs and compliance costs, again the responses are very similar for domestic-source income and foreign-source income. Seventy per cent of respondents consider tax planning costs to be less than 25% of the total compliance and tax planning costs for foreign-source income. The comparative figure for domestic-source income is 72%.

A business opinion poll on tax harmonization measures

The final section of the questionnaire moves from the positive to the normative. Rather than asking factual questions about business behaviour and costs, this section asks respondents their opinions as regards convergence of corporate taxation in Europe. The responses are given in Table 5.10.

The first question here raises the issue of whether greater harmonization of corporate taxes is desirable, and, if so, whether the process should be coordinated at the Community level or left to market forces. The overwhelming response to this question is that only 4% of respondents think that harmonization is not desirable. Of those who think it is worthwhile, 74% favour some form of Community coordination and 26% would prefer to leave it to market forces. It is possible that respondents may have interpreted the word 'harmonization' as meaning exactly the same corporate tax structure in each country. Although this is unlikely (since the question refers to 'greater' harmonization) such an interpretation only strengthens the result that a large majority (66%) favours coordination at the Community level.

There are also clear preferences as to the form harmonization should take. In particular, three reforms were ranked as 'very desirable' by over half of the respondents. They were:

- (i) the abolition of withholding taxes on transfers of income of any kind between companies in the EC (very desirable 57%; desirable or very desirable 90%);
- (ii) the allowing of losses made in one EC country to be offset against profits in another (54%; 88%); and
- (iii) the adoption of an exemption method under which dividends received by a parent company from a foreign subsidiary in the EC are exempt from corporate tax in the parent's country (53%; 85%).

However, several other reforms received a great deal of support:

- (a) the creation of a common method of computing the taxable profits of EC companies (37%; 86%);
- (b) the adoption of a common imputation system with credits against personal tax due on dividends being available to both domestic and foreign shareholders within the EC (29%; 81%);
- (c) agreement to keep Member States' corporation tax rates within a defined band (26%, 77%).

By contrast, the adoption of the credit method for the taxation of dividends received from subsidiaries within the EC was less popular (22%; 61%). Finally, the introduction of some form of 'formula apportionment' was clearly unpopular (9%; 28%).

One point of caution should be noted in interpreting these results. This question explicitly stated that respondents should 'assume that the total amount of tax paid by your company is unchanged' by the reform. Taken at face value, then, this indicates remarkable agreement as to the direction which reform should take. Indeed, the degree of support for these reforms is so remarkable that it seems likely that many respondents have not really taken into account the crucial assumption that the tax liabilities of their own companies remain unchanged.

Results by type of respondent

The Appendix contains several tables which break down some of the aggregate responses already discussed into the responses by different groups of respondents. The groups considered are: all parent companies; by country of residence of company; by sector in which the company operates; by responsibility of individual respondent (for example, whether in a tax department or more general finance role); and by size of company measured by turnover. The last case splits the respondents into four equal groups by size: the measurements do not correspond to official definitions of 'small' or 'medium' companies.

The most striking feature of these tables is that there is surprisingly little variation across the different categories although, of course, some variation is inevitable. For example, in the responses reported in Table 5B.5, on the effects of taxation on real activities, the UK generally gives a lower weight to taxation than average when considering whether it is a major factor. By contrast, Germany generally gives it a higher weight. However, whereas Germany maintains its high response in the question on the impact of taxation on financial activities, on average the UK also gives a high response.

There does not appear to be any noticeable pattern in the responses split by sector and nor does there appear to be any pattern according to the responsibility of the respondent. Thus, it is not the case, for example, that individuals working in tax departments consider tax to be more important for company decisions than do individuals working in financial or business strategy departments. A similar conclusion can be drawn for the split by size of company: on some questions large companies appear to be more influenced by tax and on others, less influenced.

Summary of survey results

In view of the lack of existing empirical evidence regarding the impact of taxation on the activities of multinational companies, the Committee conducted its own survey of companies based in Europe. 965 replies were received from companies based in 17 countries. On average, this represents a response rate of about 9%. Of these, 584 were parent companies in the sense of investing abroad through a subsidiary or a branch.

There are several striking conclusions arising from the survey.

1. Taxation does appear to have a significant impact on the location of real (as opposed to financial) activities of multinationals. For example, 47% of respondents claimed that tax is always or usually a major factor in the decision as to where to locate a production

plant. The comparable figures for other activities are: sales outlet 28%, coordination centre 57% and R&D centre 41%.

2. Taxation has an even greater impact on the financial and legal structure of companies, 78% of respondents claiming that tax was always or usually a major factor in determining the location of a financial centre. Furthermore, around 70% of respondents claimed that tax is always or usually a major factor in several other financial decisions, such as whether to fund new investment locally or through the parent, and in either case, what form to use, and whether to set up a new operation in the form of a subsidiary or a branch.

3. Taxation is an important factor in determining the form in which profit is repatriated to a parent company. Respondents also claimed that thin capitalization rules and transfer-pricing rules do not constrain companies to a great extent in their ability to shift profits between locations in order to reduce taxation. However, this result must be qualified since it is possible that respondents would in any case be inclined to answer that thin capitalization and transfer-pricing are not used as a means of tax planning.

4. In any case, respondents apparently feel that constraints do exist on their ability to shift profits in order to pay tax in low-tax jurisdictions. This is consistent with the evidence in point 1 above: if companies were able to shift taxable profits irrespective of the location of real activities, then the latter would not be affected by taxation.

5. Compliance costs and the costs of tax planning do not appear to be greater with regard to foreign-source income than they are for domestic-source income. Companies do not consider compliance costs to be an important factor in determining the location of real activities.

These results suggest that there are welfare costs for the European Community as a whole as a result of distortions to competition arising from taxation. No direct evidence has been presented on the size of such welfare costs, but the strong impact of taxation on economic activity is prima-facie evidence that they might be large. If so, there would be gains in reducing the distortions arising from taxation through the harmonization of Member States' corporate taxes.

This conclusion is also supported by the respondents to the survey, who strongly support Community action which would lead to harmonization of corporate taxes. The most favoured measures were the abolition of withholding taxes on transfers of income between companies within the European Community, the exemption of dividends received from subsidiaries abroad from corporation tax in the home country of the parent and the possibility of losses made in one European Community country being offset against profits made in another. It is interesting to note that two out of three of these reforms have already been addressed by the Commission in the parent/subsidiary Directive, the draft directive on the abolition of withholding taxes on inter-group interest and royalty payments, and the draft directive on the transfer of tax losses from a subsidiary/permanent establishment in one Member State to an enterprise located in another.

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Appendix

The sensitivity of the questionnaire responses to various factors

This Appendix gives a more detailed breakdown of the responses to the questionnaire. It is intended to provide an indication of whether there was a systematic difference in responses depending on the following factors: country of respondent, sector in which respondent operates, position of responsibility of respondent and size of company of respondent.

There are four size categories, which split the respondents into four groups of equal size. Small companies are defined as having an annual turnover of less than just over ECU 6.1 million. Medium I have an annual turnover between just over ECU 6.1 million and just under ECU 44.6 million, medium II between just under ECU 44.6 million and just under ECU 215.3 million and large companies more than ECU 215.3 million.

The tables in Annex 5B correspond to those of this Appendix. Thus, for example, Table 5B.5 gives a detailed breakdown of the results reported in Table 5.5.

The figures shown in each of Tables 5B.5, 5B.6 and 5B.7 are the average responses for each group, when the following values are assigned to different responses: always = 1, usually = 2, sometimes = 3, never = 4. A figure of, say, 1.7 would therefore indicate that the responses were heavily weighted towards the view that taxation is often either a relevant consideration or a major factor in various decisions. Such an average of course has no precise interpretation; it is intended only as an approximate guide to differences in response between the various categories.

The figures shown in Table 5B.8 are again average responses. In this case, the respondent was asked to choose a response from 1 to 5 where 1 = not at all and 5 = substantially. Again, the figures in this table therefore have no precise interpretation. Once again, however, they should offer some evidence regarding differences of response between the different groups.

For each table, the figures in parentheses in column 1 indicate the number of respondents in each group. The number answering each specific question may be smaller. Figures in parentheses in the other columns indicate that there were fewer than 10 responses to that question. Finally, Iceland was excluded from the country analysis because of lack of responses.

TABLE 5.1

Response rate by country and median size of company

| | Total distributed | Total number of responses | Number of responses by parent companies | Median turnover (million ECU) | Median turnover of parent companies (million ECU) |
|----------------|-------------------|---------------------------|---|-------------------------------|---|
| EC countries | | | | | |
| Belgium | 400 | 48 | 29 | 4.4 | 14.3 |
| Denmark | 200 | 77 | 58 | 37.7 | 37.7 |
| Germany | 1 400 | 109 | 77 | 54.2 | 66.0 |
| Greece | 200 | 26 | 2 | 0.1 | 0.1 |
| Spain | 600 | 17 | 6 | 154.9 | 129.6 |
| France | 1 400 | 17 | 17 | 6.1 | 6.1 |
| Ireland | 200 | 62 | 26 | 65.7 | 78.9 |
| Italy | 1 400 | 92 | 45 | 1.8 | 2.5 |
| Luxembourg | 100 | 19 | 9 | 15.6 | 10.1 |
| Netherlands | 600 | 144 | 97 | 74.3 | 91.8 |
| Portugal | 200 | 36 | 9 | 16.7 | 8.4 |
| United Kingdom | 1 400 | 213 | 120 | 106.9 | 398.6 |
| EFTA countries | | | | | |
| Austria | 100 | 28 | 20 | 31.4 | 35.0 |
| Finland | 100 | 11 | 11 | 910.8 | 910.8 |
| Iceland | 100 | 4 | 2 | 117.5 | 54.7 |
| Sweden | 100 | 38 | 38 | 944.0 | 944.0 |
| Switzerland | 100 | 24 | 18 | 15.6 | 14.4 |

NB: Parent companies identified by the question: 'Does your firm have any branches or subsidiaries abroad?'

TABLE 5.2

Average location of activities of respondents by turnover and investment

| | All respondents | | Parent companies only | |
|--------------------|-----------------|------------|-----------------------|------------|
| | Turnover | Investment | Turnover | Investment |
| Domestic | 62.5 | 84.1 | 51.7 | 75.1 |
| Other EC countries | 22.8 | 9.9 | 28.5 | 14.9 |
| Rest of world | 14.7 | 6.0 | 19.8 | 10.0 |

TABLE 5.3
Markets operated in by respondents

| | All responses | Parent companies only |
|------------------------|---------------|-----------------------|
| Industrial | 68.1 | 70.1 |
| Retail | 6.9 | 4.3 |
| Financial services | 6.8 | 7.6 |
| Non-financial services | 6.0 | 6.4 |
| Other | 12.2 | 11.6 |

TABLE 5.4
'Which of the following types of management most closely describes your personal area of responsibility?'

| | All responses | Parent companies only |
|-------------------|---------------|-----------------------|
| Taxation | 38.5 | 46.6 |
| Finance | 39.9 | 37.8 |
| Business strategy | 31.7 | 9.1 |
| Other | 7.9 | 6.5 |

TABLE 5.5
'The decision as to the location of an operation may be more or less influenced by the tax systems of the countries concerned. In deciding in which country to locate the following types of operation, how often are taxes faced by your firm in alternative locations a relevant consideration and a major factor in your decision?'

| | Percentage of responses | | | | Number of responses |
|----------------------------------|-------------------------|---------|-----------|-------|---------------------|
| | Always | Usually | Sometimes | Never | |
| Production plant | | | | | |
| Relevant consideration | 43.6 | 28.2 | 20.4 | 7.9 | 624 |
| Major factor | 22.0 | 25.6 | 33.7 | 18.7 | 555 |
| Sales outlet | | | | | |
| Relevant consideration | 30.0 | 27.9 | 25.9 | 16.2 | 641 |
| Major factor | 14.1 | 23.7 | 31.9 | 30.4 | 562 |
| Coordination centre | | | | | |
| Relevant consideration | 46.2 | 23.7 | 21.9 | 8.2 | 392 |
| Major factor | 34.5 | 22.1 | 26.7 | 16.7 | 348 |
| R&D centre | | | | | |
| Relevant consideration | 31.2 | 27.5 | 28.1 | 13.2 | 349 |
| Major factor | 15.3 | 25.9 | 33.6 | 25.2 | 313 |
| Financial services centre | | | | | |
| Relevant consideration | 63.86 | 21.3 | 9.6 | 5.4 | 447 |
| Major factor | 52.6 | 25.7 | 12.9 | 8.8 | 397 |

TABLE 5.6

'In deciding in which country to locate a business activity, please indicate how often the following specific aspects are a relevant consideration and a major factor in your decision'

| | Percentage of responses | | | | Number of responses |
|--|-------------------------|---------|-----------|-------|---------------------|
| | Always | Usually | Sometimes | Never | |
| Tax rates on business profits | | | | | |
| Relevant consideration | 49.8 | 28.3 | 6.0 | 6.4 | 737 |
| Major factor | 28.3 | 29.3 | 28.0 | 14.5 | 676 |
| Withholding tax rates on cross-border dividends and interest | | | | | |
| Relevant consideration | 46.6 | 27.9 | 17.2 | 9.3 | 698 |
| Major factor | 25.9 | 28.17 | 28.6 | 17.5 | 640 |
| The way in which profits are calculated for tax purposes (e.g. the rate of depreciation for tax purposes) | | | | | |
| Relevant consideration | 38.1 | 26.1 | 23.9 | 11.9 | 720 |
| Major factor | 20.7 | 26.7 | 31.7 | 20.9 | 656 |
| Costs of complying with tax rules | | | | | |
| Relevant consideration | 21.0 | 22.4 | 30.4 | 26.3 | 701 |
| Major factor | 9.8 | 19.1 | 32.2 | 38.9 | 633 |
| Special investment incentives (e.g. grants, investment tax credits, soft loans, reduced tax rates) | | | | | |
| Relevant consideration | 48.0 | 25.1 | 17.8 | 9.1 | 704 |
| Major factor | 30.9 | 26.3 | 28.9 | 13.9 | 654 |
| Surplus advance corporation tax, <i>précompte</i>, or similar additional tax burden | | | | | |
| Relevant consideration | 32.2 | 27.0 | 25.0 | 15.9 | 668 |
| Major factor | 17.4 | 26.1 | 33.4 | 23.1 | 605 |

TABLE 5.7

'The financial and legal structure of your international operations may be more or less influenced by tax considerations. Please indicate how often tax considerations are a relevant consideration and a major factor in the following decisions'

| | Percentage of responses | | | | Number of responses |
|---|-------------------------|---------|-----------|-------|---------------------|
| | Always | Usually | Sometimes | Never | |
| Whether to organize foreign operations through a subsidiary or a branch | | | | | |
| Relevant consideration | 53.6 | 26.4 | 14.1 | 5.9 | 694 |
| Major factor | 37.9 | 27.6 | 24.1 | 10.3 | 630 |
| When financing foreign operations, whether to do so locally (that is, by local borrowing, local equity issues or by retained earnings in an existing foreign operation) rather than by new capital injected directly or indirectly by the parent | | | | | |
| Relevant consideration | 53.1 | 28.6 | 13.1 | 5.2 | 672 |
| Major factor | 39.5 | 30.5 | 22.6 | 7.5 | 616 |
| When financing foreign operations locally, whether to use local borrowing, local equity issues or retained earnings | | | | | |
| Relevant consideration | 50.2 | 30.8 | 12.4 | 6.6 | 639 |
| Major factor | 34.4 | 32.7 | 23.3 | 9.5 | 587 |
| When financing foreign operations directly or indirectly by the parent company, whether to use new equity or debt | | | | | |
| Relevant consideration | 50.9 | 30.8 | 12.2 | 6.2 | 650 |
| Major factor | 39.3 | 30.4 | 21.2 | 9.1 | 608 |
| Whether or not to route income flowing to or from foreign operations through holding companies or other intermediaries in a third country other than that where the parent or foreign operation is located | | | | | |
| Relevant consideration | 50.2 | 23.8 | 13.1 | 12.9 | 504 |
| Major factor | 41.8 | 26.8 | 16.9 | 14.5 | 462 |

TABLE 5.8

(a) 'Withholding taxes on the payment of rents, technical assistance fees, royalties, interest and dividends from subsidiaries to parent companies can be very different, as can the tax treatment of different sorts of foreign-source income. To what extent does the form in which you repatriate profits depend on their relative tax treatment?'

| | 5 | 4 | 3 | 2 | 1 | Number of responses |
|---|------|------|------|------|------|------------------------|
| % | 25.7 | 28.7 | 19.7 | 11.2 | 14.6 | 731 |

(b) 'To what extent do thin capitalization rules result in your firm or group of firms paying more tax in total than you otherwise would were there no such rules?'

| | 5 | 4 | 3 | 2 | 1 | Number of responses |
|---|-----|-----|------|------|------|------------------------|
| % | 6.0 | 9.7 | 26.8 | 21.4 | 36.1 | 598 |

(c) 'To what extent do transfer-pricing rules result in your firm or group of firms paying more tax in total than you otherwise would were there no such rules?'

| | 5 | 4 | 3 | 2 | 1 | Number of responses |
|---|------|------|------|------|------|------------------------|
| % | 11.5 | 14.2 | 18.2 | 22.7 | 33.9 | 687 |

(d) 'To what extent does tax planning enable you to transfer profits between countries so as to enable you to pay tax in the country of your choosing?'

| | 5 | 4 | 3 | 2 | 1 | Number of responses |
|---|-----|------|------|------|------|------------------------|
| % | 8.9 | 12.9 | 27.9 | 23.9 | 26.4 | 731 |

(e) 'In considering whether or not to merge with (or acquire) a firm in another EC country, to what extent do tax considerations influence your choice?'

| | 5 | 4 | 3 | 2 | 1 | Number of responses |
|---|------|------|------|------|------|------------------------|
| % | 18.1 | 21.0 | 24.3 | 16.9 | 19.7 | 700 |

NB: 5 = substantially, 1 = not at all, in all parts of this question.

TABLE 5.9

Costs of compliance and tax planning

(a) 'With reference to foreign-source income, approximately what proportion of income actually received from the foreign source (including all forms of income net of foreign taxes) is taken in tax by your country of residence?'

| | 0% | 1-10% | 11-20% | 21-35% | over 35% | Number of responses |
|---|------|-------|--------|--------|----------|---------------------|
| % | 37.0 | 31.2 | 12.4 | 9.8 | 9.6 | 733 |

(b) 'Again with reference to foreign-source income, approximately what are the costs incurred by your firm (e.g. tax accounting salaries, fees, etc.) in tax planning and complying with the provisions of the domestic tax system? Express such costs as a percentage of the actual income flows net of foreign tax from the foreign source'

| | Less than 1% | 1-3% | 3-5% | 5-10% | over 10% | Number of responses |
|---|--------------|------|------|-------|----------|---------------------|
| % | 57.7 | 27.5 | 9.7 | 4.2 | 1.0 | 714 |

(c) 'With reference to domestic income, approximately what are the corresponding costs of tax planning and compliance with the provisions of the domestic tax system? Express such costs as a percentage of total domestic-source income'

| | Less than 1% | 1-3% | 3-5% | 5-10% | over 10% | Number of responses |
|---|--------------|------|------|-------|----------|---------------------|
| % | 57.4 | 29.7 | 7.6 | 3.4 | 2.0 | 802 |

(d) 'In so far as it is possible to distinguish between compliance costs and tax planning costs, what proportion of the total costs referred to in part (b) go on tax planning?'

| | 0% | 1-25% | 26-50% | 51-75% | 75-99% | 100% | Number of responses |
|---|------|-------|--------|--------|--------|------|---------------------|
| % | 19.6 | 50.4 | 14.1 | 10.1 | 5.1 | 0.7 | 276 |

(e) 'In so far as it is possible to distinguish between compliance costs and tax planning costs, what proportion of the total costs referred to in part (d) go on tax planning?'

| | 0% | 1%-25% | 26-50% | 51-75% | 75-99% | 100% | Number of responses |
|---|------|--------|--------|--------|--------|------|---------------------|
| % | 13.2 | 58.5 | 15.4 | 9.2 | 2.9 | 0.7 | 272 |

TABLE 5.10

Business opinions

(a) 'To the extent that you are in favour of greater harmonization of business taxes, do you think that: (1) harmonization should be coordinated at the Community level, or (2) coordination is unnecessary because market forces arising from competition between Member States will lead to greater harmonization?' (percentage of responses)

| Market forces | Community coordination | Harmonization not desirable | Don't know | Number of responses |
|---------------|------------------------|-----------------------------|------------|---------------------|
| 23.4 | 66.5 | 3.4 | 6.8 | 916 |

(b) 'Some possible changes to current EC tax systems are given below. How would you evaluate attempts by the Commission to coordinate each reform at the Community level? (Assume that the total amount of tax paid by your company is unchanged)' (percentage of responses)

| | Very desirable | Desirable | Unimportant | Undesirable | Number of responses |
|---|----------------|-----------|-------------|-------------|---------------------|
| (i) The creation of a common method of computing the taxable profits of EC companies | 37.2 | 49.3 | 8.7 | 4.8 | 909 |
| (ii) Agreement to keep Member States' corporation tax rates within a defined band | 25.7 | 57.1 | 10.8 | 6.4 | 913 |
| (iii) The adoption of a common imputation system, with credits against personal tax due on dividends received being available to both domestic and foreign shareholders within the EC | 29.4 | 51.6 | 15.4 | 3.6 | 889 |
| (iv) The abolition of withholding taxes on transfers of income of any kind between companies in the EC | 57.1 | 33.2 | 6.5 | 3.3 | 908 |
| (v) The adoption of an exemption system under which dividend received by a parent company from a foreign subsidiary in the EC are exempt from corporate tax in the parent's country | 52.5 | 32.2 | 9.6 | 5.8 | 899 |
| (vi) The adoption of a credit system under which dividends received by a parent company from a foreign subsidiary in the EC are subject to corporate tax in the parent's country net of credit for foreign taxes paid | 22.3 | 38.9 | 13.2 | 25.6 | 876 |
| (vii) The allowing of losses made in one EC country to be offset against profits in another | 53.9 | 33.7 | 5.6 | 6.7 | 907 |
| (viii) The adoption of some form of 'formula apportionment' to allocate profits to different countries on the basis of such things as the proportion of sales, investment and labour force located in each country | 8.5 | 19.9 | 25.2 | 46.4 | 890 |

Chapter 6

International tax planning and its limits

I — Introduction

Taxation in both source and residence country tends to increase the overall tax burden of enterprises investing abroad. To be fully competitive in the international market, a company investing abroad or engaging in cross-border business (including business within the European Community) has to obtain information on the tax treatment of its proposed transactions both at home and in the other country, and then to seek favourable solutions taking account of the associated risks and opportunities.

The objective of international tax planning is therefore to minimize the incidence of taxation in the international field, in order to maximize total net profits in the long run. Accordingly, the time-frame for tax planning is the long term. Where such tax planning involves an element of uncertainty, the calculation would normally include a risk premium.

Tax planning criteria

Generally, the starting-point for comparing different investments is the profits as shown in the parent company's commercial accounts, including adjustments for special tax aspects. However, the commercial accounts may not be sufficient for long-term business decisions because many valuable assets of the business, such as goodwill or the level of training of employees, internal organization, and longer-term effects of advertising measures, are not reflected in the balance sheet. Accordingly, decisions need to be based on a wider measure of profits and assets and the concept of 'economic' profit is therefore a more appropriate criterion for international tax planning.

More precisely the planner would then seek to:

- (i) take account of current or foreseen tax laws or practice;
- (ii) comply with the laws of the countries involved;
- (iii) consider the cash flow effects of the various alternatives;
- (iv) minimize the risks of failure (even if the costs of failure are not high); and
- (v) maintain enterprises' economic and legal flexibility.

Methods

International tax planning methods vary according to enterprises' needs, though all have their drawbacks. For example, static methods which look at single periods in isolation (usually carried out as comparisons of tax rates and/or provisions of tax law)

are usually unsuitable because they do not quantify alternative decisions and, in particular, ignore the impact of the proposals in subsequent years.

By contrast, dynamic methods which seek to quantify the consequences in later periods, suffer from difficulties in predicting various factors which range from the discount rate applicable, to possible legislative changes given the complex interdependency of modern tax systems.

II — Aspects of international tax planning

International tax planning is typically concerned with four choices:

- (i) location;
- (ii) legal form;
- (iii) method of finance; and
- (iv) transfer prices.

It also encompasses the use of low-tax countries (tax havens), the exploitation of differences in national tax rules (e.g. for leasing), and the use of different methods of relief for double taxation.

Tax decisions cannot be made in a vacuum, since the consequence of each decision has an impact elsewhere. Moreover, the scope for planning in these individual areas varies from one enterprise or one country to another, as well as over time as a result of counter-measures taken by the individual tax administrations to stop aggressive forms of tax planning.

Choice of location

The choice of location has largely decreased in importance for international tax planning, with some exceptions such as companies formed for finance and holding purposes.

Exporting or setting up an establishment abroad

Once an enterprise chooses to do business abroad, it has to decide whether to simply export from the home country or to establish a more permanent presence abroad. Such a business venture may take the form of a permanent establishment of the domestic company, or a corporate subsidiary in the foreign country. (This does not mean that the venture must be entirely new; an alternative is the acquisition of a foreign business and its integration into the group.)

Although the decision to establish an operation abroad is influenced primarily by non-tax factors, tax has a bearing on location since a foreign business establishment gives the foreign country taxing rights on profits; in non-EC countries in particular this may trigger reporting obligations. The mere existence of an establishment abroad opens up a number of tax planning alternatives which are dealt with later. In contrast to profits

from business establishments abroad, profits from exports are taxable only in the country of the income's source, i.e. in the home country.

Locational elasticity

How far tax affects location decisions depends on the locational elasticity of the venture. For example, extractive industries tend to be locationally inelastic because of natural constraints, and if taxes play a role at all, customs duties and indirect taxes tend to be more important. By contrast, business functions with few natural or economic constraints have a higher degree of locational elasticity. Examples are international shipping operations, and holding and marketing activities.

The main focus of locational tax planning has tended to be 'base' companies which are described later, although measures by the main industrialized countries to curtail tax deferral through the use of these companies have in large part reduced their advantages. The importance of classical tax havens has also lessened because many industrialized countries are taking a more critical look at business relations with these countries. Examples of recent measures to prevent what is perceived as an abuse are the provisions to prevent improper use of tax treaties (treaty shopping) in the more recent double taxation agreements through the use of a limitation on benefits article, as well as restrictive national rules.

Specific locational tax advantages

Despite this, direct taxes may play a role in influencing alternative locations for manufacturing; this is apparent even within one and the same country. For example, there are differences in taxation between the City State of Hamburg, in Germany, and the surrounding municipalities which not only have lower rates of local trade tax, but have also in the past been recipients of border-region aid. Other examples are the special tax concessions in Ireland for manufacturing and finance companies, the Belgian coordination centres and the Luxembourg finance companies. In general the financial sector can more easily benefit from such concessions than manufacturing industries.

As a result of the integration of markets, direct taxes have regained some of their importance for the typical industrial manufacturing enterprise. One reason is the dismantling of quantitative import restrictions and customs duties within the EC (and also within other economic groupings such as EFTA and the Central American Free Trading Area) which has caused the gap between production costs in different Member States to narrow progressively. Differences between direct taxes and investment incentives have therefore become somewhat more important in the choice of optimal location.

Within the EC, enterprises originating from non-member countries are making full use of existing locational tax advantages. American and Japanese groups invest within the Community in the location which offers the most advantageous business conditions. (EC enterprises are so far less inclined to do so since they have closer links with their country of origin.) In addition to natural locational advantages, such as low transportation costs for raw materials and finished products, the incentive to locate in a specific place may also lie in the aid policies, which include tax incentives, of the Member States. From a tax perspective only, the optimal solution for a newly established

industrial enterprise may be to locate manufacturing activities in one of the special tax incentive areas (for example in Ireland, where the statutory rate of profit tax is 10%); sales abroad may, if the distribution profits are not already tax-exempt in the incentive areas, be handled by a separate distribution enterprise based in a country with favourable arrangements.

It follows that Member States should not seek to outbid each other in granting regional aid in the tax field. Aid schemes financed by Member States or regional governments might be of benefit mainly to non-member countries.

Choice of legal form

The choice of legal form for doing business abroad presents wider opportunities for tax planning than the choice of location.

Permanent establishment or subsidiary?

The key decision is whether a foreign venture should be conducted in the form of a permanent establishment or as a corporate subsidiary. In the latter case there is the further option of whether the subsidiary should have its registered office and place of management in the same country as the company heading the group, the country in which it will operate, or in a third country.

The permanent establishment is usually easier to operate for tax purposes; however, it leaves less freedom to structure transactions. Moreover, the authorities of the country in which a permanent establishment is located may then have direct recourse to the principal company. This disadvantage can, however, be eliminated if the principal company establishes one or more separate subsidiaries in the home country for the sole purpose of setting up permanent establishments abroad. Another important consideration is that in some countries the losses of a foreign permanent establishment may be set off immediately against the parent company's profits.

The advantage of a foreign subsidiary lies in greater flexibility in many areas (and also in greater acceptance by business partners and executive staff). This flexibility relates primarily to the method of financing the foreign operation and the determination of transfer prices. Activities within the scope of transfer prices include leasing, management assistance and licensing agreements. The main disadvantages of a subsidiary arise from the complications, for both enterprises and tax administrations, on reaching agreement on transfer prices. Commercial law compliance also carries high costs for small affiliates, and the tax consequences of a transfer-pricing adjustment. The single market project may therefore provide a fresh impetus to the use of permanent establishments.

Further planning options are available where an enterprise is classified for tax purposes as having one legal form at home and another abroad. For example, a European limited company (BV or GmbH) may be taxed as a partnership in the United States if its statutes of association are properly drafted. Planning such arrangements is, however, subject to substantial advisory costs and also to relatively high tax risks.

Differing tax charges

Permanent establishments and corporate subsidiaries may be taxed differently, even in the country in which they are located.

Notwithstanding local income taxes, permanent establishments in Europe are typically liable only for corporation tax or income tax, with no withholding tax on the transfer of profits. However, more recently there has been a trend towards subjecting the profits of a permanent establishment to a tax similar to withholding tax (for example, the US branch profits tax introduced in 1986).

In the case of a corporate subsidiary, differing tax rates for distributed and undistributed profits may be a factor in planning; but often distributions are subject to a separate tax on dividends, of normally 20 to 30%, (though relief under double taxation agreements may reduce this to 10 or 15%; in group situations, outside the application of the Community's parent/subsidiary Directive, there is usually a reduction to as low as 5%). In Germany, a permanent establishment is often at a disadvantage compared with a subsidiary as the form for doing business, even though this result is in conflict with the ban on discrimination under the double taxation agreements and under the EC rules.

Groups in the European Community benefit from the parent/subsidiary Directive adopted by the Council of Ministers on 23 July 1990 and which should be incorporated into national law with effect from 1 January 1992. Under the Directive dividends distributed by a subsidiary in one Member State to its parent company in another Member State are exempt from withholding tax (there are transitional provisions for Greece, Portugal and Germany). Double taxation of the same profits in the hands of the parent company will also be avoided.

Partnerships

In some countries, many small and medium-sized enterprises have been established as partnerships. (In Germany, for example, the GmbH & Co KG is a typical legal structure for a family enterprise where tax considerations might be an important factor.)

If a partnership chooses to establish a permanent establishment or partnership abroad, the home country, under the terms of a double taxation agreement, typically either grants an exemption for foreign income, or allows as a credit against domestic income tax the foreign income tax paid. Accordingly, there is taxation in the country of operation (or taxation at the higher of the home-country rate and the country of operation rate) of typically between 30 and 50%. If, on the other hand, the partnership establishes a subsidiary company abroad and distributes that company's profits after tax, they are again subject to full income tax in the home country. The typical after-tax profit is then only 20 to 25% of the subsidiary's profit before tax.

Where there are reasons preventing a partnership from establishing a permanent establishment or a partnership abroad, it can alternatively:

- (a) interpose a foreign permanent establishment between itself and the foreign company;

- (b) choose a legal form which is treated as a permanent establishment at home and as a corporation in the foreign country; or
- (c) establish an intermediate company at home with the aim of consistently reinvesting the foreign dividends abroad, rather than distributing them domestically.

More than one venture

Problems may arise where an enterprise has set up several ventures in a specific country whether in the form of a permanent establishment or subsidiary. This can occur in the case of a large company with a diverse product range, or on the acquisition of a foreign holding company, or on a merger with another group.

The existence of several ventures in a particular country is foremost a managerial and organizational matter. But when these ventures engage in business with one another, and particularly when one operates at a loss while the others generate taxable profits, tax can be an important consideration. Accordingly, the advantages of combining ventures may need to be considered. One solution is to amalgamate through a merger or by other arrangements, with the loss-making company usually being the absorbing company because it would otherwise lose its right to carry forward the loss. On the other hand, an enterprise may acquire new profit-making operations. Then an examination needs to be made of whether any losses within the group can be eliminated through cross-border transfer prices (supply of goods, loan interest, royalties, management fees, etc.). Efforts might also be made to secure uniform group taxation of all ventures in a particular country, although this normally requires the formation of a holding company in that country.

The mergers Directive, adopted in July 1990, means that there are now some new planning options within the Community. This Directive, which, with the exception of Portugal, has effect from 1 January 1992, provides for the introduction of a common system of taxation applicable to mergers, divisions, transfers of assets and exchanges of shares concerning companies of different Member States.

Finance

The area of financing offers many possibilities for international tax planning.

Finance from outside the group

To finance foreign ventures, enterprises are free (though within increasingly narrow limits) to decide whether to draw on internal resources, or raise funds from outside the group; and to determine where, how, and for what period, the funds are to be raised. There is generally significant reliance on outside funds (mainly bank loans) in countries with high nominal tax rates; in countries with low nominal tax rates, by contrast, a higher proportion of internally generated capital tends to be employed.

Intra-group financing

Whereas the method of external financing is of importance for both foreign subsidiaries and permanent establishments, the question of whether internal resources should be committed in the form of equity capital or shareholder loans (group loans as quasi-equity) normally only arises in the case of subsidiaries. Whether equity or loan capital is provided is often determined by tax considerations. Financing through hybrid forms such as silent partnerships, profit-sharing loans, and beneficial interest rights also plays a significant role, as do 'back-to-back' loans provided through external third parties. Moreover, in the past some intra-group financings were regarded as equity capital in the creditor country and as borrowed capital in the debtor country (e.g. the income of a US corporation from a German silent partnership). Most such financial innovations are designed to exploit special tax advantages.

'Base' companies (see page 132) are often used to perform the financing function for companies operating internationally. These may, for example, be based in Luxembourg or the Netherlands, where there is no withholding tax on interest payments. (In Germany, for example, bonds with detachable stock warrants are used as a vehicle for foreign portfolio investors to indirectly avoid the disadvantages of the imputation system: the loan is divided into a low-interest income instrument and a non-interest bearing instrument which participates in the future increases in corporate net worth in the same way as company shares.)

Although the international trend is to reduce the double taxation of dividends, in most countries interest on recognized shareholder loans may be taxed more favourably than a subsidiary's dividends. This is particularly true for cross-border transactions. Accordingly, planning is not restricted to consideration of the rules in the country of operation, but also takes into account taxation in the country providing the capital. For example, if a German parent company makes a loan to a subsidiary resident in another country with which Germany has a double taxation agreement, the tax saving in the country of the subsidiary may be lower than the tax on resultant interest income in Germany. The solution in this case might be to direct the shareholder loans through an intermediary base company in which interest income remains tax-free.

Increasingly, tax administrations are looking critically at tax haven companies; in many countries there has also been a tendency to regulate international financing by shareholder loans (thin capitalization). For example:

- (i) interest paid abroad by a French company to a connected person managing the company is not deductible as a business expense if the underlying loans exceed 150% of the company's equity. Accordingly, foreign shareholders may not lend more than 60% of total capital employed;
- (ii) interest paid by a Canadian company to a foreign shareholder with a substantial interest is not deductible to the extent that shareholder loans exceed three times the foreign shareholder's equity holding;
- (iii) in Germany there has been pressure over the last decade to restrict the deductibility of interest payments made to related persons who are not entitled to the imputation tax credit, especially those resident abroad;
- (iv) in the United States there is a new limit on interest deductions (in the 'earnings stripping' limitation of Section 163(j) of the IRC, introduced by the 1989 Tax Act). Under these provisions, interest expenditure subject to no, or reduced tax in the

United States is not deductible if the excess of the US company's interest expenditure over interest income exceeds, broadly, 50% of taxable income, and if the ratio of loan to equity capital exceeds 1.5:1.

Distribution policy

A further area for tax planning in a financial context is the distribution policy of international groups. This policy depends not only on economic considerations such as the group's overall profits position, and future investment needs, but also on tax factors such as the features of the corporation tax system (e.g. whether or not there is a credit to the shareholder for tax paid at the corporate level), on the level of withholding taxes, and on taxation in the hands of the controlling company.

Lastly, international tax planning can help reduce the risks associated with capital maintenance in countries with a high inflation rate.

Transfer-pricing

Transfer prices, that is the price at which goods or services are transferred from one body to another under the same control, provide potential for manipulation by some taxpayers on the one side and for adjustments by the tax authorities on the other side. Precise figures on the volume of transfer-pricing which relate to EC countries do not exist. However, total trade in goods between the different Member States amounts to as much as ECU 614 billion.¹ On the assumption that 50% of this amount is trade between related persons (some estimates put the proportion higher), ECU 307 billion of transfer prices in terms of volume would have to be scrutinized by the tax authorities. Moreover this figure does not include trade between the EC and third countries so an estimate of total transfer prices for goods involving EC countries amounts to:

| | (billion ECU) |
|--|---------------|
| Transfer prices within the EC (as above) | 307 |
| Transfer prices between the EC and North and South America | 108 |
| Transfer prices between the EC and Asia/Pacific areas | 90 |
| Transfer prices between the EC and the rest of the world | 226 |
| | <hr/> |
| Total volume of transfer prices | 731 |

This would suggest that Member States' tax authorities have to examine the validity of transfer prices for goods worth over ECU 730 billion a year. On top of this payments for services interest, royalties, licences, know-how fees, etc. have also to be taken into account. Finally, transfer-pricing investigations often have to consider what is missing, for example, the need to impute the price of an interest-free loan or the failure to contribute to research and development expenses.

¹ EC information No 5/1991, p. 7, numbers refer to 1989 and were converted from US dollars into ecus at the average exchange rate of ECU 1 = USD 1.1075.

On the other hand, transfer-pricing manipulation is probably less prevalent today than it was two decades ago. This is mainly due to two developments:

- (a) An increasing number of multinational companies have switched to the profit centre form of organization. Artificially engineered transfer prices are difficult to reconcile with this.
- (b) Tax authorities of industrialized countries are attaching increasing importance to compliance with the arm's-length principle. Examples are the US guidelines concerning Section 482 of the Internal Revenue Code and the principles of the recently released regulations supplementing them; the same line is taken in the OECD reports on transfer-pricing (1979 and 1983) and the German administrative principles of 1983.

However, it should be remembered that in some countries tax administrators are less sophisticated in auditing transfer prices than in others.

From a tax planning point of view, transfer-pricing may lead to situations in which costs arise where nominal tax rates are relatively high and profits are taken where they are relatively low. However, these principles can conflict with ordinary corporate management, particularly where there is a system of profit centres, as arbitrary profit shifting can be disruptive. And, of course, the costs of defending a transfer-pricing adjustment can be high for a small company.

Application of the arm's-length principle

The arm's-length principle which is the main criterion governing transfer-pricing practices, is not always easy to implement in practice. The three standard methods generally employed to reach such a price are the 'comparable uncontrolled price method', the 'resale price method', and the 'cost-plus method'.

Two general issues are involved in the application of the arm's-length principle. First, should there be some hierarchical approach to the order in which standardized methods are applied? In accordance with the OECD 1979 guidelines, the Committee preferred flexibility, taking the view that the appropriate method to apply had to depend on the facts of the case, but national practices sometimes take a more rigid hierarchical approach. The second problem relates to the relative freedom of business to choose its method and the taxation authorities to refuse and accept a method which they consider does not give a reasonable approximation to the prices which should prevail between independent parties. Country practices among EC Member States sometimes diverge (e.g. the taxpayer in Germany has greater freedom in choosing the method *vis-à-vis* the authorities than the taxpayer in the United Kingdom). This diversity of treatment within the EC could not only lead to distortions, but also to disputes between tax administrations on what is the appropriate transfer price to accept for the purpose of reaching a taxable base. This underlines the need for cooperation between tax administrations and perhaps coordination by the Commission in an attempt to reach greater uniformity of transfer-pricing practices under the arm's-length principle. In this regard, the Committee expressed its preference for the OECD guidelines. The Committee also considers that the taxpayer's choice of method should carry a presumption of correctness with the burden of proving that the chosen method does not meet accepted criteria falling on the tax authorities.

Arm's-length versus allocation formulae

Under the arm's-length approach, the objective is to arrive at what would be the price paid between unrelated enterprises; under allocation formulae, the view is taken that with certain integrated transactions between multinational enterprises, traditional arm's-length methods are not feasible from a technical point of view, and the formulae therefore seek to fix transfer prices by reference to pre-determined formulae based on the respective costs, or turnover, or labour force, or various combinations of these factors.

Noting that formula allocation methods are used in federal countries such as Canada, Germany and the United States, the Committee examined the question of whether it should recommend the introduction of a common system of apportionment of taxable income for companies operating within the Community (the 'water's-edge' principle), it being understood that the arm's-length principle would continue to be used in transactions with non-EC countries.

However, while appreciating that within a single country with separate and local taxing jurisdictions, allocation formulae methods might often be the best proxy for an arm's-length solution when integrated or group operations are involved, for a number of reasons the Committee endorsed the view of previous studies that a move from arm's-length to formula allocation had many drawbacks, when the tax systems of more than one country were involved:

Firstly, and foremost, allocation is suitable only if States have reached an advanced degree of integration, such as common currency, common company law, common accounting standards and common expertise in the tax administrations.

Secondly, formula allocation bears the danger that profits are allocated to a country in which they were not earned; moreover, recent information from the United States suggests that even under formula allocation both economic double taxation and transfer-pricing manipulations continue to occur.

Thirdly, a shift to formula apportionment would involve a renegotiation of all tax treaties between Member States and possibly also with third countries.

Fourthly, the use of different principles such as allocation formulae within the EC and the arm's-length standard outside the EC may make the resolution of double taxation disputes more difficult.

Fifthly, tax inspectors would have difficulty in applying two separate standards (arm's-length and formula allocation) to a transaction involving more than one Member State and a third country.

In the Committee's view, there is no case for introducing a system of formula allocation within the Community in the foreseeable future. The Committee endorses the continued use of the arm's-length principle, which is the international norm in double taxation conventions, as the standard to be used for transfer-pricing. It rejects the use of formula allocation or global methods except in the relatively rare case where no arm's-length price is available or could be arrived at by the traditional methods, for example, in the case of unique intangibles or global trading arrangements. Introducing an allocation system on an optional basis for enterprises might be reconsidered when a much higher level of integration between Member States is achieved, in particular, when group treatment has been introduced for enterprises located in different Member States.

Special cases

Group headquarters' costs

Large multinational companies frequently spin off a number of functions from their subsidiaries and transfer them to headquarters. The costs arising at headquarters' level are normally charged to the subsidiary; this is a managerially acceptable principle since the subsidiaries are relieved of costs as a result of the transfer of functions. There is some dispute, however, about whether these costs can be charged to the affiliates with a profit margin added. And of course, problems arise concerning the amount of costs that can be passed on. There are two practical views about this:

The first, held in particular by the business community and tax inspectors of countries in which large group headquarters are situated, assumes that in the case of a pure holding company there is basically a need for two persons only: a lawyer who ensures that all legal formalities are complied with by group subsidiaries, and a financial manager who reinvests the dividends arising. All other costs are then allocated to the individual subsidiaries as headquarters' costs.

The second assesses the individual service performed. Transactions regarded as eligible for recharging are those in the direct interest of the subsidiary concerned, and charged at a level in line with the subsidiary's market. According to this view, the costs of production coordination, for example, cannot be set off within the group, but must be covered by the holding company out of taxed profits.

One consequence of these views, however, is that some elements of headquarters' costs may not be deductible anywhere.

Research costs

Another important area is the method of charging for research costs. In the past 20 years two systems have emerged under which companies charge research costs to their subsidiaries:

- (i) The traditional method is for the group headquarters to undertake all research and development at its own expense. As soon as exploitable results are available, licensing agreements are then concluded with the manufacturing subsidiaries. The research costs are then recovered by way of royalties determined according to the arm's-length principle.
- (ii) A more recent method is for the group headquarters to conclude a cost-sharing agreement with the subsidiaries which will be the future users. Compensation for the share in research expenditure is then made as it arises and the risk of research passes to the manufacturing subsidiaries. Such agreements are very rarely concluded with independent companies outside the group.

From the group headquarters' point of view, opting for a cost-sharing agreement is not only an important tax decision but also an important managerial one. This is because it provides substantial cash-flow benefits: the apportioned costs are payable as and when the expenditure is incurred, and the need for advance financing by the group headquarters is accordingly removed. Under the traditional method, research expendi-

ture must be financed centrally for many years with group headquarters also bearing the full risk of failure. Given the lower financing and risk costs, the costs apportionment method ought to be lower than the royalty method. A system of cost sharing by the group does, of course, require complete transparency as far as the tax authorities of the countries concerned.

Use of 'base' companies

Low tax jurisdictions play an important role in international tax planning. In particular, some tax planning devices utilize 'base' companies to reduce or eliminate tax and/or to gain a tax deferral. A base company is essentially an intermediary or additional company inserted into the structure of a group to serve as a base for certain financial or other arrangements. The introduction of anti-avoidance laws in many industrial countries, the growing sophistication of tax inspectors, and increasing exchange of information do not seem to have reduced the use of base companies, but they do seem to have reduced their effectiveness.

In addition, particular tax incentives offered by countries which are regarded as high-tax have become more important. However, recent EC legislation has been designed to make some of the international tax planning routes within the EC less attractive (i.e. the parent/subsidiary Directive, the mergers Directive, and the proposed Directives on the elimination of withholding taxes on interest and royalties, and on losses of foreign permanent establishments and subsidiaries).

The subsequent consideration of the use of base companies deals only with certain aspects and is not intended to be comprehensive. It should also be noted that most of the structures described below may be part of bona fide transactions of internationally operating companies.

Low-tax jurisdictions

Whether a jurisdiction is considered a low-tax area or even a tax haven depends on the tax differentials existing with other countries. In one respect or another, every Member State may be considered a low-tax jurisdiction because each has its own tax incentives. Generally, three different types of low-tax area can be distinguished.

(i) 'Classical' tax havens

A generally accepted definition of the term 'tax haven' does not exist. Hereinafter, the definition of the OECD is followed where a classical tax haven is defined 'as a jurisdiction actively making itself available as a tax haven for the avoidance of tax which would otherwise be paid in relatively high-tax countries'.¹

Most classical tax havens are less developed countries or territories where direct taxes are not imposed at all or are imposed at concessional rates. Quite often, incorporation and administration of companies is subject to a flat rate or levy. 'Fiscal tourism' is encouraged and usually constitutes an important factor in the local economy. Well-

¹ OECD (1987).

known examples are Liechtenstein, the Channel Islands, the Bahamas, the Netherlands Antilles, the Cayman Islands, and Monaco (other than for French residents). In these countries banking and commercial secrecy is extremely important. In many cases ownership of companies and of corresponding transactions are not disclosed or are not fully disclosed to the tax authorities; this may provide an ideal vehicle for tax evasion or fraud.

These jurisdictions normally have few, if any, tax treaties, so there is usually no obligation for exchange of information. In the case of a criminal offence, judicial assistance may be granted, but tax fraud is usually excluded.

(ii) Developed high-tax jurisdictions providing tax incentives to persons involved in foreign activities

Certain countries that are generally considered high-tax jurisdictions provide special tax incentives in order to attract foreign capital and business. Often residents are subject to heavy taxes whereas concessions are provided to foreign companies. Examples of such concessions are favourable rules for coordination centres, certain insurance business or investment funds, and low tax rates on foreign-source income.

(iii) Jurisdictions with highly developed service centres

The characteristic features of this type of jurisdiction are not low tax rates but rather the secrecy provided by bank laws, the network of double tax treaties, and the sophistication of the legal and accounting professions.

Conditions for use

Whether or not tax planning structures using offshore jurisdictions lead to tax savings depends on a number of factors not all of which are tax related. On the non-tax side the most important ones seem to be:

political and economic stability;

a sophisticated service industry;

absence of exchange controls at least for non-residents;

bank secrecy;

modern code of commercial law and practice;

developed infrastructure (e.g. telecommunications);

EC-association (without membership) can also be useful;

and on the tax-related side:

zero or low rate of tax in general, or for specific categories of income, capital gains, wealth or estates;

recognition of fiduciary arrangements or trusts;

network of double taxation agreements providing low withholding tax rates (for payments into and out of the jurisdiction).

Tax planning structures

Holding companies

Some jurisdictions offer tax incentives for holding companies which are not usually engaged in any trade or business. Such arrangements are consistent with the principle that income should be taxed where it is earned. Other jurisdictions offer no specific tax incentives to holding companies so their ordinary tax rules apply to holding companies. From a tax point of view, the most important criteria for the choice of location of a holding company are:

the rate of source-country withholding taxes on dividend payments to the holding company, and the rate of the proposed residence-country tax on subsequent payments to shareholders;

anti-avoidance measures of residence countries;

the network of tax treaties; and

the tax treatment of interest expenses and capital gains.

Countries that are attractive locations for holding companies include Switzerland and Austria, as well as the Netherlands, Belgium and Luxembourg within the Community. In this regard, the attractiveness of Member States as a location for a holding company may be eliminated or reduced by the parent/subsidiary Directive.

Offshore banking

Banks which render services from a tax haven operation primarily to non-residents are considered as engaged in offshore banking activities. Many banks with headquarters in high-tax countries have established branches or subsidiaries in tax havens. These have the advantage in that profits derived from banking activities in the tax haven are subject to little or no tax there. Accordingly, they are able to offer very competitive borrowing and lending terms. Banking secrecy is also an important consideration for locating activity offshore. Income earned from offshore banks is usually subject to tax in the country of residence.

Examples of locations for offshore banks are the Cayman Islands, Bermuda, the Channel Islands, Liechtenstein, Switzerland, and Austria. Within the Community there are Luxembourg, Germany and the United Kingdom, as well as Madeira, the Canary Islands, Gibraltar, and the Dublin International Financial Services Centre.

Finance companies

Many multinational companies have established subsidiaries in high-tax jurisdictions to take advantage of general characteristics of the local tax system which are favourable, to finance foreign subsidiaries and branches; foremost is the absence of withholding taxes on interest paid. Favourable locations include Switzerland and within the EC, the Netherlands, Belgium, Luxembourg and Ireland.

The relatively high final level of taxation within these locations is a reason why many companies have tried to gain further tax savings by interposing branches or intermediaries in tax haven countries. However, many industrialized countries have counteracted the use of such structures by introducing controlled foreign corporation rules under which the retained income of such finance companies is taxed in the country of the parent company, as if it had been repatriated in the year it was earned.

Captive insurance companies

Many multinational groups have established their own captive insurance companies. At their simplest, these assume the basic worldwide insurance risks of the group and place reinsurance contracts. For tax planning, the existence of a tax treaty with the home country may be an important prerequisite in choosing a location for a captive (for example, to avoid taxation under the controlled foreign corporation (CFC) rules in the home country). Some countries, including, recently, Ireland, have even established special tax incentives to attract captive insurance companies. Home countries have counteracted by strictly applying arm's-length rules to the payment of intercompany premiums to captives, as well as through specific anti-avoidance measures.

Coordination centres

Some countries offer favourable tax treatment to coordination centres — the centralized management activities of multinational groups. These can be established if certain requirements are fulfilled (e.g. subsidiaries located in several countries, the centre itself not being engaged in commercial business, minimum equity). Usually, the tax base of such a centre is computed on a cost-plus basis, rather than actual income and some costs may be disregarded. Coordination centres in Belgium and Luxembourg are taxed on this basis.

Offshore workshops

Another option is to transfer certain functions such as manufacturing and distribution into low-tax jurisdictions. Such arrangements, which may also provide non-tax advantages, such as low labour costs, are known as offshore workshops. Within the Community, Ireland is an example location, with its 10% corporate tax rate for manufacturing companies.

Trading companies

These are used for centralized purchasing or distribution functions. Here, the headquarters' country tax authorities may be even more suspicious than in the case of offshore manufacturing. Substantial tax savings may none the less be obtained if the trading company respects arm's-length pricing and is not subject to the CFC rules of the home country of the group.

Trusts

The establishment of trusts in tax havens mainly concerns estate and inheritance tax planning, although such planning for wealthy individuals and families also focuses on income and wealth tax aspects.

As a means of tax planning, trusts are common in Anglo-Saxon jurisdictions, but the importance of trusts on the Continent seems to be increasing. All Member States of the EC have signed The Hague Convention on the law applicable to trusts and on their recognition. However, the Convention has still not entered into effect.¹

For tax purposes, trusts may offer advantages in havens such as the Channel Islands, Gibraltar and Liechtenstein. However, since the tax residence of the trustee and the beneficiaries is particularly important for trust arrangements, their use is limited. Some countries, such as Germany, have introduced special anti-avoidance legislation against family foundations abroad. Most types of trusts will also be treated in the same way for tax purposes.

Innovative arrangements

Innovative tax planning often includes the use of tax haven operations. Examples of innovative tax planning devices are:

- (i) The so-called 'Dutch sandwich' which is a form of 'treaty shopping'. This structure is used by companies or individuals who are residents of a non-treaty country to obtain treaty benefits, such as the reduction of withholding taxes. Under this arrangement, the resident of a non-treaty country may establish a company in the Netherlands Antilles which, in turn, sets up a Netherlands company. The Netherlands company then establishes a company in the country where the substantive business is done. These arrangements may allow, for example, interest to flow out to a tax haven without withholding taxes because, in the absence of anti-avoidance rules, the Dutch treaty network can then be used in effect by persons resident in non-treaty countries. However, in recent years this route has become less attractive because of new Dutch legislation.
- (ii) 'Double-dip' leasing is an arrangement that takes advantage of asymmetries between national tax laws. If a lease contract is set up in a certain way, depreciation may be claimed in the country of the lessor as well as that of the lessee.

Anti-avoidance rules of developed countries

Most industrial countries have introduced anti-avoidance measures to combat tax abuse in general and tax haven activities in particular. In addition to the transfer-pricing and thin capitalization rules already discussed the most important are:

- (i) controlled foreign corporation (CFC) legislation,
- (ii) 'substance over form',
- (iii) shifting of the burden of proof, and

¹ The Hague Conference on private international law, 15th session, 20 October 1984.

(iv) treaty-shopping clauses.

Other anti-avoidance measures not discussed here include withholding and penalty taxes, as well as the definition of tax residence for individuals and companies.

Controlled foreign corporations (CFCs)

The most important industrial countries have rules which tax currently shareholders of tax haven companies on their proportional share of retained earnings. These rules vary from country to country.¹ For example, Germany only attributes specific categories of 'passive' income (income not earned in the ordinary course of business) while other countries attribute all income earned and retained in tax havens. The concept of what is regarded a tax haven also varies. For example, the UK focuses on the tax rate applied in the tax haven jurisdiction; other countries, like Japan, simply have lists that designate certain territories as tax havens.

Substance over form

Most countries recognize the concept of 'substance over form' either under legislation or case-law. The basic idea behind this concept is that the economic reality of a transaction should prevail over the literal wording of the arrangement under the tax law. However, the application of the concept differs widely between countries, and also between Member States. Some countries have introduced general and/or specific anti-avoidance provisions. Others rely solely on case-law.

In practice it is difficult to apply this concept in an international context because of the need to obtain information abroad about international transactions. There is also uncertainty on the extent to which this concept applies in the interpretation of tax treaties.

Shifting of the burden of proof

Another measure limiting the use of tax havens has been to reverse the burden of proof. While the onus of proving that a transaction violates tax provisions usually rests with the tax authorities, some countries (e.g. Belgium and France) instead place the onus on the taxpayer to prove that a tax haven transaction was undertaken for a valid business purpose. A similar measure which also strengthens the position of the tax authorities is an extensive definition of tax residence.

Treaty-shopping clauses ('conduits')

Not all industrial countries take an aggressive approach toward treaty-shopping arrangements. However, the United States and Germany have put special emphasis on denying treaty benefits to third country operations. Treaty-shopping clauses have, for

¹ For a detailed analysis see Arnold, Canadian Tax Foundation (1986).

example, become an integral part of US treaty policy, with such clauses incorporated in the treaties with Spain, France, and Germany. There are doubts within the Community, however, whether treaty-shopping clauses are compatible with fundamental principles of Community law as far as residents of other Member States are concerned.

III — Limits of international tax planning

Avoidance, evasion and fraud

The general principle that every taxpayer has the right to arrange and conduct his affairs in a way that minimizes his tax burden is established in all Member States. On the other hand, this general rule also has its limits. The dividing lines between tax avoidance, tax evasion and tax fraud not only differ substantially between Member States, but are often also vague and uncertain within each jurisdiction.

There is no internationally uniform definition of the terms tax avoidance, tax evasion, and tax fraud. Accordingly, the following terms are used:

Legitimate tax avoidance (acceptable tax avoidance) is the lawful way of minimizing one's tax liability. The term is used to refer to tax-saving arrangements which are approved either by the tax authorities or by the courts. Taxpayers are allowed to reduce or avoid taxes if they choose to structure their affairs in a certain favourable way.

The term tax evasion has different meanings in different languages. In the English language tax evasion implies illegal activities, but generally of less seriousness than tax fraud. For example, refraining from declaring taxable income would be called 'tax evasion' whereas making false statements would be 'tax fraud'. In French 'evasion' has the same meaning as 'avoidance' whether legitimate or not. So as to avoid confusion, the term 'evasion' is not used.

Illegitimate tax avoidance (unacceptable tax avoidance) describes arrangements where taxpayers comply literally with the letter of the law but are considered to act abusively because the only purpose of the arrangement is to avoid taxes. Illegitimate tax avoidance may not be accepted under tax law where substance prevails over form.

Tax fraud is used to refer to the intent to evade taxes through illegal methods (i.e. intentionally false or incomplete representation to the tax inspector), and the intentional violation of the rules.

Distinguishing between acceptable and unacceptable tax avoidance

Generally speaking, the expression 'unacceptable tax avoidance' comprises the use of tax-saving devices that the legislation does not actually prohibit, but did not intend to cover. Although the legal structure of the arrangements may be proper, and no specific tax provision is violated, the structure may be disregarded if its sole purpose is to avoid taxes. If the taxpayer's only intent in using a complicated structure is to save taxes, it is then arguable that he has compromised his right to structure his affairs in that way.

However, such a broad definition is not very helpful in practice, since not all countries follow this concept, and each that does applies its own rules to define the circumstances in which a tax-saving device is regarded as legitimate. However, all countries have rules which act against legal arrangements which have no intrinsic purpose other than to avoid tax. If such rules apply, the arrangements are disregarded for tax purposes.

General anti-abuse rules

The tax laws of some countries, such as France, Germany, Italy and Canada, contain general anti-abuse rules. These rules do not define what is abusive rather, they describe the legal consequences of a largely undefined arrangement on an abstract, theoretical level. Accordingly, these rules require interpretation by the courts. Examples are:

- (i) France, Article L. 64 of the Book of Fiscal Procedures headed 'procédure de répression des abus de droit';¹
- (ii) Italy, which after many years of discussions, enacted anti-avoidance rules in 1989² (originally a broader provision was enacted in 1988 but repealed only a short time later);³
- (iii) Germany, the most important general anti-abuse rule is paragraph 42 of the German Fiscal Code of 1977⁴ (*Abgabenordnung* — AO). This section generally provides that tax law cannot be circumvented by using artificial legal constructions. In such a case, tax would be due as if a legal arrangement consistent with the taxpayer's economic situation had instead been chosen. The highest German Tax Court developed several different approaches to the interpretation of the section. As a result, under established practice since 1980, a tax device is unacceptable if a taxpayer chooses a legal arrangement which, measured by the intended objective, is inadequate, i.e. it is unusual and not justified by economic or other considerable reasons.⁵ But even this explanation is not of much practical help. Today, legitimate and illegitimate tax avoidance are simply distinguished in Germany by the presence (or absence) of two factors: the choice of an unusual way to achieve an objective, and the non-existence of economic or other commercial reasons.

Principles developed by the courts

The result of such judicial principles is to look through the arrangements so that tax liability is levied under the terms of the relevant provisions of the appropriate tax laws. An example where the principle that substance prevails over form is generally accepted is to be found in the United States, where a 'business purpose test' is applied.⁶

¹ Article L. 64 of the Book of Fiscal Procedures as amended by Law No 87-502 of 8 July 1987.

² Bill No 154 of 27 April 1989.

³ Article 31 of the anti-avoidance Bill, approved by the Italian Council of Ministers on 5 August 1988.

⁴ Formerly §6 StAnpG.

⁵ See BFH-decision of 16 March 1988, X R 27/86, BStBl. 1988 II, p. 629.

⁶ The landmark US case for this practice is *Gregory v Helvering* which was decided by the US Supreme Court as long ago as 1935; 69 F.2d 809 (second Cir. 1934).

Specific anti-abuse provisions

The tax laws of most Member States contain, in addition, specific (codified) anti-abuse provisions. These provisions apply only to certain, usually precisely defined, situations which are unacceptable in the view of the legislator. For example, in the United Kingdom, specific anti-avoidance provisions are the traditional measure against tax evasion. These include provisions which refer to the taxation of controlled foreign corporations.

Distinguishing between illegitimate tax avoidance and tax fraud

Usually this category of tax abuse does not raise classification problems. Examples would include deducting fictitious expenses based on false invoices, or not declaring all taxable income. However, in practice it is sometimes difficult to establish that taxpayers have deliberately broken the law. And while illegitimate tax avoidance may not be penalized (only the taxes avoided are levied) tax fraud is punishable by administrative fines or prosecuted as a criminal offence.

Implications of EC legislation

The continuing integration of European economies and the free movement of capital increase the importance of international tax planning. Accordingly, the question arises whether there should be Community-wide rules that limit the opportunities.

However, Community measures to combat international tax evasion and tax fraud on a Community level are not yet in sight. Instead, a national or bilateral approach has so far been followed. In 1977 the Council of Ministers adopted a Directive on mutual assistance by tax administrations of Member States in the field of direct taxation.¹ Under this Directive, cross-border tax abuse is evaluated by national tax administrations according to national rules.

However, this approach raises a number of questions. For example, the instruments adopted by the Council of Ministers on 23 July 1990 (parent/subsidiary and mergers Directives and the Arbitration Convention) contain clauses which effectively allow each Member State to decide on a case-by-case basis whether these Directives apply, depending on whether the respective cross-border transactions comply with national anti-abuse legislation. In other words, in each case where such structures are involved, the Member State has the discretion to allow the benefits of the Directives. This might give rise to problems if one State considers a transaction abusive, while another considers the same transaction acceptable. Such a problem could arise, for example, in applying the mergers Directive to a cross-border transfer of assets.

Another example of differences between Member States which might create difficulties is Article 8 of the Arbitration Convention. Under this Article, a Member State might unilaterally suspend, terminate or even decide not to initiate the procedure for elimin-

¹ Directive 77/779/EEC (OJ L 336, 12.1.1977). The Directive followed a resolution on the measures to be taken by the Community in order to combat international tax evasion and avoidance (OJ C 35, 2.2.1975) adopted by the Council on 10 February 1975.

ation of double taxation if under its national rules a 'serious penalty' can be applied to the taxpayer. However, the meaning of serious penalty, differs from one Member State to another.

The two recently proposed directives on the abolition of withholding taxes on interest and royalty payments, and cross-border relief for losses by permanent establishments and subsidiaries, contain similar anti-abuse clauses and might raise similar problems.

IV — Conclusions

From the preceding analysis, it is clear that substantial differences in tax legislation may be found when business is done in other countries. These differences may result in higher tax burdens. However, through clever use of differences in tax rates and tax base, as well as by exploiting loopholes, tax-planners might use these to achieve a lower tax burden for the multinational enterprise (which may be lower than the average tax rate of the Member States). The Committee is concerned about both situations. Accordingly, a number of recommendations are made in Chapter 10.

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Chapter 7

Tax competition, tax coordination and tax harmonization: some theoretical and empirical observations

I — Introduction and summary

In the debate on the proper design of taxation in the single market of the European Community, a major issue is whether there is a need for some form of coordination or harmonization of taxes on business and capital income at the Community level, or whether the design of these taxes can be safely left to individual Member States.

Since capital income takes many forms such as business profits, interest, dividends and capital gains, the debate on the need for tax coordination or harmonization involves the personal income tax as well as the corporation tax. It has been questioned whether it would be possible (in the absence of further intra-Community coordination) to maintain a substantial corporation tax revenue, as the growing mobility of capital increases the temptation for national governments to attract capital from each other's jurisdictions by offering lower effective tax rates. A related concern is whether such tax competition would drive corporate tax rates to such a low level that the incentive to shield income from personal taxation through incorporation would be unacceptably large.

Even if the corporate income tax does not vanish under tax competition, lack of tax coordination may still enable governments to impose negative economic spillover effects on each other by manipulating corporate tax systems such as offering particular tax advantages. On the other hand, it has also been argued that tax competition could play a beneficial role by inducing more convergence of national corporate taxation.

This chapter briefly discusses whether the recent theoretical literature on international tax competition and tax harmonization offers any important lessons or guidance for the European debate on corporate tax harmonization. The main conclusions of the chapter can be summarized as follows.

1. Simple theoretical models predict that the process of tax competition between governments will result in the atrophy of source-based corporation tax. Residence-based taxes on capital income can survive only if there exists sufficient exchange of information between governments to ensure that foreign-source income can be taxed in the country of residence. Thus, if exchange of information between countries does not occur, then theoretical models predict that it would be in each country's interest to have no business or capital income taxes at all.
2. The arguments for such an outcome appear relatively persuasive in the case of taxation of the return to portfolio investment, especially for debt. Since the international mobility of portfolio investment in debt instruments is very high, and since this form

of investment is particularly sensitive to tax factors, it seems more likely that an absence of international tax coordination in this field will lead to a gradual erosion of the ability of individual governments to levy taxes on interest income. Indeed, if there is no similar cooperation between the European Community and the rest of the world, even an increased exchange of information within the European Community may not be sufficient to ensure effective tax enforcement. However, this argument may be less strong with regard to portfolio investment in shares, mainly because the gains from international diversification are higher, which suggests that such capital is less sensitive to tax factors.

3. However, the theoretical arguments that source-based corporate taxes would be driven to zero are less persuasive. This is partly due to fundamental factors such as lack of perfect capital mobility (for example, due to adjustment costs in moving from one location to another). This argument is weaker for financial services, which are more mobile than industrial investment. However, it is also due to the existence of credit methods among residence countries, which give the source country an incentive and opportunity to export taxation. In addition, there also exists the possibility that the source country may tax super-normal profits which arise solely because of the location of business opportunities (e.g. North Sea oil and gas, taxed by the Netherlands and the UK).

4. Given the greater difficulties of enforcing taxes on interest income than enforcing the corporate income tax in an international setting, there is a danger that the increasing mobility of capital will exacerbate the existing tendency of corporate tax systems to favour debt finance at the expense of risk-bearing equity finance. This is one means by which the corporate tax base might be eroded, although there are of course limits to the extent to which debt financing can be used (e.g. thin capitalization rules and risk of bankruptcy). The danger of increased discrimination against equity finance seems particularly great if Member States agree to neutralize tax competition in the field of corporate taxation — e.g. by requiring that corporation tax systems continue to discriminate against equity financing — without taking steps to coordinate their taxation of income from portfolio investments.

II — International spillover effects of capital income taxation

The need for international coordination of capital income taxes arises because capital income taxes levied in one country may sometimes affect economic conditions in and hence the economic well-being of other countries.

A straightforward example of an international spillover of capital income taxation is the imposition of a tax on the return of foreign-owned capital invested in the domestic economy. Through such a tax, e.g. a withholding tax on dividends or interest paid to non-residents, the domestic government can export part of the tax burden to, and thereby impose a welfare loss on, foreign countries.

A more indirect international spillover occurs when the imposition of domestic business and capital taxes leads to an export of capital from the domestic economy. The resulting inflow of capital in foreign countries will tend to increase economic activity abroad.

Thus, there will be a positive international spillover effect on the foreign private sector. In addition, the increased activity in foreign countries will tend to increase foreign tax bases and thereby enable foreign governments to expand their supply of public services at unchanged tax rates, or enable them to provide the same level of services at a lower level of tax rates. This is another positive spillover effect for the foreign country.

Further, if a large country imposes a tax (for example, a corporation tax) which reduces investment demand in the country, the resulting fall in capital demand will reduce the international level of interest rates. This will benefit foreign countries in a net debtor position, but it will tend to hurt foreign countries in a net creditor position.

Moreover, under floating exchange rates a domestic tax increase inducing a capital export will cause a depreciation of the capital-exporting country's currency, implying a deterioration of that country's terms of trade and corresponding improvement of the terms of trade of the rest of the world.

A final example of a spillover effect concerns the shifting of profits between countries rather than the shifting of real economic activity. Thus, companies can engage in tax planning activities which can give rise to taxable profits appearing in countries with relatively low statutory corporate tax rates. As a consequence of such practices a country lowering its statutory tax rate may succeed in attracting taxable profits from other countries, thereby imposing a revenue loss on them.

It is important to note that different types of capital income taxes may have quite different international spillover effects. More specifically, it is crucial to distinguish between taxes levied according to the residence principle and taxes based on the source principle. For example, taxes on personal interest income are normally residence-based, while corporate income taxes are often source-based.

A residence-based tax which is imposed at the same rate on investment income from foreign and domestic sources provides no incentive to invest abroad rather than at home (provided that the tax on foreign-source income can actually be enforced). The tax should therefore cause no export of capital. On the contrary, because it reduces the net return to the savings of domestic residents, thereby discouraging domestic savings, the residence-based tax will tend to induce an import of capital from abroad. If the domestic economy is small, this would have no noticeable effect on the economic welfare of foreign countries. However, if the domestic economy is large, a lower level of domestic savings will tend to drive up the international level of interest rates to the detriment of foreign debtor countries and to the possible advantage of foreign creditor countries.

By contrast, a source-based tax exempts from tax savings invested abroad, but instead taxes all domestic investment, whether foreign-owned or domestically-owned. A higher source-based capital income tax will therefore tend to reduce the level of domestic investment and will thereby reduce capital imports. Moreover, the source-based tax involves an exportation of the tax burden, since part of it falls on foreign-owned corporations operating in the country.

These comments suggest that there are a number of channels through which the capital income taxes levied in one country may affect the economic welfare of other countries. The following sections seek to identify the circumstances under which these spillover effects are likely to be so large as to warrant coordination of capital income taxes through international agreements.

III — Two theoretical predictions

In discussing the need for international tax coordination or tax harmonization, it is useful to start by summarizing existing theoretical results. It should be emphasized that such theoretical models necessarily represent simplifications of the real world; their immediate relevance to current policy issues is therefore debatable. This section therefore summarizes the main results of the literature, while Section IV discusses the practical relevance of these results.

The theoretical models considered here are built on two important assumptions. Firstly, individual countries are so small relative to the world economy that their tax policies have no appreciable impact on the rate of interest or the rate of return on corporate investment prevailing in the rest of the world. Secondly, capital is highly mobile internationally, whereas individuals are rather immobile.

The main distinguishing feature of the two models here concerns the ability of residence countries to enforce taxes on business and capital income from foreign sources. If the residence country can enforce such taxes,¹ then it is argued that individual countries acting in their own national interest would find it optimal to adopt a pure residence principle of business and capital income taxation; each country would tax the worldwide investment income of its resident individuals and corporations and would impose no taxes on domestic-source business and capital income accruing to non-residents.²

Imposing a source-based tax on investment within a single country would increase the required pre-tax rate of return on domestic investment and hence reduce its level, because investors always have the alternative to invest abroad where the net return is unchanged. According to the theoretical model, the only effect of such a tax would be to reduce domestic investment and domestic national income.

A residence-based tax would have no appreciable spillover effect on other countries and consequently there would be no case for international tax harmonization. On the contrary, if economic conditions and political preferences differ across countries, the optimal balance between capital income taxes and taxes on other forms of income will generally differ from one country to another, and international tax harmonization may therefore imply a loss of welfare by preventing individual countries from pursuing their own preferred tax policies.

However, if the domestic tax authorities are unable to ensure effective enforcement of at least some foreign-source business and capital income, it is argued that it would be in each country's interest to impose no business and capital income taxes at all.^{3,4} The arguments in this case are broadly similar to those in the previous case.

A domestic business and capital income tax would cause the domestic pre-tax rate of return to be above the net rate of return obtainable in foreign tax haven countries. By lowering the domestic business and capital income tax rate, the government would be

¹ Some minimum amount of tax coordination in the form of international exchange of information among tax authorities would probably be necessary to enforce residence-based taxes on investment income from foreign sources.

² This result is demonstrated in Razin and Sadka (1989 and 1991).

³ See Razin and Sadka (1989 and 1991) for a proof of this proposition.

⁴ This would be true even if a group of small countries were willing and able to engage in exchange of information.

able to attract foreign capital producing a social (i.e. pre-tax) rate of return in excess of the net rate of return it would have to be paid. Consequently, domestic national income and welfare could be increased through a lower business and capital income rate, as long as the rate is positive.

National governments acting in the best interest of their own (small) country would therefore tend to drive their marginal effective business and capital income tax rates towards zero and to rely instead on taxes on more immobile factors of production such as labour and land. In other words, effective marginal tax rates on business and capital income would tend to be harmonized around a level of zero through a process of tax competition. Furthermore, any attempts of a group of small countries to harmonize their business and capital income tax rates at a positive level through international agreements would reduce the welfare of the group as a whole by causing a capital flight to the rest of the world.

IV — Some caveats to the theoretical predictions

The theoretical analysis in Section III suggests that source-based taxes on business and capital income would be driven to zero under tax competition. The difference between the two predictions rests on whether residence-based taxes are enforceable: if they are, then countries will use them, but if they are not, then they too will be driven to zero. The only gain from international coordination of business and capital income taxation in these models is the international exchange of information to make residence-based taxes enforceable.

However, the analyses are clearly based on rather abstract and simplifying assumptions, and therefore their results do not apply directly to a group of countries such as the members of the European Community. For example, while several Member States are indeed so small that their tax policies do not cause any significant international spillovers in the manufacturing sector, they can do so in the financial sector. The tax policies pursued by the larger Member States may also have a non-negligible impact on economic conditions in the rest of the Community as well as in the outside world. In the presence of such spillover effects, unfettered tax competition may be harmful.¹ A more general discussion of whether the theoretical predictions are likely to hold for the European Community now follows.

Can capital income taxes survive international tax competition?

An important and possibly troubling prediction of the theoretical models is that source-based taxes and possibly residence-based taxes on business and capital income would be driven to zero. Allowing for more complex situations than those dealt with in the theoretical models requires a distinction to be made between international portfolio investment in debt instruments, international portfolio investment in shares and international direct investment by multinational corporations.

¹ See Sørensen (1991).

International portfolio investment in debt instruments

In the field of international portfolio investment in debt instruments the international state of affairs suggests that the prediction of vanishing source-based taxation may not be unrealistic, at least as far as interest payments to non-resident investors are concerned. Thus, withholding taxes on interest payments to non-residents are already very low or even zero, and they have displayed a downward trend in recent years, as exemplified by the abolition in 1984 of the US 30% withholding tax on portfolio interest. The attempt of the German Government to introduce a modest 10% withholding tax on interest in early 1989 also indicates how hard it is to maintain such taxes when capital is highly mobile across borders.¹

For the time being, many small risk-averse savers in the Community still seem to be reluctant to enter the international capital market, preferring instead to invest their savings domestically. In the short and medium term, the existence of this group of relatively unsophisticated savers will undoubtedly enable national governments to continue to raise some revenue through taxes on the interest earned by portfolio investors. However, as financial integration proceeds in the future, leading eventually to Economic and Monetary Union and the adoption of a single currency throughout the Community, it is likely to become more common for even small savers to invest part of their savings in the form of debt in other Member States. In the absence of comprehensive exchange of information among the tax authorities of all Member States (or a reporting system requiring financial institutions to report their interest payments to the authorities), it may then become very difficult for national governments to raise any substantial revenue from taxes on interest income. Indeed, increased exchange of information within the Community may not even be sufficient to ensure effective tax enforcement, if there is not similar cooperation between the Community and the rest of the world.

International portfolio investment in shares

In principle, the theoretical argument that source-based taxes on business and capital income will tend to vanish under tax competition applies to all forms of portfolio investment. However, two arguments have been put forward which suggest that this argument is more important for debt instruments than for shares.

One argument is that withholding taxes on the payment of dividends to non-resident shareholders tend to be higher than those on interest payments. This may suggest that it is easier for governments to maintain source-based taxes on the return to portfolio investment in shares. However, the withholding tax rates on dividends and interest are not directly comparable. This is because capital gains typically make up a much larger proportion of the total return to shares than of the return to debt instruments. Hence, withholding tax rates on dividends fall on a smaller proportion of the return than the withholding tax rates on debt instruments. This is likely to be true even if dividend taxes are normally capitalized in share prices as long as not all shareholders pay the withholding tax.

¹ Although the German Government has recently reintroduced proposals for such a tax.

A more persuasive argument concerns risk. Shares issued by different companies in different countries are likely to be imperfect substitutes for each other. Consequently, risk-averse investors may wish to hold a portfolio of shares diversified across several countries, in an attempt to reduce their overall risk. The benefit derived from increased diversification may offset taxes charged in any source country.

By contrast, however, debt instruments issued in different countries may be very close substitutes in the eyes of investors. The main differences are probably due to risk of currency movements which would, in any case, tend to reduce international portfolio investment in debt. Accordingly, an international tax evader investing in debt (paying no home-country tax and therefore claiming no credit from source-country tax), may shift the location of his investment even if there is a small differential in source-country taxes.

International direct investment

Even if it becomes increasingly difficult for governments to maintain source-based taxes on dividends, it seems less likely that tax competition would induce EC governments to eliminate corporation tax on the profits underlying those dividends. This is principally because of the existence of foreign direct non-financial investment in multinationals.¹

Firstly, although the international mobility of direct corporate non-financial investment is rising, it is unlikely to become perfect. Once a company has invested in a particular country, it will usually have to incur substantial adjustment costs if it wishes to switch its operations to another country. In the short and medium term, a direct business investment will often be more or less irreversible due to these adjustment costs, and therefore it will not be profitable for multinational corporations to undertake large international relocations of their physical assets in response to modest tax differentials.

This argument does not apply with as much force to financial companies. For example, some banks already maintain a full network of banking facilities in the Community. This makes it relatively easy for them to shift more business into a particular location if a tax advantage arises. This is consistent with the survey results described in Chapter 5. This suggests that if it is possible to discriminate between financial and non-financial activities, governments may tend to impose a lower tax on the former than on the latter.

Secondly, despite the international mobility of direct investment, a complete cross-country equalization of after-tax returns to business investment seems implausible. Thus, foreign direct non-financial investment in a particular country may yield an above-normal rate of return because of particularly easy access to markets, raw materials and skilled labour, and part of these super-normal returns may be captured by the government of the host country through the imposition of source-based corporate income taxes without deferring investment in the country. This is one reason why source-based corporate income taxes are likely to be preserved despite high and growing degrees of international capital mobility: not only does this give the source-country government an opportunity to tax foreign investors, in principle it offers an opportunity to do so in a way which does not affect international capital flows.

¹ Many of these arguments are made by Gordon (1990).

It may be noted that this is not necessarily inconsistent with the view that marginal effective tax rates are competed down to zero, as argued above; the theoretical implication is that effective tax rates should be zero on all investments which do not earn supernormal returns due to conditions in the source country.¹ Of course, this raises a problem for the source country government which would have to identify such investments so that other investments are not taxed.

Thirdly, while investors of a small or medium-sized country will not be able to influence the general level of interest rates and stock prices prevailing in other countries, the corporations residing in such countries will rarely be able to expand their foreign direct investment at a constant international rate of return, as implicitly assumed in the theoretical studies reviewed above. Even if a multinational corporation is residing in a small country, it may have a considerable share of the particular markets in which it operates, and in that case it will generally experience a diminishing rate of return on additional foreign investment as it expands its foreign operations. Therefore, while the introduction of source-based capital income taxes such as withholding taxes may cause a dramatic flight of international portfolio capital, similar dramatic reallocations of capital are unlikely to occur in the area of direct investment, even in the long run when corporations have had time to adjust.

Fourthly, increased capital mobility will also lead to greater international 'cross-hauling' of corporate investments, implying a greater foreign ownership share of the corporate capital stock in each individual country. With greater foreign ownership, governments will, *ceteris paribus*, be able to export a larger share of the tax burden to non-residents by raising their effective corporate tax rates. This will be true even if the foreign residence country exempts foreign-source income from tax, as long as there is not perfect capital mobility (as assumed in the theoretical models).

Fifthly, the temptation to engage in such tax exportation, however, will be particularly high when the foreign residence country applies the credit method of international double tax relief. One reason for the likely survival of the corporate income tax is therefore that several home countries of multinational companies offer a credit for the corporation tax levied by the host countries of foreign branches and subsidiaries. The tax credit method of international double tax relief clearly provides a mechanism whereby source countries can 'export' the burden of taxation to (the governments of) residence countries without deterring inward foreign direct investment. Thus, in the absence of international cooperation, there is a danger that widespread use of the tax credit system could lead to a level of effective corporate tax rates which is too high from an international viewpoint.²

This suggests that tax competition between Member States would be more powerful if they first agreed that all countries should exempt the foreign-source income of corporations from tax, thus moving closer to source-based capital income taxes. Each individual country would then be able to attract capital from other countries by offering lower (effective) corporate tax rates.

If all countries try to do so at the same time, such tax competition may result in a level of corporate taxation which is lower than the one which governments would have preferred if they had engaged in international tax coordination from the outset. At the

¹ Such returns are sometimes labelled 'location specific rents' (Devereux and Pearson (1989)).

² This point is stressed by Mintz (1991) and Devereux and Pearson (1989).

same time, it has also been argued that reducing effective tax rates might result in an increase in the level of global savings and investment and a concomitant welfare-increasing rise in the rate of economic growth.

V — Two other arguments in favour of tax competition

Two other arguments have been put forward in favour of international tax competition rather than tax coordination or tax harmonization through political intervention.

First, some have argued that tax competition can help to ensure efficiency in the provision of public services. The idea is that with tax competition in international markets for capital and labour, superior public sector performance — i.e. a high quality of public services offered at a low 'tax price' — will be rewarded by attracting resources, residents and trade, just as the superior performance of firms in the market results in increased profits.¹

However, it is widely recognized that for this mechanism of fiscal competition to work well, the taxes paid by individual taxpayers must at least approximately reflect the value of the public services offered to them. This precludes the use of taxes for purposes of income redistribution. Further, in the field of corporate taxation it would seem very difficult to ensure a close relationship between the level of the corporate income tax and the value of the public services (infrastructure, etc.) offered to corporations.

Second, it is argued that pressures from special interest groups, from 'budget-maximizing' bureaucrats, and from politicians catering to these groups create an inherent tendency for the public sector to expand beyond its economically efficient level. Under these circumstances, international tax competition, which makes it more costly for individual governments to raise tax revenues, is seen as a means of restraining public expenditure.

However, even if this view of the public sector and the political process were correct, it is still not clear that international competition in the field of corporate taxation or capital taxation in general would be a very effective remedy. If governments do indeed strive to maximize their revenues, international tax competition might well induce them to shift the tax burden from mobile capital on to internationally immobile factors, rather than reducing the overall level of taxation. It is also possible that tax competition might induce short-sighted governments to shift part of the tax burden on to future generations by accepting higher current budget deficits.

¹ The arguments for and against this view are well summarized by P. Musgrave (1991) and L. Bovenberg (1991).

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Chapter 8

Have European Community corporate taxes converged in the 1980s?

I — Introduction

The previous chapter discussed in conceptual terms the question of whether corporation taxes in different countries would be likely to converge or even be reduced to zero in the absence of any central coordination. That chapter reviewed the theoretical literature on the issue, and commented on the relevance of the theoretical results to the real world.

Clearly, whether competition may lead to convergence of corporate taxes, and, if so, whether such a convergence will be at the level of zero, is a key issue in any consideration of whether there is a need to harmonize taxes. This chapter does not explicitly address that question. Instead, it addresses a very specific question: namely, the extent to which there has been convergence of countries' corporate taxes, especially within the European Community over the last decade. This may shed light on the degree to which such convergence may continue into the future in even more open and integrated markets.

No single measure of corporate taxation is sufficient as a means of comparing corporation taxes over time and between countries. Several different aspects of corporation taxes and personal taxes are therefore considered. The next section summarizes trends in corporate tax revenues in different countries. Section III looks at corporate tax on a more disaggregated basis, first looking at statutory tax rates on income subject to corporation tax in a company, income paid to shareholders and other investors, and income generated in an unincorporated business. We then turn to the tax base, focusing on depreciation provisions and the valuation of inventories. Section IV examines marginal effective tax rates on investment (which involves taking into account all these different aspects of the tax system). Hence this chapter compares the following features of corporate taxes: tax burdens, statutory tax rates (and those on personal income), the tax base, tax credits (or special reliefs), the tax systems (or degree of integration of the corporate and personal taxes) and the overall effects of all these aspects. A final section draws some conclusions.

II — Trends in corporate tax revenues

If there is tax competition, corporate tax revenues might be expected to be falling, both because companies will increasingly locate physical assets and paper profits in low-tax countries, and because governments will reduce tax burdens in order to either limit the erosion of their corporate tax base or else even augment it by attracting foreign direct investment.

This reasoning is partially true, but no more than that. Factors other than tax competition might result in a fall in corporate tax revenues. In particular, in several countries during the 1980s there were governments which believed that the size of the public sector should be reduced. If such a belief had been made operational, the results would have been a reduction in taxes in general, and this could have resulted in a falling tax take from corporate taxes. An additional factor, which must also be allowed for, is that there has also been a belief in several governments that indirect taxes are preferable to direct taxes. Again, it is possible that this preference might have led to lower corporate taxes without being indicative of tax competition.

Table 8.1 shows that attempts to reverse the growth in public spending have not led to much reduction in the growth in tax revenues in EC countries or their major trading partners. During the 1980s, taxes as a proportion of GDP rose in every EC country as well as their major trading partners.¹ The picture is more mixed if 1989 is compared with 1985, since the ratio declined in several countries over this period.

Tables 8.2 and 8.3 give corporation tax as a percentage of GDP and of total tax revenues respectively. Both tables apparently tell a similar story — far from tax competition eroding the amount of corporate tax collected, it has in fact increased in importance, according to both measures, accounting for 3% of GDP in 1989 on average in the Community as compared with just 2.5% in 1980, and 7.5% of total tax revenues, whereas it had been 6.6% in 1980. These tables are primarily intended to show the pattern of receipts over time for each country. Direct comparisons between countries can be misleading; for example, while Germany appears to have relatively low corporate tax revenues, this should probably be attributed to the relatively small corporate as opposed to unincorporated sector in Germany, rather than that its average tax rate on corporate profits is low.

The general conclusions of these tables must in any case be heavily qualified. First, there is a difficulty in interpreting the data. In particular, there are problems in the classification of imputation credits. These involve tax being paid at the corporate level, which is then used to offset any income tax due on dividends. It might reasonably be argued that revenues which are nominally corporate tax but which are imputed to individuals should not be included in a definition of corporate tax. In Tables 8.2 and 8.3 they are, however, treated as corporate tax. This problem is most relevant where the rate of imputation is high (e.g. in Italy) or the dividend payout ratio is high (e.g. in the UK). More importantly, where there has been a change in the imputation rate (including its introduction or abolition), Tables 8.2 and 8.3 might be slightly misleading.

Secondly, corporate taxes are, generally speaking, profits taxes. The amount of tax collected therefore depends on the profitability of companies, as well as on the tax regime. This seems to have increased through the 1980s (see OECD (1991), Annex 5). Indeed, of the EC countries only Greece suffered a decline in the rates of return on capital in the business sector. Just because the total corporate tax take has risen slightly as a percentage of GDP or tax revenues during the 1980s does not preclude a fall in the amount of tax collected per unit of profit. In principle, then, it would be useful to analyse corporate tax revenues as a percentage of corporate profits in each country. Unfortunately, however, reliable data on corporate profits are not available on a comparative basis.

¹ The only exception is Austria which had a very slight fall in the ratio.

Consideration of corporate tax revenues can therefore only be of limited use in assessing trends in the overall burden of taxation. They indicate that the proportion of GDP taken in corporate tax in the Community has risen somewhat during the 1980s, and that the increase in corporate tax revenues has if anything been slightly higher than in other tax revenues, but it is impossible to assess from aggregate figures whether this is simply due to increased profitability or data non-comparability. A disaggregated analysis of whether the provisions of the corporate tax laws and codes have become more generous is necessary.

III — Trends in EC corporate tax regimes

As Table 8.4 indicates, since the mid-1980s there has been a corporate tax reform or a significant change in corporate tax rates in every EC country. Indeed, this is true of all the 24 developed market economies which are members of the OECD. This amount of activity is unprecedented in tax history. Many explanations can be given for such activity, apart from competition for tax revenues. It is possible, for example, to point to the general trend towards some concept of 'tax neutrality', or 'a level playing-field' throughout the developed world during the 1980s in relation to all taxes and not simply corporate taxes, or it might simply be that the reforms in the UK and USA in the mid-1980s raised the profile of corporation tax in the minds of policy-makers. However, despite all the activity, it is in fact not easy to discern a clear trend in the way in which governments have viewed particular aspects of their tax laws. Statutory tax rates have been reduced and the tax base has been broadened (in the sense that various special reliefs for investment in certain regions and types of industry have been phased out) but there has been little consensus on whether depreciation rates should be raised or lowered; on whether the taxes should be indexed for inflation; on whether giving a credit for foreign taxes is preferable to simply exempting all foreign direct investment income from domestic tax, and (especially) on whether greater integration of the personal and corporate taxes is desirable or not. These issues are discussed in turn below.

Before examining separately specific features of business taxation, however, it is worth considering what changes are indicative of a response to some underlying shift in the environment which determines corporate tax policy, and which are just one-off changes which might be reversed at some point in the future. More precisely, Table 8.4 makes it clear that there have been many changes in EC tax regimes; the key questions are whether they can be counted as evidence of 'convergence', and whether they can be considered as possibly being caused by tax competition. To this end, where appropriate, two summary statistics are presented in most of the tables below. One is a simple EC average (in other words, the figures for each country are not weighted by the size of their economy). Competition for paper profits and relocation of real activities should be accompanied by a fall in average tax rates and an increase in the average value of grants and allowances, so a decline in the EC average indicates tax degradation. Of course, finding any such changes in the EC average is not sufficient to infer tax competition; many other factors may result in such changes. Instead, it is a necessary but insufficient piece of evidence in favour of the existence of tax competition.

The second summary statistic which will receive attention is a measure of the variation¹ in EC tax rates, capital allowance values, etc. This is relevant as it gives evidence of convergence of tax regimes. Indeed this statistic by itself might reasonably be used as a definition of convergence of a particular part of the tax regime — for example, if the variation in statutory tax rates has fallen then statutory tax rates can be said to have converged. Of course, convergence may occur without tax degradation.

This section consists of three parts. First, there is a discussion of statutory corporate and personal tax rates, then a consideration of corporate tax systems, and finally attention is focused on the corporate tax base.

Statutory corporate tax rates

Corporation tax rates within the Community fell during the 1980s. As shown in Table 8.5, the average² tax rate on retained earnings for the 11 countries where information is available for 1980 was 46.0%. By 1991 the average was 40.1%. There was also a certain degree of convergence of tax rates — whereas the standard deviation of tax rates in 1980 was 7.8 percentage points, by 1991 the variation had fallen fractionally, with a standard deviation of 6.7.³ This, however, disguises the fact that by 1985 the average tax rate had increased to 46.9% (with a standard deviation of 7.0).

The headline corporate tax rate is, of course, the most visible aspect of any corporate tax regime. It is also a part of the tax regime which is particularly likely to be sensitive to tax competition, if any such competition takes place. Other things being equal, cuts in the corporate tax rate reduce the average rate of tax without necessarily reducing the marginal rate of tax on new investments, because a lower corporate tax rate reduces the value of interest deductibility and of depreciation allowances as well as applying a higher tax rate to profits. A cut in statutory tax rates is unlikely to be the best way to stimulate investment. The fact that governments have cut corporate tax rates may indicate a desire to be seen to have low average tax rates in order to attract mobile investments which earn a high return, or that governments are concerned to avoid profits being transferred abroad through transfer-pricing or various tax planning procedures. The fall in statutory corporate tax rates is consistent with (though of course it is not necessarily proof of) competition between Member States and possibly tax degradation.

Personal tax rates on capital income

The overall burden of taxation on income generated in the corporate sector will, of course, also depend on the taxation at the personal level of income received by shareholders. For a significant group of shareholders, this rate of tax is zero. However, in order to give some impression of the tax rates paid by those with a positive personal

¹ The measure chosen was the standard deviation of the relevant values.

² Simple average rather than weighted average.

³ These numbers are based on the statutory Irish tax rate. If instead the special 10% rate for manufacturing industry introduced in 1981 is used for the latter two years examined, the average rate and standard deviation within the Community would instead be 43.3% and 12.6 in 1985, and 37.2% and 10.9 in 1991.

tax rate, Table 8.6 gives the top rate of personal tax due on interest and dividend income.

Table 8.6 by no means does justice to the complexity of taxation of capital income. In many countries there are special savings schemes, often introduced towards the end of the 1980s, designed to increase the volume of savings. In addition, the taxation of interest income often depends on the type of asset — government bond, interest-bearing bank account, corporate debt, etc. — and Table 8.6 cannot show all possibilities. Instead it presents the rate of tax on some relatively riskless interest-bearing instruments. Because of these limitations, the table should be seen as no more than indicative of general trends in the taxation of capital income.

Interest income is less heavily taxed than dividends in many countries (although not in all: among EC countries, Denmark and Spain tax interest income at a higher rate than dividend income), possibly reflecting the higher international mobility of capital. The average top rate of tax on both interest and dividends has fallen significantly over the period of the study, but by more in the case of dividends than interest. However, although there has been a fall in the average top personal tax rates, there has hardly been much convergence; indeed the variation in tax rates on dividends is higher at the end of the period than at the beginning.

However, this is a very partial analysis. Note that these figures are based on the gross dividend; where there is an imputation system then for every one unit of dividends paid out there is a tax credit and the shareholder is taxed on the sum of the dividend and tax credit so the net tax rate might be seen as being lower. A related problem can be illustrated by considering the Greek corporation tax system: the tax rate on dividends in Greece may look comparatively high, but profits distributed as dividends are deducted from the corporate tax base so the personal tax is the only tax applied to dividends. The ACID test discussed below takes all these factors into account and also compares the taxation of income from the corporate sector with the taxation of income from the unincorporated sector. Before turning to this test, some description of the taxation of income in the unincorporated sector is given.

Top personal tax rates (on unincorporated businesses)

The statutory corporate tax rate will be a key determinant of whether there is a tax incentive or disincentive to incorporate a business. The taxation of unincorporated business can be complicated, but a not unreasonable simplification is to suggest that if a business is unincorporated, the marginal rate of tax paid on any increased earnings is often the top statutory personal tax rate. Of course, this is to ignore many complications; the number of taxpayers facing the top rate of personal income tax will vary substantially from country to country according to the number of tax brackets and the distribution of income in relation to the nominal income tax schedule. Unfortunately, it is also difficult to get consistent data on the evolution of local (or State or provincial) income taxes over a period of time. This is not particularly a problem within the EC where only Belgium, Denmark and Italy have local income taxes of any size, and Germany and Luxembourg levy 'Gewerbesteuer' also on unincorporated business, but it makes comparison with non-EC countries — in particular, Canada, Sweden and the USA — rather more difficult, especially as the relative importance of corporate taxes at the national and local, State or provincial levels has changed in these countries.

Table 8.7 gives information on how central government tax rates have evolved within the Community over the last decade (footnotes indicate the approximate size of local taxes for 1990).

As is well known, the 1980s saw substantial cuts in the top rate of personal tax in a large number of countries.¹ All countries included in Table 8.7 finished the decade with lower top rates of tax than at the start, with the exception of Switzerland and Denmark (although the situation in these cases is complicated by the existence of the local tax). Within the Community, particularly large cuts were implemented in Italy, Portugal (where the change was associated with a move from a schedular tax system to an integrated income tax system) and the UK.

Table 8.8 gives the difference between the central government personal and corporate tax rates. A positive differential indicates some incentive for top-rate taxpayers to incorporate their business in order to reduce their tax payments.² Within the Community, this difference has fallen, indicating that the top rate of personal income tax has fallen more rapidly than has the statutory corporation tax rate. In addition, the variation in the difference between the two rates across countries has fallen — the standard deviation by 1990 was just over half that of 1980.

It is possible to think of reasons why competition may have resulted in a reduction in this differential,³ but they are not wholly persuasive. What seems a more plausible argument is that governments have focused on cuts in the higher rates of income tax as a means of stimulating the supply side of the economy. Given that, at the start of the decade, the redistributive potential of the personal tax regime was being exploited by having high personal tax rates in many countries, inevitably the cuts in income tax have had the side-effect of reducing the incentive to incorporate.

However, comparing corporate tax rates and personal tax rates on earnings is hardly sufficient as a comparison of the relative taxation of the corporate and unincorporated sectors. In particular, it fails to take account of the effects of imputation systems, and ignores the taxation at the personal level of dividends paid by corporations. Section IV uses the information on corporate tax rates, corporate tax systems and personal tax rates to construct an overall measure of the extent to which income from the corporate sector is taxed at a higher or lower rate than income from the unincorporated sector.

Corporate tax systems

When initially introduced, most corporate taxes were classical systems, with the return on money invested in the corporate sector being taxed once at the corporate level and again at the personal level. Between the late 1960s and mid-1970s a number of EC

¹ On average, for 86 countries surveyed by the *Wall Street Journal*, top rates of personal income tax fell by 8.8 percentage points between 1985 and 1989.

² Although in fact the existence in several countries of lower rates of corporate tax on small businesses adds further complexity to any comprehensive analysis.

³ For example, high income taxpayers may be internationally mobile, moving to countries with low personal tax rates. The existence of tax havens, however, makes it unlikely that EC countries could ever become attractive to these sorts of taxpayers purely on tax grounds. A further argument is that it is important to encourage savings; and lower personal taxes are necessary for this. However, theoretically this is not clear (there is an income effect as well as a substitution effect) and empirically there is little evidence of lower taxes encouraging savings. In any case, to encourage savings the relevant tax is that on capital income, not employment income, and this is discussed in an earlier section of this chapter.

countries moved towards reducing or eliminating the differential taxation of retained and distributed profits (see earlier chapters). Since the mid-1970s, it is no longer possible to discern a trend towards using an imputation system to eliminate the double taxation of dividends. As is clear from Table 8.4, there have been moves towards partial shareholder relief (Portugal, Denmark), away from a split-rate system (Portugal) and away from imputation systems (Denmark, Belgium), with France introducing a system with a lower tax rate on retentions of profits than on their distribution, whilst retaining the imputation system.

A useful method of comparing the degree of relief from double taxation in different countries is the attempted corporate integration of dividend taxation test (the ACID test) developed by King (1977). This is a measure of the additional tax burden on distributed profits imposed by corporate taxation, and is the ratio of the maximum net dividend with company taxation to the maximum net dividend with only personal taxation. This is most easily understood by comparing the net income which accrues to a shareholder if a company generates and distributes one extra unit of profit with the net income which accrues to the owner of an unincorporated business if it too generates an additional unit of profit. A more precise definition is given in Annex 8.

Thus the ACID test gives the extra tax which is imposed over and above any personal tax which would be levied on an equivalent amount of earnings outside the corporate tax system. If the ACID statistic is 1, this implies that the corporate tax system adds no extra tax on dividends compared with the tax due on income from unincorporated business. If the value is 0, then all dividends are completely taxed away at the corporate level.

Table 8.9 gives ACID values for the EC countries in 1980, 1985 and 1991, for zero-rate personal taxpayers (this would include, for example, pension funds in many countries). Taking the UK as an example, in 1980 if zero-rate personal taxpayers had earned UKL 1 outside the corporate sector they would have paid no tax and so would have ended up with UKL 1. However, if they had earned the same amount of income before tax in the corporate sector, then after paying corporation tax at 52% and receiving an imputation credit (of 30% of gross dividends) on the dividend and paying personal tax on the gross value of the dividend including the imputation credit, they would have ended up with UKL 0.69. This means that investors in the corporate sector were getting 69% of the return which they would have received had they made the same pre-tax return in the unincorporated sector, so the ACID value was 0.69. By 1985 the tax system was treating corporate income relatively more lightly and the ACID value had risen to 0.86. This had increased still further by 1991 to 0.88.

The table indicates that changes over the last decade have taken place in most countries, but that there has been little change in the average value of the ACID test within the European Community. What is more, the degree of variation has stayed remarkably constant — the standard deviation of the 11 ACID values has remained stable at around 0.12 to 0.15. For zero-rate taxpayers, there has been no convergence of tax treatment of dividends relative to non-corporate income and competition (or any other factors) has not reduced the extent of economic double taxation.

Zero-rate personal taxpayers often account for a large proportion of equity finance, but by no means all. Taking account of personal taxes might be expected to alter this conclusion substantially, given that some countries have recently been switching their treatment of dividends to or from partial shareholder relief systems; only taxpayers

with a positive marginal personal tax rate would benefit from the reduction. Hence in Table 8.10 ACID values for taxpayers facing the top marginal rate of personal tax on dividends and earned income are reported.

Comparison of the two tables shows that the pattern of ACID values differs only if the tax rate on dividends is not the same as that on earnings. This is because the ACID test measures the difference in the post-tax earnings from dividends and other earnings. If the income tax rates on income from these two sources are the same, they cancel out in the ACID test (see Annex 8). In this case, the ACID test value is the same as for Table 8.9 in the absence of personal taxes. Only when there is a divergence in the two rates does taking account of personal taxes have any impact on the results.

In the UK, for example, the ACID values for top-rate taxpayers are identical to those of zero-rate taxpayers for 1985 and 1991, but in 1980 there was a surcharge on investment income, so increasing the discrimination against corporate income for top-rate taxpayers as compared with the degree of discrimination felt by zero-rate personal taxpayers. Apart from this UK case, if there is a difference in ACID values it is usually because personal tax on dividends is deliberately kept lower than that on earnings. This is done in an attempt to reduce the extra tax paid on income generated in the corporate sector. So it is unsurprising to find a higher average ACID value for top-rate personal taxpayers than for zero-rate personal taxpayers in the Community, at least for the latter two years. There has been some fall in the variation of ACID values for the 11 countries where data were available for all three years, and the fact that this was not the case for zero-rate personal taxpayers means that this reduction is entirely due to a more rapid reduction in the top rate of personal tax on dividends than the reduction in tax on earnings. However, as the variation increased before falling substantially, it is difficult to deduce any trend towards convergence of this aspect of the tax system.

The tax base

Table 8.4 indicated that many countries claim to have pursued base-broadening of the corporate tax system over the past few years. What this has meant in practice is that many special allowances (notably investment tax credits) and grants for investment in certain areas or types of industry have been much reduced or even phased out. One reason for this policy within the Community has been that the Community itself has set limits on the amount of State aid that can be paid to companies, but more generally there has been much doubt about whether the schemes were cost-effective. It is often claimed that such schemes subsidize activities which would have taken place anyway, or attract certain types of business which quickly relocate once subsidies have been exhausted. There are too many incentives (and they have changed too often) to be able to describe developments in this field.¹ However, several governments have accompanied other reforms to the corporate tax system with the claim that they were base-broadening by reducing the scope of incentives.

The other aspect of the tax base are the deductions which can be made from corporate income for the purpose of corporate tax — by far the most important of which are depreciation allowances and stock relief — and any generally available grants or

¹ See European Policies Research Centre (1988 and various other years).

additional depreciation (by which it is meant that they are not limited to particular geographical locations or particular industries).

Incentives

Table 8.11 gives details of some generally available investment credits. This table makes no claim to be comprehensive, but nevertheless does indicate that in four of the five countries the large investment credits which were available for all investments in 1980 have been reduced or even eliminated, supporting the claim that the tax base has been broadened in these countries.

Tax depreciation rates

Table 8.12 gives typical depreciation rates for machinery and buildings for the EC countries. Obviously, in many cases countries have a wide range of possible depreciation provisions which companies may choose to use. Where this is the case, the most commonly used set of depreciation provisions is reported.

Countries can be divided into four groups on the basis of Table 8.12. First are those countries where depreciation allowances have essentially stayed constant through the 1980s, consisting of Belgium, the Netherlands and Spain. Second are those countries which have increased the generosity of the depreciation provisions — France, Germany and Portugal. A further group consists of the UK and Ireland where there has been a move away from 100% allowances in the first year towards depreciation rates which are thought to reflect more closely true economic depreciation. Finally, in Denmark the reforms have been less clearly defined in one direction or another: the rates in 1991 for machinery are more generous than they were in 1980, but in 1985 the allowances were indexed for inflation, a reform which had been reversed by 1991. In the USA, several changes took place, including the introduction and abandoning of the accelerated cost-recovery system in 1981, which was explicitly designed to give depreciation for tax purposes at a more rapid rate than the true economic depreciation.

This broad divergence in changes made to depreciation allowances makes interpretation difficult. Clearly, either different pressures were causing policy changes in different countries, or else governments were responding to the same pressures in very different ways.

One way to facilitate comparisons of the trends in the depreciation rates of physical assets is to calculate the present value of the depreciation allowances, and this is done in Tables 8.13 and 8.14. Present values take the statutory provisions for depreciation, but give a lower weight to depreciation in the future than to depreciation in the present period.¹ In this particular case, a discount rate based on a 5% real interest rate has been used. Where statutory provisions allow the rate to depend on the life of the asset, the assumptions underlying the calculations in Chapter 4 are made concerning the length of life.

¹ This is necessary because of the effects of inflation reducing the real value of allowances due in the future, and because capital used to buy physical assets could have been invested in financial assets and earned some return.

Looking at the actual value¹ of depreciation allowances (in other words, looking at the first three columns of the table giving the value with actual inflation) for industrial buildings over the decade, it appears that only in the UK and Ireland (and, to a much lesser extent, the Netherlands) has the present value of allowances fallen. Elsewhere the value of allowances in 1991 was higher than in 1980, although in several countries the 1991 figure reflects a decline from 1985. This average increase in the generosity of allowances has been accompanied by some narrowing in the differences between countries; whereas in 1980 the standard deviation of present values of allowances for buildings was 0.24, by 1991 this was just 0.16.

Almost exactly the same conclusion can be drawn for machinery (see Table 8.14). Looking at the figures for actual inflation (the first three columns of Table 8.14), the average present value of allowances has increased — albeit only slightly — with once again only the UK and Ireland having a lower present value in 1991 than in 1980. As with industrial buildings, this increase in the average value of allowances has been accompanied by a fall in the variation in their value, from a standard deviation of 0.13 in 1980 to just 0.07 in 1991.

However, this apparent increase in the average value of allowances for buildings and machinery is due to the fall in inflation over the past decade. In the absence of indexation of the value of allowances (as existed in Denmark in 1985 for machinery, but in no other case), inflation erodes the true value of allowances valued at the historic cost of the assets. The higher the rate of inflation, the lower the value of allowances. When inflation is held constant (at 3.1%) it can be seen that the average allowance has stayed almost constant in value within the Community — and, if anything, it may have declined in generosity. The second half of Tables 8.13 and 8.14 show a slight fall in the value of allowances.

Despite the fact that allowances can be interpreted as becoming both more and less generous over the past decade depending on the assumption made about inflation, a reduction in the variation in allowances is nevertheless preserved regardless of whether actual inflation rates or common inflation rates are taken as the standard, although the evidence is less convincing for machinery than for industrial buildings.

The tax treatment of inventories

The final aspect of the tax base that is considered in this chapter is the tax treatment of inflationary gains in the value of inventories. In fact, as Table 8.15 shows, there has been remarkably little change in the valuation of inventories for tax purposes within the EC — only the UK and Ireland made a major change (from a system of 'stock relief' to a straightforward first-in-first-out system of valuation), and Germany now permits a LIFO valuation.

¹ The figures in Tables 8.13 and 8.14 do not give the financial value of depreciation allowances, because the value of depreciation allowances to companies is the amount of tax they would have had to pay were they not able to reduce their taxable profits by the amount of depreciation. Hence the value of depreciation allowances depends in part on the statutory corporate tax rate.

IV — Trends in the cost of capital

All the analysis of convergence of different aspects of the tax regimes in the Community above is essentially fragmentary. Whilst it may be true that separately both tax rates and some aspects of the tax base have converged within the Community during the 1980s, what matters to companies when considering where to locate a new investment is the overall amount of tax, taking into account all aspects of taxation. The marginal effective tax wedges (as discussed in Chapter 4) provide one way of making use of a large amount of information on tax laws in order to construct some measure of the overall incentive to undertake new investment: a project which earns a return after tax just high enough to persuade financiers to invest their money in it. Projects which earn a higher return than this will face a different overall tax rate.

It will be recalled from Chapter 4 that the King and Fullerton (1984) methodology enables the calculation of the pre-corporate-tax rate of return (or cost of capital) necessary in order to pay the ultimate financiers of a project a return just as high as they could earn were they to invest their money in some other asset (government bonds, for example). It will also be recalled from Chapter 4 that the tax wedge (the difference between the pre-corporate- and post-personal-tax rates of return) is dependent on the type of asset, the type of finance and the personal tax rate of the investor. As in Chapter 4, the analysis in this section focuses on the case where the marginal financier faces a zero rate of personal tax and where the investment is in a weighted average of different types of assets, financed by a mixture of different forms of finance.¹

Table 8.17 gives the required real pre-tax return with actual nominal interest rates and inflation, as given in Table 8.16.² Hence, for example, in Belgium in 1980, there was an inflation rate of 6.2% and nominal interest rate of 12.2% implying a real interest rate of 5.6%. On average, companies needed to earn a real rate of return of 6.8% before corporate tax on their capital in order to pay a real rate of return of 5.6% to the financiers of the project (who by assumption pay no personal tax). The last three columns in the table give the standard deviation of required returns within that country on the nine possible investment combinations (investment in machinery, buildings and inventories, financed by debt, retentions or new share issues).

In 1980 there was an extraordinary divergence of experiences, with required rates of return being negative in Ireland, Italy, Portugal and the UK, but being much higher in some other countries. The reason for this is apparent from Table 8.16: it can be seen that in 1980 the nominal interest rate was lower than the inflation rate for each of the four countries with negative required rates of return. Hence the cost of capital in those countries was very low. By 1985 this effect had been eliminated, increasing the cost of capital, and indicating substantial convergence of average required returns across the Community (the standard deviation falling from 4.9 to 1.2). By 1991 real interest rates were significantly higher than in 1985, further raising the cost of capital. However, throughout the period it is possible to assert that there was a substantial fall in the extent to which effective tax rates on different asset and finance combinations differed.

¹ The weights used are (as in Chapter 4) 50% machinery, 27% industrial buildings and 23% inventories, with 55% of finance provided by retentions, 35% by debt and 10% by new equity issues. These are the same weights as those used in OECD (1991).

² The full information necessary to calculate the cost of capital for each of the three years was only available for the EC countries, the USA and Japan.

However, these results are driven to a significant extent not by changes in the tax system, but by the evolution of nominal interest rates and inflation rates in the Community. Table 8.18 looks at common real interest rates, but still with country-specific inflation rates, and then Table 8.19 uses common inflation and interest rates.

Even with country-specific inflation, the degree of variation is drastically reduced — the standard deviation in required returns would have been just 1.7 had real interest rates all been 5% in 1980, as opposed to the actual standard deviation of 4.9. By 1991, the difference was smaller, but still large — 0.4 as opposed to 1.6.

After abstracting from cross-country and temporal changes in interest rates, Table 8.18 shows that within the Community there has been little change in the average required pre-tax rate of return. In 1980, on average an EC company would have had to earn 5.3% real return before tax on its capital to pay the financiers a 5% real return after tax. By 1985 this had increased somewhat to 5.7%, staying constant until 1991. In other words, on average the tax reforms of the 1980s did little to either encourage or discourage domestic investment by domestic companies.

In terms of the variation in required returns within each country, however, the average variation (standard deviation) has declined from 5.8 in 1980 to 3.8 in 1985 then down to 2.7 in 1991. In other words, there is now much less distortion within each country in the incentive to undertake different types of investment.

By far the most significant result from Table 8.18 is that the average pre-tax required returns now seem much more similar across countries after taking into account many of the changes in the tax system, rates and base that have taken place in the Community in the 1980s than they were before these changes. In 1980 the standard deviation of the average required returns across the 11 countries which it was possible to calculate was 1.7 percentage points. By 1985 this had been halved, and by 1991 it had been halved again. The variation in marginal effective tax rates is much smaller at the end of the period than it was at the start.

There are two separate reasons why convergence of marginal effective tax rates reported in Table 8.18 might have taken place. One is, of course, changes to countries' tax laws. The other is changes in the inflation rate. In 1980 inflation in many countries was high and there was a wide divergence in inflation rates. By 1991 inflation was lower and there was less divergence. Table 8.19 therefore holds the inflation rate constant and just looks at the effects on the required pre-tax rates of return of the changes in the tax regimes.

The overall average required rate of return is even more stable than it was when inflation varied across countries and across time, staying at around 5.8% throughout the 1980s. It is also worth noting that although there has been a fall in the average standard deviation of required returns within each country across different types of investment (from 3.0 percentage points to 2.4 points), this is a much smaller fall than was recorded in Tables 8.17 and 8.18. Large differences in real interest rates, and high inflation in the early 1980s, when combined with relatively high corporate tax rates and a tax base which was not indexed for inflation, led to a substantial distortion in the choice of which assets to invest in and which types of finance to use.

Whereas with actual inflation rates and interest rates, the variation in required returns across different countries declined from 4.9 percentage points in 1980 to 1.6 percentage points in 1991, using common inflation rates and real interest rates they saw a decline

from 0.8 to 0.3 — a smaller, but still significant, fall. In other words, much of the apparent convergence in effective tax rates indicated by Table 8.17 was due not to changes in tax regimes, but to convergence in the inflation rate and interest rate experiences of different EC countries.

Further examination of the causes of the fall in the standard deviation of required pre-tax returns shows that much of the tax-base convergence is due to tax reforms in just two countries — Germany and the UK. If common interest and inflation rates are assumed and these countries are excluded, the apparent convergence in the marginal effective tax rates of the other nine EC countries covered in Tables 8.17, 8.18 and 8.19 over the 1980s is reduced by a half. Germany started the decade with high corporate tax rates, which were then reduced, and more generous depreciation allowances were put in place, so reducing the required pre-tax return from being the highest within the EC to around the average. The UK lowered corporate tax rates but at the same time ended immediate expensing of machinery and lowered first year allowances on industrial building, as well as ending stock relief, so raising the required return from being the lowest in the Community to the average level.

In sum, there has been a convergence in effective corporate tax rates within the EC during the 1980s — at least for marginal investments financed by zero-rate personal taxpayers. This convergence is mainly accounted for by the twin effects of convergence of economic circumstances (inflation rates and interest rates), and tax reforms in the UK and Germany. With interest rates and inflation rates already similar in most EC countries, and no countries with effective tax rates as obviously out-of-line with the others as those of Germany and the UK were in 1980, it is difficult to detect a momentum towards further convergence in effective tax rates. On the other hand, a not unimportant aspect of Tables 8.17, 8.18 and 8.19 which has not yet been remarked upon is that effective tax rates in both Japan and the USA have also entered the 1990s much closer to the EC average than they started the 1980s. Convergence of marginal effective tax rates would seem a global phenomenon.

V — Conclusions

This chapter has investigated the degree of convergence of various aspects of corporation taxes over the past decade. In particular, the following aspects have been analysed: tax revenues, corporate and personal tax rates and their degree of integration, tax bases and marginal effective corporate tax wedges. The overall results suggest that there has been a certain amount of convergence.

If economies are becoming increasingly globally integrated, it should be expected that competition for investment should become more intense. Yet corporate tax revenues have increased, both as a proportion of GDP and as a proportion of total tax revenues. Such measures are difficult to interpret as being entirely suitable for the answering of questions about convergence of taxes, since tax revenues depend on other factors, such as the size of profits (unfortunately data availability does not permit a reliable comparison of profits). Nevertheless, the implication is that — so far — talk of the unsustainability of a corporation tax is wide of the mark.

A number of countries have undertaken reforms incorporating tax-rate reductions together with base-broadening. Indeed, Italy and Spain are the only EC countries not to have cut corporate tax rates since 1984. Along with the reduction in corporate tax rates, there has been a small degree of convergence. However, the base-broadening aspects of these reforms have generally been restricted to the reduction in numbers and generosity of special investment schemes, notably investment tax credits, rather than restricting the value of generally available deductions. In present-value terms, depreciation provisions are roughly similar to their level in the early 1980s. Indeed, taking into account the lower inflation rates prevalent in the late 1980s, and hence the lower discount rates which would be applied to the tax provisions, it could be argued that, on average, tax bases have actually been reduced. However, for industrial buildings at least, and arguably for machinery, there has been some convergence in the present value of such allowances.

There appears to have been convergence in the extent to which corporation and personal taxes are integrated. There has been a larger reduction in the top rates of personal taxes on dividends than in top rates of personal tax on earnings; this has reduced the extent of any differential in favour of unincorporated business as opposed to corporations. However, this created a clear trend towards integration for top-rate personal taxpayers (as measured by the ACID test). On average, there has also been a move towards integration for zero-rate personal taxpayers, although this move has been much smaller, and in this case the variation between countries has actually increased slightly.

Marginal effective tax rates do appear to have converged, indicating that variation in investment incentives between European Community countries is now lower than in the early 1980s. This is consistent with the view that distortions in decisions as to where to locate real activities have been reduced. However, a large part of this convergence appears to stem from a general reduction and convergence in interest rates and inflation rates over the period. Further, much of the remainder of the reduction can be traced to just two tax reforms, in Germany and the UK.

Table 8.20 relates these corporation tax reforms to reforms which governments might have been expected to introduce were they following particular strategies. For example, in order to stimulate domestic investment, governments might have increased depreciation allowances, provided more relief for indexation and, in the process, reduced marginal effective tax rates. In fact, the evidence is not consistent with the view that this was the main aim of governments, since very few of these changes actually happened.

By contrast, if governments were aiming to provide a location for paper profits, shifted out of another country, they would have reduced statutory corporate tax rates, which, indeed, the vast majority have done. Whether this was the main aim of such reforms is debatable, however. Such a reform is also consistent with aiming to attract inward foreign direct investment, and with the general (if unproven) belief that high tax rates create a disincentive for economic activity. The combination of statutory tax rate cuts and base-broadening, by increasing tax neutrality and thus improving the domestic allocation of resources, might be viewed as a step in improving a country's international competitiveness. However, some countries have clearly pursued the former aim (of encouraging inward foreign direct investment) at the expense of the latter (of creating domestic tax neutrality) by creating special tax regimes. Examples of this include Belgian coordination centres and Irish financial services, but few countries are immune

from the charge that they have simultaneously sought to distort both the international allocation of capital and the domestic allocation of capital.

Hence, the evidence in this chapter shows that corporate tax regimes are in many respects more similar in 1991 than they were 11 years earlier. Will they be even closer at the end of the current decade if they are left to evolve without EC directives? At least part of the convergence of the past decade is due to the convergence and reduction in inflation, and further gains from this source are clearly finite. At the same time, evidence of tax competition for real investment is hardly conclusive (although because of the aggregated nature of the analysis, sectoral competition may none the less be present). Whether tax competition is a better explanation of the changes of the last few years than changes being due to a response to a surge of interest in corporate tax reform following a period of little activity in this sphere during the 1970s is not answered by the evidence of this chapter.

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TABLE 8.1

Total tax revenue (including social security contributions) as a percentage of GDP

| | 1965 | 1970 | 1975 | 1980 | 1985 | 1989 |
|--------------|------|------|------|------|------|------|
| Belgium | 30.8 | 35.2 | 41.1 | 43.5 | 46.4 | 44.3 |
| Denmark | 29.9 | 40.4 | 41.4 | 45.5 | 49.0 | 49.9 |
| Germany | 31.6 | 32.9 | 35.7 | 38.0 | 38.0 | 38.1 |
| Greece | 20.6 | 24.3 | 24.6 | 29.4 | 35.1 | 33.2 |
| Spain | 14.5 | 16.9 | 19.6 | 24.1 | 28.8 | 34.4 |
| France | 24.5 | 35.1 | 36.9 | 41.7 | 44.5 | 43.8 |
| Ireland | 26.0 | 31.2 | 31.5 | 34.0 | 38.3 | 37.6 |
| Italy | 25.5 | 26.1 | 26.2 | 30.2 | 34.4 | 37.8 |
| Luxembourg | 30.4 | 30.2 | 39.2 | 40.9 | 44.0 | 42.4 |
| Netherlands | 33.2 | 37.6 | 43.7 | 45.8 | 44.9 | 46.0 |
| Portugal | 18.4 | 23.1 | 24.7 | 28.7 | 31.6 | 35.1 |
| UK | 30.4 | 37.0 | 35.7 | 35.4 | 38.0 | 36.5 |
| EC average | 27.2 | 30.8 | 33.4 | 36.4 | 39.4 | 39.9 |
| Austria | 34.7 | 35.7 | 38.6 | 41.2 | 43.1 | 41.0 |
| Canada | 25.4 | 31.3 | 32.4 | 31.6 | 33.1 | 35.3 |
| Japan | 18.3 | 19.7 | 20.9 | 25.5 | 28.0 | 30.6 |
| Sweden | 35.4 | 40.2 | 43.9 | 49.1 | 50.4 | 56.1 |
| Switzerland | 20.7 | 23.8 | 29.6 | 30.8 | 32.0 | 31.8 |
| USA | 25.9 | 29.2 | 29.0 | 29.5 | 29.2 | 30.1 |
| OECD average | 26.7 | 29.9 | 32.7 | 34.9 | 36.9 | 38.4 |

Source: OECD (1991).

TABLE 8.2

Taxes on corporate income as a percentage of GDP

| | 1965 | 1970 | 1975 | 1980 | 1985 | 1989 |
|--------------|------|------|------|------|------|------|
| Belgium | 1.9 | 2.4 | 3.0 | 2.5 | 3.1 | 3.0 |
| Denmark | 1.4 | 1.1 | 1.3 | 1.5 | 2.4 | 2.1 |
| Germany | 2.5 | 1.9 | 1.6 | 2.1 | 2.3 | 2.1 |
| Greece | 0.4 | 0.4 | 0.9 | 1.1 | 1.0 | 1.5 |
| Spain | 1.3 | 1.4 | 1.3 | 1.2 | 1.5 | 3.0 |
| France | 1.8 | 2.2 | 1.9 | 2.1 | 2.0 | 2.4 |
| Ireland | 2.4 | 2.7 | 1.5 | 1.5 | 1.2 | 1.3 |
| Italy | 1.8 | 1.7 | 1.7 | 2.4 | 3.2 | 3.8 |
| Luxembourg | 3.4 | 5.8 | 6.2 | 6.8 | 8.0 | 7.5 |
| Netherlands | 2.7 | 2.5 | 3.4 | 3.0 | 3.1 | 3.5 |
| Portugal | | | | | | 1.4 |
| UK | 2.2 | 3.3 | 2.4 | 2.9 | 4.8 | 4.5 |
| EC average | 2.0 | 2.3 | 2.3 | 2.5 | 3.0 | 3.0 |
| Austria | 1.9 | 1.6 | 1.7 | 1.4 | 1.5 | 1.5 |
| Canada | 3.9 | 3.5 | 4.4 | 3.7 | 2.7 | 3.0 |
| Japan | 4.1 | 5.2 | 4.3 | 5.5 | 5.9 | 7.5 |
| Sweden | 2.2 | 1.8 | 1.9 | 1.2 | 1.7 | 2.1 |
| Switzerland | 1.5 | 1.8 | 2.3 | 1.8 | 1.9 | 2.1 |
| USA | 4.1 | 3.7 | 3.1 | 3.0 | 2.1 | 2.6 |
| OECD average | 2.3 | 2.5 | 2.4 | 2.6 | 2.9 | 2.9 |

NB: Corporate taxes are defined in detail by OECD (1991) item 1200. Note that this includes (i) local corporate taxes and (ii) part of corporation tax which is imputed to individuals to credit against personal taxes. Differences between countries arise for a number of reasons other than differences in the form of taxation (for example, the relative size of the incorporated and unincorporated sectors); the table is therefore designed to permit a comparison of changes over time rather than between countries.

Source: OECD (1991).

TABLE 8.3

Taxes on corporate income as a percentage of total taxation (including social security contributions)

| | 1965 | 1970 | 1975 | 1980 | 1985 | 1989 |
|--------------|------|------|------|------|------|------|
| Belgium | 6.2 | 6.8 | 7.2 | 5.7 | 6.4 | 6.7 |
| Denmark | 4.5 | 2.6 | 3.1 | 3.2 | 4.9 | 4.2 |
| Germany | 7.8 | 5.7 | 4.5 | 5.5 | 6.1 | 5.5 |
| Greece | 1.8 | 1.6 | 3.4 | 3.8 | 2.7 | 4.6 |
| Spain | 9.2 | 8.2 | 6.9 | 5.1 | 5.2 | 8.6 |
| France | 5.3 | 6.3 | 5.2 | 5.1 | 4.5 | 5.5 |
| Ireland | 9.1 | 8.8 | 4.8 | 4.5 | 3.2 | 3.4 |
| Italy | 6.9 | 6.5 | 6.3 | 7.8 | 9.2 | 10.1 |
| Luxembourg | 11.0 | 19.3 | 15.7 | 16.5 | 18.2 | 17.7 |
| Netherlands | 8.1 | 6.7 | 7.7 | 6.6 | 7.0 | 7.7 |
| Portugal | | | | | | 3.9 |
| UK | 7.1 | 9.1 | 6.7 | 8.3 | 12.6 | 12.3 |
| EC average | 7.0 | 7.4 | 6.5 | 6.6 | 7.3 | 7.5 |
| Austria | 5.4 | 4.4 | 4.3 | 3.5 | 3.4 | 3.7 |
| Canada | 15.1 | 11.3 | 13.6 | 11.6 | 8.2 | 8.5 |
| Japan | 22.2 | 26.3 | 20.6 | 21.8 | 21.0 | 24.4 |
| Sweden | 6.1 | 4.4 | 4.3 | 2.5 | 3.5 | 3.8 |
| Switzerland | 7.1 | 7.6 | 7.7 | 5.8 | 6.0 | 6.5 |
| USA | 15.8 | 12.7 | 10.8 | 10.2 | 7.1 | 8.5 |
| OECD average | 8.9 | 8.7 | 7.5 | 7.5 | 7.9 | 7.8 |

NB: See notes to Table 2.

Source: OECD (1991).

TABLE 8.4

Changes in corporation tax regimes since 1984

| | Base-broadening | Reduction of rates | Changes in treatment of dividends | Other |
|-------------|------------------------------|----------------------|---|---|
| Belgium | 1989/90 | 1989/90 | From partial shareholder relief to classical, 1990 | |
| Denmark | 1990/91 | 1990/91 | Move to partial shareholder relief, 1991 | |
| Germany | | 1990 | | Limits to regional incentives, 1988 |
| Greece | | 1988 | | |
| Spain | | | | Limits to investment credits, 1989 |
| France | | 1989 1990 | Lower rate for retained profits, 1989 | Incentive for new firms, 1989 |
| Ireland | 1990 | 1988 1989 | | |
| Italy | | | | |
| Luxembourg | 1987 1988 1989 1990 | | | Withholding taxes on dividends abolished on flows to other EC countries, 1991 |
| Netherlands | 1988 | 1988 | | |
| Portugal | 1989 | 1989 | From split rate to partial shareholder relief, 1989 | Removal of various incentives, 1989 Limits to investment credits, 1989 |
| UK | 1986 | 1986 1991 | | |
| Austria | 1989 | 1989 | Move to partial shareholder relief, 1986 Abolition of split rate, 1989 | Removal of various incentives, 1989 |
| Canada | 1988 | 1988 | | Phasing-out of general investment tax credit, 1988-90 |
| Japan | | 1988 1989 1990 | From split rate to classical, 1990 | |
| Sweden | 1991 | 1991 | | |
| Switzerland | | | | Proposals made, 1990/91 |
| USA | 1987 | 1987 | | Removal of various investment tax credits |

Source: OECD (1991).

TABLE 8.5

Overall (national and local) corporate tax rates in the European Community¹

| | 1980 | 1985 | 1991 ² |
|------------------------------------|---------------------------|---------------------------|---------------------------|
| Belgium | 48 | 45 | 39 |
| Denmark | 37 | 50 | 38 |
| Germany | 61.7/44.3 | 61.7/44.3 | 57.5/45.6 |
| Greece | | 49 | 46(40) ³ |
| Spain | 33 | 33 | 35.3 |
| France | 50 | 50 | 34/42 |
| Ireland | 45 | 50(10) ⁴ | 43(10) ⁴ |
| Italy | 36.3 | 47.8/36 | 47.8/36 |
| Luxembourg | 45.5 | 45.5 | 39.4 |
| Netherlands | 46 | 42 | 35 |
| Portugal | 51.2/44 | 51.2/44 | 39.6 |
| UK | 52 | 40 | 34 |
| EC average (standard deviation) | 46.0 (7.8) | 46.9 (7.0) | 40.1 (6.7) |
| Austria | 61.5/38.3 | 61.5/38.3 | 39 |
| Canada | 42.4 | 51.6 | 41.7(35.7) ⁴ |
| Japan | 52.0/42.0 | 55.4/45.4 | 50 |
| Sweden | 40 | 52 | 30 |
| Switzerland | 11.7 to 36.6 ⁵ | 12.3 to 35.0 ⁵ | 13.2 to 38.4 ⁵ |
| USA | 49.2 | 49.5 | 38.3 |

¹ Where two rates are given, the former reflects the tax rate on retentions, the latter the tax rate on distributions.
The averages and standard deviations for the Community are calculated on the basis of retained profits, and exclude Greece.

² Rates as at 1.1.1991.

³ A lower tax rate (40% in 1991) applies where companies are quoted on the Athens Stock Exchange.

⁴ Figure in brackets is the tax rate on manufacturing industry.

⁵ Progressive rate schedule.

Source: OECD (1991) and information provided to the Ruding Committee by national tax authorities.

TABLE 8.6

Top personal tax rates on capital income¹

| | Interest | | | Dividends | | |
|--------------------------|-------------------|-------------------|-------------------|-----------------|--------|--------|
| | 1980 | 1985 | 1991 | 1980 | 1985 | 1991 |
| Belgium | 72 | 25 | 10 | 72 | 25 | 25 |
| Denmark | 68.8 | 73.2 | 57.8 | 63.2 | 66.5 | 45 |
| Germany | 56 | 54.5 | 53 | 56 | 54.5 | 53 |
| Greece | 0 | 0 | 0 | 63 | 63 | 50 |
| Spain | 65.5 | 66 | 56 | 59 | 59.4 | 50.4 |
| France | 25 | 26 | 18.1 ² | 60 | 65 | 57.9 |
| Ireland | 60 | 60 | 53 | 60 | 60 | 53 |
| Italy | 12.5 ³ | 12.5 ³ | 12.5 ³ | 72 | 62 | 50 |
| Luxembourg | 57 | 57 | 51.3 | 57 | 57 | 51.3 |
| Netherlands | 72 | 72 | 60 | 72 | 72 | 60 |
| Portugal | 12 | 15 | 25 | 83.6 | 56.9 | 25 |
| UK | 75 ⁴ | 60 | 40 | 75 ⁴ | 60 | 40 |
| EC average | 48.0 | 43.4 | 36.4 | 66.1 | 58.4 | 46.7 |
| (standard deviation) | (27.5) | (25.9) | (21.8) | (8.6) | (11.6) | (11.4) |
| Austria | 62 | 62 | 50 | 31 | 31 | 25 |
| Canada | 63.2 | 54 | 49.1 | 63.2 | 54 | 49.1 |
| Japan | 20 | 20 | 20 | 35 | 35 | 35 |
| Sweden | 50 | 50 | 30 | 50 | 50 | 30 |
| Switzerland ⁵ | 47.9 | 45.8 | 43.8 | 47.9 | 45.8 | 43.8 |
| USA | 74 | 54 | 36 | 74 | 54 | 36 |

¹ Many countries have special savings incentives with lower tax rates (e.g. IRAs, PEPs, etc.). These are not reflected in this table.

² Including various surcharges.

³ Many different rates applicable. The rates given in the table are 'typical', generally reflecting tax rates on central government debt.

⁴ Including the investment income surcharge.

⁵ Based on the tax treatment of a married couple living in Zurich, and including cantonal and church taxes.

Source: OECD (1986 and 1991) and information provided to the Ruding Committee by national tax authorities.

TABLE 8.7

Top central-government marginal personal tax rates on earnings

| | 1980 | 1986 | 1990 |
|----------------------|--------------|--------------|---------------------------|
| Belgium | 72 | 72 | 55 ¹ |
| Denmark | 39.6 | 45 | 40 ² |
| Germany | 56 | 56 | 53 |
| Greece | 63 | 63 | 50 |
| Spain | 65.5 | 66 | 56 |
| France | 60 | 65 | 56.8 |
| Ireland | 60 | 60 | 53 |
| Italy | 72 | 62 | 50 |
| Luxembourg | 57 | 57 | 56 |
| Netherlands | 72 | 72 | 60 |
| Portugal | 84.4 | 61 | 40 |
| UK | 60 | 60 | 40 |
| Average | 63.5 | 61.6 | 50.8 |
| (standard deviation) | (11.1) | (7.3) | (7.1) |
| Austria | 62 | 62 | 50 |
| Canada | 43 | 34 | 29 ³ |
| Japan | 75 | 70 | 50 ⁴ |
| Sweden | 50 | 50 | 20 ⁵ |
| Switzerland | 11.7 to 36.6 | 12.3 to 35.0 | 13.2 to 38.4 ⁶ |
| USA | 70 | 50 | 28 ⁷ |

¹ Local tax is 7% of national tax take in 1990 in Belgium.

² Local tax of around 20% in Denmark. Retained profits of unincorporated business in Denmark normally taxed at the corporate income tax rate.

³ Provincial taxes of 55% (average) of federal tax take in Canada.

⁴ Local taxes of 15% in Japan.

⁵ Local tax of about 30% in Sweden.

⁶ Including cantonal and local taxes.

⁷ State and local taxes of around 9% in the USA.

Source: OECD (1986, 1990 and 1990a).

TABLE 8.8

Difference between top central-government marginal personal tax rates on earnings and corporate tax rate on retentions

| | 1980 | 1986 | 1990 |
|----------------------|--------|-----------------|-----------------|
| Belgium | 24 | 27 | 16 |
| Denmark | 2.6 | -5 | 2 ¹ |
| Germany | 0 | 0 | 3 |
| Greece | | 14 | 4 |
| Spain | | 33 | 20.7 |
| France | 10 | 15 | 22.8 |
| Ireland | 15 | 10 ² | 13 ² |
| Italy | 47 | 26 | 14 |
| Luxembourg | 17 | 17 | 23 |
| Netherlands | 26 | 30 | 25 |
| Portugal | 49.4 | 14 | 4 |
| UK | 8 | 20 | 6 |
| Average ³ | 19.9 | 15.4 | 12.9 |
| (standard deviation) | (17.1) | (11.4) | (8.8) |
| Austria | 0.5 | 0.5 | 11 |
| Canada | 0.6 | -17.6 | -12.7 |
| Japan | 23 | 24.6 | 0 |
| Sweden | 10 | -2 | -10 |
| Switzerland | 0 | 0 | 0 |
| USA | 19.8 | 10.5 | -10.3 |

¹ Retained profits of unincorporated business normally taxed at corporate income tax rate in Denmark.

² Non-manufacturing industry.

³ Average of 10 countries excluding Greece and Spain.

Source: See Tables 8.5 and 8.7.

TABLE 8.9

Attempted corporate integration of dividend taxation (ACID) test for zero-rate personal taxpayers

| | 1980 | 1985 | 1991 |
|-------------------------|--------|--------|--------|
| Belgium | 0.64 | 0.55 | 0.61 |
| Denmark | 0.79 | 0.63 | 0.62 |
| Germany | 0.87 | 0.87 | 0.87 |
| Greece | | | 1.00 |
| Spain | 0.67 | 0.67 | 0.65 |
| France | 0.75 | 0.83 | 0.87 |
| Ireland | 0.79 | 0.77 | 0.90 |
| Italy | 0.85 | 1.00 | 1.00 |
| Luxembourg | 0.55 | 0.55 | 0.61 |
| Netherlands | 0.54 | 0.58 | 0.65 |
| Portugal | 0.56 | 0.56 | 0.60 |
| UK | 0.69 | 0.86 | 0.88 |
| EC average ¹ | 0.70 | 0.71 | 0.75 |
| (standard deviation) | (0.12) | (0.16) | (0.15) |
| Austria | 0.62 | 0.62 | 0.61 |
| Canada | 0.86 | 0.73 | 0.80 |
| Japan | 0.58 | 0.55 | 0.50 |
| Sweden | 0.60 | 0.48 | 0.70 |
| Switzerland | 0.70 | 0.70 | 0.70 |
| USA | 0.51 | 0.51 | 0.63 |

¹ All averages and standard deviations for the EC exclude Greece.

TABLE 8.10

Attempted corporate integration of dividend taxation (ACID) test for top-rate personal taxpayers

| | 1980 | 1985 | 1991 |
|---|----------------|----------------|----------------|
| Belgium | 0.64 | 0.92 | 1.02 |
| Denmark | 0.48 | 0.38 | 0.57 |
| Germany | 0.87 | 0.90 | 0.87 |
| Greece | | | 1.00 |
| Spain | 0.80 | 0.80 | 0.73 |
| France | 0.75 | 0.83 | 0.85 |
| Ireland | 0.79 | 0.77 | 0.90 |
| Italy | 0.85 | 1.00 | 1.00 |
| Luxembourg | 0.55 | 0.55 | 0.67 |
| Netherlands | 0.54 | 0.58 | 0.65 |
| Portugal | 0.59 | 0.62 | 0.76 |
| UK | 0.43 | 0.86 | 0.88 |
| EC average ¹ (standard deviation) | 0.66 (0.16) | 0.74 (0.19) | 0.81 (0.14) |
| Austria | 1.12 | 1.12 | 0.92 |
| Canada | 0.56 | 0.51 | 0.58 |
| Japan | 1.51 | 1.18 | 0.65 |
| Sweden | 0.60 | 0.48 | 0.61 |
| Switzerland | 0.52 | 0.54 | 0.56 |
| USA | 0.44 | 0.46 | 0.56 |

¹ All averages and standard deviations for the EC exclude Greece.

TABLE 8.11

Generally-available investment credits (i.e. unconditional)

| | 1980 | 1985 | 1991 |
|-------------|--------------------------------|--------------------------|---|
| Belgium | 15% on extra investment | 20% on extra investment | 1% plus the rate of inflation, within the limits of 3 and 10% |
| Denmark | Investment reserve | Investment reserve | — |
| Spain | 15% | 15% | 5% |
| Luxembourg | 12% on extra investment | 12% on extra investement | 12% on extra investment |
| Netherlands | 18% buildings, 7% machinery | 12.5% | — |

Source: Information provided to the Ruding Committee by national tax authorities.

TABLE 8.12

Typical depreciation rates on industrial buildings and machinery¹

| | 1980 | | 1985 | | 1991 | |
|-------------|--------------------------|-------------------------------|--|-------------------------------------|--|------------------------------|
| | Buildings | Machinery | Buildings | Machinery | Buildings | Machinery |
| Belgium | 10% DB × 7 then 5% SL | 40% DB × 2 then 20% SL | 10% DB × 7 then 5% SL | 40% DB × 2 then 20% SL | 10% DB × 7 then 5% SL | 40% DB × 2 then 20% SL |
| Denmark | 6% SL × 10 then 2% SL | 22.5% × 1 then 30% DB | 6% SL × 10 then 2% SL | 25% × 1 then 30% DB (indexed) | 6% SL × 10 then 2% SL | 30% DB |
| Germany | 2% SL | 20% DB × 5 then 10% SL | 5% SL × 8 then 2.5% SL × 5 then 1.25% SL | 20% DB × 5 then 10% | 10% SL × 4 then 5% SL × 3 then 2.5% SL | 30% DB × 4 then 10% SL |
| Greece | | | | | 8% SL | 20% SL |
| Spain | 7.5% DB | 20% DB | 7.5% DB | 20% DB | 7.5% SL | 20% DB |
| France | 5% SL | 27.8% DB × 7 then 11.1% SL | 5% SL | 27.8% DB × 7 then 11.1% SL | 5% SL | 35.7% DB × 5 then 5.5% SL |
| Ireland | 100% | 100% | 100% | 100% | 50% × 1 then 4% SL | 50% × 1 then 12.5% DB |
| Italy | 7% SL | 15.5% SL | 7% SL | 15.5% SL | 5% SL | 17.5% SL × 3 then 10% SL |
| Luxembourg | 4% SL | 20% SL | 4% SL | 20% SL | 4% SL | 30% DB × 2 then 20% SL |
| Netherlands | 6.6% DB | 25% DB × 3 then 12.5% SL | 6.6% DB | 25% DB × 3 then 12.5% SL | 6.6% DB | 25% DB × 3 then 12.5% SL |
| Portugal | 4% SL | 20% SL | 4% SL | 20% SL | 5% SL | 31.25% DB |
| UK | 50% × 1 then 4% SL | 100% | 25% × 1 then 4% SL | 50% × 1 then 25% DB | 4% SL | 25% DB |
| Japan | 3.5% DB | 23% DB × 9 | 3.5% DB | 23% DB × 9 | 6.6% DB | 30% DB × 9 |
| Switzerland | 8% DB | 30% DB | 8% DB | 30% DB | 8% DB | 30% DB |
| USA | 3.5% SL | 18.8% DB × 2 then 12.5% SL | ACRS ² | ACRS ² | 3.2% SL | 28.6% DB × 3 then 9.1% SL |

Key: SL: straight-line; DB: declining balance.

10% DB × 7 then 5% SL means 10% declining-balance depreciation for seven years followed by depreciation at 5% straight-line until the asset is fully depreciated.

¹ These depreciation rates apply to the typical assets used in the calculations in this chapter (see Annex 4A) and so differ from the rates set out in Annex 3.

² The accelerated cost recovery system in the USA during the mid-1980s involved complex depreciation provisions; typical straight-line depreciation rates for machinery were 8% in the first year, 14% in the second, 12% in the third, 10% for the next three years and 9% for the next four years. Industrial buildings might typically be depreciated at 6% for 10 years and 5% thereafter.

Source: Information provided to the Ruding Committee by national tax authorities.

TABLE 8.13

**Value of depreciation allowances for industrial buildings discounted
at the nominal interest rate with a 5 % real interest rate**

| | Actual inflation | | | Constant inflation of 3.1 % | | |
|------------------------------------|------------------|----------------|----------------|-----------------------------|----------------|----------------|
| | 1980 | 1985 | 1991 | 1980 | 1985 | 1991 |
| Belgium | 0.55 | 0.55 | 0.67 | 0.63 | 0.63 | 0.67 |
| Denmark | 0.36 | 0.65 | 0.53 | 0.53 | 0.65 | 0.53 |
| Germany | 0.20 | 0.58 | 0.71 | 0.26 | 0.53 | 0.72 |
| Greece | | | 0.39 | | | 0.66 |
| Spain | 0.46 | 0.55 | 0.49 | 0.67 | 0.67 | 0.57 |
| France | 0.30 | 0.44 | 0.52 | 0.52 | 0.52 | 0.52 |
| Ireland | 1.00 | 1.00 | 0.81 | 1.00 | 1.00 | 0.80 |
| Italy | 0.32 | 0.47 | 0.33 | 0.62 | 0.62 | 0.41 |
| Luxembourg | 0.33 | 0.37 | 0.35 | 0.45 | 0.45 | 0.35 |
| Netherlands | 0.57 | 0.63 | 0.49 | 0.66 | 0.61 | 0.48 |
| Portugal | 0.19 | 0.20 | 0.33 | 0.45 | 0.45 | 0.52 |
| UK | 0.67 | 0.57 | 0.37 | 0.80 | 0.62 | 0.45 |
| EC average (standard deviation) | 0.45 (0.24) | 0.55 (0.19) | 0.51 (0.16) | 0.60 (0.20) | 0.61 (0.14) | 0.55 (0.14) |
| Japan | 0.26 | 0.35 | 0.50 | 0.32 | 0.32 | 0.48 |
| Switzerland | 0.50 | 0.52 | 0.49 | 0.53 | 0.53 | 0.53 |
| USA | 0.25 | 0.51 | 0.35 | 0.41 | 0.52 | 0.38 |

NB: EC average based on the 11 EC countries excluding Greece.
 Figures based on depreciation allowances, discounted by the nominal interest rate.
 Inflation of 3.1 % represents average of narrow-band EMS participants.

TABLE 8.14

**Value of depreciation allowances for machinery discounted
at the nominal interest rate with a 5 % real interest rate**

| | Actual inflation | | | Constant inflation of 3.1 % | | |
|---------------------------------|------------------|----------------|----------------|-----------------------------|---------------|----------------|
| | 1980 | 1985 | 1991 | 1980 | 1985 | 1991 |
| Belgium | 0.89 | 0.89 | 0.96 | 0.92 | 0.92 | 0.96 |
| Denmark | 0.73 | 0.89 | 0.85 | 0.83 | 0.89 | 0.85 |
| Germany | 0.75 | 0.82 | 0.86 | 0.80 | 0.80 | 0.87 |
| Greece | | | 0.68 | | | 0.86 |
| Spain | 0.73 | 0.83 | 0.76 | 0.92 | 0.92 | 0.82 |
| France | 0.72 | 0.80 | 0.89 | 0.84 | 0.84 | 0.89 |
| Ireland | 1.00 | 1.00 | 0.80 | 1.00 | 1.00 | 0.80 |
| Italy | 0.58 | 0.71 | 0.75 | 0.81 | 0.81 | 0.81 |
| Luxembourg | 0.80 | 0.82 | 0.88 | 0.86 | 0.86 | 0.89 |
| Netherlands | 0.76 | 0.91 | 0.85 | 0.84 | 0.90 | 0.86 |
| Portugal | 0.65 | 0.67 | 0.76 | 0.86 | 0.86 | 0.86 |
| UK | 1.00 | 0.85 | 0.77 | 1.00 | 0.88 | 0.81 |
| Average (standard deviation) | 0.78 (0.13) | 0.84 (0.09) | 0.83 (0.07) | 0.88 (0.07) | 0.88 (0.6) | 0.86 (0.05) |
| Japan | 0.73 | 0.78 | 0.85 | 0.77 | 0.77 | 0.84 |
| Switzerland | 0.83 | 0.84 | 0.82 | 0.85 | 0.85 | 0.85 |
| USA | 0.68 | 0.69 | 0.84 | 0.81 | 0.70 | 0.85 |

NB: EC average based on the 11 EC countries excluding Greece.
 Figures based on depreciation allowances, discounted by the nominal interest rate.
 Inflation of 3.1 % represents average of narrow-band EMS participants.

TABLE 8.15

The tax treatment of inflationary gains in the value of inventories

| | 1980 | 1985 | 1991 |
|-------------|-------------------|-------------------|-------------------|
| Belgium | Unindexed | Unindexed | Unindexed |
| Denmark | Partially indexed | Partially indexed | Partially indexed |
| Germany | Indexed | Indexed | Indexed |
| Greece | | | Indexed |
| Spain | Unindexed | Unindexed | Unindexed |
| France | Unindexed | Unindexed | Unindexed |
| Ireland | Unindexed | Unindexed | Unindexed |
| Italy | Indexed | Indexed | Indexed |
| Luxembourg | Unindexed | Unindexed | Unindexed |
| Netherlands | Indexed | Indexed | Indexed |
| Portugal | Indexed | Indexed | Indexed |
| UK | Indexed | Unindexed | Unindexed |
| Canada | Unindexed | Unindexed | Unindexed |
| Japan | Indexed | Indexed | Indexed |
| Sweden | Partially indexed | Partially indexed | Unindexed |
| Switzerland | Indexed | Indexed | Indexed |
| USA | Indexed | Indexed | Indexed |

Source: King and Fullerton (1984), Jørgensen (1992) and information provided to the Ruding Committee by national tax authorities.

TABLE 8.16

Interest rates and inflation rates in the European Community

| | Interest rates | | | Inflation rates | | |
|-------------|----------------|-------|--------------------|-----------------|------|------|
| | 1980 | 1985 | 1991 (Jan.) | 1980 | 1985 | 1991 |
| Belgium | 12.20 | 10.61 | 9.70 | 6.2 | 6.0 | 3.3 |
| Denmark | 18.94 | 11.24 | 10.00 | 10.7 | 4.3 | 2.8 |
| Germany | 8.50 | 6.87 | 9.10 | 5.8 | 2.0 | 3.3 |
| Greece | 17.77 | 15.78 | 16.60 ¹ | 21.8 | 18.3 | 17.8 |
| Spain | 16.50 | 13.40 | 14.50 | 16.6 | 8.2 | 6.1 |
| France | 13.78 | 12.87 | 10.10 | 13.3 | 5.8 | 3.1 |
| Ireland | 15.35 | 12.68 | 9.30 | 18.6 | 5.0 | 3.0 |
| Italy | 16.37 | 13.32 | 12.80 | 20.5 | 9.0 | 6.4 |
| Luxembourg | 7.43 | 9.53 | 8.40 | 7.5 | 6.0 | 3.4 |
| Netherlands | 10.14 | 7.32 | 9.20 | 7.0 | 2.3 | 2.7 |
| Portugal | 16.68 | 25.41 | 15.60 | 21.4 | 19.6 | 11.7 |
| UK | 13.78 | 10.62 | 10.20 | 16.3 | 5.4 | 6.0 |
| Japan | 11.39 | 10.75 | 8.30 | 6.2 | 2.2 | 2.5 |
| USA | 9.13 | 6.34 | 6.80 | 10.8 | 3.3 | 4.3 |

¹ 1988.

Source: Eurostat.

TABLE 8.17

Required pre-tax rates of return — actual inflation and actual interest rates¹

| | Cost of capital | | | Standard deviation | | |
|---------------------------------|-----------------|--------------|--------------|--------------------|------|------|
| | 1980 | 1985 | 1991 | 1980 | 1985 | 1991 |
| Belgium | 6.8 | 5.2 | 6.8 | 4.7 | 3.7 | 3.0 |
| Denmark | 7.9 | 7.1 | 8.1 | 2.9 | 2.7 | 2.5 |
| Germany | 3.5 | 6.7 | 6.3 | 5.3 | 4.2 | 4.2 |
| Spain | 0.3 | 5.5 | 9.9 | 3.6 | 3.0 | 3.6 |
| France | 1.1 | 7.5 | 7.4 | 5.7 | 5.1 | 2.5 |
| Ireland | -2.9 | 7.1 | 6.2 | 5.0 | 0.8 | 0.5 |
| Italy | -5.8 | 3.7 | 6.9 | 3.5 | 4.6 | 4.7 |
| Luxembourg | 0.7 | 4.8 | 6.1 | 2.7 | 3.5 | 2.6 |
| Netherlands | 3.1 | 5.3 | 7.3 | 3.1 | 2.2 | 2.1 |
| Portugal | -7.8 | 4.1 | 3.3 | 6.0 | 8.6 | 3.7 |
| UK | -5.8 | 5.7 | 4.8 | 4.4 | 3.1 | 2.4 |
| Average (standard deviation) | 0.1 (4.9) | 5.7 (1.2) | 6.6 (1.6) | 4.3 | 3.8 | 2.9 |
| Japan | 3.8 | 6.7 | 5.5 | 3.7 | 3.3 | 2.6 |
| USA | 0.1 | 4.4 | 4.4 | 4.1 | 2.5 | 2.1 |

¹ Based on no personal taxes, actual inflation and interest rates, and weighted average of three forms of finance and three types of asset.

TABLE 8.18

Required pre-tax rates of return — actual inflation¹

| | Cost of capital | | | Standard deviation | | |
|---------------------------------|-----------------|--------------|--------------|--------------------|------|------|
| | 1980 | 1985 | 1991 | 1980 | 1985 | 1991 |
| Belgium | 6.1 | 5.9 | 5.4 | 4.5 | 3.9 | 2.6 |
| Denmark | 5.2 | 5.3 | 5.8 | 2.5 | 2.3 | 2.0 |
| Germany | 7.3 | 7.4 | 5.8 | 7.0 | 4.5 | 4.0 |
| Spain | 6.0 | 5.8 | 6.3 | 4.8 | 3.1 | 2.9 |
| France | 6.8 | 6.6 | 5.4 | 7.8 | 4.8 | 2.1 |
| Ireland | 4.7 | 4.8 | 5.1 | 7.9 | 0.6 | 0.5 |
| Italy | 4.0 | 5.0 | 5.6 | 5.3 | 5.0 | 4.3 |
| Luxembourg | 7.1 | 7.0 | 6.3 | 4.7 | 4.1 | 2.6 |
| Netherlands | 5.8 | 5.4 | 5.7 | 3.9 | 2.3 | 1.8 |
| Portugal | 4.1 | 4.3 | 5.2 | 9.2 | 8.7 | 4.1 |
| UK | 1.7 | 5.7 | 6.0 | 6.5 | 3.1 | 2.6 |
| Average (standard deviation) | 5.3 (1.7) | 5.7 (0.9) | 5.7 (0.4) | 5.8 | 3.8 | 2.7 |
| Japan | 6.9 | 8.1 | 6.5 | 4.6 | 3.8 | 2.9 |
| USA | 6.3 | 7.3 | 5.8 | 5.9 | 3.4 | 2.3 |

¹ Based on no personal taxes, actual inflation rates, weighted average of three forms of finance and three types of asset and a 5% real interest rate.

TABLE 8.19

Required pre-tax rates of return over time —
inflation of 3.1 % in all countries at all times¹

| | Cost of capital | | | Standard deviation | | |
|---------------------------------|-----------------|--------------|--------------|--------------------|------|------|
| | 1980 | 1985 | 1991 | 1980 | 1985 | 1991 |
| Belgium | 5.9 | 5.8 | 5.4 | 3.3 | 2.9 | 2.5 |
| Denmark | 5.3 | 5.3 | 5.8 | 1.3 | 2.0 | 2.0 |
| Germany | 7.7 | 7.3 | 5.8 | 5.5 | 5.1 | 3.9 |
| Spain | 5.4 | 5.4 | 5.9 | 2.0 | 2.0 | 2.1 |
| France | 6.4 | 6.4 | 5.4 | 3.6 | 3.6 | 2.1 |
| Ireland | 4.9 | 4.9 | 5.1 | 3.1 | 0.5 | 0.5 |
| Italy | 5.4 | 5.6 | 5.8 | 1.9 | 3.0 | 3.1 |
| Luxembourg | 6.7 | 6.7 | 6.4 | 3.1 | 3.1 | 2.5 |
| Netherlands | 5.8 | 5.4 | 6.0 | 2.8 | 2.4 | 1.8 |
| Portugal | 6.3 | 6.3 | 5.7 | 3.3 | 3.3 | 2.2 |
| UK | 4.5 | 5.6 | 5.9 | 3.0 | 2.5 | 1.9 |
| Average (standard deviation) | 5.8 (0.8) | 5.9 (0.7) | 5.7 (0.3) | 3.0 | 3.1 | 2.4 |
| Japan | 7.3 | 8.0 | 6.5 | 3.4 | 4.2 | 3.1 |
| USA | 6.8 | 7.3 | 5.9 | 3.2 | 3.3 | 2.2 |

¹ Based on no personal taxes, 3.1 % inflation, weighted average of three forms of finance and three types of asset and a 5 % real interest rate.

TABLE 8.20

Evidence of tax convergence

| Pressure to change the tax system | Expected change in the tax system | Evidence |
|---|---------------------------------------|---|
| Stimulate domestic investment | More generous depreciation allowances | Mixed — e.g. yes in Germany, no in UK |
| | More indexation against inflation | None — e.g. move away from immediate expensing and stock relief in the UK; move away from indexation of depreciation in Denmark |
| | Lower marginal effective tax rates | Mixed but probably not — METRs have fallen in some countries but risen in others, overall, little change except for the fact that inflation rates have fallen |
| Tax-shifting competition | Lower statutory corporate tax rates | Statutory rates have fallen in every EC country except Italy and Spain |
| Competition for FDI | Lower withholding-tax rates | Not possible to verify |
| | Tax holidays, grants, etc. | Still important in some countries, but generally much reduced |
| | Lower statutory corporate tax rates | Statutory rates have fallen in every EC country except Italy and Spain |
| General belief that high marginal rates create disincentive | More generous depreciation allowances | Mixed — e.g. yes in Germany, no in UK |
| | Lower statutory corporate tax rates | Statutory rates have fallen in every EC country except Italy and Spain |

Chapter 9

Corporate tax harmonization and competition in non-EC federal countries

I — Introduction

As impediments to the establishment and functioning of a single internal market are dismantled and the Community moves towards closer economic and monetary union, it will have to be prepared to confront the kinds of tax problems raised earlier in this report. These problems relate to the achievement of an efficient allocation of resources within the Community, an equitable distribution among Member States of the taxes levied on multinational enterprises, the administrative feasibility of taxing mobile factors in the absence of obstacles to their cross-border movement, and the desire of Member States to retain as much national autonomy as possible in tax matters in order to pursue their own economic and social objectives. Since such issues have already been faced and, in some cases, resolved to varying degrees by federal countries elsewhere in the world, certain lessons may be learned from these countries' experience.

Accordingly, the main purpose of this chapter is to summarize the main features of business income taxation in three quite different non-EC federal countries: Canada, Switzerland, and the United States of America. Attention is focused on the evolution, design, and administration of their sub-national corporation taxes, as well as on the alternative or common ways in which they have addressed the types of tax problems mentioned above, together with the applicability of these alternatives to the Community. Of particular interest is the extent to which these countries' sub-national corporate income taxes are harmonized, and the manner in which such harmonization has been accomplished. Current tax practices in these three countries could be an indication of what may be necessary for the Community in the near future. It should be mentioned at the outset, however, that the lessons from these three federal countries are bound to be limited by the fact that there is no Community equivalent to the federal corporation taxes that exist in such countries.

The United States of America is obviously worth considering because of its economic importance. Swiss federalism is relevant because of its strong reliance on cantonal sovereignty and the consequent diversity of its corporate and personal taxes. Canada's experience is also of interest because, notwithstanding the fact that its provinces are more important fiscally than the equivalent level of sub-national government in any other of the five advanced federations (shown in Table 9.1) with respect to both total tax revenues and expenditures, it manifests one of the highest degrees of horizontal tax harmonization. Details of the tax arrangements in each of these three federations are described in three separate background studies contained in Annexes 9A, 9B and 9C.¹

¹ See Daly (1992), Thalmann (1992), and Weiner (1992).

II — Main features of corporate tax coordination in Canada, Switzerland and the United States of America

Although the extent of corporate income tax harmonization in their sub-national jurisdictions varies widely, with harmonization being greatest in Canada and least in Switzerland, even in the latter, the degree of harmonization is far greater than that which has hitherto been accomplished among the Member States of the Community. The varying degrees of tax harmonization achieved in these three federal countries obviously reflect different perceptions and balances between the sub-national governments' desire for tax sovereignty on the one hand, and federal governments' desire for uniformity on the other. The relatively high degree of tax harmonization in the three countries as compared with the Community is undoubtedly in large part due to the existence of federal corporate income taxes and common accounting practices within each country, which make it easy and logical for sub-national governments to adopt a similar base and for taxpayers to support that decision. Tax administrations at the sub-national level also tend to support tax-base harmonization when they collect both the federal and sub-national tax, as do the cantonal administrations in Switzerland. Obviously, a common currency facilitates tax-base harmonization as well.

One of the most striking aspects of corporate tax harmonization among jurisdictions in these three countries is the fact that, by and large, it has been accomplished without legally binding measures on the part of the federal governments. In so far as binding legislation does exist, it is aimed primarily (or would likely be directed, if infractions arose) at income flows between sub-national jurisdictions and the removal of inter-jurisdictional double taxation. For example, even in the case of Switzerland, inter-cantonal double taxation is prohibited by the country's constitution, although in practice such double taxation still occurs. No such prohibition exists in the USA. Nevertheless, Congress does have the power to regulate inter-State commerce. Double taxation does not arise in Canada.

The outcome, whether due to binding federal legislation or not, is that in Switzerland, the USA, and Canada, no withholding taxes are levied on inter-jurisdictional income flows. Moreover, disputes concerning the inter-jurisdictional allocation of the corporate tax base, particularly those involving transfer-pricing, can be referred to federal courts for final settlement.

In addition, inter-corporate dividend flows across jurisdictions are generally not subject to corporation tax (although in Switzerland the definition of what constitutes a 'substantial interest', and is therefore exempt from taxation, varies by canton). Hence, sub-national taxation manifests the principle of capital import neutrality rather than capital export neutrality, as far as inter-jurisdictional dividend income flows are concerned.

As regards relations with foreign countries, in both Canada and the USA, the federal rather than sub-national governments have been assigned sole legal responsibility for concluding tax treaties with foreign governments. This is not the case in Switzerland, however, where a few cantons do in fact have their own tax treaties with foreign countries.

With regard to the integration of corporate and personal income taxes, it is noteworthy that the type of corporation tax system is the same across sub-national jurisdictions. The classical system prevails in the USA and Switzerland (although three cantons

operate a split-rate system whereby a lower rate of tax is levied on dividend distributions than on retained profits). In contrast, all Canadian provinces operate a single type of non-discriminatory system involving a tax credit for dividends received by individual shareholders.

While discrimination between shareholders residing in different subnational jurisdictions does not arise in conjunction with the classical (or split-rate) corporate tax system, the absence of such discrimination under Canada's system of shareholder relief is attributable to the fact that the tax credit is not necessarily granted by the province in which the corporation tax was originally paid. On the contrary, credits are provided to individual shareholders resident in one province even in respect of corporation taxes paid in another province. Furthermore, there is no 'clearing-house' mechanism by which the source provinces, in effect, transfer the credited portion of their corporation taxes to the provinces where the individual shareholders reside.

These features of the Canadian corporation tax arise in large part from the fact that in Canada, as in some EC Member States, shareholder credits are not related to the amount of corporation taxes actually paid. This situation has created obvious opportunities for tax arbitrage, which tends to erode the income tax base. The federal government gradually acted to counteract this erosion by substantially reducing dividend tax credit and by implementing a large corporations' tax of 0.2% on paid-up capital. Since the latter tax is creditable against the corporate surtax, in a way it serves as a minimum tax designed to fulfil a role similar to the imputation taxes (advance corporation tax, *précompte*, etc.) that are employed in EC Member States.

It is also noteworthy that the dividend tax credit in Canada is granted to domestic shareholders in domestically controlled companies for dividends received by these companies from abroad. Hence, not only is the dividend tax credit non-discriminatory as far as investment in different provinces is concerned, but for domestically controlled companies, there is no bias against foreign investment, as is generally the case under EC Member States' imputation systems.

Another striking feature of these sub-national governments' corporation tax systems, especially in Canada and the USA, is the relatively high degree of tax-base harmonization compared with the Community. As mentioned earlier, this harmonization is undoubtedly in large part due to the existence of a federal tax base and common accounting practices. Seven of the 10 Canadian provinces have signed tax collection agreements with the federal government, under which, among other things, the provinces adhere to the federal definition of the corporation tax base.¹ Even the three provinces which are not signatories to such agreements use definitions of the tax base that are very similar to the federal definition. Although no such system of formal agreement between the States and federal government exists in the USA, a substantial majority of the 45 States that levy corporate income taxes use federal income as the taxable income base.

The relatively high degree of harmonization of the tax base in Canada, the USA, and Switzerland is in contrast to the lack of uniformity in statutory corporation tax rates. For example, in Canada the general provincial rate ranges from 5.5 to 17%, and from zero to 10% in the case of small businesses. These discrepancies are fully reflected in

¹ Under the tax collection agreements, the federal government collects corporate (and personal) income taxes on behalf of the provinces and administers provincial tax credits, as well as other special measures, provided the credits and other measures satisfy certain guidelines.

combined federal and provincial corporation tax rates, because provincial corporation taxes are not deductible from the federal base.¹ Consequently, combined federal and provincial tax rates can vary between 28.5 and 45%, with a range of between 12 and 22% applicable to small companies. In the USA, rates of corporate income tax at the State level range from zero to 12%. The range of effective rates in the States is somewhat lower, however, because State taxes are deductible for federal corporation tax purposes.² In Switzerland, the sum of federal, cantonal and communal statutory corporation tax rates ranges from 11 to 30%. Since sub-national jurisdictions in all three countries are at liberty to levy their own corporation taxes at whatever rate they wish, there is no prescribed maximum overall rate of corporation tax. On the other hand, the lowest applicable federal rate constitutes a minimum rate applicable within each of these countries across all sub-national jurisdictions.

A number of the problems (including inter-jurisdictional double taxation, manipulative accounting, and inter-jurisdictional equity) that arise with respect to the allocation of the corporation tax base across sub-national jurisdictions are largely avoided in Canada, the USA and, to a lesser extent, Switzerland by the use of formulae to apportion individual companies' corporate taxable income among jurisdictions. In Canada, in accordance with the tax collection agreements, all provinces, including the three that are not signatories to such agreements, use a common equally-weighted two-factor formula involving sales and payroll. In the USA, despite the absence of a formal agreement, three-quarters of the States levying corporation taxes use an equally-weighted three-factor formula based on property, sales and payroll.³ The Swiss cantons generally apply a system of apportionment with uniform rules to determine the share of income deemed to have been earned in each canton by a multinational enterprise, the actual formulae depending on the nature of the firm. Industrial enterprises, for example, apportion income on the basis of capitalized assets and payroll.⁴ Needless to say, the use of such apportionment formulae is greatly facilitated by the existence of a common tax base, common accounting principles, a common commercial code, a common legal system, and a single currency.

It is noteworthy that at the sub-national level in all three federal countries governments have implemented formula apportionment gradually, sometimes on a residual or an optional basis. This method of allocating taxable income among jurisdictions became standard practice only when firms with operations located in several sub-national tax jurisdictions within these countries became integrated to such an extent that it became impossible for businesses to maintain separate accounts and for tax authorities to administer a separate accounting system, and when businesses had instead voluntarily adopted the method for maintaining their internal financial accounts. In other words, formula apportionment evolved once cross-border business activities were sufficiently integrated to make it difficult to draw sub-national boundaries solely for tax purposes.

¹ Note, however, that the federal government allows a 10 percentage point abatement from the federal tax rate for provincial corporation taxes.

² Some States allow both State and federal taxes to be deductible for State tax purposes.

³ In the USA, unlike in Canada and Switzerland, several States operate unitary tax systems, whereby the operations of separately incorporated, but functionally integrated, companies are combined for tax purposes. Clearly, formula apportionment should be distinguished from unitary taxation. Apportionment refers to the process of dividing income according to business activity. The term 'unitary' refers to the operations that are included in the company for apportionment purposes.

⁴ In Canada and the USA the actual formulae sometimes depend on the nature of the firm.

Apart from Alaska in the USA, the apportionment rules used by sub-national governments do not extend to operations beyond 'the water's edge'; that is, the apportionment formulae do not apply to the income earned abroad by foreign subsidiaries of domestic companies.

In all three countries, sub-national governments are free to compete with each other for investment by using tax incentives. Such incentives mainly involve statutory corporate tax rate cuts and non-discriminatory tax credits in the USA and Canada, while in Switzerland they are largely confined to tax rate reductions. These types of incentives are considered to be preferable to changes in the tax base on transparency and simplicity grounds.

It is also perhaps worth noting that whereas corporate income is allocated on the basis of source, personal income taxes are usually allocated on the basis of residence. The residence principle is considered to be appropriate for a progressive tax structure based on ability to pay because it takes into account the taxpayer's income from all sources in determining tax liability. By contrast, in Canada at least, source-based provincial corporate income taxes are usually justified on the grounds of the services that a firm receives from the province in carrying on its business.¹

Finally, tax harmonization is obviously more acceptable to sub-national governments if it is accompanied by a system of revenue-sharing or equalization payments, whereby federal governments make payments to sub-national governments in order to compensate for their different tax capacities. Formal arrangements of this type thus reduce the potential for sub-national tax differences.² Such arrangements exist in both Canada and Switzerland.

III — Recent developments

Interestingly, Switzerland has recently been reconsidering its tax harmonization arrangements or lack thereof. The cantons recently agreed on some harmonization measures for cantonal corporate and personal income taxes to be implemented in 1993. These harmonization measures relate mainly to certain aspects of the tax base, with the cantons retaining their right to set tax rates.³

IV — Conclusions

Judging from the examples of Canada, Switzerland, and the USA, therefore, it seems appropriate that attention in the European Community should be focused primarily on those features of Members States' tax legislation that impede intra-Community movement of factors of production, particularly those that are discriminatory. Among the

¹ See, for example, Economic Council of Canada (1983).

² The potential for sub-national tax differences is also reduced by federal spending programmes designed to achieve regional balance.

³ In Canada the federal government has also recently unveiled proposals to change the basis for collecting personal income taxes.

most notable of these types of impediments within the Community are the double taxation of cross-border income flows between companies and the manner in which corporate and personal income taxes are integrated. A minimal degree of harmonization of Member States' corporation tax bases is also clearly desirable on the grounds of simplicity and transparency.

Perhaps the main lesson to be drawn from the experience of the three countries is that harmonization has, by and large, been accomplished as a result of its evolution in line with other developments (such as, the establishment of common accounting practices and a single currency revenue-sharing, etc.) rather than by binding federal legislation. Indeed, in all three federations, legally binding harmonization measures are the exception rather than the rule, and those measures that are legally binding are aimed mainly at inter-jurisdictional income flows.

The general absence of legally binding measures in Canada and the USA is perhaps partly attributable to the fact that the need for such measures is much less when sub-national income taxes are of secondary importance compared with their federal counterparts. Interestingly, it is in Switzerland, where cantonal (and communal) taxes rather than federal taxes predominate, that intercantonal double taxation is prohibited by the country's constitution, at least in principle. Tax harmonization is also facilitated by the existence of equalization payments by federal to sub-national governments in order to compensate for the latter's different tax capacities. (Hence, equalization payments of some form or other may be necessary not only to ensure Member States' acceptance of monetary union, but also to facilitate tax harmonization.) It follows that tax harmonization is bound to be more difficult to accomplish in the Community, where corporation taxes are levied only by Member States and where equalization payments are practically non-existent.

Nevertheless, it is clearly important to establish rules that prevent 'beggar-my-neighbour' policies as much as possible. Such rules are especially important in the absence of an overriding federal government, which in federal countries absorbs or mitigates differences between sub-national jurisdictions. One such example is the fact that, with few exceptions, international tax treaties are the responsibility of federal governments. The only exceptions arise in Switzerland, where a few cantons have concluded their own tax treaties with foreign countries. As long as some general rules are established with the agreement of all sub-national governments, then a large measure of tax diversity can be tolerated without impairing the functioning of the federal countries' internal market.

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TABLE 9A.1

Harmonization decentralization spectrum: A comparison of five federations, 1989

| | Australia ¹ | FR of Germany | Canada | United States ¹ | Switzerland ¹ |
|--|------------------------|---------------|--------|----------------------------|--------------------------|
| Number of units | 8 | 11 | 10 | 50 | 26 |
| State as a percentage of total: | | | | | |
| Expenditures | 44.0 | 26.5 | 48.0 | 26.6 | 34.4 ² |
| Tax revenue | 16.2 | 22.0 | 40.4 | 20.4 | 22.3 |
| Taxes on income, profits, capital gains | n.a. | 40.9 | 36.8 | 16.8 | 40.7 |
| State revenue as a percentage of expenditure | 49.8 | 83.0 | 79.1 | 86.2 | 73.7 ² |
| Features of State corporation tax: | | | | | |
| Tax-base uniformity | n.a. | n.a. | Yes | No | No |
| Tax-rate uniformity | n.a. | n.a. | No | No | No |
| Allocation formula uniformity | n.a. | n.a. | Yes | No | Yes |

NB: n.a. = not applicable.

¹ 1988.

² 1984.

Source: Adapted from Bird (1986), Table 7.1 and Bird (1987), Table 1, using data contained in *Government finance statistics yearbook*, Volume XIV, 1990 International Monetary Fund.

Chapter 10

Conclusions and recommendations

I — Introduction

In accordance with the Committee's mandate set out in Chapter 1, the purpose of this report has been to address three key questions. First, do differences in taxation among Member States cause major distortions in the functioning of the internal market, particularly with respect to investment decisions and competition? Special attention was focused on those distortions that involve discrimination between residents and non-residents. Second, in so far as such distortions do arise, are they likely to be eliminated simply through the interplay of market forces and tax competition between Member States, or is action at the Community level required? Third, if Community action is necessary, what specific measures are required to remove or mitigate these distortions? In considering all these issues, the Committee has also:

- (i) taken account of the impact of corporate taxes on both the level of investment and the propensity to save; and
- (ii) been sensitive to the world economic situation in which there is the risk of a shortage of funds.

The first question was addressed in Chapters 2, 3, 4, 5 and 6 of the report. Chapter 2 focused attention on the main tax problems posed by the removal of barriers to the free movement of goods, persons, services, and capital in the Community's endeavour to establish a single internal market. These problems relate to the economic efficiency, fairness, administrative feasibility, simplicity, compliance costs, certainty and transparency of taxation in Member States, as well as the possible constraints imposed by such a situation on countries' capacity to levy taxes and their freedom to pursue their own economic and social objectives. Chapter 3 highlighted the principal differences in the rules for the taxation of business income that exist between Member States, paying special attention to those aspects of countries' tax laws that could be considered discriminatory with respect to other EC members. Chapter 4 assessed the overall distortionary impact of such differences by reference to the tax component of firms' cost of capital, the latter being regarded as a potentially important determinant of firms' investment decisions and competitiveness. Empirical evidence regarding the distortionary effects of taxation on firms' investment and tax planning decisions is examined in Chapters 5 and 6.

The answer to the second question is discussed in Chapters 7 and 8, which assessed the extent to which tax differences between Member States have narrowed during the past decade, as well as the seriousness of the threat posed by tax competition to their revenue-raising capacity. By way of comparison, Chapter 9 summarizes the main aspects of business income taxation in three quite different non-EC federal countries (Canada, Switzerland, and the United States). Attention is focused on the extent to which these countries' sub-national corporate income taxes are harmonized, and the manner in

which such harmonization has been accomplished. The Committee believes that current tax practices in these three countries could be indicative of what might be necessary for the Community in the not too distant future.

The objective of this final chapter is to address the third question; that is, to specify, in the light of the previous nine chapters, the measures required at the Community level in order to remove major tax distortions and discrimination pertaining to investment and competition. Before doing so, however, it is useful to summarize in Part II of this chapter the main findings of those chapters, starting with the existing principal tax differences between Member States. Part III contains the Committee's recommendations.

II — Main findings

Principal tax differences between EC Member States

As described in Chapter 3, the principal differences in the taxation of business income between Member States relate to the nature of the corporation tax system, statutory tax rates, the definition of the tax base together with various types of tax relief, withholding taxes on income flows abroad, and the manner in which relief is provided for double taxation with respect to income derived from cross-border activities. There are also major differences between countries in the taxation of unincorporated businesses and net wealth.

More specifically, two Member States (Luxembourg and the Netherlands) operate classical corporation tax systems, under which profits distributed in the form of dividends are fully taxed twice, once at the corporate level and again at the shareholder level. The other 10 Member States provide varying degrees of relief for such double taxation, at either the corporate level, the shareholder level, or both levels. Relief at the corporate level is achieved by levying a lower tax rate on dividend distributions, as in Germany, or by allowing partial or full deduction for dividend payments, as in Greece. Relief at the individual shareholder level is accomplished either by granting imputation credits, as in Germany, France, Italy, Ireland, and the United Kingdom, with France, Germany and Italy providing a full credit for corporation taxes actually paid, or by levying reduced personal tax rates on dividend receipts, as in Belgium, Denmark, and Portugal.

There are also considerable differences in statutory corporation tax rates among Member States. They range from 10% in Ireland, for manufacturing and certain internationally traded services, to a rate of 50% in Germany on retained earnings.¹ Tax-free zones exist in certain countries as well, including the special enterprise zones in France and the free zones in the Portuguese islands of Madeira and Santa Maria, as well as the Canary Islands of Spain. In addition, special regional tax concessions exist in some Member States, which provide reduced corporate tax rates for enterprises, as in the Mezzogiorno area of Italy. Some Member States also levy reduced rates of corporation tax on small and medium-sized businesses.

¹ The overall corporation tax rate on retained earnings in Germany is 57.5%, if local taxes are included.

Furthermore, the definition of the corporation tax base varies from one Member State to another. Taxable income is, as a rule, computed on the basis of 'sound commercial accounting principles' and thus related to the profits reported in company accounts. However, whereas in some countries (Belgium, France, Germany, Greece, Italy, Luxembourg and Spain) there is a close linkage between the accounts required for tax purposes and those prepared for reporting purposes, in others (Denmark, Ireland, the Netherlands, and the United Kingdom) the linkage between the two sets of accounts is not as close. Moreover, depreciation rules and rates for tax purposes, the tax treatment of losses, stocks and other expenses, provisions (especially those for bad debts and occupational pension plans) and taxation of capital gains, as well as adjustments allowed to compensate for the impact of inflation, differ significantly across countries. Various forms of tax relief, including investment tax credits and allowances, are also available in some Member States.

The tax treatment of cross-border flows of corporate income differs from the treatment of flows arising within a Member State in a number of respects. First, apart from the corporate income tax, a withholding tax is normally imposed on cross-border payments of dividends, interest, and royalties. The rates of such withholding taxes vary according to bilateral tax treaties, the provisions of which differ depending on the two countries involved, both within and outside the Community.

Second, apart from a few limited cases in Denmark and France, Member States do not generally allow losses incurred by foreign subsidiaries to be offset against the taxable profits of their parents. By contrast, such offsetting is generally permitted by most Member States in the case of foreign branch losses, albeit in different ways.

Third, with regard to methods of providing relief for double taxation of intra-company income flows within the Community, seven countries (Belgium, Denmark, France, Germany, Italy, Luxembourg, and the Netherlands) for the most part exempt dividends paid to parent companies residing in their jurisdictions by what are considered to be subsidiaries located in other Member States.¹ The other five countries allow some form of credit for corporation and withholding taxes paid abroad in respect of such foreign-source dividends. On the other hand, apart from the possibility of a few cases where bilateral tax treaties have not yet been concluded between them, Member States generally allow a credit for withholding taxes levied by other EC countries on interest and royalty payments made by a subsidiary to its parent, though this does not result in the elimination of double taxation in all cases.

Finally, the majority of Member States do not give any relief to individual tax-residents in their jurisdictions, who are shareholders in companies established in other Member States, in respect of corporate income tax already paid in those Member States on the dividends they receive. In the case of purely classical corporation tax systems, this involves no discrimination against cross-border dividend flows, provided that the same personal income tax rate applies to dividend receipts, whatever their source (domestic or foreign). In the case of imputation systems, however, apart from limited exceptions, no country operating an imputation system recognizes taxes paid abroad for imputation purposes. As a result, when foreign-source income is redistributed to individual resident shareholders, it is taxed, as if under a classical system, because a full credit against imputation tax (advance corporation tax, *précompte*, etc.) is not given for foreign tax

¹ The definition of a subsidiary varies between Member States according to their tax legislation.

paid. Hence, these imputation systems do not treat foreign-source income in the same way as domestic-source income. A second, but quite separate issue is the fact that Member States with imputation systems do not usually extend the imputation credit to non-resident individual shareholders elsewhere in the Community (the United Kingdom, Ireland and, to a lesser extent, France and Italy being exceptions owing to bilateral tax treaties with certain countries).¹

Impact of tax differences between EC Member States

The main problems arising as a result of the foregoing tax differences between Member States involve economic efficiency arising as a consequence of distortions to competition, intra-Community fairness, administrative feasibility, particularly in the face of international tax planning, simplicity, taxpayer compliance costs, certainty, and transparency.

Tax distortions to investment

The pattern of overall incentives to domestic and foreign direct investment provided by Community countries' tax regimes was described in Chapter 4. It was shown that for a typical investment by a company in the manufacturing sector, either at home or abroad, the corporate tax component of the 'cost of capital' varies considerably from one country to another.² In the case of purely domestic investment, the corporate tax component of the cost of capital ranges from 0.1% in Greece and Ireland to 1.2% in Luxembourg under the assumptions of the model. Therefore, taxation in Luxembourg constitutes a greater potential impediment for domestic companies to undertake new investment at home than do the tax laws of Greece and Ireland, at least as far as the typical project is concerned. Other things being equal (which is seldom the case), a relatively high cost of capital for domestic investment in a country increases the overall cost of doing business, and thereby reduces the competitiveness of its firms compared with those located in other countries where the cost of capital is lower. However, the Committee considers that the magnitude of the cost of capital applicable to businesses undertaking purely domestic investment is, in the first instance, a matter for each Member State to decide for itself, without interference by the Community, unless it can be demonstrated that differences in the cost of capital applicable to purely domestic investments causes serious distortions in the functioning of the internal market.

Not only does the corporate tax component of the cost of capital for domestic investment vary across Member States as a consequence of tax differences between them, but, more importantly, for outward and inward investment it is, on average, generally higher than for domestic investment. For example, the corporate tax component of the cost of capital related to a typical investment undertaken by a company in another EC country through a wholly owned subsidiary is 2.1%. The latter can be

¹ Germany further reduces its withholding tax below the internationally accepted level of 15% but ensures that the benefit of this reduction goes only to the shareholder rather than the foreign treasury.

² Recall that the cost of capital is also commonly known as the 'hurdle' or 'break-even' rate of return. It is defined as the minimum inflation-adjusted pre-tax rate of return that is required in order for the project to be profitable.

compared with a figure of 0.7% if the company undertook the same investment at home. The discrepancy between the cost of capital for domestic and for foreign investment is even greater in the case of investments undertaken by newly established subsidiaries that depend more heavily on their parent companies for equity finance. On the other hand, the discrepancy is somewhat smaller in the case of mature subsidiaries that are less dependent on their parent companies for equity finance. Furthermore, the corporate tax component of the cost of capital associated with direct investment by companies in or from other Member States varies widely depending on the source and residence countries involved.

It would appear from the simulation results reported in Chapter 4 that withholding taxes levied by source countries on cross-border dividend payments between related companies are the main reason for the bias against inward and outward direct investment. Therefore, the partial abolition of such withholding taxes, as required by the parent/subsidiary Directive, is an important first step towards the removal of discrimination in favour of domestic, as opposed to foreign, investment. Other significant, although relatively less important, sources of bias against transnational investment are differences among Member States in the method of providing relief for double taxation on cross-border income flows (adoption of the exemption method by all Member States would improve the degree of locational tax neutrality), and differences in corporation tax rates between countries. By contrast, the simulation results suggest that withholding taxes levied by source countries on cross-border inter-corporate interest payments and variations in the Member States' corporate tax base (arising as a consequence of differences in depreciation allowances and stock valuation) constitute relatively minor sources of non-neutrality as far as companies' investment location decisions are concerned. (Obviously the assessment of the relative importance of potential distortions is limited to the elements included in the model.) Moreover, apart from the existence of unrelieved imputation taxes (advance corporation tax, *précompte*, etc.) related to dividends distributed by parent companies from profits earned abroad, which also results in discrimination against direct transnational investment, differences between Member States' corporation tax systems do not appear to be a significant source of such discrimination, at least as far as investment in the corporate industrial sector is concerned.

It would be surprising if tax-induced differences among countries in the cost of capital pertaining to domestic and cross-border investments did not have some effect on business investment, especially in the case of marginal projects. The review of empirical evidence contained in Chapter 5 indicates that multinational firms' decisions concerning the location of investment are indeed influenced by tax considerations. This conclusion is confirmed by a survey by this Committee of companies based in 17 European countries, including all 12 EC Member States. For example, 48% of respondents claimed that taxation is always or usually a major factor in the decision as to where to locate a production plant. The corresponding figures for other activities were 38% for a sales outlet, 41% for an R&D centre, 57% for a coordination centre, and 78% in the case of a financial centre. Such evidence suggests that tax differences among Member States do have a major impact on foreign location decisions of multinational firms and thus cause distortions in competition, especially in the area of financial activities. The outcome is likely to be a misallocation of resources within the Community, resulting in reduced productivity, which in turn reduces the Community's overall competitiveness relative to non-EC countries. However, the Committee has found no satisfactory way of quantifying the size of this misallocation, either in absolute terms or in relation to

other market distortions that may exist. Nor is taxation the only important determinant of investment location decisions. Nevertheless, the fact that empirical evidence gathered on behalf of the Committee indicates that taxation does have a strong influence on the location of investment and on financing decisions is prima-facie evidence that the distortions to competition and resulting efficiency losses caused by taxation could be large.

Intra-Community fairness

As pointed out in Chapter 2, inter-country fairness has traditionally involved the principles of source-country entitlement, non-discrimination, and reciprocity. According to the first principle, the source country has the prior right to tax business income from direct investment earned within its jurisdiction. This principle can be justified on the grounds that the source country has to finance the infrastructure and public services from which the business benefits. The second principle reflects the view that countries' tax laws should not discriminate against foreign firms and shareholders, or against domestic firms and individuals investing abroad. Reciprocity has usually entailed equality of rates of withholding tax between parties to bilateral treaties, although such equality may be abandoned in return for some other concessions, or lack thereof (for example, the non-granting of imputation credits to non-residents). The Committee adheres to these three principles and the recommendations made later in this chapter reflect such adherence. Unfortunately, as pointed out in Chapter 3 and elsewhere in this report, there are a number of features of Member States' existing tax legislation that, in the Committee's view, violate the principle of non-discrimination.

International tax planning

Not only do differences in taxation affect firms' direct investment decisions, but they appear to have an even greater impact on the companies' financial and legal structures. According to the survey undertaken on behalf of the Committee, roughly two-thirds of respondents claimed that taxation is always or usually a major factor in financial decisions of multinational firms, including whether to finance new investment locally or through the parent, the type of finance used in either case, whether to set up a new operation in the form of a branch or a subsidiary, and whether to channel income from foreign operations through holding companies or other intermediaries in countries other than those where the parent or its foreign operations are located.

Moreover, it would appear that taxation is an important determinant of the form in which profits are repatriated to the parent company (dividends, interest payable or transfer-pricing). Nevertheless, companies seem to feel that constraints do exist on their ability to shift profits to relatively low-tax jurisdictions. This finding is consistent with the evidence that taxation also affects the location of real investment.

Administrative and compliance problems

The existing tax differences between Member States also have administrative implications in a single market. Of particular relevance are problems involving enforcement, taxpayer compliance costs, and uncertainty.

As pointed out in Chapter 2, national tax authorities probably find it more difficult to levy taxes on activities undertaken in other Member States. Hence, source-based taxes are easier to administer than residence-based taxes. Since the establishment of a single market will undoubtedly encourage cross-border activities, it follows that those Member States relying on residence-based taxes are likely to incur higher enforcement costs as a result.

With regard to compliance costs, whilst they are difficult to measure, it is evident that the simpler the tax regime, the less these costs will be at both the domestic and the international levels. The greater the difference in tax rules between Member States, the higher the overall costs of compliance, which can be especially onerous for small and medium-sized businesses as well as for small investors, thus discouraging them from making cross-border investments. However, according to the business survey undertaken on behalf of the Committee, compliance costs do not appear to be an important determinant of investment location decisions in the case of large firms.

Another important problem for businesses, and therefore an impediment to investment, concerns the lack of certainty surrounding Member States' tax rules. Such uncertainty arises not only as a consequence of frequent changes in tax legislation and inconsistent rulings within a tax administration, but also as a result of the interaction between taxation and inflation (in the absence of indexation) and differences in inflation rates among countries.

An additional source of uncertainty with respect to cross-border activities is the fact that Member States can unilaterally adjust transfer prices on products and services flowing across borders within a multinational firm, and that these adjustments may not be offset by a corresponding change by another Member State, a practice that the recently agreed Arbitration Convention is designed to address.

Transparency

As discussed in Chapter 2, transparency is obviously a desirable attribute of taxation. Not only does transparency in taxation enhance government accountability, it is also necessary to ensure that Member States do not hamper the establishment of the internal market by using hidden tax incentives to distort competition within the Community. Unfortunately, many incentives embodied in countries' tax regimes, particularly those affecting the tax base, are not transparent.

Tax convergence in the European Community

As obstacles to the mobility of goods, services, and factors of production within the Community are removed, a key question that arises is the extent to which independent action by national governments can be relied upon to reduce the existing tax differences between Member States, thus alleviating the problems posed by these differences, or whether some form of action in this regard is required at the Community level. Judging from the experience of the past decade, there has been some convergence of countries' tax regimes in the absence of such action.

As reported in Chapter 8, during the latter part of the 1980s, three Member States (Belgium, Denmark, and Portugal) adopted a system combining a corporation tax with

relief provided at the shareholder level by means of reduced tax rates on dividends rather than by tax credits. Irrespective of the methods used by countries to integrate corporate and personal income taxes, according to the analysis in Chapter 8, the degree of integration for the top-rate personal taxpayer appears to have been increasing since 1980, albeit without any clear indication of convergence among Member States.

With regard to statutory corporation tax rates, not only did they converge somewhat between 1985 and 1991 in EC countries, they also dropped by an (unweighted) average of roughly seven percentage points; that is, from 46.9% in 1985 to 40.1% in 1991. Top personal tax rates also converged to lower levels in Member States during the same period. While some of the convergence in corporate and personal tax rates may have occurred as a result of tax competition among EC as well as non-EC countries, it seems to be due mainly to the growing desire of some countries to establish more neutral tax regimes from a domestic standpoint by cutting statutory tax rates and reducing tax concessions.

In most countries, however, the drop in corporation tax rates does not appear to have been accompanied by a broadening of the tax base, at least as far as depreciation allowances are concerned. Indeed, there was a general increase in depreciation rates permitted for tax purposes, which, when combined with the cuts in statutory corporation tax rates, meant that the value of such allowances did not change very much. Hence, there was little, if any, convergence in this particular aspect of the corporation tax base. On the other hand, some Member States (e.g. Belgium, Denmark, the Netherlands, and Spain) curtailed or eliminated their investment tax credits.

The effect of all these tax changes on the overall incentive to invest is reflected in the corporate tax component of the cost of capital, which, on average, increased during the past decade, if differences in countries' interest and inflation rates are taken into account. A more interesting finding is that there was a marked convergence in the corporate tax component of the cost of capital across Member States over the decade as a whole, and that this convergence was attributable primarily to the downward convergence in countries' interest and inflation rates, rather than to deliberate action on the part of the national tax authorities. Only in the cases of Germany and the UK did tax reform make a significant contribution to the convergence of the corporate tax component of the cost of capital within the Community.

The threat posed to corporate tax revenues by tax competition

Judging from past experience, the Committee found no convincing evidence that independent action by national governments is likely to provoke unbridled tax competition among Member States and lead to a drastic and undesirable erosion of corporate tax revenues. On the contrary, there has been a noticeable upward trend in taxes on corporate income as a proportion of GDP since 1965. No statistical explanation for this upward trend was available, however. It could be due to a number of factors, notably improved corporate profitability or increases in the proportion of countries' businesses that are incorporated. (With regard to the latter, it is perhaps noteworthy that the upward trend in taxes on corporate income as a percentage of GDP occurred despite a large drop in the difference between the top personal tax rate on earnings and the statutory corporation tax rate on retained profits, which has reduced the tax incentive for non-corporate businesses and self-employed individuals to incorporate.)

Hence, while such a trend should be interpreted with extreme caution, it is clearly not consistent with the substantial erosion hypothesis. Needless to say, past experience may not be a reliable guide to the amount of tax competition that might eventually materialize in a single market, since establishment of the latter is likely to increase the sensitivity of investment to tax differences among Member States.¹

In fact, Chapters 2 and 7 provide a number of reasons for not expecting tax competition to lead to a serious erosion of corporation tax revenues. First, there is the necessity for countries to maintain the corporation tax as an adjunct to their personal income taxes. Second, in some cases it is in countries' interest to take advantage of the fact that taxes levied on multinational firms are often creditable abroad in so far as profits are repatriated. A third reason is the obvious fact that taxation is only one, albeit an important, determinant of firms' location decisions. On the other hand, it should be kept in mind that tax revenue losses can occur not just as a consequence of the flight of real investment from a country, but also as a result of multinational firms shifting taxable profits from high- to relatively low-tax countries.

It follows that, at present, the threat of overall tax atrophy does not seem to provide a sufficiently strong justification for the total harmonization of corporate taxes within the Community. However, the Committee is concerned about the tendency of Member States to introduce special tax regimes designed to attract internationally mobile business. The schemes normally cost the host country little in terms of tax revenue forgone. On the other hand, the losses in tax revenue by the country from which the investment is attracted can be considerable. (Obviously, trying to match those special tax regimes in order to retain existing investment has equivalent cost.) As a result there is a danger that such schemes will lead to tax atrophy in particular sectors. But even if action were necessary to prevent undesirable tax competition in specific sectors, harmonization is not necessarily the solution. The case for tax harmonization therefore largely rests on the extent to which it removes major distortions in resource allocation and competition, and to a lesser extent on whether it enhances the fairness, administrative feasibility, simplicity, certainty, and transparency of taxation in Member States.

A similar conclusion cannot be drawn with respect to withholding taxes on cross-border flows of interest from portfolio investment. In this case, the danger of tax competition leading to atrophy appears to be much more serious. However, recent experience suggests that any attempt by the EC to impose withholding taxes on cross-border interest flows could result in a flight of financial capital to non-EC countries.

III — Policy recommendations

Although there has been some convergence of certain aspects of Member States' business tax regimes during the past decade or so, mainly as a result of spontaneous action by national governments, wide differences still remain. Some of these differences constitute distortions to the functioning of the internal market, and it is unlikely that such

¹ The most appropriate indicator of the extent to which corporate tax revenues may or may not have been eroded would be corporate taxes as a proportion of before-tax profits. Reliable and comparable data on before-tax profits were not available, however.

differences will be reduced much further through independent action by Member States. It follows that, in principle, these distortions can only be removed by measures agreed at the Community level. However, in considering what measures to recommend, the Committee has had regard to a number of other considerations, which, at present, argue in favour of limiting Community harmonization to the minimum necessary to remove discrimination and major distortions. In particular:

- (i) the fact that national governments in the Member States will want to retain as much flexibility as possible to collect revenue through direct taxes;
- (ii) the explicit or implicit linkage between corporate and personal income taxes in all Member States;
- (iii) the principle of subsidiarity;
- (iv) the need for unanimity on tax matters; and,
- (v) to a lesser extent, experience in federations such as the USA, Canada, and Switzerland, where legally binding harmonization measures are the exception rather than the rule, and those measures are directed mainly at inter-jurisdictional income flows. (It should be noted, however, that tax harmonization in these federal countries is greatly facilitated by predominance of federal corporate taxes in Canada and the USA, and, though less significant, the existence of such taxes in Switzerland, as well as by the provision of federal equalization payments.)¹

For these reasons, the Committee takes the view that, at this stage in the Community's development, action at the Community level should be concentrated on the following priorities:

- (a) removing those discriminatory and distortionary features of countries' tax arrangements that impede cross-border business investment and shareholding;
- (b) setting a minimum level for the statutory corporation tax rate and common rules for a minimum tax base, so as to limit excessive tax competition between Member States intended to attract mobile investment or taxable profits of multinational firms, either of which tend to erode the tax base in the Community as a whole; and
- (c) encouraging the maximum transparency of any tax incentives granted by Member States to promote investment.

As noted above, the Committee does not consider that tax harmonization is justified solely in order to equalize the corporate tax component of the cost of capital in respect of enterprises undertaking purely domestic investment. Nor, in the short term, has the Committee sought to recommend an ideal corporation tax system, be it split-rate, classical, imputation, or any other type of system. Accordingly, at this stage of the Community's development, the Committee does not propose total harmonization of corporation tax systems. Nevertheless, the Committee believes that adoption by all Member States of a common system is a desirable long-term objective.

The remainder of this chapter contains the Committee's recommendations, together with a proposed schedule for their implementation. More specifically, the Committee considers that Phase I recommendations ought to be implemented by the end of 1994.

¹ Switzerland is in the process of reforming its tax legislation in order to bring together the cantons' tax legislation so as to reduce the existing disparities in their tax bases and rates.

Preparatory work on Phase II recommendations should commence immediately, with a view to their implementation during the second phase of economic and monetary union. The Committee envisages that implementation of Phase III recommendations ought to be implemented concurrently with full economic and monetary union.

Elimination of the double taxation of cross-border income flows

Elimination of the double taxation of dividends distributed by a subsidiary to its parent located in another Member State

Elimination of withholding taxes levied by source countries on dividends paid by subsidiaries to parent companies.

Withholding taxes levied on dividends paid by subsidiaries located in one Member State to parent companies located in another used to constitute a major obstacle to cross-border capital flows within the Community. Considerable progress has been made during the past year or so in eliminating such taxes, however, at least as far as intra-Community income flows are concerned. This progress involved the parent/subsidiary Directive requiring the elimination of double taxation of dividends, which was adopted by the Council in July 1990, and is currently being implemented by Member States.

However, the scope of the Directive varies from one Member State to another with respect to the type of companies covered. Accordingly,

The Committee recommends that the scope of the parent/subsidiary Directive be extended to cover all enterprises subject to corporate income tax, irrespective of their legal form (Phase I). Subsequently, the Directive should be extended to all other enterprises subject to income tax (Phase II).

Second, under the provisions of this Directive, the withholding tax on dividends is eliminated only when the parent company's holding in its subsidiary exceeds a threshold of 25%. Member States are at liberty to establish a lower threshold, and the Committee understands that some of them do indeed envisage making use of this possibility on a reciprocal basis. Such an extension of the scope of the Directive is highly desirable. Accordingly,

The Committee recommends a substantial reduction in the participation threshold prescribed in the parent/subsidiary Directive (Phase I).

Withholding tax on dividends

The above recommendations deal with transactions between parent and subsidiary. As regards other recipients of dividends, the Committee considers that a sufficient level of taxation at source should be ensured in order to combat tax evasion by shareholders residing in the Community. This would involve a uniform withholding tax, which would be waived provided the shareholder (individual or company) submits proof of being an EC-resident taxpayer. The same waiver could be extended to third-country investors in appropriate circumstances. Such proof might entail shareholders submitting some sort of tax identification number as a proof of beneficial ownership, either directly

to the company distributing the dividends, or to the financial intermediary or agency involved. In addition, a systematic exchange of information on dividend payments should be organized by Member States' tax administrations. Accordingly,

The Committee recommends that the Commission propose by way of directive a uniform withholding tax of 30% on the dividend distributions by EC-resident companies, subject to waiver where appropriate tax identification is provided (Phase II).

Elimination of double taxation by the country of residence of the parent company

As regards the method of providing relief for double taxation with respect to cross-border dividend flows from subsidiaries to parent companies, both the exemption and the credit methods are widely used throughout the Community. Although, as pointed out in Chapter 2, both methods in their pure form have advantages as well as disadvantages, in seven Member States parent companies receiving dividends from a subsidiary located in another Member State can claim an exemption if the prescribed conditions are fulfilled. In the other Member States, the parent company may claim an indirect tax credit for corporation taxes paid. The tax credit method is imperfect, however, in so far as the tax credits are limited to the taxes due in the parent company's home country (that is, there is no refund if the amount of taxes paid abroad is higher than those due at home). Moreover, taxes on dividends can be deferred until dividends are actually repatriated by the parent company from its subsidiary. Consequently, in practice, the credit method is often equivalent to the exemption method. In contrast to the situation involving subsidiaries, in the case of income flows from permanent establishments to parent companies, a majority of seven Member States prefer the credit method to the exemption method.

The Committee does not hold any strong views concerning the relative merits of the two methods of providing relief for double taxation, believing that both methods can coexist. Indeed, such coexistence is foreseen in the 'parent/subsidiary' Directive and the draft 'foreign losses' Directive, both of which leave Member States free to choose either method, and it would be unrealistic to expect Member States to relinquish this choice. Nevertheless, the Committee considers that the exemption method would be preferable on the grounds of administrative simplicity provided it is accompanied by measures that prevent excessive tax competition among Member States. Such measures include a minimum degree of harmonization with respect to statutory corporation tax rates and the tax base, as recommended below.

Elimination of withholding taxes levied by source countries on interest and royalty payments between enterprises in different Member States

The Committee also urges the speedy adoption of the draft directive aimed at abolishing withholding taxes on interest and royalties. At the same time, however, the Committee believes that this directive should be extended to apply to all such payments between enterprises within the Community, on condition that the necessary steps are also taken to assure taxation of that kind of income. Accordingly,

The Committee recommends that the proposed interest and royalties Directive be adopted, that the scope of the Directive be extended to encompass all such

payments between enterprises, and that the Directive include accompanying measures to ensure that the corresponding income is effectively taxed within the Community in the hands of the beneficiary (Phase I).

Double taxation arising from transfer-pricing disputes

The establishment of a single internal market will involve greater cross-border integration of business activities as firms increasingly organize their operations on a Community-wide basis. With the attendant expansion of cross-border flows of intermediate products and services within groups of firms, transfer-pricing within the Community is bound to assume greater importance. In this regard, the Committee supports the arm's-length principle as the basis for determining transfer prices. However, disputes do arise with regard to the application of this principle when the tax administrations of the different Member States, in which an enterprise operates, interpret the principle differently. Double taxation occurs if an adjustment by one Member State to the transfer price of a product or service flowing across a border between related enterprises is not offset by a corresponding change by the other Member State. Therefore, the Committee endorses the recent agreement by Member States on the Arbitration Convention, which is designed to resolve such disputes, but which has not yet been ratified by Member States. Accordingly,

The Committee urges all Member States to ratify the Arbitration Convention as soon as possible (Phase I).

Once it is ratified, the convention will help to eliminate intra-Community double taxation that has already occurred. This problem could be alleviated in the first place, however, if Member States instituted a procedure of advance rulings, which could be extended to cover inter-firm pricing of centrally incurred costs. Another possible solution would be for national tax administrations to consult each other through an *ad hoc* procedure prior to any profit adjustments. This would be facilitated by the development of simultaneous and joint controls of related enterprises. Such procedures would reduce the uncertainty as well as double taxation arising as a consequence of such adjustments. Therefore,

The Committee recommends that the Commission together with the Member States take action to establish appropriate rules or procedures concerning transfer-pricing adjustments by Member States (Phase I).

Such rules should be consistent with the Committee's recommended guidelines for the tax base, which are discussed later in this Chapter.

Offsetting by parents of losses incurred by branches or subsidiaries located in different Member States

The general absence of means by which Community-based groups of enterprises can offset losses incurred in one Member State against profits arising in another constitutes an impediment to cross-border investments that are likely to generate losses during the first few years. Therefore,

The Committee recommends that Member States adopt the draft directive dealing with losses of permanent establishments and subsidiaries in another Member State (Phase I).

However, the Committee notes that the draft directive provides only for the parent to offset the losses incurred by its subsidiary (or permanent establishment), but does not require loss-offsetting between different subsidiaries of the same parent company. Since horizontal loss-offsetting of this kind is not yet generally available within Member States,

The Committee recommends that all Member States introduce full vertical and horizontal offsetting of losses within groups of enterprises at the national level (Phase II).

The Committee also recommends extension of the draft directive to allow full Community-wide loss-offsetting within groups of enterprises (Phase III).

Tax treaties

As noted in Chapter 3, some Member States have still not concluded bilateral income tax treaties between each other. Accordingly,

The Committee urges Member States not only to conclude bilateral income tax treaties where none exist between them, but also to complete those where their coverage is limited (Phase I).

In addition, it was also pointed out that very few Member States have concluded bilateral tax treaties between each other that deal with taxes on estates, gifts and inheritances. The Committee considers that such treaties should also be concluded as soon as possible.

While multilateral relations between Member States with respect to withholding taxes are becoming increasingly harmonized by means of Community directive, no such harmonization has been accomplished in the case of Member States' relations with non-Community countries. Consequently, Member States continue to conclude bilateral treaties with third countries that contain provisions (such as Article 16 of the USA — Model Treaty 1981) which exclude cross-border dividend, interest and royalty payments from treaty protection in the case of treaty shopping. Such agreements can discriminate against enterprises of other Community countries. Therefore, the Committee considers that there is a need for the coordination of Member States' policy at the Community level with a view to approximating their tax treaty provisions in areas covered by Community law (as in the cases of withholding taxes on dividends, interest, and royalties, for example), and to avoid conflicts with treaty provisions. Accordingly,

The Committee recommends action by the Commission in concert with Member States aimed at defining a common attitude with regard to policy on double taxation agreements with respect to each other and also with respect to third countries (Phase I).

Finally, the Committee welcomes the work that the OECD has begun on the revisions of the 1977 model income tax treaty, and has noted that the interests of the Community in this regard are being taken care of by the Commission.

Corporation taxes

The three components of corporation taxes at the heart of the Committee's work were the system (that is, the manner and the extent to which tax relief is provided to shareholders in respect of corporation taxes levied on profits distributed as dividends), the statutory corporation tax rate, and the tax base. The Committee's recommendations concerning each of these aspects of the corporation tax are discussed in the three following subsections. An additional subsection deals with the issue of corporation tax incentives.

Corporation tax systems

As shown in Chapter 4, the manner in which Member States currently provide relief for the double taxation of corporate profits distributed to individual shareholders in the form of dividends constitutes a source of discrimination against cross-border investment flows. Such discrimination tends to fragment capital markets in the Community. Obviously, this discrimination would be removed if all Member States could be persuaded to adopt a classical corporation tax system, without any tax relief for dividends at the shareholder level. This bias would also disappear if all States adopted an imputation system and extended imputation credits to domestic shareholders for corporation taxes actually paid in other Community countries. Nor would there be any bias if all Member States adopted a classical corporation tax system, but taxed dividends from foreign as well as from domestic sources at a reduced rate at the personal level.

Adoption by all Member States of a common non-discriminatory corporation tax system is clearly desirable in principle, because it would foster the establishment of a single European capital market. It is by no means clear, however, which system is most desirable from the standpoint of the efficient allocation of new investment.

Given that the rationale underlying the corporation tax may differ from one country to another, particularly in an international context, and each type of system has its own merits and shortcomings, it is unlikely that all Member States would be willing to accept the same type of corporation tax system in the near future.

Nevertheless, the Committee believes that those countries which currently provide relief for dividends paid out of domestic-source income to domestic shareholders (whether individuals or institutions), either in the form of an imputation credit or as a reduced rate of personal tax, should be required to extend similar treatment to dividends paid out of profits originating in other Member States. This would have two implications. First, companies would be able fully (or partly) to offset corporation taxes of other Member States against imputation taxes (which for this purpose include *précompte* and equalization taxes as well as advance corporation tax). Second, tax relief would be given for dividends received by individual shareholders, irrespective of the source of these dividends.

The degree of relief given could reflect the rate of tax in the shareholder's country of residence, or the country where the dividends originate. In either case, the cost of such tax relief would be borne by the country of residence. (Any resulting tax revenue loss could be offset by Member States adjusting the statutory corporation tax rate.) As discussed above, foreign taxes levied on dividends from portfolio investment abroad

received directly by individual shareholders could be creditable in their country of residence. Alternatively, such dividends could be exempt from, or face a lower rate of tax, in the shareholder's country of residence. Accordingly,

The Committee recommends that existing discrimination in the taxation of dividends distributed from profits earned in another Member State be removed. To this end:

- (i) Member States which apply imputation taxes on the distribution of profits earned in another Member State should be obliged, on a reciprocal basis, to allow such tax to be reduced by corporate income tax paid in the other Member State in respect of dividends remitted by a subsidiary, or profits earned by a permanent establishment (Phase I); and**
- (ii) Member States with various forms of tax relief for dividends received by domestic shareholders from domestic companies should be obliged, on a reciprocal basis, to provide equivalent relief for dividends received by domestic shareholders directly from companies in other Member States (Phase I).**

Implementation of this recommendation, while not removing all possible distortions, would enable the different types of corporation tax systems to coexist, without causing a major distortion in respect of cross-border investment and thus jeopardizing the establishment of a single capital market in the Community.

The Committee does not recommend that countries with imputation systems extend imputation credits to non-resident shareholders, however, even though some Member States with imputation systems currently do so. Such a step would not be in accordance with the principle of source-country entitlement mentioned above.

As regards the longer term, the Committee considers that further efforts should be made to achieve a more fully harmonized corporation tax system within the Community, particularly as regards the treatment of dividend income. The Committee agreed that a common corporation tax system should be judged, *inter alia*, against the following criteria, though no system is likely to meet all of them. The first criterion is the principle that taxation should be neutral between:

- (i) different legal structures;
- (ii) different methods of financing, especially between distributed and undistributed profits; and
- (iii) investments in domestic shares and investments in the shares of companies based in other Member States.

The second criterion is the aim of creating a strong European equity market. The third criterion is the need to guarantee Member States a steady flow of tax revenue based on fair distribution between the source country and the shareholder's country of residence. Other criteria relate to administrative feasibility, simplicity and transparency of tax rules, efficient tax collection and means of combating tax evasion.

The Committee was made aware of a number of alternative schemes which have been suggested with a view to achieving a more harmonized treatment of dividend income. A majority of the Committee favoured a system of shareholder relief along the lines of the Belgian system. One such proposal put forward by Professor Rädler is described in detail in Annex 10A. One member of the Committee did not agree with this proposal,

and Annex 10B also includes his note of dissent together with a note of some other schemes that might be examined.

The Committee recommends that the Commission and the Member States examine in the course of Phase I alternative approaches to determine the most appropriate common corporation tax system for the Community (Phase III).

Statutory corporation tax rates

As obstacles to cross-border investment within the Community are removed, differences in Member States' corporate tax bases and tax rates are bound to assume greater importance in influencing the allocation of resources, thereby causing distortions in competition. With the removal of such obstacles, these kinds of tax differences can also be expected to increase the scope for tax planning and questionable accounting practices, which tend to erode the corporate tax base in the Community as a whole. In order to reduce the scope for excessive tax competition between Member States, the Committee believes that it is desirable to establish a minimum degree of harmonization with respect to both the statutory tax rate and the tax base in the medium term (Phase II). Obviously, any proposals regarding harmonization of tax rates would be ineffective without simultaneous harmonization of the tax base (tax base issues are dealt with later).

With regard to the statutory corporation tax rate, the minimum rate should be set at a level that provides Member States with the freedom to achieve the greatest possible degree of domestic tax neutrality, without affecting their existing tax revenues. (The burden of existing corporation taxes is a matter for countries themselves to decide.) Greater domestic tax neutrality can be accomplished in this way by broadening the corporate tax base to the greatest extent possible, subject to generally accepted accounting principles, and by reducing statutory rates. As pointed out in Chapter 4, base-broadening accompanied by cuts in tax rates in all Member States would have the effect of reducing the distortionary effect of countries' corporation taxes on cross-border investment within the Community.

The Committee considers that there should be a legally binding minimum corporation tax rate in order to prevent excessive tax competition. In fixing this minimum rate, it is appropriate to bear in mind the type of corporation tax system, the breadth of the tax base, and the rates in third countries. Under current circumstances, and taking account of its other recommendations, the Committee considers that a minimum rate of 30% for all companies, irrespective of their size, and regardless of whether profits are retained or distributed as dividends, would be compatible with the objectives outlined above.¹ On the question of timing, the Committee agreed that this minimum rate should not be established before the other measures described above are implemented. Accordingly,

The Committee recommends that a draft directive be prepared by the Commission prescribing a minimum statutory corporation tax rate of 30% in all

¹ A 30% minimum corporation tax rate would mean that the split-rate system currently operating in Greece (which involves a zero rate of tax on dividends distributed to domestic shareholders) would no longer be allowed.

Member States for all companies, regardless of whether profits are retained or distributed as dividends (Phase I).

Of course, the establishment of a minimum rate would not preclude the possibility of Member States levying a lower rate on small and medium-sized businesses than on large businesses, provided the lower rate does not drop below 30%. Nor should it prevent the Community from adjusting the rate in response to future developments in non-EC countries.

With regard to a maximum statutory corporation tax rate, it could be argued that such a restriction is unnecessary since past experience suggests that market forces will ensure that tax rates do not persist at a very high level. The Committee does not find this argument sufficiently persuasive, however. Although there has been some degree of downward convergence in Member States' corporation tax rates during the past decade, wide differences still remain. While the Committee does not find the case for a maximum rate as strong as the one in favour of a minimum rate, some members of the Committee expressed the view that the existing wide differences do constitute an important distortion to the functioning of the internal market. Hence, in the event that market forces do not achieve the same result, the Committee considers that the maximum rate should not exceed the minimum rate by a factor of more than one-third. Consequently,

The Committee recommends adoption by all Member States of a maximum statutory corporation tax rate of 40% (Phase II).

As mentioned in Chapter 3, in four Member States (Germany, Italy, Luxembourg and Portugal) income taxes are levied on companies at the local level. Accordingly,

The Committee recommends that there should be only one kind of tax on corporate income in Member States. If this cannot be achieved, local income taxes should be taken into account when fixing the statutory corporation tax rate so that the combined rate of tax falls within the range of 30 to 40% prescribed by the Committee (Phase II).

Tax incentives

Greater harmonization of both the statutory tax rate and the tax base would not necessarily preclude the use of non-discriminatory tax credits by Member States in order to encourage new investment or other business activities. As noted in Chapter 2, tax credits are a more cost-effective means of encouraging investment than statutory tax rate cuts. They are also more transparent and usually simpler than tax incentives that are embodied in the tax base. This should not be taken as an endorsement by the Committee of tax credits as an investment incentive. On the contrary, the Committee feels that even these relatively cost-effective tax incentives ought to be used judiciously, since the cost of such measures in terms of tax revenue forgone is generally thought to exceed the amount of induced investment, and as already observed, could erode corporate tax revenues. Therefore, in the Committee's view, direct grants are generally preferable to tax measures.

Nevertheless, the Committee recognizes that tax incentives may still be necessary in some special cases, such as ensuring a satisfactory measure of cohesion within the

Community, especially because economic and monetary union will reduce the policy instruments at the disposal of Member States. Hence, a Member State could be authorized by the Commission, in conformity with the relevant Treaty provisions, to provide special tax incentives for investment in activities (other than financial services) in certain regions in order to accelerate economic development there. The Committee also recognizes that temporary general incentives may in some circumstances be a desirable counter-cyclical measure. All incentives should be subject to appropriate 'sunset' provisions, however, which should also be applied to existing tax incentives.

Corporation tax base

The Committee found that differences in the rules which determine the level of taxable profits create distortions which are incompatible with the efficient operation of the internal market. And, as already indicated, it is clear that harmonization of corporate tax rates makes little sense without some minimum degree of harmonization of the corporate tax base. Moreover, as noted elsewhere, Member States are competing more and more to attract business activity by granting tax incentives, particularly through the tax base. As a result incentives are not fully transparent. The Committee is also aware that considerable differences in the present rules, which vary considerably from one country to the next, complicate intra-Community business activity. This is particularly true for small and medium-sized enterprises, which do not have the resources to cope with the problem.

The Committee therefore considers that there is an urgent need to approximate the rules for determining the tax base of Member States in order to eliminate unacceptable distortions in competition. This would also achieve more transparency and simplicity. This would not mean that there should be full harmonization, but rather that, for those elements of the tax base for which harmonization through market forces is unlikely to be effective, the Commission should establish some minimum rules or standards.

The way in which the minimum rules are formulated will vary according to the technical characteristics of each element of the tax base. Accordingly, some minimal standards would be set by reference to the rates or percentages allowed (e.g. depreciation rates), whereas others would deal with the methods available (e.g. tax treatment of leasing) of which the Community should choose one as the general rule. However, in some cases enterprises should be allowed to choose from a range of agreed alternatives (e.g. choice in the methods of stock valuation).

The Committee recognizes that in the short and medium term this approach will result in continuing differences, and that Member States will remain free to apply rules which imply a wider tax base than the minimum. It can be expected, however, that in the long run, competition will lead to a reduction in these differences as economic integration progresses.

The Committee considers that the proposed recommendations will need to be achieved in phases. Accordingly it has:

- (a) identified the most important elements which generate distortions and formulated firm proposals, when it considers that immediate action is necessary at the Community level;

- (b) defined as far as possible the principles (and proposed solutions) that should apply to problems that can only be solved in the medium and long term; and,
- (c) in view of the limited time it has had available, identified those areas in which it considers that more detailed technical work is necessary before implementation. Accordingly,

The Committee recommends that the Commission establish an independent group of technical experts to examine, and make firm recommendations for action on, various aspects of the tax base identified in this report for such study (Phase I).

Definition of taxable profits

The Committee believes that commercial accounts produced for financial reporting purposes should form the starting-point for the computation of taxable income in all Member States. However, it draws attention to the fact that financial statements are not yet fully harmonized within the Community and in any case they would serve objectives other than tax.

Accordingly, certain differences are bound to remain between the results shown in accounts for commercial purposes and those shown for tax purposes. When, for reasons of tax technique (e.g. exemption for double taxation of dividends), the taxable profit is different from the profit for accounting purposes, the need for this difference is self-evident. Equally, certain corrections made for tax purposes should not be reflected in the annual accounts.

The Committee recommends the Commission to take appropriate measures to reduce the differences between commercial accounts and the accounts used for tax purposes (Phase III).

Depreciation

Although there are good reasons for taking inflation into account in calculating depreciation, existing systems of inflation accounting differ considerably (*inter alia* because of disagreement on the issue within the accounting profession). Moreover, the introduction of a uniform inflation-proof system, would necessitate major changes in the tax legislation of all Member States. Accordingly, since historic cost is widely accepted among Member States, there seems to be no need to make specific allowances for inflation, provided it is not excessive. If inflation is excessive in one or more Member States, the group of technical experts should recommend what coordinated measures of adjustments might be permitted in such a Member State. The object should be for all Member States to have comparable and flexible depreciation rules with no hidden subsidies in the form of accelerated depreciation. Competition by means of accelerated depreciation allowances would then disappear. Accordingly,

The Committee recommends that the Commission should propose measures by way of a directive on depreciation practices. This should provide for historical cost as the basis for depreciation. It would allow a free choice for

the taxpayer between declining-balance and straight-line depreciation for all depreciable assets other than buildings. Declining-balance depreciation rates should not exceed three times the rates applicable for straight-line depreciation. At the same time all special depreciation rules with an incentive effect should be abolished (Phase I).

In the case of buildings, the group of technical experts should make proposals on what methods of depreciation are appropriate. Similarly, the group should formulate proposals on the minimum life that should apply to different categories of assets and determine appropriate maximum rates of depreciation.

The Committee considers that there should be harmonized rules regarding the depreciation of buildings, and also as regards the minimum life and maximum rates of depreciation that should apply to different categories of assets. The Committee recommends that the Commission present proposals on these issues, by way of directive, after appropriate consultation with the proposed group of technical experts (Phase II).

Intangibles

The Committee found wide variations in the tax treatment of goodwill and other intangible assets. These differences give rise to major distortions in competition particularly in the field of acquisitions.

Leasing

Similarly the Committee noted substantial differences in the tax treatment of leasing between Member States. Accordingly,

The Committee recommends that the Commission should propose measures by way of directive to implement uniform tax treatment for the depreciation of goodwill and other intangible assets. It should also harmonize the basic income tax aspects of leasing (Phase I).

Stock valuation

For stock valuation the Committee also recommends the historical cost as the basis. This is the most straightforward solution and does not result in any distortions of competition between Member States.

The Committee recommends the introduction of a free but irrevocable choice for business enterprise to use the following methods of stock valuation: FIFO, LIFO, average cost or base stock ('stock outil') (Phase I).

The introduction of this free choice of valuation method must be accompanied by the elimination of specific measures which take into account the effect of inflation on the valuation of stock (the inclusion of the LIFO option would for most enterprises take

account of inflation). At the same time, a fall in value at the end of a financial year should be recognized and deducted as a tax loss.

The Committee recommends that the technical group should elaborate the details of these principles (to include, for example, technical details of a uniform approach to stock valuation provisions for slowly rotating stocks), after which the rules should be implemented by way of directive (Phase II).

Provisions

The rules for deductions as regards reserves and provisions vary widely from one Member State to another, resulting in considerable discrepancies in the tax base. Although there is little empirical evidence on this matter (including evidence from the business survey), some Members of the Committee felt that, in specific cases, these differences were one of the main distortions of competition. The items which are potentially the largest sources of distortion are provisions for bad debts, warranty charges, foreign exchange losses, and occupational pensions.

In particular, the Committee notes the existence of quantitative limitations on provisions for bad debts, which it considers should be abolished. Equally, provisions for losses based on estimates of statistical averages are in some cases not accepted, though the Committee considers they should be. The exact formulation of the principles that would apply should be carried out by the technical group, after which the Commission should prepare a directive. The issues concerning provisions for occupational pensions are discussed below, but as regards other provisions,

The Committee recommends that the Commission introduce by way of directive proposals after consultation with the technical group to permit the deduction of provisions such as those for bad debts, warranty charges, and foreign exchange in so far as they are based on generally agreed accounting practice, with no arbitrary limits being set (Phase II).

Occupational (extra-legal) pensions

The Committee would like to draw attention to the major impact that tax legislation — as it relates to provisions and contributions to occupational (extra-legal) pensions — has on two other major areas of regulation (i.e. regulation of old-age pensions in the social security context and the regulation of insurance companies and pension funds).

Because these two other areas are clearly outside the mandate of the Committee, the Committee does not intend to make final recommendations for the whole area of occupational pensions. However, the Committee wants to draw special attention to the fact that it is illogical to liberalize the market for life insurance, group insurance and other forms of occupational pensions by striking down discriminatory rules, while not at the same time taking action on the tax-deductibility of provisions and contributions to occupational pension schemes. The need for Community action on this problem is underlined by the recent decision of the European Court of Justice (Case C-204/90), which left some types of discriminatory measures untouched, in the absence of agreed Community solutions.

The Committee considered that the question of harmonized fiscal treatment of provisions for occupational pensions was one which needed urgent attention. In this context some members of the Committee drew attention to the advantages of tax-exempt 'book reserves' in Germany, which at the same time provide a cash-flow incentive for enterprises to set up their own internal pension funds. In the interests of establishing equal conditions of competition throughout the Community, it was desirable, in principle, that all Member States should be required by way of directive to allow against tax all forms of provision designed to meet company commitments relating to the retirement of employees. However, given the wider implications of any action in this area, including the potential impact on Member States' general arrangements for financing retirement provisions, the Committee recognizes that the problems need further study. Accordingly,

The Committee recommends that the Commission, with the assistance of the group of technical experts study, as a matter of urgency, the implications of harmonizing the deductibility of companies' provisions designed to meet their commitments relating to the retirement of their employees (Phase I).

Deductibility of pension contributions paid in respect of expatriate workers or to foreign pension funds

In considering the issue of pensions, the Committee noted that in some Member States pension contributions paid by, or in respect of, expatriate workers, or in cases where the contribution is paid to a pension fund or insurance company located in another Member State, are not always tax-deductible. It was noted that neither of these problems had been solved by the European Court judgment referred to above. The Committee considered that refusal of deductibility both discouraged the international mobility of workers and hampered the cross-frontier provision of financial services. Accordingly;

The Committee recommends that the Commission urgently study solutions to this problem so as to ensure that contributions paid to pension schemes are tax-deductible, regardless of where the pension fund is situated or whether any subsequent benefits paid out would be taxable in the same Member State (Phase I).

Business expenses

As regards the deduction of business expenses and charges, the Committee is of the opinion that it is not necessary to harmonize the general rules for the deduction of such expenses and charges. Despite existing differences, current legislation in Member States has results which in effect are comparable and do not cause sizeable distortions of competition.

However, there are exceptions to this general view, since in some Member States specific expenses are not deductible or are only deductible in part. This is the case, for example, with expenses related to cars, entertainment, commissions, penal or criminal fines, executive remuneration and headquarters expenses. The Committee does not take a position on the merits of these specific restrictions. However,

The Committee recommends that the Commission should propose common rules by way of a directive for the deduction of business expenses on the basis that all expenses related to a trade or business should be deductible (Phase II).

The question of Commission payments to undisclosed persons should be considered by the technical group.

Headquarters' costs

It was noted that the allocation among different Member States of headquarters' costs of enterprises in more than one Member State often led to some of these costs not being deductible anywhere, or insufficient remuneration for a company of costs incurred on behalf of the rest of a group. Therefore,

The Committee recommends that the Commission should, by way of a directive, establish rules for the allocation of headquarters' costs and the invoicing for inter-company pricing of centrally provided group services. This should also include a common definition of 'shareholder costs' to avoid non-deductibility of such costs in the country of both parent and subsidiary (Phase I).

Thin capitalization

The Committee considered that there should be some uniformity in both defining and dealing with 'thin capitalization'. Accordingly,

The Committee recommends that the Commission should take action to coordinate with the Member States a common approach to the definition and treatment of thin capitalization (Phase II).

Tax losses

With respect to the carry-over of losses, the Committee found that all Member States accept carry-forward in principle, subject to various conditions. These conditions result in unequal treatment on the take-over or reorganization of a business. It is therefore important to harmonize the carry-forward conditions in all Member States.

As regards carry-backs, there is much less unanimity among the Member States. The Committee considers that the existing differences do not result in a general distortion of competition, but may lead to significant unequal treatment in very specific cases such as acquisitions. For this reason, some form of harmonization seems to be justified. And, obviously, these proposals tie in with earlier proposals on loss carry-over between parent and subsidiary. Accordingly,

The Committee recommends that Member States adopt the draft directive on the carry-forward and carry-back of losses of enterprises (Phase I).

Capital gains

With respect to capital gains, the Committee found wide variety in the approach to the taxation of capital gains, resulting in considerable differences in burden and timing, but in the time available the Committee was unable to carry out detailed analysis. However, it is apparent that the burden of taxation in individual cases varies considerably. Moreover, given the interaction with depreciation rules, where there is also considerable variation, it is clear that the taxation of capital gains is a major factor in determining the burden of taxation on business enterprises.

Given present differences in the rules of Member States, the Committee considers that it is neither possible nor advisable to propose full harmonization for the time being. Instead, the Committee considers that as a first step it is desirable to harmonize policies on the taxation of capital gains and to determine precisely what can be allowed within the Community in the pursuit of common policy objectives.

The Committee considers that the basic objective is to tax real gains only, and not to tax the element resulting from inflation. This has two implications:

- (a) the exemption of a capital gain on reinvestment; and
- (b) if there is no reinvestment, the exemption of capital gains of a purely nominal nature at the time of their realization; in other words inflationary gains should not be taxed.

However, this is complicated in that the taxation of capital gains may lead to double taxation of profits in real economic terms: first on the sale of the shares and second on the sale of the underlying assets.

These objectives should not interfere with the rules for capital gains realized in case of mergers, and other forms of corporate reorganization, that have already been established by way of directive. Accordingly, as regards reinvestment of realized gains,

The Committee recommends that the Commission propose by way of directive a proposal to the effect that capital gains on depreciable or non-depreciable fixed assets should not upon reinvestment within a fixed period of time in such assets (both depreciable and non-depreciable) be taxed but there would be a roll-over of the tax base of the old assets into the new assets (Phase II).

As regards financial assets, a distinction should be made between controlling shareholdings and purely financial investments. For financial assets that amount to a controlling shareholding, the Committee considers that the objective of exempting realized capital gains in the case of reinvestment should be maintained, as an indirect investment by way of shareholding may be considered to be equivalent to direct investment in the underlying depreciable assets. The majority of the Committee considers that this policy objective is only valid for controlling shareholdings and does not apply to other shareholdings that constitute purely financial investments.

The Committee recommends that the Commission propose by way of directive a proposal to the effect that upon reinvestment within a fixed period of time, either in fixed assets or in another controlling shareholding, capital gains realized on the disposal of a controlling shareholding should not be taxed but there would be a roll-over of the tax base of the old assets into the new

assets. Under the proposal the concept of a controlling shareholding would be harmonized (Phase II).

In the absence of reinvestment, capital gains on fixed assets and controlling shareholdings should be taxed, provided that the real economic value of the investment is safeguarded. A correction for inflation would apply to capital gains realized on fixed assets and controlling shareholdings as well as to all financial investments that do not constitute cash deposits or other short-term monetary assets.

The Committee recommends that the Commission propose by way of a directive a proposal to the effect that in the absence of reinvestment within a certain period of time all capital gains realized on fixed assets and controlling shareholdings be taxed at the ordinary rate of corporate income tax and that for all gains realized on fixed assets and on all financial holdings that do not constitute treasury placements, inflation should be taken into account by indexing the cost of acquisition. At the same time losses should be made deductible (Phase II).

One member of the Committee, however, would like to limit the recommendation to tax gains in the absence of reinvestment to fixed assets and financial assets that do not constitute a controlling shareholding, and would recommend an unconditional tax exemption for capital gains realized on controlling shareholdings in order to avoid double taxation of capital gains on the physical assets represented by the shares.

Other aspects of the corporation tax

The effective tax burden on an enterprise is also affected by the time-lag between the receipt of income and the payment of taxes levied thereon. These tax collection lags vary substantially from one Member State to another. Consequently, the Committee considers that a minimum harmonization of such lags should accompany the measures aimed at harmonizing the tax base. The same applies to differences concerning other taxes of common application. An example is the 'one-month' rule for VAT in France, which defers the time at which certain input supplies are deductible. The Committee also considered that the same principles should apply to refunds. Accordingly,

The Committee recommends that the Commission should seek to establish common rules by way of directive to harmonize the dates at which taxes of common application are payable (Phase II).

As discussed in Chapter 3, the scope of application of corporation taxes varies between Member States, with the most common form of business company being the limited liability company. The Committee considers that the legal requirements attached to incorporation for tax purposes should be the same in Member States. The Committee noted that an enterprise is subject to corporation tax if it satisfies the legal requirement of limited liability.

In addition, the Committee, conscious of the need to avoid penalizing SMEs, believes that unincorporated businesses should be allowed the option in all Member States of being taxed as a company.

The Committee recommends that the Commission should seek to establish common rules which would permit unincorporated enterprises the option of

being taxed as if they were a company, with the proviso that such a regime should apply for a minimum period of time (Phase II).

Local business taxes with a composite base

These taxes exist in France, Germany, Luxembourg and Spain. In France the base is a mixture of the rental value of fixed assets and a proportion of salaries paid out; in Germany and Luxembourg it is primarily on profits but also on net wealth. There is little economic rationale for these mixed-base taxes, which moreover complicate taxation and produce arbitrary burdens as between different enterprises. Consequently,

The Committee recommends that Member States having such multibase local business taxes replace them by an on-profits tax levied on the same base as the central government corporation tax (Phase II).

This proposal relates to the earlier recommendation that there should be only one kind of tax on corporate income. Some members also considered that it would be desirable to go further and eliminate taxes levied on the net worth of corporations (though this would not include, for example, property taxes).

List of annexes

- 1A. Submissions to the Committee
- 1B. Extracts from the Treaty of Rome
- 3A. The taxation of business income in the European Community and its main trading partners.
- 3B. Treatment of losses and the internal market
- 4A. Key assumptions and restrictions
- 4B. Tax parameters used in calculations for EC countries
- 4C. Additional tables
- 5A. The effects of taxation on international investment and economic efficiency
- 5B. The sensitivity of the questionnaire responses to various factors
- 6. Tax treaties and the internal market
- 8. Definition of the 'ACID' test
- 9A. Tax coordination and competition in Canada: some lessons for the European Community
- 9B. Tax coordination and competition in Switzerland
- 9C. Tax coordination and competition in the United States of America
- 10A. Harmonization of corporate income tax systems within the European Community
- 10B. Dissenting view on the EC corporation tax system as proposed in Annex 10A

Annex 1A

Submissions to the Committee

Oral or written comments were received from the following individuals and organizations.

In alphabetical order

Bird, Richard
Cailliau, Jean-Claude
Chown, John F.
Cnossen, Sijbren
Gammie, Malcolm
Giovannini, Alberto
Hines, James
Leibfritz, Willi
McLure, Charles
Sinn, Hans-Werner
Slemrod, Joel
Tulkens, Henri

American Chamber in Belgium
Association des grandes entreprises françaises
Association of Banks of the European Community
S. J. Berwin and Co.
British Bankers Association (BBA)
Comité européen des coopératives ouvrières de production (Cecop)
Confédération européenne du commerce de détail
Confédération fiscale européenne (CFE)
Confederation of British Industry (CBI)
Confederation of Irish Industry
Conseil national du patronat français (CNPF)
Eurochambres
The European Computer Industry Tax Association (Ecita)
European Round Table
Federal Trust for Education and Research
Groupe européen des PME et de l'artisanat (Eurogroup)
The Institute of Chartered Accountants of Scotland
The Law Society
Union européenne de l'artisanat et des PME (UEAPME)
Union of Industries of the European Community (Unice)

Annex 1B

Extracts from the Treaty of Rome

Article 1

By this Treaty, the High Contracting Parties establish among themselves a European Economic Community.

Article 2

The Community shall have as its task, by establishing a common market and progressively approximating the economic policies of Member States, to promote throughout the Community a harmonious development of economic activities, a continuous and balanced expansion, an increase in stability, an accelerated raising of the standard of living and closer relations between the States belonging to it.

Article 3

For the purposes set out in Article 2, the activities of the Community shall include, as provided in this Treaty and in accordance with the timetable set out therein

- (a) the elimination, as between Member States, of customs duties and of quantitative restrictions on the import and export of goods, and of all other measures having equivalent effect;
- (b) the establishment of a common customs tariff and of a common commercial policy towards third countries;
- (c) the abolition, as between Member States, of obstacles to freedom of movement for persons, services and capital;
- (d) the adoption of a common policy in the sphere of agriculture;
- (e) the adoption of a common policy in the sphere of transport;
- (f) the institution of a system ensuring that competition in the common market is not distorted;
- (g) the application of procedures by which the economic policies of Member States can be coordinated and disequilibria in their balances of payments remedied;
- (h) the approximation of the laws of Member States to the extent required for the proper functioning of the common market;
- (i) the creation of a European Social Fund in order to improve employment opportunities for workers and to contribute to the raising of their standard of living;
- (j) the establishment of a European Investment Bank to facilitate the economic expansion of the Community by opening up fresh resources;

(k) the association of the overseas countries and territories in order to increase trade and to promote jointly economic and social development.

Article 6

1. Member States shall, in close cooperation with the institutions of the Community, coordinate their respective economic policies to the extent necessary to attain the objectives of this Treaty.

2. The institutions of the Community shall take care not to prejudice the internal and external financial stability of the Member States.

Article 7

Within the scope of application of this Treaty, and without prejudice to any special provisions, contained therein, any discrimination on grounds of nationality shall be prohibited.

The Council may, on a proposal from the Commission and in cooperation with the European Parliament, adopt, by a qualified majority, rules designed to prohibit such discrimination.¹

Article 8

1. The common market shall be progressively established during a transitional period of twelve years.

This transitional period shall be divided into three stages of four years each; the length of each stage may be altered in accordance with the provisions set out below.

2. To each stage there shall be assigned a set of actions to be initiated and carried through concurrently.

3. Transition from the first to the second stage shall be conditional upon a finding that the objectives specifically laid down in this Treaty for the first stage have in fact been attained in substance and that, subject to the exceptions and procedures provided for in this Treaty, the obligations have been fulfilled.

This finding shall be made at the end of the fourth year by the Council, acting unanimously on a report from the Commission. A Member State may not, however, prevent unanimity by relying upon the non-fulfilment of its own obligations. Failing unanimity, the first stage shall automatically be extended for one year.

At the end of the fifth year, the Council shall make its finding under the same conditions. Failing unanimity, the first stage shall automatically be extended for a further year.

At the end of the sixth year, the Council shall make its finding, acting by a qualified majority on a report from the Commission.

¹ Second paragraph as amended by Article 6(2) of the SEA.

4. Within one month of the last-mentioned vote any Member State which voted with the minority or, if the required majority was not obtained, any Member State shall be entitled to call upon the Council to appoint an arbitration board whose decision shall be binding upon all Member States and upon the institutions of the Community. The arbitration board shall consist of three members appointed by the Council acting unanimously on a proposal from the Commission.

If the Council has not appointed the members of the arbitration board within one month of being called upon to do so, they shall be appointed by the Court of Justice within a further period of one month.

The arbitration board shall elect its own Chairman.

The board shall make its award within six months of the date of the Council vote referred to in the last subparagraph of paragraph 3.

5. The second and third stages may not be extended or curtailed except by a decision of the Council, acting unanimously on a proposal from the Commission.

6. Nothing in the preceding paragraphs shall cause the transitional period to last more than fifteen years after the entry into force of this Treaty.

7. Save for the exception or derogations provided for in this Treaty, the expiry of the transitional period shall constitute the latest date by which all the rules laid down must enter into force and all the measures required for establishing the common market must be implemented.

Article 8a¹

The Community shall adopt measures with the aim of progressively establishing the internal market over a period expiring on 31 December 1992, in accordance with the provisions of this Article and of Articles 8b, 8c, 28, 57 (2), 59, 70 (1), 84, 99, 100a and 100b and without prejudice to the other provisions of this Treaty.

The internal market shall comprise an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured in accordance with the provisions of this Treaty.

Article 52

Within the framework of the provisions set out below, restrictions on the freedom of establishment of nationals of a Member State in the territory of another Member State shall be abolished by progressive stages in the course of the transitional period. Such progressive abolition shall also apply to restrictions on the setting up of agencies, branches or subsidiaries by nationals of any Member State established in the territory of any Member State.

Freedom of establishment shall include the right to take up and pursue activities as self-employed persons and to set up and manage undertakings, in particular companies or firms within the meaning of the second paragraph of Article 58, under the conditions

¹ Article added by Article 13 of the SEA.

laid down for its own nationals by the law of the country where such establishment is effected, subject to the provisions of the Chapter relating to capital.

Article 53

Member States shall not introduce any new restrictions on the right of establishment in their territories of nationals of other Member States, save as otherwise provided in this Treaty.

Article 54

1. Before the end of the first stage, the Council shall, acting unanimously from the Commission and after consulting the Economic and Social Committee and the European Parliament, draw up a general programme for the abolition of existing restrictions on freedom of establishment within the Community. The Commission shall submit its proposal to the Council during the first two years of the first stage.

The programme shall set out the general conditions under which freedom of establishment is to be attained in the case of each type of activity and in particular the stages by which it is to be attained.

2. In order to implement this general programme or, in the absence of such programme, in order to achieve a stage in attaining freedom of establishment as regards a particular activity, the Council shall, acting on a proposal from the Commission, in cooperation with the European Parliament and after consulting the Economic and Social Committee, issue directives, acting unanimously until the end of the first stage and by a qualified majority thereafter.¹

3. The Council and the Commission shall carry out the duties devolving upon them under the preceding provisions, in particular:

(a) by according, as a general rule, priority treatment to activities where freedom of establishment makes a particularly valuable contribution to the development of production and trade;

(b) by ensuring close cooperation between the competent authorities in the Member States in order to ascertain the particular situation within the Community of the various activities concerned;

(c) by abolishing those administrative procedures and practices, whether resulting from national legislation or from agreements previously concluded between Member States, the maintenance of which would form an obstacle to freedom of establishment;

(d) by ensuring that workers of one Member State employed in the territory of another Member State may remain in that territory for the purpose of taking up activities therein as self-employed persons, where they satisfy the conditions which they would be required to satisfy if they were entering that State at the time when they intended to take up such activities;

¹ Paragraph 2 as amended by Article 6 (4) of the SEA.

(e) by enabling a national of one Member State to acquire and use land and buildings situated in the territory of another Member State in so far as this does not conflict with the principles laid down in Article 39(2);

(f) by effecting the progressive abolition of restrictions on freedom of establishment in every branch of activity under consideration, both as regards the conditions for setting up agencies, branches or subsidiaries in the territory of a Member State and as regards the subsidiaries in the territory of a Member State and as regards the conditions governing the entry of personnel belonging to the main establishment into managerial or supervisory posts in such agencies, branches or subsidiaries;

(g) by coordinating to the necessary extent the safeguard which, for the protection of the interests of members and others, are required by Member States of companies or firms within the meaning of the second paragraph of Article 58 with a view to making such safeguards equivalent throughout the Community;

(h) by satisfying themselves that the conditions of establishment are not distorted by aids granted by Member States.

Article 58

Companies or firms formed in accordance with the law of a Member State and having their registered office, central administration or principal place of business within the Community shall, for the purposes of this Chapter, be treated in the same way as natural persons who are nationals of Member States.

‘Companies or firms’ means companies or firms constituted under civil or commercial law, including cooperative societies, and other legal persons governed by public or private law, save for those which are non-profit-making.

Article 59

Within the framework of the provisions set out below, restrictions on freedom to provide services within the Community shall be progressively abolished during the transitional period in respect of nationals of Member States who are established in a State of the Community other than that of the person for whom the services are intended.

The Council may, acting by a qualified majority on a proposal from the Commission, extend the provisions of the Chapter to nationals of a third country who provide services and who are established within the Community.¹

Article 62

Save as otherwise provided in this Treaty, Member States shall not introduce any new restrictions on the freedom to provide services which have in fact been attained at the date of the entry into force of this Treaty.

¹ Second paragraph as amended by Article 16 (3) of the SEA.

Article 63

1. Before the end of the first stage, the Council shall, acting unanimously on a proposal from the Commission and after consulting the Economic and Social Committee and the European Parliament, draw up a general programme for the abolition of existing restrictions on freedom to provide services within the Community. The Commission shall submit its proposal to the Council during the first two years of the first stage.

The programme shall set out the general conditions under which and the stages by which each type of service is to be liberalized.

2. In order to implement this general programme or, in the absence of such programme, in order to achieve a stage in the liberalization of a specific service, the Council shall, on a proposal from the Commission and after consulting the Economic and Social Committee and the European Parliament, issue directives acting unanimously until the end of the first stage and by a qualified majority thereafter.

3. As regards the proposals and decisions referred to in paragraphs 1 and 2, priority shall as a general rule be given to those services which directly affect production costs or the liberalization of which helps to promote trade in goods.

Article 67

1. During the transitional period and to the extent necessary to ensure the proper functioning of the common market, Member States shall progressively abolish between themselves all restrictions on the movement of capital belonging to persons resident in Member States and any discrimination based on the nationality or on the place of residence of the parties or on the place where such capital is invested.

2. Current payments connected with the movement of capital between Member States shall be freed from all restrictions by the end of the first stage at the latest.

Article 68

1. Member States shall, as regards the matters dealt with in this Chapter, be as liberal as possible in granting such exchange authorizations as are still necessary after the entry into force of this Treaty.

2. Where a Member State applies to the movements of capital liberalized in accordance with the provisions of this Chapter the domestic rules governing the capital market and the credit system, it shall do so in a non-discriminatory manner.

3. Loans for the direct or indirect financing of a Member State or its regional or local authorities shall not be issued or placed in other Member States unless the States concerned have reached agreement thereon. This provision shall not preclude the application of Article 22 of the Protocol on the Statute of the European Investment Bank.

Article 92

1. Save as otherwise provided in this Treaty, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market.

2. The following shall be compatible with the common market:

(a) aid having a social character, granted to individual consumers, provided that such aid is granted without discrimination related to the origin of the products concerned;

(b) aid to make good the damage caused by natural disasters or exceptional occurrences;

(c) aid granted to the economy of certain areas of the Federal Republic of Germany affected by the division of Germany, in so far as such aid is required in order to compensate for the economic disadvantages caused by that division.

3. The following may be considered to be compatible with the common market:

(a) aid to promote the economic development of areas where the standard of living is abnormally low or where there is serious underemployment;

(b) aid to promote the execution of an important project of common European interest or to remedy a serious disturbance in the economy of a Member State;

(c) aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest. However, the aids granted to shipbuilding as of 1 January 1957 shall, in so far as they serve only to compensate for the absence of customs protection, be progressively reduced under the same conditions as apply to the elimination of customs duties, subject to the provisions of this Treaty concerning common commercial policy towards third countries;

(d) such other categories of aid as may be specified by decision of the Council acting by a qualified majority on a proposal from the Commission.

Article 93

1. The Commission shall, in cooperation with Member States, keep under constant review all systems of aid existing in those States. It shall propose to the latter any appropriate measures required by the progressive development or by the functioning of the common market.

2. If, after giving notice to the parties concerned to submit their comments, the Commission finds that aid granted by a State or through State resources is not compatible with the common market having regard to Article 92, or that such aid is being misused, it shall decide that the State concerned shall abolish or alter such aid within a period of time to be determined by the Commission.

If the State concerned does not comply with this decision within the prescribed time, the Commission or any other interested State may, in derogation from the provisions of Articles 169 and 170, refer the matter to the Court of Justice direct.

On application by a Member State, the Council, may, acting unanimously, decide that aid which that State is granting or intends to grant shall be considered to be compatible with the common market, in derogation from the provisions of Article 92 or from the regulations provided for in Article 94, if such a decision is justified by exceptional circumstances. If, as regards the aid in question, the Commission has already initiated the procedure provided for in the first subparagraph of this paragraph, the fact that the State concerned has made its application to the Council shall have the effect of suspending that procedure until the Council has made its attitude known.

If, however, the Council has not made its attitude known within three months of the said application being made, the Commission shall give its decision on the case.

3. The Commission shall be informed, in sufficient time to enable it to submit its comments, of any plans to grant or alter aid. If it considers that any such plan is not compatible with the common market having regard to Article 92, it shall without delay initiate the procedure provided for in paragraph 2. The Member State concerned shall not put its proposed measures into effect until this procedure has resulted in a final decision.

Article 94

The Council may, acting by a qualified majority on a proposal from the Commission, make any appropriate regulations for the application of Articles 92 and 93 and may in particular determine the conditions in which Article 93 (3) shall apply and the categories of aid exempted from this procedure.

Article 95

No Member State shall impose, directly or indirectly, on the products of other Member States any internal taxation of any kind in excess of that imposed directly or indirectly on similar products.

Furthermore, no Member State shall impose on the products of other Member States any internal taxation of such a nature as to afford indirect protection to other products.

Member States shall, not later than at the beginning of the second stage, repeal or amend any provisions existing when this Treaty enters into force which conflict with the preceding rules.

Article 96

Where products are exported to the territory of any Member State, any repayment of internal taxation shall not exceed the internal taxation imposed on them whether directly or indirectly.

Article 97

Member States which levy a turnover tax calculated on a cumulative multi-stage tax system may, in the case of internal taxation imposed by them on imported products or of repayments allowed by them on exported products, establish average rates for

products or groups of products, provided that there is no infringement of the principles laid down in Articles 95 and 96.

Where the average rates established by a Member State do not conform to these principles, the Commission shall address appropriate directives or decisions to the State concerned.

Article 99¹

The Council shall, acting unanimously on a proposal from the Commission and after consulting the European Parliament, adopt provisions for the harmonization of legislation concerning turnover taxes, excise duties and other forms of indirect taxation to the extent that such harmonization is necessary to ensure the establishment and the functioning of the internal market within the time-limit laid down in Article 8a.

Article 100

The Council shall, acting unanimously on a proposal from the Commission, issue directives for the approximation of such provisions laid down by law, regulation or administrative action in Member States as directly affect the establishment or functioning of the common market.

The European Parliament and the Economic and Social Committee shall be consulted in the case of directives whose implementation would, in one or more Member States, involve the amendment of legislation.

Article 100a²

1. By way of derogation from Article 100 and save where otherwise provided in this Treaty, the following provisions shall apply for the achievement of the objectives set out in Article 8a. The Council shall, acting by a qualified majority on a proposal from the Commission in cooperation with the European Parliament and after consulting the Economic and Social Committee, adopt the measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market.

2. Paragraph 1 shall not apply to fiscal provisions, to those relating to the free movement of persons nor to those relating to the rights and interests of employed persons.

3. The Commission, in its proposals envisaged in paragraph 1 concerning health, safety, environmental protection and consumer protection, will take as a base a high level of protection.

4. If, after the adoption of a harmonization measure by the Council acting by a qualified majority, a Member State deems it necessary to apply national provisions on grounds of major needs referred to in Article 36, or relating to protection of the

¹ Article as replaced by Article 17 of the SEA.

² Article added by Article 18 of the SEA.

environment or the working environment, it shall notify the Commission of these provisions.

The Commission shall confirm the provisions involved after having verified that they are not a means of arbitrary discrimination or a disguised restriction on trade between Member States.

By way of derogation from the procedure laid down in Articles 169 and 170, the Commission or any Member State may bring the matter directly before the Court of Justice if it considers that another Member State is making improper use of the powers provided for in this Article.

5. The harmonization measures referred to above shall, in appropriate cases, include a safeguard clause authorizing the Member States to take, for one or more of the non-economic reasons referred to in Article 36, provisional measures subject to a Community control procedure.

Article 101

Where the Commission finds that a difference between the provisions laid down by law, regulation or administrative action in Member States is distorting the conditions of competition in the common market and that the resultant distortion needs to be eliminated, it shall consult the Member States concerned.

If such consultation does not result in an agreement eliminating the distortion in question, the Council shall, on a proposal from the Commission, acting unanimously during the first stage and by a qualified majority thereafter, issue the necessary directives. The Commission and the Council may take any other appropriate measures provided for in this Treaty.

Article 102

1. Where there is reason to fear that the adoption or amendment of a provision laid down by law, regulation or administrative action may cause distortion within the meaning of Article 101, a Member State desiring to proceed therewith shall consult the Commission. After consulting the Member States, the Commission shall recommend to the States concerned such measures as may be appropriate to avoid the distortion in question.

2. If a State desiring to introduce or amend its own provisions does not comply with the recommendation addressed to it by the Commission, other Member States shall not be required, in pursuance of Article 101, to amend their own provisions in order to eliminate such distortion. If the Member State which has ignored the recommendation of the Commission causes distortion detrimental only to itself, the provisions of Article 101 shall not apply.

Article 220

Member States shall, so far as is necessary, enter into negotiations with each other with a view to securing for the benefit of their nationals:

(i) the protection of persons and the enjoyment and protection of rights under the same conditions as those accorded by each State to its own nationals;

- (ii) the abolition of double taxation within the Community;
- (iii) the mutual recognition of companies or firms within the meaning of the second paragraph of Article 48, the retention of legal personality in the event of transfer of their seat from one country to another, and the possibility of mergers between companies or firms governed by the laws of different countries;
- (iv) the simplification of formalities governing the reciprocal recognition and enforcement of judgments of courts or tribunals and of arbitration awards.

Article 221

Within three years of the entry into force of this Treaty, Member States shall accord nationals of the other Member States the same treatment as their own nationals as regards participation in the capital of companies or firms within the meaning of Article 58, without prejudice to the application of the other provisions of this Treaty.

Annex 3A

The taxation of business income in the European Community and its main trading partners

1. Receipts from the main taxes other than on goods and services and social security contributions as a percentage of total tax receipts
2. Scope of application of corporation taxes
3. Statistics of public and private limited companies in EC Member States
4. Interest
5. Carry-over of trading losses
6. Treatment of corporate capital gains
7. Capital losses
8. Depreciation practices (manufacturing sector)
9. Tax treatment of stocks
10. Main tax deductible provisions
11. Conditions for deduction of main provisions for tax purposes
12. Goodwill
13. Corporation tax collection lags
14. General investment relief
15. Imputation systems and their extent
16. Net wealth taxes (corporations and individuals)
17. Domestic withholding tax
18. Withholding tax rates applicable to dividend payments made by subsidiaries to parent companies
19. Withholding tax rates on ordinary interest payments by a non-resident to its parent company
20. Withholding tax rates on royalties (possible value-added tax is not included in these rates)
21. Relations between Member States not covered by a bilateral agreement
22. Treatment of foreign-source income from treaty countries
23. Treatment of foreign-source income from non-treaty countries
24. Royalties
25. Conditions for tax consolidation
26. Taxation of cash dividends received from domestic subsidiaries
27. Tax arrangements applicable to profits from foreign permanent establishments
28. Personal income tax
29. Typical capital gains tax rates on individual investors
30. Domestic withholding tax on individuals (interest and dividends)
31. Comparative table of simplified tax arrangements for SMEs
32. Comparative table of corporation tax and personal income tax rates
33. Special tax measures for SMEs
34. Treatment of individual investors: country survey
35. Treatment of capital gains

TABLE 3A.1

Receipts from the main taxes other than on goods and services and social security contributions
as a percentage of the total tax receipts (1988)

| OECD code | 1200 Corporate income tax | 1100 Personal income taxes | 2200 Employer social security | 2210 Employee social security | 4000 Property taxes |
|----------------|---------------------------------|----------------------------------|-------------------------------------|-------------------------------------|---------------------------|
| Belgium | 7 | 32 | 21 | 11 | 2 |
| Denmark | 4 | 51 | 0 | 2 | 5 |
| Germany | 5 | 29 | 19 | 16 | 3 |
| Greece | 4 | 14 | 15 (+ 1) ¹ | 14 | 3 |
| Spain | 6 | 21 | 27 | 6 | 4 |
| France | 5 | 12 | 27 (+ 2) ¹ | 12 | 5 |
| Ireland | 4 | 35 | 8 (+ 1) ¹ | 5 | 4 |
| Italy | 9 | 27 | 23 | 7 | 2 |
| Luxembourg | 17 | 24 | 14 | 10 | 8 |
| Netherlands | 8 | 20 | 17 | 19 | 3 |
| Portugal | n.a. | n.a. | 17 | 9 | 2 |
| United Kingdom | 11 | 27 | 9 | 8 | 13 |
| Austria | 3 | 22 | 16 | 14 | 3 |
| Japan | 24 | 23 | 14 | 11 | 11 |
| Sweden | 5 | 39 | 24 (+ 3) ¹ | 0 | 3 |
| United States | 8 | 35 | 17 | 11 | 10 |
| OECD average | 8 | 31 | n.a. ² | n.a. ² | 5 |
| EEC average | 7 | 27 | n.a. ² | n.a. ² | 4 |

¹ Unearmarked taxes on employers.² Average total social security, OECD 24, EC 29.

Source: Some OECD revenue statistics 1965-89, Table E 19.

TABLE 3A.2

Scope of application of corporation taxes

| | |
|---------|---|
| Belgium | <p>All enterprises possessing legal personality are subject to corporate income tax, when they have their statutory seat, their main establishment or their seat of management in Belgium. All forms of private companies are without exception subject to corporate income tax. The forms of business liable to corporation tax are:</p> <ul style="list-style-type: none"> (a) the corporation (naamloze vennootschap/société anonyme SA) (b) the limited liability company (besloten vennootschap met beperkte aansprakelijkheid/société privée à responsabilité limitée SPRL) (c) the limited partnership by shares (commanditaire vennootschap op aandelen/société en commandite par actions) (d) the general partnership (vennootschap onder firma/société en nom collectif) (e) the limited partnership (gewone commanditaire vennootschap/société en commandite simple) (f) the cooperative (samenwerkende vennootschap/société coopérative). |
| Denmark | <p>A corporation is resident in Denmark for tax purposes if it is incorporated in Denmark and registered in the Companies Register as having a Danish place of business. The most common types of company are:</p> <ul style="list-style-type: none"> (a) the joint-stock company (aktieselskab) (b) the limited liability company (anpartsselskab) (c) the cooperative (Andelsforeminger/Brugforminger). |
| Germany | <p>A corporation is resident in Germany for tax purposes if either its place of incorporation or its place of central management is in Germany. If the corporation is resident by reference to its German central management only, but is incorporated abroad under legislation less stringent than the German rules, the tax authorities may ignore the corporate form and tax the profits of the entity as though they had been earned by the shareholders directly. The forms of company liable to corporate tax are:</p> <ul style="list-style-type: none"> (a) the corporation (Aktiengesellschaft AG) (b) the limited liability company (Gesellschaft mit beschränkter Haftung GmbH) (c) the partnership limited by shares (Kommanditgesellschaft auf Aktien KGaA) (d) the cooperative (Eingetragene Genossenschaft). |
| Greece | <p>Corporate residence is determined primarily by place of incorporation. However, subject to related tax treaty provisions, foreign corporations are subject to Greek taxation if operations such as maintaining inventories from which orders are filled and leasing machinery or equipment, etc. are carried on in Greece.</p> <p>The corporation (SA) is the most common form of company liable to corporate tax. Another one is the limited liability company (EPE) which pays income tax on account for partners who get a credit.</p> |
| Spain | <p>Entities established in Spain or having their domicile or place of management in Spanish territory are subject to corporate income tax on their worldwide income. The types of company liable to corporate tax are:</p> <ul style="list-style-type: none"> (a) the corporation (Sociedad Anonima SA) (b) the limited liability company (Sociedad De Responsabilidad Limitada SRL) (c) the limited partnership with shares (Sociedad Commanditaria Por Acciones) (d) the cooperative (Sociedad Cooperativa). |
| France | <p>A corporation is resident in France if it has been incorporated in France or if it has its registered seat in France. The forms of business subject to corporation tax are:</p> <ul style="list-style-type: none"> (a) the corporation (société anonyme SA) (b) the limited liability company (société à responsabilité limitée SARL) |

| | |
|-------------|--|
| | <ul style="list-style-type: none"> (c) the limited partnership by shares (société en commandite par actions) (d) the civil law associations (société civile) engaged in trading, industrial or business activities (e) the cooperative (société coopérative). <p>Some other forms of corporations have the right of election to be taxed as the previously mentioned types, for example:</p> <ul style="list-style-type: none"> (i) the general partnership (société en nom collectif) (ii) the limited partnership (société en commandite simple) (iii) the civil law associations in so far as they are not already liable to corporation tax. |
| Ireland | <p>Corporate residence is determined by reference to the location of the central management and control of the company. Irish law recognizes a variety of forms of business, the corporate taxable types are:</p> <ul style="list-style-type: none"> (a) the public company limited by shares (b) the private company limited by shares (c) the private company limited by guarantee (d) the public company limited by guarantee (e) the registered building societies (f) bodies registered under the industrial and Provident Society Act (including agricultural and fisheries cooperatives). |
| Italy | <p>Stock companies, limited share partnerships, limited liability companies, cooperative and mutual insurance companies having their legal or administrative headquarters or their principal business purpose within State territory are taxable in Italy on their worldwide income.</p> <p>Partnerships, companies and entities of all types that do not have their legal or administrative headquarters or their principal purpose within State territory are subject to Italian income tax only on income produced in Italy. The forms are:</p> <ul style="list-style-type: none"> (a) the corporation (società per azioni SpA) (b) the limited liability company (società a responsabilità limitata Srl) (c) the partnership limited by shares (società in accomandita per azioni Sapa) (d) the unlimited cooperative society (società cooperativa a responsabilità illimitata) (e) the limited cooperative society (società cooperativa a responsabilità limitata). |
| Luxembourg | <p>A company is considered resident in Luxembourg if either its registered office or principal establishment is established in Luxembourg. The forms of business are:</p> <ul style="list-style-type: none"> (a) the corporation (société anonyme SA) (b) the private limited company (société à responsabilité limitée SARL) (c) the partnership limited by shares (société en commandite par actions — Secpa) (d) the cooperative (société coopérative). |
| Netherlands | <p>Article 4 of the General Taxation Act provides that corporate residence is determined by circumstances. Management and control are important factors in this respect. However, Article 2 paragraph 4 of the Dutch Corporation Tax Act states that as far as the corporation tax is concerned companies incorporated in the Netherlands are always resident taxpayers. The corporate taxable forms of business organization are:</p> <ul style="list-style-type: none"> (a) the corporation (Naamloze Vennootschap NV) (b) the limited liability company (Besloten Vennootschap Met Beperkte Aansprakelijkheid BV) (c) the cooperative (Coöperatieve) (d) fonds voor gemene rekening (e) open commanditaire vennootschappen (f) other 'vennootschappen' of which the equity is wholly or partially divided into shares (g) onderlinge waarburgmaatschappijen; verenigingen op onderlinge grondslag optredend als verzekeraar of kredietinstelling (h) other legal entities as far as they are in business. |

| | |
|----------------|--|
| Portugal | <p>Corporate tax is assessed on worldwide income of business entities with the head office or effective management. It also applies to a non-resident company deemed to have a permanent establishment in Portugal. Corporate tax regulations apply to ordinary commercial companies including partnerships because of their business purpose and legal form. However, they also apply to those civil companies (sociedades civis) adopting a business form. The three most important legal forms for doing business are:</p> <ul style="list-style-type: none">(a) the corporation (socieda anonima SA)(b) the limited liability company (sociedade por quotas or limitada Lda)(c) the cooperative (cooperativa). |
| United Kingdom | <p>All UK companies are treated as liable to corporate tax. Overseas incorporated companies are treated as UK residents if their central management and control is in the UK. The types of business liable to corporate tax are:</p> <ul style="list-style-type: none">(a) the public company(b) the private limited company(c) the private unlimited company(d) the cooperative associations. |

TABLE 3A.3
Statistics of public and private limited companies in EC Member States

| | | 1986 | % | 1987 | % | 1988 | % | 1989 | % | 1990 | % | Source |
|----------------|---------|---------|----|---------|----|---------|----|---------|----|---------|----|---|
| Belgium | SA | 56 949 | 31 | 63 052 | 32 | 70 686 | 34 | 80 514 | 36 | | | Ministère de la justice |
| | SPRL | 127 654 | 69 | 133 814 | 68 | 139 414 | 66 | 145 126 | 64 | | | |
| Denmark | Public | 20 306 | 27 | 27 875 | 28 | 23 515 | 29 | 25 742 | 30 | | | Erhervs og Selek absstyrelsen |
| | Private | 54 634 | 73 | 56 075 | 72 | 58 569 | 71 | 60 175 | 70 | | | |
| Germany | AG | 2 141 | 1 | 2 190 | 1 | 2 262 | 1 | 2 373 | 1 | 2 508 | 1 | Ministry of Justice, Bonn |
| | GmbH | 339 541 | 99 | 346 371 | 99 | 360 480 | 99 | 376 429 | 99 | 401 687 | 99 | |
| Greece | SA | 14 629 | 27 | 16 340 | 28 | 18 572 | 30 | 20 813 | 31 | 22 604 | 32 | Ministry of Commerce Ministry of Justice |
| | SRL | 39 519 | 73 | 41 215 | 72 | 43 687 | 70 | 46 313 | 69 | 48 210 | 68 | |
| Spain | SA | 418 224 | 89 | 446 678 | 88 | 455 075 | 87 | 500 834 | 84 | 531 534 | 81 | Représ. Perman., Espana |
| | SRL | 49 235 | 11 | 58 383 | 12 | 69 804 | 13 | 94 126 | 16 | 123 957 | 19 | |
| France | SA | 124 279 | 24 | 129 499 | 24 | 135 163 | 23 | 145 372 | 22 | 152 594 | 22 | Institut national statistiques |
| | SARL | 387 021 | 76 | 420 054 | 76 | 460 372 | 76 | 510 901 | 77 | 546 576 | 78 | |
| Ireland | Public | 339 | 1 | 349 | 1 | 377 | 1 | 404 | 1 | 425 | 1 | Company Registration Office, Dublin Castle |
| | Private | 89 034 | 99 | 92 811 | 99 | 101 616 | 99 | 101 428 | 99 | 109 993 | 99 | |
| Italy | SpA | | | | | | | 90 000 | 30 | | | Stateg |
| | Srl | | | | | | | 210 000 | 70 | | | |
| Luxembourg | SA | | | | | | | | | 3 922 | 33 | |
| | SARL | | | | | | | | | 8 019 | 67 | |
| Netherlands | NV | | | 5 250 | 3 | 6 000 | 3 | 6 500 | 3 | 7 000 | 3 | Ministry of Justice |
| | BV | | | 190 000 | 97 | 210 000 | 97 | 230 000 | 97 | 250 000 | 97 | |
| Portugal | SA | 2 879 | 2 | 3 199 | 2 | 3 851 | 2 | 4 670 | 3 | | | Min. da Justicia |
| | SRL | 125 035 | 98 | 137 914 | 98 | 151 966 | 98 | 167 249 | 97 | | | |
| United Kingdom | Public | 5 100 | 1 | 5 200 | 1 | 6 600 | 1 | 9 800 | 1 | 11 100 | 1 | Company House, Cardiff |
| | Private | 842 300 | 99 | 862 100 | 99 | 899 900 | 99 | 958 500 | 99 | 994 200 | 99 | |

TABLE 3A.4

Interest

| | |
|----------------|---|
| Belgium | <p>Deductible but limited to payments on capital used in the business and to a rate provided by Royal Decree. The latter limit does not apply to interest payments to Belgian financial institutions and on publicly issued bonds.</p> <p>Linked companies: abnormally, interest payments will be added to taxable income (Art. 24 ITC). Beneficiary subject to deviating or more favourable tax system: not deductible unless proof of normal business transactions (Art. 46 ITC).</p> <p>Interest payments on loans granted by shareholders in private companies are taxed as the distribution of a dividend.</p> |
| Denmark | Deductible — If paid to a shareholder, the interest may be considered to be a hidden profit distribution especially where the interest rate is higher than normal. |
| Germany | Deductible if incurred for taxable business purposes. Interest payments to shareholders at excessively high rates may be deemed a hidden profit distribution. |
| Greece | Deductible if incurred for purely business purposes. Interest paid on the share capital is considered to be a distribution. Interest paid on loans from shareholders can however be deducted as normal costs of finance. |
| Spain | Deductible. Interest on loans by a foreign parent or bank may be deducted if payment through previous verification of the loan by the Ministry of Economy and Finance is required. |
| France | Deductible if incurred for business purposes. Interest payments on the paid in capital are treated as dividends. However, interest paid to associates on current accounts is only deductible under certain conditions and limitations. |
| Ireland | Deductible if a business expense. Interest on certain securities, in excess of normal commercial returns and some other categories, is treated as a distribution. |
| Italy | Deductible in an amount corresponding to the ratio of gross taxable income to total gross income. |
| Luxembourg | Deductible if a business expense. Interest on loans granted by shareholders at excessively high rates may be deemed to constitute a hidden profit distribution. |
| Netherlands | <p>Deductible if a business expense.</p> <p>In some cases not allowed if the interest payment may hide a hidden profit distribution or if the loan is considered to be a contribution of capital.</p> |
| Portugal | Deductible but limited in rate. |
| United Kingdom | 'Short interest' is, broadly, interest on loans of less than one year and UK banking interest is deductible by trading companies in computing trading income. Other interest may only be deducted from profits if it qualifies as a charge on income. (These are annual payments which are not deductible in computing the profits arising from a particular source but are deducted from a company's total profits from all sources, e.g. interest on a term loan, interest other than for the purpose of a trade, etc.) |
| Austria | <p>Deductible if incurred for business purposes. Interest on long-term debt is not deductible for the computation of the tax base for the business tax (Gewerbsteuer).</p> <p>Excessively high rates on loans granted by shareholders may be deemed a hidden profit distribution.</p> |
| Sweden | Deductible. Between affiliated companies the arm's-length principle applies. |

TABLE 3A.5

Carry-over of trading losses

| | Carry-back: maximum number of years authorized | Carry-forward: maximum number of years authorized |
|----------------------|--|---|
| Belgium ⁶ | — | No limit ⁶ |
| Denmark | — | 5 |
| Germany | 2 ¹ | No limit |
| Greece | — | 5 |
| Spain | — | 5 |
| France | 3 ² | 5 ⁵ |
| Ireland | 1 | No limit |
| Italy | — | 5 |
| Luxembourg | — | No limit |
| Netherlands | 3 | 8 ⁴ |
| Portugal | — | 5 |
| United Kingdom | 3 | No limit |
| Austria | — | 7 |
| Canada | 3 | 7 |
| Japan | 1 | 5 |
| Sweden | — | No limit |
| Switzerland | — | 6 ³ |
| United States | 3 | 15 |

¹ Amount limited to DM 10 000 000.

² Under certain conditions.

³ As a rule, a tax period covers two years. A loss in one year is automatically carried over to the second year of the same period. In the case of federal taxes the loss incurred in one period may be carried forward for three periods.

⁴ Losses originating from the first six years of a company's existence are unlimited compensatable.

⁵ However, the amount of loss corresponding to the amount of depreciation may be carried forward indefinitely to later years.

⁶ However, the deduction of the trading losses may not exceed BFR 20 million a year. This limit will be applicable from assessment year 1992.

Sources: International Bureau of Fiscal Documentation (Member States), Coopers and Lybrand and others.

TABLE 3A.6

Treatment of corporate capital gains

| | Taxed at corporation level | Taxed at special rate | Inflation adjusted | Tax deferred if reinvested |
|----------------|--|--|---|----------------------------|
| Belgium | Yes, assets held less than five years | More than five years: 19.5% ^{7,9} | No | Yes ⁸ |
| Denmark | Yes, shares held less than three years and real estate | | No | No |
| Germany | Yes | No | No | Yes |
| Greece | Yes | 20% partition of business 30% trade mark, goodwill | No | No |
| Spain | Yes | — | No | Yes ¹¹ |
| France | Yes | Less than two years: 34% More than two years: 18% from 1.10.1991 ¹ | No | No |
| Ireland | Yes | Holding period rate ¹² Less than three years: 50% Three to six years: 35% More than six years: 30% | Yes | Yes |
| Italy | Yes ¹⁰ | — | No | No |
| Luxembourg | Yes | — | No | Yes |
| Netherlands | Yes | — | No ⁶ | Yes |
| Portugal | Yes | — | Yes ² | Yes ³ |
| United Kingdom | Yes | — | Yes | Yes |
| Austria | Yes | | Yes (holding period at least 19 months) | No |
| Canada | 75% of value | | No | No |
| Japan | Yes ⁵ | — | No | No |
| Sweden | Yes ⁴ | | No | No |
| Switzerland | Yes ⁵ | — | No | No |
| United States | Yes | — | No | No |

¹ If the net capital gains (82% of the gross amount) accounted for and maintained in a special reserve in the balance sheet, otherwise 34%.

² For depreciation of assets within limits.

³ Subject to two years time-limit.

⁴ With respect to the special reserve provision, the effective taxed rate is 77% of the corporate tax rate.

⁵ Special rates for real estate.

⁶ When determining the taxable profits made in a calendar year 1% of the corporate capital may be deducted (capital allowance meant as an adjustment for long-term structural inflation). This capital allowance only applies to income tax paying entrepreneurs.

⁷ This system is only applicable to gains related to certain shares held for more than five years.

⁸ The taxation of capital gains from the alienation of tangible or intangible fixed assets can, on condition of reinvestment, be allocated over several years in proportion to the depreciation of the assets in which the company has reinvested.

⁹ 19.5% only on capital gains on stock, and on all assets if capital gain is realized during the liquidation of the company.

¹⁰ Deferral over five years except for bonds and securities.

¹¹ Conditionally.

¹² Capital gains from the sale of development land are chargeable to capital gains tax at special rates and not corporation tax.

Source: OECD.

TABLE 3A.7

Capital losses

| | |
|----------------|--|
| Belgium | Losses from the sale or other disposal of business property are first set off against other positive income. When such losses exceed positive income, they are treated as ordinary losses. |
| Denmark | Losses incurred by the disposal of a building and its fixtures may not be deducted. Losses incurred by the disposal of intellectual property, leases, etc. are fully deductible. Losses from the sale or other disposal of securities held for more than three years are not tax deductible. A loss from the sale of shares in certain foreign companies is not deductible when the shares have been held for more than three years even though a corresponding gain is taxable. |
| Germany | Losses suffered on disposal of business assets constitute part of the ordinary losses. |
| Greece | Deductible from net company profits in the same year. |
| Spain | Treated as ordinary losses and so deductible. |
| France | (a) Short-term capital losses Losses realized on the sale of non-depreciable fixed assets held for less than two years Losses realized on the sale of depreciable fixed assets regardless of the period held Short-term capital gains and losses must be netted at year end. If the balance is a net short-term capital loss, it is deductible from the current year's taxable income. If such income is insufficient to absorb the net loss, the excess may be carried forward as an ordinary loss. (b) Long-term capital losses Losses on non-depreciable fixed assets held for two years or more Provisions for depreciation of securities Long-term capital gains and losses must be netted at year end. If the balance is a net long-term capital loss, it may be set off against either long-term capital gains of the following 10 years or the special reserve for long-term capital gains. |
| Ireland | Capital losses of the current year and unused losses of the prior year may be set against gains. Initially losses are set off against gains liable at the highest rate and so on to gains liable at the lowest rates. Losses of one group company may not be set against gains of another group company. Indexation cannot be used to create or increase a loss. |
| Italy | Deductible for determining business income. |
| Luxembourg | Treated as any other loss and to be set off against positive income. |
| Netherlands | Losses realized on the disposal of a substantial participation (>5%) are not deductible from the company's profits, unless the company in which the participation is held will be liquidated. |
| Portugal | Capital losses on disposal of fixed assets can be deducted from capital gains on fixed assets in the same financial year for capital gains tax purposes. Capital losses not connected with the sale of fixed assets are treated as ordinary losses. |
| United Kingdom | Allowable capital losses can be set against chargeable capital gains of the same or subsequent accounting periods, using the first available gains first. They cannot be set off against income or carried back against chargeable gains of earlier periods. |
| Austria | Losses from the sale or other disposition of business property (this would include all assets) may be set off against positive business income or income from other sources. If the losses exceed such other income, they may be deducted from income in the next seven years (the same treatment as ordinary losses). |
| Sweden | Capital losses may only be set off against capital gains realized in the same or any of the six following years. |
| Switzerland | Deductible as ordinary losses. |

TABLE 3A.8

Depreciation practices (manufacturing sector)

| | Depreciation | | Switch-over ¹ | | Rate of depreciation | | | |
|----------------|--------------|-----------------|--------------------------|-----------|----------------------|----------------------|-------------|-----------------|
| | Machinery | Buildings | Machinery | Buildings | Machinery | | Buildings | |
| | | | | | SL | DB | SL | DB |
| Belgium | SL/DB | SL/DB | Yes | Yes | 10 to 20% | 2 × SL | 3 to 5% | 2 × SL |
| Denmark | DB | SL | n.a. | n.a. | — | 30% | 2 to 6% | — |
| Germany | SL/DB | SL | Yes | n.a. | 10% | 3 × SL (max. 30%) | 2.5 to 10% | — |
| Greece | SL | SL | n.a. | n.a. | 10 to 20% | — | 8 to 12% | — |
| Spain | SL/DB | SL | No | n.a. | 8% | 1.5/2.5 × SL | 3% | — |
| France | SL/DB | SL | Yes | n.a. | 10 to 20% | 1.5/2.5 × SL | 2 to 5% | — |
| Ireland | DB | SL | n.a. | n.a. | — | 10 to 25% | 4% | — |
| Italy | SL | SL | n.a. | n.a. | 10% | 20% ² | 3% | 6% ² |
| Luxembourg | SL/DB | SL | Yes | Yes | 20% | 3 to 4 × SL | 2 to 4% | — |
| Netherlands | SL/DB | SL ³ | Yes | Yes | varying | 2 × SL | varying | — |
| Portugal | SL/DB | SL | No | n.a. | 12.5 to 25% | 1.5/2.5 × SL | 5% | — |
| United Kingdom | DB | SL | n.a. | n.a. | — | 25% | 4% | — |
| Austria | SL | SL | No | No | 10% | — | 4% | — |
| Canada | DB | DB | n.a. | n.a. | — | 25% | — | 4% |
| Japan | SL/DB | SL/DB | Yes | Yes | 10% | 2 × SL | 1.6 to 3.9% | 2 × SL |
| Sweden | DB | SL | Yes | n.a. | — | 30% | 1.5 to 5% | — |
| Switzerland | SL/DB | SL/DB | No | No | 0.5 × DB | 30 to 40% | 0.5 × DB | 7 to 8% |
| United States | SL/DB | SL | Yes | n.a. | 14.3% | 2 × SL | 3.1% | — |

¹ Switch-over from declining balance to straight-line but not vice versa.

² Accelerated depreciation.

³ DB only under certain special conditions.

Symbols: SL = straight-line; DB = declining balance; n.a. = not applicable.

Source: OECD.

TABLE 3A.9

Tax treatment of stocks

| | Methods of evaluating costs | | Cost price or market value |
|----------------|-----------------------------|-----------------|----------------------------|
| | FIFO | LIFO | |
| Belgium | Yes | Conditional | Yes |
| Denmark | Yes (in practice) | Conditional | Yes |
| Germany | Yes | Yes | Yes |
| Greece | Yes | Yes | Yes |
| Spain | Yes | No | Weighted average price |
| France | Yes | No ¹ | |
| Ireland | Yes | No | Yes |
| Italy | Yes | Yes | Yes |
| Luxembourg | Conditional | Conditional | Yes |
| Netherlands | Yes | Yes | Yes |
| Portugal | Yes | Yes | Yes |
| United Kingdom | Yes | No | Yes |
| Austria | Yes | Conditional | Yes |
| Canada | Yes | No | Yes |
| Japan | Yes | Yes | Yes |
| Sweden | Yes | No | Yes |
| Switzerland | Yes | Yes | Yes |
| United States | Yes | Yes | Yes |

NB: Other methods may also be allowed, e.g. base stocks (valid in the Netherlands).

¹ However, in some exceptional cases where it actually reflects the physical flow of goods, LIFO can be authorized.

Source: OECD.

TABLE 3A.10

Main tax deductible provisions

| | Bad debts | Probable charges | Vacation pay | Inventory price Increase reserve | Retirement indemnity | Depreciation of securities |
|----------------|---------------|-------------------|-------------------|----------------------------------|----------------------|----------------------------|
| Belgium | Yes (limited) | Yes | Yes | No | No ¹ | No |
| Denmark | Yes | No | Yes | No | | No |
| Germany | Yes (limited) | Yes | Yes | Yes (limited) | Yes (conditional) | Yes |
| Greece | No | No | No | No | No | No |
| Spain | Yes (limited) | No | No | No | No | Yes |
| France | Yes | Yes (conditional) | Yes (conditional) | Yes (conditional) | No | Yes ² |
| Ireland | Yes | Yes (conditional) | Yes | No | Yes (conditional) | No |
| Italy | Yes | No | Yes | No | No ³ | Yes |
| Luxembourg | Yes | Yes | Yes | | Yes | |
| Netherlands | Yes | Yes | Yes | No | Yes (conditional) | No |
| Portugal | Yes (limited) | Yes (conditional) | Yes | | | |
| United Kingdom | Yes | Yes | Yes (conditional) | No | Yes (conditional) | No |

¹ Subject to certain conditions and limitations, contributions for complementary retirement benefits are deductible as ordinary business expenses.

² Such provisions are treated as long-term capital taxes, deductible only from capital gains of the same kind liable to a reduced tax of 18%.

³ An allowance for dismissal or retirement calculated with a specific formula is deductible.

Source: Report of CNPF Working Group on corporate taxation and the single European market.

TABLE 3A.11

Conditions for deduction of main provisions for tax purposes

| | 1. General conditions governing the deduction of provisions from taxable income | 2. Groups of provisions and examples |
|---------|---|---|
| Belgium | <p>The losses and charges for which the provision is made must:</p> <ul style="list-style-type: none"> be deductible; be likely to occur; be specific and not connected with risks of a general nature; stem from circumstances which have arisen during the tax year and which still exist at the end of the year. | <p>(a) <i>Provisions for probable losses</i> Examples provisions for doubtful debts; provisions to cover an actual fall in the value of non-depreciable assets.</p> <p>(b) <i>Provisions for probable charges</i> Examples provisions for expenditure which can be quantified precisely and which is definitive but spread over a number of years (major repairs); provisions for employees' social security benefits (subject to certain flat-rate ceilings); provisions for bonuses legally guaranteed to staff; provisions for deductible taxes.</p> |
| Denmark | <p>Provisions are permitted only in specific cases laid down by law (see below).</p> | <p><i>Provisions</i> Examples flat-rate provisions amounting to 30% of the end-of-year stock (may be reincorporated into profits the following year); doubtful debts (subject to administrative agreement).</p> |
| Germany | <p>Expenditure (losses or commitments) which, on the balance-sheet date, is likely or certain to be incurred but which is still uncertain as to amount.</p> | <p>Provisions for:</p> <ul style="list-style-type: none"> (a) uncertain commitments, e.g. legal costs; (b) risks of losses on current operations, e.g. warranties, guarantees without legal obligations, damages, depreciation of an asset between order and delivery, staff leave arrears; (c) probable expenditure and charges: deductible tax; pension commitments; staff bonuses. |
| Greece | <p>Provisions are not permitted.</p> | |

| 3. Provisions for pensions (book reserves) Annual allocations to these provisions | 4. Provisions for doubtful debts and rules for calculating them | 5. Provisions for expenditure and charges |
|---|---|--|
| <p>No (irrevocable payments to a pension fund are deductible charges if their amount satisfies certain actuarial criteria).</p> <p>No, but payments to third parties (e.g. insurance companies) for pension rights are deductible as expenditure.</p> <p>Yes if the company has made a commitment to its staff (optional provision). The provision must be shown in a liabilities item as an annual fraction of the total obligation. Each year, therefore, an addition must be made to that item, by way of deduction from profits, of the amount corresponding to that fraction, less the notional interest which the company receives owing to the deferred payment of the fraction (discounting to present value of obligation: current rate is 6%). Provisions to make good insufficient provisions in previous years: yes in principle.</p> <p>No but payments to third parties (e.g. insurance companies) for pension rights may be deducted as expenditure.</p> | <p>Yes: calculation on a case-by-case basis subject to: the reduction in profit may not exceed 5% of the annual profit; the total amount deducted may not exceed 7.5% of the highest annual profit over the previous five years (limit applicable also to other probable losses). See 2(a) above.</p> <p>However, the taxpayer may also opt to restrict provisions for doubtful debts to 3% per year of the total amount of existing claims.</p> <p>Yes, subject to prior agreement of tax authorities.</p> <p>Yes: case-by-case or statistical turnover-based calculation; combination of these two methods is permitted.</p> <p>No.</p> | <p>Yes: also for major repairs made fairly regularly (maximum of 10 years).</p> <p>No.</p> <p>Yes for repairs completed within three months of the end of the current financial year.</p> <p>No.</p> |

TABLE 3A.11 (continued)

| | 1. General conditions governing the deduction of provisions from taxable income | 2. Groups of provisions and examples |
|---------|--|---|
| Spain | Provisions are permitted only in specific cases laid down by law. They must be set up for a particular purpose and be recorded in the accounts and the annual balance sheet. | <p>(a) <i>Depreciation</i> depreciation of securities; stocks; doubtful debts; oil risks.</p> <p>(b) <i>Expenditure</i> liability; 'fondo extraordinario de reparación'; 'instituciones de previsiones sociales del personal'.</p> <p>(c) <i>Insurance</i> actuarial reserves; unexpired risks; claims, etc.</p> |
| France | <p>The provision:</p> <p>(a) must have been set up for a particular purpose and must relate to a specific situation involving losses or expenditure which are: tax deductible; probable (i.e. no deduction is permitted for possible risks); the result of circumstances which arose during the course of the current financial year, except for certain types of future expenditure;</p> <p>(b) must have been recorded in the taxable person's accounts when the annual tax return is filed.</p> | <p>(a) <i>Provisions for depreciation</i> Examples doubtful debts; exceptional depreciation of fixed assets, particularly non-depreciable assets; depreciation of stocks; depreciation of securities.</p> <p>(b) <i>Provisions for expenditure and charges</i> Examples deductible taxes; staff remuneration; removal costs; expenditure spread over a number of years.</p> |
| Ireland | Provisions are normally permitted only in specific cases laid down by law. | <p><i>Examples of provisions</i> certain doubtful debts; deductible taxes attributable to the current financial year but payable later; depreciation of stocks; commitments that can be forecast with reasonable certainty.</p> |
| Italy | Provisions are permitted only in specific cases laid down by law (see below). | <p><i>Examples of provisions</i> certain future expenditure involving repairs to boats and aircraft; doubtful debts; social security (including staff pensions); deductible taxes.</p> |

| 3. Provisions for pensions (book reserves) Annual allocations to these provisions | 4. Provisions for doubtful debts and rules for calculating them | 5. Provisions for expenditure and charges |
|--|--|---|
| <p>Subject to compliance with the rules laid down, payments made by a company to institutions such as:</p> <ul style="list-style-type: none"> benevolent and mutual provident funds (not in the private insurance sector), and other employee-benefit institutions and 'fondos de pensiones' set up under special legislation <p>may be deducted as provisions.</p> <p>No, but payments to third parties (e.g. insurance companies) for pension rights are deductible as expenditure.</p> <p>No, but payments to third parties (e.g. insurance companies) for pension rights may be deducted as expenditure.</p> <p>Yes if there is a legal or contractual obligation. Subject to a maximum of the amounts legally or contractually fixed.</p> | <p>Yes</p> <p><i>Bankruptcy</i> (quiebra) Cessation of payments, composition with creditors — provision up to 100%.</p> <p><i>Overdue repayment of debt</i> Provisions may also be set up based on the length of time repayment has been overdue:</p> <ul style="list-style-type: none"> 6 to 12 months: 25% of outstanding credit; 12 to 18 months: 50%; 18 to 24 months: 75%; 24 months or more: 100%. <p>Yes: case-by-base calculation.</p> <p>Yes: doubtful debts which are considered, or seem likely, to be irrecoverable.</p> <p>Yes: 0.5% of total claims at the end of the year up to a maximum of 5% of total claims receivable.</p> | <p>Yes for maintenance of boats and aircraft.</p> <p>Yes for expenditure of a certain level which is to be divided over a number of years (e.g. large-scale repairs).</p> <p>No.</p> <p>Yes for the overhauling of boats and aircraft: 5% per year of their purchase price.</p> |

TABLE 3A.11 (continued)

| | 1. General conditions governing the deduction of provisions from taxable income | 2. Groups of provisions and examples |
|----------------|---|--|
| Luxembourg | Provisions may be set up for probable charges and losses which arise during the current financial year and which are normally deductible; their level must be based on a reasonable assessment of economic circumstances. | <i>Provisions for probable losses</i> Examples commitments in respect of guaranteed obligations; legal costs; staff bonuses; staff pensions; deductible taxes; guarantees; doubtful debts. |
| Netherlands | The provisions must be intended to meet uncertain commitments or future expenditure and may be included in the balance sheet if they are consistent with the principles of sound management. | (a) <i>Provisions for apportionment of uniform costs and charges</i> Examples provision for commitments in connection with warranties; provision for doubtful debts; provision for deductible tax; provision for expenditure which is incurred only periodically and which is to be divided among a number of financial years (e.g. inspection of boats). (b) <i>Provisions for own insurance against risks</i> Example provision for non-insured risks which are normally insured with third parties (insurance companies), e.g. pension commitments. |
| Portugal | Provisions are permitted only in specific cases laid down by law. They must be set up for a particular purpose and be shown in the annual balance sheet. | (a) <i>Depreciation</i> doubtful debts; stocks; oil reserves (only for oil companies). (b) <i>Expenditure and charges</i> legal liability. (c) <i>Technical provisions of insurance companies and financial institutions</i> |
| United Kingdom | Provisions are normally permitted only in specific cases laid down by law. | <i>Examples of provisions</i> certain doubtful debts; deductible taxes attributable to the current financial year but payable later; depreciation of stocks; commitments that can be forecast with reasonable certainty. |

| 3. Provisions for pensions (book reserves) Annual allocations to these provisions | 4. Provisions for doubtful debts and rules for calculating them | 5. Provisions for expenditure and charges |
|---|---|---|
| <p>Yes if there is a legal obligation. Annual allocation of that part of the obligation for which the total commitment, according to a mathematical insurance calculation, has been increased.</p> <p>Yes if there is an irrevocable obligation. Annual allocation of the amount for which insurance would provide the same benefits, less the insurance profit; provisions for past years permitted to a limited extent.</p> <p>Banks are obliged to make provision for staff pensions.</p> <p>No, but payments to third parties (e.g. insurance companies) for pension rights may be deducted as expenditure.</p> | <p>Yes: case-by-case or statistical turn-over-based calculation; combination of the two methods may be permitted according to circumstances.</p> <p>Yes: case-by-case or statistical turn-over-based calculation; combination of the two methods may be permitted according to circumstances.</p> <p>Yes if legal proceedings have been instituted to recover the debt or provisions based on the length of time repayment has been overdue, as follows: 25% on credit outstanding for between 6 and 12 months; 50% on credit outstanding for between 12 and 18 months; 75% on credit outstanding for between 18 and 24 months; 100% on credit outstanding for 24 months or more.</p> <p>Yes: doubtful debts which are considered, or seem likely, to be irrecoverable.</p> | <p>No.</p> <p>Yes within certain limits: equal division of costs and charges, e.g. where a boat is inspected and overhauled every five years, one-fifth of the cost may be set aside each year.</p> <p>No.</p> <p>No.</p> |

TABLE 3A.12

Goodwill

| | |
|----------------|--|
| Belgium | Depreciable if not self-created and if its value is actually diminished. Depreciation either at once or in a period of five years. |
| Denmark | Depreciable at the rate of 15% per year, but only if acquired before 1 July 1982 or between that date and 1 January 1987, provided the price was fixed by a binding agreement entered into force before 1 June 1982. |
| Germany | Depreciable for tax purposes on a straight-line basis over a 15-year period. |
| Greece | Lump sum amounts paid for goodwill have to be capitalized and may be depreciated on a straight-line basis. |
| Spain | Depreciable if loss in value is irrevocable, effective and proven. |
| France | Not depreciable but a deductible provision can be made in the case of exceptional depreciation. |
| Ireland | No depreciation allowed. |
| Italy | If shown in the balance sheet, deductible every year in an amount not greater than one-fifth of its value. |
| Luxembourg | If the cost of acquisition is higher than the going concern value (= price that a buyer of the entire business would allocate to the asset if he continues to operate the business) the latter may be used. |
| Netherlands | Depreciation if not self-created without actual proof of diminished value on a straight-line basis over a period of five years. |
| Portugal | No depreciation. |
| United Kingdom | No depreciation authorized. |
| Austria | Acquired goodwill may be depreciated over a period of 15 years in equal amounts per year. |
| Sweden | Acquired goodwill may be depreciated if subject to a decrease in value. The methods are the same as those for machinery and equipment (straight-line or declining balance). |
| Switzerland | Goodwill may be granted a 40% federal rate depreciation. |

Table 3A.13

Corporation tax collection lags

| | Collection lag |
|----------------|---|
| Belgium | Tax is paid in quarterly instalments during the taxable period on the basis of the estimated amount of tax due for the current year. The excess part of corporation tax, if any has to be paid within two months from the date of the assessment notice. |
| Denmark | Ten months after the end of the fiscal year. |
| Germany | Tax for the current year is paid in quarterly instalments. The final instalment is due when the final assessment is issued. |
| Greece | Tax is paid in seven equal instalments. The first instalment is due upon filing the tax return. |
| Spain | Three payments on account of the current year's tax, equivalent to 20% of the previous year's tax, are required to be made on the 20 April, October and December. The balance is due at the time of filing the return. |
| France | Tax paid in four instalments during the fiscal year totalling 38% of the taxable income of the preceeding year as of 1 January 1991 (30% from 1 January 1992). The balance must be paid no later than 3½ months after the end of the fiscal year. |
| Ireland | Ninety per cent of tax is to be paid within seven months of the end of the accounting period, the balance to be paid within one month of receipt of an assessment following the submission of a tax return. |
| Italy | Tax is paid in two instalments: 39.2% of the prior year's assessment is due when the prior year's return is filed and 58.8% in the 11th month of the company's financial year. The balance is due when the return for that year is submitted. |
| Luxembourg | Quarterly tax advances have to be paid. These are fixed by the tax authorities on the basis of the previous year's assessment. |
| Netherlands | Tax is paid in instalments during the year in which the income is earned on the basis of a provisional assessment. After the end of the accounting period tax has to be paid within two months of the issue of a (provisional) assessment. |
| Portugal | Tax is paid in four instalments. The first three, each equivalent to 25% of the previous year's assessment, are due in July, September and December of the year in which the taxable income arises. The final instalment is due upon filing the annual return in May of the following year. |
| United Kingdom | Nine months after the end of the accounting period. |
| Austria | Taxes repaid by quarterly instalment based on previous year's assessment. |
| Canada | Monthly instalments. Balance of tax due two months after the end of the fiscal year. |
| Japan | Tax must be paid at the same time the return is filed, usually three months after the end of the accounting period. |
| Sweden | Tax is collected during the year in which the income is earned under a preliminary tax system. Tax is paid in six equal instalments starting in March of the tax year. The balance is paid in the year after the assessment is made. |
| Switzerland | Tax is usually paid in two or three instalments based on the previous year's assessment. |
| United States | Tax must be paid in full either by the time of the filing of the return or by the 15th of the third month following the close of the fiscal year, whichever comes first. |

Table 3A.14

General investment relief

| | Under tax system | | General cash grants available irrespective of sector or activity |
|----------------|--|---|--|
| | General investment allowance available | General investment credit available | |
| Belgium | Yes, the rate depends on the development of inflation index (minimum 3%, maximum 10%) ³ | No | No |
| Denmark | No | No | No |
| Germany | No | No | No |
| Greece | Yes, 40 to 100% of the investment cost | No | No |
| Spain | No | Yes, new fixed assets | No |
| France | No | No | No |
| Ireland | No | No | No |
| Italy | No | No | No |
| Luxembourg | No | Yes, if investment exceeds average of last five years | No |
| Netherlands | Yes, 2 to 18% of investment costs (with ceiling) ² | No | No |
| Portugal | No | No | No |
| United Kingdom | No | No | No |
| Austria | Yes, 20% of the cost of acquisition in manufacturing | No | No |
| Canada | No | No | No |
| Japan | No | No | No |
| Sweden | Yes, investment reserve provisions ¹ | No | No |
| Switzerland | No | No | No |
| United States | No | No | No |

¹ An amount of maximum 30% of equity according to closing sheets or maximum of 15% of payroll may be allocated to special reserve.

² Small-scale investments (maximum of HFL 457 000).

³ Base percentage for corporate income tax and the taxation of non-residents (legal entities), otherwise minimum of 3.5% and maximum of 10.5%. Investment allowance for investment in R&D up to 20.5%.

Source: OECD.

TABLE 3A.15

Description of imputation system where resident shareholders are given full or partial credit for corporation tax paid
(as at 1 January 1991)

| Country ³ | Tax credit for domestic corporate shareholders | | Tax credit for foreign shareholders (under bilateral treaties) | | | Refund to domestic shareholders if tax credit exceeds income tax | |
|----------------------|---|--|---|--|---|--|---------------|
| | Portfolio | Direct | Individual | Corporate portfolio | Direct | Individual | Exempt entity |
| Germany | Yes | Yes | No | No | No | Yes | No |
| France | Yes | No, ¹ but dividends from 95.5% + holding exempt. Tax credit deductible from equalization tax on redistribution. | Yes Austria Belgium Germany Japan Netherlands Spain Sweden Switzerland UK USA Luxembourg | Yes Austria Germany Japan Luxembourg Netherlands Spain Sweden Switzerland UK USA | < 10% C < 10% C < 15% VR < 25% C < 5% C < 25% C < 25% C < 20% C < 10% C < 15% VR | Yes | No |
| Ireland | No, dividends exempt. Tax credit deductible from ACT tax upon redistribution. No ACT on intragroup dividends. | No, as portfolio | Yes Australia Austria New Zealand Sweden Switzerland UK | Yes Australia Austria New Zealand Sweden Switzerland UK | < 10% C < 25% C < 10% C < 10% C < 25% C < 10% C | Yes | No |

TABLE 3A.15 (continued)

| Country ³ | Tax credit for domestic corporate shareholders | | Tax credit for foreign shareholders (under bilateral treaties) | | | Refund to domestic shareholders if tax credit exceeds income tax | |
|----------------------|---|--------|--|---|--|--|---------------|
| | Portfolio | Direct | Individual | Corporate portfolio | Direct | Individual | Exempt entity |
| Italy | Yes ² | Yes | No, except UK | No, except UK < 10% C | Half credit UK | Yes | No |
| United Kingdom | No, dividends exempt. Tax credit deductible from ACT on redistribution. No ACT on intragroup dividends. | | Yes Austria Canada Denmark France Ireland Italy Japan Luxembourg Netherlands Spain Sweden Switzerland USA | < 10% C Austria Canada Denmark France Ireland Italy Luxembourg Netherlands Spain Sweden Switzerland USA | Half credit Canada Denmark Italy Luxembourg Netherlands Sweden Switzerland USA | Yes | Yes |

NB: C = Capital; VR = Voting rights.

¹ As of 1 January 1990, however, there is an exemption from *précompte* for holding companies under the following conditions:

(a) the exclusive purpose of the companies in the holding of shares;

(b) two-thirds of their assets consist of 10% or more participation in foreign companies;

(c) two-thirds of their income is derived from their foreign participation. As a consequence the shareholder shall not receive the imputation credit, but the companies transfer their tax credits to the shareholders.

² The equalization tax is withheld by the company from dividends paid out of exempt profits or profits taxed at a lower rate.

³ Belgium has a tax credit for domestic corporate shareholders in case the 90% intercorporate dividend exemption does not apply. Normal relief for double taxation consists of the intercorporate dividend exemption (90%) subject to certain holding conditions. When the conditions are not met a tax credit equal to 50% of the corporate tax rate applies. The tax credit cannot be carried forward and cannot be refunded.

Source: OECD.

TABLE 3A.16
Net wealth taxes (rates in %)

| | Corporate | Individual |
|----------------|--------------------|------------------|
| Belgium | — | — |
| Denmark | — | 1.0 |
| Germany | 0.6 | 0.5 ¹ |
| Spain | — | 2 ² |
| France | — | 0.5 to 1.5 |
| Ireland | — | — |
| Italy | — | — |
| Luxembourg | 0.5 | 0.5 |
| Netherlands | — | 0.8 |
| Portugal | — | — |
| United Kingdom | — | — |
| Austria | 1 + 0.5 surtax | 1.0 |
| Canada | 0.2 | — |
| Japan | — | — |
| Sweden | 1.5 to 3 | 1.5 to 3 |
| Switzerland | 0.453 ³ | 0.154 to 0.62 |
| United States | — | — |

¹ Germany is considering the abolition of the wealth tax.

² As of 1.1.1992: 2.5%.

³ Rate for Zurich (federal, cantonal, municipal and church taxes).

TABLE 3A.17

Domestic withholding tax

| | Interest | Dividends |
|----------------|--|-----------------------|
| Belgium | 10 ² | 25 |
| Denmark | — | 30 |
| Germany | — | 25 |
| Greece | 25 for residents 46 for non-residents | 42 to 50 ³ |
| Spain | 25 | 25 |
| France | 18.1 to 38.1 ² | — |
| Ireland | 29 (1990-91) | — |
| Italy | 12.5 to 30 ¹ | 32.4 |
| Luxembourg | — | 15 |
| Netherlands | — | 25 |
| Portugal | 25 | 25 |
| United Kingdom | 25 | — |
| Austria | — | — |
| Canada | 25 | 25 |
| Japan | 20 | 20 |
| Sweden | — | 30 |
| Switzerland | 35 | 35 |
| United States | — | — |

¹ 12.5% bond and similar interests; 30% bank accounts and corporate bonds.

² Final taxation on interest from bonds or other negotiable debt instruments, if so opted for by the taxpayer who would then be exempt from income tax.

³ For residents and non-residents.

TABLE 3A.18

Withholding tax rates applicable to dividend payments made by subsidiaries to parent companies
(as at 1 January 1991)

| Country of subsidiary (debtor) | | Belgium | | Denmark | | Germany | | Greece | | Spain | | France | | Ireland | | Italy | | Luxembourg | | |
|-----------------------------------|-----------------|----------------|-----|---------|-----|---------|-----|--------|-----|-----------------|-----------------|--------|----------------|---------|-----------------|-------|-----|------------|-----|-----|
| Country of parent (recipient) | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) |
| No tax treaty | | 25 | 30 | 25 | 25 | (c) | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 0 | 32.4 | 15 | | | | |
| Belgium | | 20 | | | | | | | | | | | | | | | | | | |
| Denmark | | 15 | 15 | 15 | 15 | 25 | 15 | 25 | 25 | 15 | 10 | 10 | 10 | 0 | 15 | 0 | 25 | 25 | 25 | 0 |
| Germany | | 15 | 25 | 10 | 25 | 10 | 10 | (c) | 25 | 10 | 10 | 0 | 0 | 15 | 32.4 | 25 | 25 | 25 | 25 | 10 |
| Greece | | 15 | 30 | 30 | 25 | 25 | 25 | (c) | 25 | 25 | 25 | 25 | 25 | 0 | 25 | 0 | 25 | 25 | 25 | 0 |
| Spain | | 15 | 10 | 10 | 25 | 15 | 15 | (c) | (c) | 10 | 10 | 10 | 10 | 0 | 15 | 0 | 25 | 25 | 25 | 0 |
| France | 10 | 10 | 0 | 0 | 10 | 10 | 10 | (c) | (c) | 25 | 50 | 10 | 10 | 24 | 15 | 5 | 25 | 25 | 25 | 5 |
| Ireland | | 15 | 0 | 0 | 15 | 15 | 15 | (c) | (c) | 25 | 15 | 15 | 15 | 0 | 15 | 5 | 25 | 25 | 25 | 5 |
| Italy | | 15 | 15 | 15 | 25 | 10 | 10 | 25 | 25 | 15 | 15 | 15 | 15 | 0 | 15 | 0 | 25 | 25 | 25 | 0 |
| Luxembourg | 25 ⁶ | 10 | 25 | 5 | 25 | 10 | 10 | (c) | (c) | 25 | 25 | 5 | 5 | 0 | 15 | 0 | 75 | 25 | 25 | 0 |
| Netherlands | 25 | 5 ⁴ | 25 | 0 | 25 | 15 | 15 | 35 | 35 | 50 ⁵ | 10 ¹ | 5 | 5 | 0 | 0 | 0 | 15 | 25 | 25 | 0 |
| Portugal | 15 | 15 | 25 | 10 | 25 | 15 | 15 | (c) | (c) | 50 | 10 | 15 | 15 | 0 | 15 | 0 | 51 | 25 | 25 | 0 |
| United Kingdom | 25 | 5 | 25 | 5 | 25 | 15 | 15 | (c) | (c) | 10 | 10 | 5 | 5 | 0 | 5 | 5 | 5 | 25 | 25 | 5 |
| Austria | | 15 | 10 | 10 | 25 | 25 | 25 | (c) | (c) | 50 | 10 | 15 | 15 | 25 | 15 | 5 | 25 | 25 | 25 | 5 |
| Canada | | 15 | 15 | 15 | 25 | 15 | 15 | (c) | (c) | 25 | 10 | 10 | 10 | 0 | 15 | 0 | 15 | 15 | 15 | 15 |
| Japan | | 25 | 25 | 10 | 25 | 15 | 15 | (c) | (c) | 25 | 10 | 15 | 10 | 0 | 25 | 0 | 25 | 10 | 25 | 15 |
| Sweden | | 25 | 25 | 0 | 15 | 15 | 15 | (c) | (c) | 50 | 10 | 0 | 0 | 10 | 51 | 0 | 51 | 10 | 25 | 5 |
| Switzerland | | 25 | 0 | 0 | 15 | 15 | 15 | (c) | (c) | 25 | 10 | 20 | 5 ² | 0 | 25 | 0 | 15 | 15 | 25 | 15 |
| United States | 10 | 5 | 95 | 5 | 10 | 5 | 5 | (c) | (c) | 25 | 10 | 10 | 5 | 0 | 50 ³ | 5 | 50 | 50 | 50 | 5 |

TABLE 3A.18 (continued)

| Country of parent (recipient) | Country of subsidiary (debtor) | | Netherlands | | Portugal | | United Kingdom | | Austria | | Canada | | Japan | | Sweden | | Switzerland | | United States | |
|-------------------------------|--------------------------------|----------------|-------------|-----|----------|----------------|----------------|-----|---------|-----|--------|-----|-------|-----|--------|-----|-------------|-----|---------------|----------------|
| | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) | (a) | (b) |
| No tax treaty | | | 25 | 25 | | 0 ⁷ | | | 25 | 25 | | | | 20 | | 30 | | 35 | | 30 |
| Belgium | 25 | 5 ⁴ | | 15 | | 10 | | 15 | | 15 | | 15 | | 25 | | 5 | | 25 | | 10 |
| Denmark | 25 | 0 | | 10 | | 10 | | 10 | | 10 | | 10 | | 10 | | 0 | | 0 | | 25 |
| Germany | 25 | 10 | | 15 | | 0 | | 25 | | 25 | | 15 | | 25 | | 5 | | 15 | | 10 |
| Greece | 25 | 5 | | 25 | | 0 | | 0 | | 25 | | 25 | | 20 | | 0 | | 5 | | 5 |
| Spain | 50 ⁵ | 5 | | 10 | | 0 | | 0 | | 50 | | 15 | | 10 | | 10 | | 25 | | 10 |
| France | 25 | 5 | | 15 | | 10 | | 10 | | 10 | | 10 | | 10 | | 0 | | 20 | | 5 ⁹ |
| Ireland | 25 | 0 | | 25 | | 0 | | 0 | | 10 | | 15 | | 10 | | 5 | | 25 | | 10 |
| Italy | | 0 | | 15 | | 10 | | 0 | | 15 | | 15 | | 10 | | 10 | | 15 | | 5 |
| Luxembourg | 25 | 2.5 | | 25 | | 10 | | 0 | | 5 | | 10 | | 20 | | 5 | | 35 | | 50 |
| Netherlands | | | | 25 | | 10 | | 0 | | 25 | | 10 | | 25 | | 0 | | 25 | | 0 |
| Portugal | | | | | | 0 | | 0 | | 25 | | 10 | | 20 | | 30 | | 25 | | 10 |
| United Kingdom | | | | 25 | | 10 | | 0 | | 15 | | 10 | | 10 | | 5 | | 25 | | 5 |
| Austria | | | | 5 | | 0 | | 0 | | 5 | | 10 | | 10 | | 10 | | 5 | | 10 |
| Canada | | | | 5 | | 0 | | 0 | | 15 | | 15 | | 50 | | 10 | | 5 | | 5 |
| Japan | | | | 10 | | 0 | | 0 | | 15 | | 10 | | 10 | | 10 | | 15 | | 10 |
| Sweden | | | | 5 | | 0 | | 0 | | 50 | | 10 | | 25 | | 10 | | 25 | | 10 |
| Switzerland | | | | 0 | | 0 | | 0 | | 10 | | 15 | | 10 | | 5 | | 5 | | 5 |
| United States | | | | 5 | | 0 | | 0 | | 95 | | 10 | | 10 | | 50 | | 95 | | 95 |

NB: (a) Minimum holding.

(b) Rate of withholding tax.

(c) Four rates are applied depending on the circumstances:

| | Shares quoted on the Athens Stock Exchange | Shares not quoted on the Athens Stock Exchange |
|-------------------|--|--|
| Bearer shares | 45 | 50 |
| Registered shares | 42 | 47 |

1 Rate reduced to 5% if the recipient company is not liable to Dutch tax on the same dividends.

2 Rate provided for by the tax treaty; in practice, the rate applied is 15%.

3 Rate is 10% if the recipient company's minimum holding is 10%.

4 Rate is 15% if the recipient company is liable to company tax in the State of its residence on the dividends involved.

5 Minimum holding required is 25% if at least one other legal person, being a resident of the state of residence of the recipient company, also holds 25% or more.

6 Or acquisition of minimum BFR 250 million.

7 The United Kingdom does not have a withholding tax on dividends.

8 The agreement signed on 5.2.1991 has not yet entered into force, but its provisions shall have effect on 1.1.1991.

9 Rate is 15% if the recipient company's minimum holding is 20%, and whenever shareholders, who are non-resident in the other State, hold a major stake of the recipient company and when neither the subsidiary nor the parent company is quoted.

TABLE 3A.19

Withholding tax rates on ordinary interest payments by a non-resident to its parent company
(as at 1 January 1991)

| Residence State of the beneficiary | Residence State of the debtor | Belgium | Denmark | Germany | Greece ² | Spain | France | Ireland | Italy | Luxembourg |
|------------------------------------|-------------------------------|----------------|---------|---------|---------------------|-------|---------|---------|--------------|----------------|
| Country without tax treaty (NT) | | 10 | 0 | 0 | 46 | 20 | 0 | 0 | 12.5, 15, 30 | 0 |
| Belgium | | — | 0 | 0 | 15 | 15 | 15 | 15 | 15 | 0 |
| Denmark | | 10 | — | 0 | NT | 10 | 0 | 0 | 15 | 0 |
| Germany | | 0 | 0 | — | 10 | 10 | 0 | 0 | 10 | 0 |
| Greece | | 10 | 0 | 0 | — | NT | 0 | NT | 10 | 0 ¹ |
| Spain | | 10 | 0 | 0 | NT | — | 10 | NT | 12 | 0 |
| France | | 10 | 0 | 0 | 10 | 10 | — | 0 | 15 | 10 |
| Ireland | | 10 | 0 | 0 | NT | NT | 0 | — | 10 | 0 |
| Italy | | 10 | 0 | 0 | 10 | 12 | 15 | 10 | — | 0 |
| Luxembourg | | 2 ³ | 0 | 0 | NT | 10 | 10 | 0 | 10 | 0 |
| Netherlands | | 0 ³ | 0 | 0 | 10 | 10 | 10 or 0 | 0 | 12.5, 15, 25 | 0 |
| Portugal | | 10 | 0 | 0 | NT | 15 | 12 | NT | 15 | 0 ¹ |
| United Kingdom | | 15 | 0 | 0 | 0 | 12 | 0 | 0 | 12.5, 15, 30 | 0 |
| Austria | | 10 | 0 | 0 | 10 | 5 | 0 | 0 | 10 | 0 |
| Canada | | 10 | 0 | 0 | NT | 15 | 10 | 29 | 15 | 0 |
| Japan | | 10 | 0 | 0 | NT | 10 | 10 or 0 | 10 | 10 | 0 |
| Sweden | | 10 | 0 | 0 | 10 | 15 | 0 | 0 | 12.5, 15 | 0 |
| Switzerland | | 0 ⁴ | 0 | 0 | 10 | 10 | 10 | 0 | 12.5 | 0 |
| United States | | 10 | 0 | 0 | 0 | 10 | 0 | 29 | 15 | 0 |

TABLE 3A.19 (continued)

| Residence State of the beneficiary | Residence State of the debtor | Netherlands | Portugal | United Kingdom | Austria | Canada | Japan | Sweden | Switzerland | United States |
|------------------------------------|-------------------------------|----------------|----------|----------------|---------|--------|-------|--------|-------------|---------------|
| Country without tax treaty (NT) | | 0 | 20 | 25 | 0 | 25 | 20 | 0 | 35 | 30 |
| Belgium | | 0 | 15 | 15 | 0 | 15 | 15 | 0 | 10 | 15 |
| Denmark | | 0 | 15 | 0 | 0 | 15 | 10 | 0 | 0 | 0 |
| Germany | | 0 | 15 | 0 | 0 | 15 | 10 | 0 | 0 | 0 |
| Greece | | 0 | NT | 0 | 0 | NT | NT | 0 | 0 | 0 |
| Spain | | 0 | 15 | 12 | 0 | 15 | 10 | 0 | 10 | 10 |
| France | | 10 | 12 | 0 | 0 | 10 | 10 | 0 | 10 | 0 |
| Ireland | | 0 | NT | 0 | 0 | 15 | 10 | 0 | 0 | 0 |
| Italy | | 0 | 15 | 10 | 0 | 15 | 10 | 0 | 12.5 | 15 |
| Luxembourg | | 0 | NT | 0 | 0 | 15 | NT | 0 | NT | 0 |
| Netherlands | | — | NT | 0 | 0 | 15 | 10 | 0 | 5 | 0 |
| Portugal | | 0 ¹ | — | 10 | 0 | NT | NT | 0 | 10 | NT |
| United Kingdom | | 0 | 10 | — | 0 | 10 | 10 | 0 | 0 | 0 |
| Austria | | 0 | 10 | 0 | — | 15 | 10 | 0 | 10 | 15 |
| Canada | | 0 | NT | 10 | 0 | — | 10 | 0 | 15 | 15 |
| Japan | | 0 | NT | 10 | 0 | 10 | — | 0 | 10 | 15 |
| Sweden | | 0 | NT | 0 | 0 | 15 | 10 | — | 5 | 15 |
| Switzerland | | 0 | 10 | 0 | 0 | 15 | 10 | 0 | — | 15 |
| United States | | 0 | NT | 0 | 0 | 15 | 10 | 0 | 5 | — |

1 No tax treaty.

2 Moreover, 2.4% stamp duty withheld from interest other than interest on bonds and bank deposits.

3 Interest, other than interest from bonds of the beneficial owner is an enterprise other than a company holding at least 25% of the capital of the paying company. Other interest: 10%.

4 Interest paid in connection with the sale on credit of an agreement or of merchandise, as well as interest from registered loans granted by banks. Other interest: 10%.

TABLE 3A.20

Withholding tax rates on royalties (possible value-added tax is not included in these rates) (as at 1 July 1990)

| Residence State of the debtor / Residence State of the beneficiary | | Belgium | Denmark | Germany | Greece | Spain | France | Ireland | Italy | Luxembourg | Netherlands | Portugal | United Kingdom | United States |
|--|--|---------|-----------------|---------|-----------------|-----------------|--------|-----------------|-------|-----------------|-------------|-----------------|----------------|-----------------|
| Country without tax treaty | | 10 | 30 | 25 | 25 | 25 | 33½ | 30 | 21 | 12 | 0 | 15 | 25 | 30 |
| Belgium | | — | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 |
| Denmark | | 0 | — | 0 | 25 ¹ | 6 | 0 | 0 | 5 | 0 | 0 | 10 | 0 | 0 |
| Germany | | 0 | 0 | — | 0 | 5 | 0 | 0 | 0 | 5 | 0 | 10 | 0 | 0 ¹ |
| Greece | | 5 | 30 ¹ | 0 | — | 25 ¹ | 5 | 30 ¹ | 0 | 12 ¹ | 0 | 15 ¹ | 0 | 0 |
| Spain | | 5 | 6 | 5 | 25 ¹ | — | 6 | 30 ¹ | 4, 8 | 10 | 0 | 5 | 10 | 5, 8, 10 |
| France | | 0 | 0 | 0 | 5 | 6 | — | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| Ireland | | 0 | 0 | 0 | 25 ¹ | 25 ¹ | 0 | — | 0 | 0 | 0 | 10 ¹ | 0 | 0 |
| Italy | | 0 | 5 | 0 | 0 | 8 | 0 | 0 | — | 10 | 0 | 12 | 0 | 10 |
| Luxembourg | | 0 | 0 | 5 | 25 ¹ | 10 | 0 | 0 | 10 | — | 0 | 15 ¹ | 5 | 0 |
| Netherlands | | 0 | 0 | 0 | 7 | 6 | 0 | 0 | 0 | 0 | — | 15 ¹ | 0 | 0 |
| Portugal | | 5 | 10 | 10 | 25 ¹ | 5 | 5 | 30 ¹ | 12 | 12 ¹ | 0 | — | 5 | 30 ¹ |
| United Kingdom | | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 5 | 0 | 5 | — | 0 |
| United States | | 0 | 0 | 0 | 0 | 5, 8, 10 | 5 | 0 | 5, 10 | 0 | 0 | 15 ¹ | 0 | — |

1 No tax treaty.

TABLE 3A.21

Relations between Member States not covered
by a bilateral agreement (as at 1 January 1991)

| | |
|-----------------------|-------------|
| Denmark ¹ | Greece |
| Greece ² | Spain |
| Greece ¹ | Ireland |
| Greece ¹ | Luxembourg |
| Greece | Portugal |
| Spain ¹ | Ireland |
| Portugal ¹ | Luxembourg |
| Portugal | Netherlands |
| Portugal | Ireland |

¹ Treaty under negotiation.
² Treaty signed but not yet in force.

TABLE 3A.22

Treatment of foreign-source income from treaty countries

| Resident country | Dividend income | Interest income |
|------------------|--|-------------------------------|
| Belgium | Exemption, with 5% maximum deduction for expenses | Worldwide credit ⁷ |
| Denmark | Exemption, if 25% minimum holding; other: credit by source | Credit by source ¹ |
| Germany | Exemption | Credit by source |
| Greece | Credit by source | Credit by source |
| Spain | Credit by source ² | Credit by source ³ |
| France | Exemption of 95% of gross dividend | Credit by source |
| Ireland | Credit by source | Credit by source |
| Italy | Exemption of 60%, taxation on rest ⁶ | Credit by source |
| Luxembourg | Exemption | Credit by source |
| Netherlands | Exemption ⁵ | Credit by source |
| Portugal | Credit by source | Credit by source |
| United Kingdom | Credit by source | Credit by source |
| Austria | Exemption | Credit by source |
| Canada | Exemption | Credit by source |
| Japan | Worldwide credit | Worldwide credit |
| Sweden | Exemption | Credit by source |
| Switzerland | Credit by source | Credit by source |
| United States | Worldwide credit ⁴ | Worldwide credit |

¹ Denmark exempts interest payments from Portugal and Spain.² Spain exempts dividends from Switzerland.³ Spain exempts interest payments from Portugal.⁴ In the United States the credit is separately calculated (on a worldwide basis) for several categories of income.⁵ If there is a qualifying participation.⁶ If participation of more than 20% or for companies quoted on the Stock Exchange more than 10%.⁷ Up to maximum $\frac{15}{85}$ of the amount of interest received net of foreign taxes.

TABLE 3A.23

Treatment of foreign-source income from non-treaty countries

| Resident country | Dividend income | Interest income |
|------------------|-----------------------------|-----------------------------|
| Belgium | Same as treaty | Same as treaty |
| Denmark | Credit by source | Same as treaty |
| Germany | Credit by source | Same as treaty |
| Greece | Same as treaty | Same as treaty |
| Spain | Same as treaty ³ | Same as treaty ³ |
| France | Same as treaty | Same as treaty |
| Ireland | Deduction | Deduction |
| Italy | Credit by source | Same as treaty |
| Luxembourg | Same as treaty | Same as treaty |
| Netherlands | Same as treaty ¹ | Deduction ² |
| Portugal | Deduction | Deduction |
| United Kingdom | Same as treaty | Same as treaty |
| Austria | Same as treaty | Same as treaty |
| Canada | Worldwide credit | Same as treaty |
| Japan | Same as treaty | Same as treaty |
| Sweden | Credit by source | Same as treaty |
| Switzerland | Deduction | Deduction |
| United States | Same as treaty | Same as treaty |

¹ Only if there is a qualifying participation and the distributing company is liable to taxation. Developing countries: credit by source limited to 25% of the dividend. Other situations: deductions.

² Developing countries: credit by source.

³ Depending on nature of income.

Table 3A.24

Royalties

| | |
|----------------|--|
| Belgium | Deductible as business expenses. Linked companies: abnormal royalty payments are added to taxable income. Beneficiary subject to different or more favourable tax treatment: not deductible unless proof under normal business transactions. |
| Denmark | Deductible if paid on arm's-length transactions. |
| Germany | Deductible unless excessive payments to shareholders are treated as hidden profit distributions. |
| Greece | No special provisions, however, in practice and after prior approval by the Ministry of Commerce, deduction is accepted. |
| Spain | To be deductible, must be the subject of a contract and have generally the prior verification of the exchange control authorities. |
| France | Deductible if not excessive in relation to the services rendered. For linked companies the arm's-length principle applies. |
| Ireland | Royalties are not deductible as business expenses but are allowable as a charge on profits. |
| Italy | Deductible provided the amounts are reasonable and computed at arm's-length. |
| Luxembourg | Deductible expenditure provided that the rates are reasonable and are not in effect hidden profit distributions. Payments to non-resident companies are taxed at the rate of 12% unless reduced by treaty. |
| Netherlands | Deductible as business expenses. The part exceeding a normal rate can be considered a hidden profit distribution. |
| Portugal | Deductible if paid to related companies only allowed up to maximum limits set forth by administration. |
| United Kingdom | UK royalties paid generally cannot be deducted in computing trading profits but are deductible under certain conditions as charges on income from the total profits of the period in which they are paid. Royalties for the use of trade marks, foreign patents and unpatented processes are deductible in computing trading profits. Excessive payments may be treated as hidden profit distributions. |
| Austria | Deductible. Excessive royalty payments to shareholders are treated as disguised profit distributions. |
| Sweden | Deductible. Between affiliated companies the arm's-length principle applies. |

Table 31.25

Conditions for tax consolidation

| Member State | Resident subsidiary |
|----------------|--|
| Belgium | No consolidation. |
| Denmark | Consolidation (consolidated profit 100% subsidiary). |
| Germany | Consolidation when the <i>Organschaft</i> system is applied: subsidiary under financial (51% of votes), structural and economic control at the option of the parent company (profit transfer agreement). |
| Spain | Consolidation (consolidated profit 90% subsidiary minimum) upon authorization by the Minister of Finance. |
| France | Consolidation if: <ul style="list-style-type: none"> (a) Consolidated profit (<i>bénéfice consolidé</i>) upon authorization by the tax authorities.¹ This applies to branches (foreign or French) and to subsidiaries (foreign or French) controlled at least 50%. (b) System of fiscal integration (<i>régime d'intégration fiscale</i>) on option (applies only to French subsidiaries 95% held by the parent company). |
| Ireland | Loss offsetting if: <ul style="list-style-type: none"> (a) a minimum participation of 75% in a subsidiary or (b) consortium. |
| Luxembourg | Tax consolidation when the <i>Organschaft</i> system is applied (99% subsidiary) at the option of the parent enterprise and upon authorization by the Minister of Finance. |
| Netherlands | Tax consolidation called fiscal entity (<i>fiscale eenheid</i>) at the option of the parent if 99% subsidiary. |
| Portugal | Consolidation (90% subsidiary at the option of the parent enterprise) upon authorization by the Minister of Finance. |
| United Kingdom | Tax arrangements for losses if: <ul style="list-style-type: none"> (a) 75% subsidiary minimum or (b) consortium. |

¹ In practice very limited application.

Table 3A.26

Taxation of cash dividends received from domestic subsidiaries

| | |
|----------------|---|
| Belgium | Exemption with a maximum deduction of 5% for expenses (directive 20 July 1990) |
| Denmark | Exempt (25% holding minimum) |
| Germany | Exempt in effect (excess credit refunded in cash) |
| Greece | Exempt |
| Spain | Exempt (25% holding minimum) |
| France | Exempt (10% holding minimum or minimum stake of FF 150 million) but add back to taxable income 5% of gross dividend equal to 7.5% of cash dividend (limited to actual expenses, if any, borne by the participating company) |
| Ireland | Exempt |
| Italy | Exempt |
| Luxembourg | Exempt (10% holding minimum or LFR 50 million) |
| Netherlands | Exempt (minimum holding 5%) |
| Portugal | Net dividend (95% of gross) exempt if minimum holding of 25% of share capital |
| United Kingdom | Exempt |
| Austria | Exempt |
| Canada | Exempt |
| Japan | Exempt |
| Sweden | Exempt (25% holding minimum) |
| Switzerland | Relief (20% holding minimum) |
| United States | 70 to 80% of dividend exempt if minimum requirement is met; 100% if closely related |

TABLE 3A.27

**Tax arrangements applicable to profits
from foreign permanent establishments**

| Parent company Residence State | Country of permanent establishment | |
|-----------------------------------|---|--|
| | Tax treaty | No tax treaty |
| Belgium | Exemption method ¹ | Tax credit method |
| Denmark | Taxation of worldwide income with either tax credit or exemption with progression, or exemption | Taxation of worldwide income with tax credit |
| Germany | Exemption method ¹ | Taxation of worldwide income with tax credit |
| Greece | Tax credit method | In principal tax credit method |
| Spain | Tax credit method | Taxation of worldwide income with tax credit ³ |
| France | Exemption method | Exemption method ² |
| Ireland | Tax credit method (if the foreign tax rate exceeds the Irish rate a partial deduction is granted for the excess amount) | Taxation of worldwide income with a deduction in computing income for the tax paid in the source country |
| Italy | Taxation of worldwide income with tax credit | Taxation of worldwide income with tax credit |
| Luxembourg | Exemption method | Taxation of worldwide income with tax credit |
| Netherlands | Exemption method ¹ | Exemption method ¹ |
| Portugal | Taxation of worldwide income with tax credit | Taxation of worldwide income |
| United Kingdom | Tax credit method | Taxation of worldwide income with tax credit |

¹ With reintegration of earlier losses.

² But tax credit method if taxation of worldwide income in the framework of the *bénéfice mondial* system or of the *bénéfice consolidé* system upon authorization by the tax authorities and irrespective of whether a treaty applies or not (very limited application).

³ As of 1 January 1992: a 'branch tax' of 25% on profits transferred by the Spanish permanent establishment to its parent company will be withheld.

TABLE 3A.28

Personal income tax

| | Tax rate on dividends | | Tax rate on interest | |
|-----------------------|-----------------------|-----------------------|----------------------|-----------------------|
| | Top rate | Average marginal rate | Top rate | Average marginal rate |
| Belgium ² | 25 | 25 | 10 | 10 |
| Denmark | 45 | 37.6 | 57.1 | 51.1 |
| Germany | 56.97 | 39.1 | 56 | 39.1 |
| Greece | 50 | n.a. | 0 | 0 |
| Spain | 50.4 | 28.4 | 56 | 31.5 |
| France | 56.8 | 44 | 38.1 | 18.1 to 38.1 |
| Ireland ³ | 52 | 50(27) | 52 | 38.4 |
| Italy | 51 | 39.4 | 30 | 12.5, 15 or 30 |
| Luxembourg | 56 | n.a. | 56 | n.a. |
| Netherlands | 60 | 49 | 60 | 49 |
| Portugal ⁴ | 25 | 25 | 25 | 25 |
| United Kingdom | 40 | 32 | 40 | 24 |
| Austria ¹ | 25 | 19.8 | 50 | 39.7 |
| Canada | 49.1 | 44.6 | 49.1 | 39.5 |
| Japan | 35 | 35 | 20 | 20 |
| Sweden | 30 | 30 | 30 | 30 |
| Switzerland | 43.6 | 30.8 | 43.6 | 30.8 |
| United States | 31 | 24 | 38 | 28 |

¹ The cost of newly issued shares is deductible from personal tax.

² The 25% withholding tax on dividends is the final tax paid.

³ Figure in brackets is the average marginal rate on manufacturing dividends. This is lower than the overall average marginal rate on dividends generally because half of manufacturing dividend income is exempt from taxation (subject to not more than IRL 7 000 being exempted in any tax year).

⁴ A withholding tax of 25% is levied on 80% of the value of dividends. Individuals may elect that this is the final tax they pay on dividends.

TABLE 3A.29

Typical capital gains tax rates on individual investors

| | CGT rate in first period | | Length of first period (years) | CGT rate in second period | | Indexation |
|----------------------|-----------------------------|-------------------------------------|--|------------------------------|-------------------------------------|------------|
| | Top rate (%) | Average marginal rate (%) | | Top rate (%) | Average marginal rate (%) | |
| Belgium | 0 | 0 | — | — | — | — |
| Denmark | 57.1 | 51.1 | 3 | 0 | — | No |
| Germany | 0 | 0 | — | — | — | — |
| Greece | 0 | 0 | — | — | — | — |
| Spain ² | 56.0 | 31.5 | — | — | — | Yes |
| France ⁴ | 18.1 | 0 | — | — | — | No |
| Ireland ¹ | 50.0 | 50.0 | 3 | 35 | 35 | Yes |
| Italy | 25 to 15 | 25 to 15 | 1 | 12.5 | 12.5 | — |
| Luxembourg | 0 | 0 | — | — | — | — |
| Netherlands | 0 | 0 | — | — | — | — |
| Portugal | 0 | 0 | — | — | — | — |
| United Kingdom | 40.0 | 33.0 | — | — | — | Yes |
| Austria | 50 | 39.7 | 1 | 0 | 0 | — |
| Canada ³ | 36.8 | 10.5 | — | — | — | No |
| Japan | 20 | 20 | — | — | — | — |
| Sweden | 30 | 30 | — | — | — | No |
| Switzerland | 0 | 0 | — | — | — | — |
| United States | 36 | 31.0 | — | — | — | No |

¹ Capital gains tax is charged at 50% where the period of ownership is less than three years, 35% where the period is more than three but less than six years and 30% for assets held for more than six years.

² Spain taxes capital gains on the basis of dividing the value of the gain by the number of years held (if the taxpayer does not know the holding period, then the period is taken to be five years), and including that figure into normal tax after income. The remainder is taxed at the average rate for general income tax.

³ Canada has a larger lifetime exemption limit (CAD 100 000), and the average tax rate reflects this. This capital gains tax rate is two-thirds of the statutory income tax rate.

⁴ The given rate is of relevance for capital gains arising from sales of securities or private shares. Where the private shareholding is less than 25% of total shares, capital gains are tax exempt, when the considered sales in a year are less than FF 307 600 (1990). Where real estate or some movable properties such as racehorses for instance are concerned, capital gains are considered as normal income (assets held for more than two years can be spread over five years to compute the corresponding additional income tax).

TABLE 3A.30

Domestic withholding tax on individuals

| | Interest | Dividends |
|----------------|---------------------------|-----------------|
| Belgium | 10 ¹ | 25 ¹ |
| Denmark | — | 30 |
| Germany | — | 25 |
| Greece | progressive rate | 42 to 50 |
| Spain | 25 | 25 |
| France | 18.1 to 38.1 ¹ | — |
| Ireland | 29 | — |
| Italy | 12.5 to 30 | 10 |
| Luxembourg | — | 15 |
| Netherlands | — | 25 |
| Portugal | 25 | 25 |
| United Kingdom | 25 | — |
| Austria | — | — |
| Canada | — | — |
| Japan | 20 | 20 |
| Sweden | 30 | 30 |
| Switzerland | 35 | 35 |
| United States | — | — |

¹ Final taxation on interest from bonds or other negotiable debt instruments, if so opted for by the taxpayer who would then be exempt from income tax on that income.

TABLE 3A.31

Comparative table of simplified tax arrangements for SMEs

| | Sole proprietorships | | Companies |
|---------|--|---|---|
| | Flat-rate method of determining profits | Other simplified methods of determining the result | Establishment of simplified balance sheet and profit-and-loss accounts for tax purposes |
| Belgium | Three-yearly flat rate: all businesses with profits < ECU 2 365 For some trades, flat rate is determined with the trade associations. | Turnover < ECU 470 000 Less strict rules apply to book-keeping | Criteria for defining SMEs Exclusion from the arrangements if the number of employees > 100 Balance sheet < ECU 1 650 000 Turnover < ECU 3 430 000 Total staff < 50 Abridged annual accounts No special tax return |
| Germany | | Sole proprietorships Turnover < ECU 244 000 Working capital < ECU 61 000 Profits < ECU 17 600 (Taxable profits determined on the basis of fiscal accounts.) | Criteria for defining small businesses (Article 267, Code of Commerce Balance sheet < ECU 1 900 000 Turnover < ECU 3 900 000 Total staff < 50 In drawing up their balance sheet, they need comply only with the accounting rules laid down by tax law. Criteria for defining medium-sized businesses (Code of Commerce § 267) Balance sheet < ECU 7 570 000 Turnover < ECU 15 600 000 Total staff < 250 In drawing up their balance sheet, they must comply with the accounting rules laid down by commercial law. |
| Greece | Small businesses Application of flat-rate percentages to purchases and receipts | Small businesses First category Turnover < ECU 29 815 Second category Turnover < ECU 593 275 Less strict rules apply to book-keeping | No simplification for small companies |
| Spain | Standard flat rate (option for three years) Businesses satisfying the following two criteria Total staff < 12 Turnover < ECU 393 000 Simplified flat rate Businesses satisfying the following two criteria Total staff < 3 Turnover < ECU 39 275 and carrying on several activities | | Simplified return if turnover < ECU 785 500 |

TABLE 3A.31 (continued)

| | Sole proprietorships | | Companies |
|------------|--|---|---|
| | Flat-rate method of determining profits | Other simplified methods of determining the result | Establishment of simplified balance sheet and profit-and-loss accounts for tax purposes |
| France | Businesses which sell or manufacture goods with a turnover < ECU 71 700 Service businesses with a turnover < ECU 21 500 Liberal professions with receipts < ECU 25 092 | Very simplified accounting (cash accounting) 1. Businesses which sell or manufacture goods with a turnover < ECU 145 000. Service businesses with a turnover < ECU 45 000 are exempt from the balance-sheet requirement. 2. Businesses which sell or manufacture goods with a turnover < ECU 501 850 (turnover threshold for small businesses under accounting law). Service businesses with a turnover < ECU 143 385 must draw up an abridged balance sheet and profit-and-loss account. 3. Liberal professions (non-commercial profits) Irrespective of the turnover and if receipts < ECU 25 092 (Taxable profits determined on the basis of cash accounting.) | Simplified Companies which sell or manufacture goods if turnover < ECU 501 850 (FF 3 500 000) Service companies if turnover < ECU 143 385 (FF 1 000 000) |
| Ireland | | | Criteria for defining small companies (under accounting law) Balance sheet < ECU 1 630 000 Turnover < ECU 3 260 000 Criteria for defining medium-sized companies Balance sheet < ECU 6 520 000 Turnover < ECU 13 040 000 Total staff < 250 |
| Italy | None | Application of a percentage deduction (varies with the activities concerned) from profits if turnovers < ECU 240 000 | Fourth EEC Directive not yet applied |
| Luxembourg | None | Businesses satisfying the following criteria Turnover < ECU 47 300 Net assets < ECU 12 000 Operating profits < ECU 4 750 (Taxable profits determined on the basis of cash accounting.) | Criteria for defining small businesses (accounting law) Balance sheet < ECU 1 820 000 Turnover < ECU 3 785 000 Total staff < 50 Criteria for defining medium-sized businesses (accounting law) Balance sheet < ECU 7 335 000 Turnover < ECU 15 140 000 Total staff < 250 |
| Portugal | | Any taxable person whose turnover on an average of the last three years is no higher than ECU 170 500 may adopt simplified bookkeeping methods for tax purposes. | |

Source: DRT Europe services — Report on the simplification of tax and accounting requirements for SMEs — 1991.

TABLE 3A.32

Comparative table of corporation tax and personal income tax rates (1991)

| | Corporation tax (central government) | Personal income tax (%) | |
|----------------|--|--|--|
| | | Lowest bracket | Highest bracket |
| Belgium | Rate: 39% Reduced rate for SMEs: ¹ 28% on profits below ECU 23 640 (BFR 1 million); 36% on the portion of profits between BFR 1 million (ECU 23 640) and BFR 3.6 million (ECU 85 100); 41% on the portion of profits between BFR 3.6 million (ECU 85 100) and BFR 13 million (ECU 307 330); Standard rate applicable above this latter threshold | 25 | 55 |
| Denmark | Rate: 38% | 50 | 68 |
| Germany | Rate: 36% for distributed profits 50% for undistributed profits | 19 | 53 |
| Greece | Rate: 0% on distributed profits 46% on reinvested profits Reduced rate of 40% on profits reinvested by mining and industrial companies listed on the Athens Stock Exchange | 18 | 50 |
| Spain | Rate: 35% | 25 | 56 |
| France | Rate: 34% on reinvested profits 42% on distributed profits | 5 | 56.8 |
| Ireland | Rate: 43% (1990/91) 40% (1991/92) Reduced rate: 10% for manufacturing companies and in certain areas (Shannon, IFSC) | 29 | 52 |
| Italy | Rate: 36% | 10 | 50 |
| Luxembourg | Rate: 33% on profits above LFR 1 312 000 (ECU 31 000) Special scale for profits below LFR 1 312 000 (ECU 31 000): 20% on profits below LFR 400 000 (ECU 9 456), 50% on the portion of profits between ECU 9 456 and 14 240, 30% on the portion between ECU 14 240 and 23 640, 42.6% on the portion between ECU 23 640 and 31 000 | 10 (from LFR 222 000 to 324 000) | 50 (above LFR 1 269 000) |
| Netherlands | Rate of 35%, but 40% on the first HFL 250 000 (ECU 109 000) of profits | 35.75 ² (< HFL 42 996) | 60 (> HFL 85 960) |
| Portugal | Rate: 36% | 15 | 40 |
| United Kingdom | Main rate 34% (1990/91) 33% (1991/92) Reduced rate: 25% for profits below UKL 200 000 (ECU 290 000) for 1990/91 (UKL 250 000 for 1991/92) Sliding scale for profits above that lower amount but below UKL 1 000 000 for 1990/91 (UKL 1 250 000 for 1991/92) Main rate above that higher amount | 1990/91: 25 (< UKL 20 700) 1991/92: 25 (< UKL 23 700) | 40 (> UKL 20 700) 40 (> UKL 23 700) |

¹ This reduced tax rate is applicable to SMEs operated in the form of a company satisfying all of the following conditions:

- (a) the company's taxable income is lower than BFR 14.8 million in 1991 and BFR 13 million in 1992 (assessment year);
- (b) less than half of the shares are held by one or more companies;
- (c) the company does not hold shares with an investment value greater than 50% of its paid-up capital;
- (d) distributed profits do not exceed 13% of the paid-up capital.

² Lowest bracket: 13% income tax + 22.75% social security premiums = 35.75%.

TABLE 3A.33

Special tax measures for SMEs

| | Measures aimed at all SMEs | Measures aimed at certain SMEs | Measures aimed at certain operations carried out by SMEs | Other |
|---------|----------------------------|--------------------------------|---|--|
| Belgium | | | <p><i>Aid towards SMEs investments</i></p> <p>Doubling of straight-line depreciation for investments in plant and machinery and buildings where aid has been obtained from the regions (Brussels, Flanders, Wallonia), for a maximum of three successive assessment years.</p> | |
| Germany | | | <p><i>Special depreciation</i></p> <p>Extra depreciation of 20% on all investment in new movable goods for businesses with net fixed assets of unitary value less than DM 240 000 (ECU 116 742) and a trade capital (gewerbekapital) value of less than DM 500 000 (ECU 243 214).</p> | |
| Spain | | | | <p>Tax transparency for investment companies held by fewer than 10 shareholders and specializing in the provision of equity capital to unlisted companies.</p> <p>Exemption of the dividends received and capital gains realized by venture capital companies.</p> |

| | Measures aimed at all SMEs | Measures aimed at certain SMEs | Measures aimed at certain operations carried out by SMEs | Other |
|--------|--|---|--|---|
| France | <p><i>Approved management centres</i></p> <p>Businesses subject to tax on industrial and commercial profits (also for businesses subject to tax on non-trade profits).</p> <p>Tax advantages granted to businesses liable to income tax: allowance of 20% for profits up to ECU 61 140 and of 10% for the portion between ECU 61 140 and 87 035 (analogous with the system for employees).</p> <p>ECU 573 tax reduction for:</p> <p>(a) businesses whose main activity is the sale of goods, articles, supplies, and accommodation services with a turnover < ECU 71 692;</p> <p>(b) other businesses, (mainly service businesses) with a turnover < ECU 21 507;</p> <p>(c) non-trade businesses with a turnover < ECU 21 507.</p> <p><i>On-the-spot inspection by the tax inspector</i></p> <p>Limited in time to:</p> <p>(a) businesses whose main activity is the sale of goods, articles, supplies, accommodation and services with a turnover < ECU 430 156;</p> <p>(b) other businesses, (mainly service businesses) with a turnover < ECU 129 047.</p> | <p><i>New businesses</i></p> <p>(a) Newly created businesses;</p> <p>(b) Corporate shareholders may not hold more than 50% of the capital;</p> <p>(c) Industrial, commercial or craft activity.</p> <p>100% exemption (personal income tax or corporation tax) for the first two years, then 75% in the third year, 50% in the fourth year and 25% in the fifth year.</p> | | <p>Participation in risk investment funds (i.e. where more than 50% of assets is invested in unlisted companies).</p> <p>Relief from investor's personal income on the amount of his share in the fund, exemption of capital gains, etc.</p> <p>Tax transparency for venture capital companies specializing in the provision of equity capital to unlisted companies.</p> <p>Exemption of professional capital gains for businesses not liable to corporation tax and operating for more than five years:</p> <p>(a) turnover of businesses whose main activity is the sale of goods, articles, supplies, and accommodation services < ECU 143 385;</p> <p>(b) turnover of service businesses < ECU 43 015;</p> <p>(c) turnover of non-trade businesses < ECU 50 185.</p> <p>Exemption of capital gains arising on assets of a sole proprietorship transferred to a corporation under specific conditions.</p> <p><i>Business savings account</i></p> <p>Interest deductible from personal income tax.</p> <p>Reduction of tax for taxpayers who subscribe in cash to the capital of new companies subject to corporation tax (relief equals 25% of cash investments within a limit of ECU 5 735 for a single taxpayer, or ECU 11 470 for a couple).</p> <p>Exemption of capital gains realized on goodwill (fonds de commerce) under same conditions when signed over for free.</p> |

TABLE 3A.33 (continued)

| | Measures aimed at all SMEs | Measures aimed at certain SMEs | Measures aimed at certain operations carried out by SMEs | Other |
|-------------|----------------------------|--|---|---|
| Ireland | | | | <p><i>Holdings in unlisted companies</i></p> <p>Business expansion scheme < ECU 32 550 per year (IRL 25 000) to a lifetime ceiling of IRL 75 000 per investor. Relief for individuals on amount invested.</p> <p>Same deduction for holdings in an unlisted R&D company.</p> |
| Italy | | | | No carry-forward of losses for businesses applying the simplified tax arrangements. |
| Netherlands | | <p>Sliding scale of relief for SMEs on the basis of profits.</p> <p>Sale proprietor aged between 18 and 65 provided running the business is his main occupation.</p> <p>Relief of between ECU 2 622 (HFL 6 030) for profits of up to ECU 33 848 (HFL 77 850), and ECU 1 690 (HFL 3 890) for profits of up to ECU 38 145 (HFL 87 735).</p> <p>Tax-deductible creation of pension reserve for sale proprietor, up to a limit of 10% of profits and an annual maximum of HFL 17 294 (ECU 7 519).</p> <p>Exemption of profits made when ending the business HFL 20 000 (ECU 8 695) if sole proprietor < 55 years; HFL 45 000 (ECU 19 565) if 55 years or older.</p> | <p><i>Investment</i></p> <p>Extra tax reduction for investments < ECU 197 000 (HFL 457 000).</p> <p>Decreasing rate of deduction (from 18 to 2%) depending on the volume of investments in the year.</p> | |

| | Measures aimed at all SMEs | Measures aimed at certain SMEs | Measures aimed at certain operations carried out by SMEs | Other |
|----------------|--|--------------------------------|--|---|
| Portugal | Regional tax incentives Employment incentives Technological development incentives | | | Deduction of certain categories of interest on bank loans granted to shareholders for the purpose of increasing the company's capital. Exemption of the dividends and capital gains of venture capital companies for eight years after their formation. |
| United Kingdom | | | | <i>Employees who go into business</i> The business losses of an individual in the first four years of a new business may be carried back against the individual's other income for the previous three years. <i>Holdings in unlisted companies</i> Business expansion scheme < ECU 57 307 per year (UKL 40 000). Income tax relief for individuals on amount invested. Interest on loans taken out to acquire a holding in close companies (companies controlled by the members of a family or by a limited number of persons) allowed against the shareholder's income tax. |

Source: 1987 Fontaneau study on the impact of taxation on the creation and survival of SMEs in the EEC, updated by the Commission departments.

TABLE 3A.34

Treatment of individual investors: country survey

| A. Resident investors | |
|-----------------------|---|
| Belgium | The resident taxpayer may opt for domestic withholding taxes to be made final, in that case his position will be the same as that for the non-resident investor. Alternatively, if he elects to include dividends and interest in his total taxable income, the effect of the withholding tax will be nil since it may be credited against the dividend income tax due and any excess will be refunded. Tax treaties may result in withholding taxes for non-resident individuals being lower than for resident individuals. |
| Denmark | The withholding tax of 30% is a final tax for most resident taxpayers. For individuals receiving large dividend income the final tax is 45%. These individuals may credit the withholding tax against their final income tax liability. |
| Germany | Double taxation of corporate income is eliminated for residents firstly by reducing the corporate income tax rate on distributions and secondly, by granting shareholders a 'special tax credit' equal to the corporate income tax on distributed profits. The reduction of the rate on distributions is normally effected by the way of a tax refund to the company equal to $\frac{14}{50}$ of the net distribution. In addition resident shareholders are entitled to a 'special tax credit' equal to $\frac{36}{64}$ of the distribution. In addition there are withholding taxes which may be credited against the individual income tax due with any excess refunded. |
| Greece | Profits distributed to shareholders are not subject to tax at the corporate level, but there are withholding taxes on distribution. The effect of withholding taxes depends on the circumstances. They will normally be the final tax paid, but the resident taxpayer may elect to have the dividend included in his total taxable income with a credit for the withholding tax, if the dividend is on a share quoted on the Athens Stock Exchange or is registered non-quoted shares. The withholding tax on interest is always final. |
| Spain | Resident taxpayers are entitled to a special credit amounting to 10% of the dividend received which may be credited against their income tax liability. If the credit exceeds the income tax due, no refund is granted. Withholding taxes are fully credited against the individual income tax due and excess is refunded. |
| France | The <i>avoir fiscal</i> which is applicable to cash dividends and dividends in kind paid by resident corporations, is an amount equal to 50% of the net amount of dividend received and is credited against the individual income tax computed on total income. The <i>avoir fiscal</i> is extended to non-residents pursuant to various tax treaty provisions. The withholding tax on interest may be credited against the individual income tax due. Any excess is refunded. Various rates of withholding tax apply to interest (from 10 to 59%). |
| Ireland | Resident shareholders are entitled to an 'imputation tax credit' which amounts to $\frac{25}{75}$ of the net distribution and which is offset against the income tax payable. Excess is refunded. Half of dividends paid out of profits are subject to the 10% rate of corporation tax, whether manufacturing dividends or dividends from the Shannon Free Airport Zone of the Dublin Custom House Docks area are exempt. The amount of the exemption may not exceed IRL 7 000 per taxpayer, per annum. The withholding tax on interest is fully credited against the income tax liability of the taxpayer. |
| Italy | Resident shareholders may credit an amount equal to $\frac{9}{16}$ of dividends received against their income tax liability (which corresponds to the corporate income tax paid by the residents' distributing company) though the credit is added to the net dividend to give the gross taxable amount. Any additional withholding tax on dividends is fully creditable. The withholding tax on interest is often the final tax paid. In many cases, however, different rates apply (e.g. State bonds: 12.5%). |

| | | | | | | | | | |
|----------------------------------|--|---------------------------|-------------------------------------|-----------------------|--|---------------------------|-------------|-----------------------|--|
| Luxembourg | The withholding tax on dividends and profit sharing bonds can be fully credited against the individual income tax due. Any excess is refunded. There is no withholding tax on other interest or on distributions of profits made by certain investment companies or holding companies. | | | | | | | | |
| Netherlands | Withholding taxes on dividends and interest from profit sharing bonds are fully credited against the individual income tax due. Any excess is refunded. | | | | | | | | |
| Portugal | Resident taxpayers are entitled to a tax credit of 20% of the underlying corporate tax. Additional withholding taxes are fully credited against the individual income tax due with any excess refunded. For most dividend payments the taxpayer can elect for the withholding tax to be the final tax. | | | | | | | | |
| United Kingdom | An individual receives a tax credit equal to $\frac{25}{75}$ of the net dividend which corresponds to the advance corporation tax paid by the company. The credit is refundable to non-taxpayers. The withholding tax on interest is fully creditable against the individual's income tax liability. | | | | | | | | |
| B. Non-resident investors | | | | | | | | | |
| Belgium | Non-residents not engaged in a trade or business are normally not subject to individual income tax on Belgian-source dividends and interest. Only a withholding tax of 25% (dividend) or 10% (interest) apply, subject to treaty reductions. | | | | | | | | |
| Denmark | Dividends from Danish sources are never subject to tax, but only to a 30% withholding tax. Danish-source interest is exempt from Danish tax. Non-residents are not subject to the individual income tax. | | | | | | | | |
| Germany | Dividends paid by companies resident in Germany to non-resident individuals are subject to a withholding of <i>Kapitalertragsteuer</i> tax at a rate of 25%. No withholding tax refund is granted in the absence of specific treaty provisions and non-residents are not entitled to the 'special tax credit' granted to resident shareholders. However, if the dividends are subject to the progressive income tax, the withholding taxes can be credited against the income tax assessed. | | | | | | | | |
| Greece | <p>Non-residents are subject to the same progressive rates as residents, even if they are not entitled to all deductions and credits granted to resident taxpayers. On all Greek-source dividends a withholding tax is imposed at the following rates:</p> <table border="0"> <tr> <td>42% for registered shares</td> <td>quoted on the Athens Stock Exchange</td> </tr> <tr> <td>45% for bearer shares</td> <td></td> </tr> <tr> <td>47% for registered shares</td> <td>other cases</td> </tr> <tr> <td>50% for bearer shares</td> <td></td> </tr> </table> <p>Temporary rate reductions are foreseen by Greek law in case of capital increases by companies quoted on the Athens Stock Exchange. In most cases, non-residents may credit the taxes withheld against the individual income tax. Dividends paid are also reduced by the special revaluation tax, which companies have to recoup for their shareholders in equal instalments. Greek-source interest is taxable income for non-resident individuals with a credit for withholding tax.</p> | 42% for registered shares | quoted on the Athens Stock Exchange | 45% for bearer shares | | 47% for registered shares | other cases | 50% for bearer shares | |
| 42% for registered shares | quoted on the Athens Stock Exchange | | | | | | | | |
| 45% for bearer shares | | | | | | | | | |
| 47% for registered shares | other cases | | | | | | | | |
| 50% for bearer shares | | | | | | | | | |
| Spain | Dividends and interest paid by resident companies to non-resident individuals are subject to withholding tax at the rate of 25%. | | | | | | | | |
| France | <p>National law provides for a withholding tax on cash dividends and on dividends in kind paid by a resident company to its non-resident shareholders at the rate of 25%. Treaty provisions may provide for the extension of the special tax credit <i>avoir fiscal</i> to non-residents. When the dividends of a resident corporation are paid out of income not subject to corporate income tax at the normal rate of 42%, they are subject to a special tax (<i>précompte</i>) at a rate of 50% of the distribution.</p> <p>When the <i>précompte</i> has been effectively paid by the French corporation, individuals resident in a treaty country, or in a <i>territoire d'outre-mer</i> (TOM), or in a former French <i>communauté</i> country, are entitled to a refund. This refund is subject to withholding tax just as the above-mentioned dividends. French-source interest is in principle subject to a withholding tax which is levied at varying rates between 15 and 59%.</p> | | | | | | | | |

| | |
|----------------|--|
| Ireland | A non-resident in receipt of dividends is generally not entitled to the imputed tax credit granted to resident shareholders, but is subject to Irish income tax. Ireland does not, however, have a withholding tax on dividends. |
| Italy | Non-residents are subject to Italian individual income tax on this income from Italian sources. However, these taxes are in general replaced by a final withholding tax. The non-resident who is subject to income tax on the Italian-source dividend may claim a refund equal to the tax paid in his own country up to a maximum of two-thirds of the Italian tax withheld. Thus, the effective dividend tax in Italy is at least 10.8%. Interest is generally subject to a withholding tax of 15 or 21.6% on interest on bonds. However, several exceptions with higher or lower rates exist. |
| Luxembourg | Non-resident shareholders are liable to pay income tax in Luxembourg only on certain types of income from Luxembourg sources (as Category 2 taxpayers). However, tax on dividends is often imposed by way of a withholding tax (retenue d'impôt sur les revenus de capitaux), which can be credited against the income tax paid in Luxembourg and which cannot be refunded in the absence of a treaty. Dividends distributed by Luxembourg holding companies or investment companies are always exempted. |
| Netherlands | Dividends distributed to non-residents are subject to Dutch income tax (inkomstenbelasting), when arising from a 'substantial' interest in a resident corporation, with a maximum rate of 60%. Non-residents are entitled to the general dividend exemption. A withholding tax (which can be credited against income tax when paid, with refund of any excess) is imposed at 25%. |
| Portugal | Non-resident individuals with income from a Portuguese source are subject to income tax on that income. A withholding tax at the rate of 25% is also imposed on dividend distributions to non-resident individuals with no permanent establishment in Portugal. Some reduced rates of withholding tax apply mainly to dividends from quoted companies (20%) and newly privatized companies (15%). In addition to income tax, a substitute inheritance and gift tax is withheld at the rate of 5% on all dividends. |
| United Kingdom | Non-residents are generally subject to tax on income derived from UK sources. The rates of tax are the same: a basic rate of 25% and a higher rate of 40%. Interest is normally subject to a withholding tax at the basic rate. Dividends are, as a general rule but dependent on the double taxation treaty, not subject to the imputation system but are exempt from basic rate tax when paid to non-residents. Under many treaties United Kingdom taxation is normally limited to 15% of the dividend plus the tax credit which means that the non-resident can claim repayment of part of the credit from the United Kingdom tax authorities. The United Kingdom tax authorities are consequently empowered to make arrangements with companies under which the company pays this amount to the non-resident together with the dividend obviating the necessity for the non-resident to make a claim. Both dividends and interest may be subject to higher rate tax in the absence of any treaty provision to the contrary. The tax authorities do not, however, seek to collect this tax in practice. |

TABLE 3A.35

Treatment of capital gains

| A. Residents | |
|--------------|---|
| Belgium | <p>No capital gains tax as such is imposed on resident individuals. Income tax is imposed only:</p> <ul style="list-style-type: none"> (a) if the shares or bonds are held as business assets at the rate of 16.5% if the sale takes place five years or more after the date of acquisition, otherwise the normal progressive rate applies; (b) if the seller engages in speculative transaction at the rate of 33%; (c) if a 'substantial interest' (where the shareholder together with his next of kin owns or has owned at any time during the five preceding years, more than 25% of the rights in a resident corporation) and shares are sold to a non-resident corporation; then the rate of tax is 16.5%. |
| Denmark | <p>No general capital gains tax applies, but a special income tax is applied at 50% to certain extraordinary gains to the extent that they exceed DKR 6 000 during the year. Gains on the sale of shares and convertible bonds are subject to ordinary income tax:</p> <ul style="list-style-type: none"> (a) if acquired less than three years prior to sale; (b) if acquired as part of the activities of business; (c) if sold to a company which issued them; or (d) under certain circumstances if the shares or bonds are from a non-resident company. <p>Gains on sales of shares and convertible bonds not subject to income tax are subject to a special income tax if the shares and bonds have been held during three years or more and the seller together with close relatives have a 'substantial interest' (see Belgium) and only if more than 1% of the company's share capital is sold, or if the sale exceeds DKR 65 000, during the year.</p> <p>Gains on the sale of bonds are normally not subject to tax, except on the sale of bonds carrying interest at a lower rate (e.g. zero bonds) which are subject to normal income tax. For individuals giving up residence in Denmark, their departure is deemed to be a disposal of the shares and bonds they own and tax liability is incurred as a consequence.</p> |
| Germany | <p>Gains from the sale of shares and bonds are only subject to income tax:</p> <ul style="list-style-type: none"> (a) if held as a business asset; (b) if they derive from speculative transactions (sales within six months from the date of acquisition are considered speculative) and amount to at least DM 1 000 during the year; (c) if there is a 'substantial interest' and a sale of at least 1%. <p>In the first two cases the gains are taxed as ordinary income. The third case is classified as extraordinary income and the tax is imposed at half the normal rate for an amount not in excess of DM 30 000 000.</p> |
| Greece | <p>There is no general capital gains tax in Greece nor are the gains from the sale of shares or bonds subject to income tax.</p> |
| Spain | <p>No separate capital gains tax. Gains from the sale or other disposition of shares and bonds are subject to income tax. Some relief is granted depending on the length of time the shares and bonds were owned. For example, only one-fifth of the gain is added to the other income if shares are sold after five years. The income tax is computed on the total income and the average tax rate is then applied on the remaining four-fifths of the capital gains.</p> |
| France | <p>A separate capital gains tax is not imposed. Gains from the sale of shares and bonds are subject to income tax:</p> <ul style="list-style-type: none"> (a) if held as a business asset and if sold two years or more after acquisition at a rate of 16%; otherwise normal progressive rates apply; (b) if a major transaction (i.e. more than FF 307 600) at a rate of 17%; (c) if 'substantial interest' exists at a rate of 17%. |
| Ireland | <p>Capital gains arising from the disposal of capital assets are subject to capital gains tax. There are a number of exemptions including the first IRL 2 000 (IRL 4 000 for married couples) as are gains arising from the disposal of government securities and securities issued by a number of State subsidized bodies.</p> |

| | |
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| | <p>The normal rates of capital gains are: 50% of ownership of not more than three years; 35% for ownership of between four and six years; 30% for ownership of six or more years.</p> <p>The tax is calculated on the excess of the disposal price over the acquisition and enhancement costs. These costs are also adjusted for inflation.</p> |
| Italy | <p>Net aggregate capital gains arising during the year from the disposal of shares or other capital certificates of resident and non-resident entities, convertible bonds, options and similar rights are subject to a 25% tax which replaces income tax and must be paid on assessment. However, individuals may elect to pay a 15% tax through banks, stock brokers, etc. on each separate transaction. This 15% option is not applicable to capital gains realized from the alienation of a participation exceeding within a 12-month period 2, 5 or 15% of the company's capital, depending upon whether the shares are quoted on the stock exchange, are otherwise regularly traded, or are another category of shares.</p> |
| Luxembourg | <p>There is no separate capital gains tax. Gains from the sale or disposition of shares or bonds are not generally subject to income tax unless:</p> <ol style="list-style-type: none"> held as business assets; gains are from speculative transactions exceeding LFR 10 000 (sales prior to, or within six months from, the date of acquisition are considered speculative); or there is a 'substantial interest' or a liquidation distribution. <p>In the first two cases, the gains are taxed as ordinary income. In the third case the gain is adjusted for inflation by applying certain coefficients to the acquisition price and a further reduction by an amount of up to LFR 2 000 000 (LFR 4 000 000 for a married couple) over an 11-year period. Any remainder is classified as extraordinary income and tax is imposed at a rate equal to half of the average tax rate on the taxpayer's total income.</p> |
| Netherlands | <p>There is no separate capital gains tax. Gains from the sale or disposition of shares or bonds are generally not subject to income tax unless:</p> <ol style="list-style-type: none"> they are held as business assets; or under certain circumstances the seller engages in non-speculative transactions; the taxpayer (together with close relatives) has a 'substantial' interest in the capital of the company; sold in respect of liquidation (unless sold to a private resident individual); sold to the corporation itself. |
| Portugal | <p>No separate capital gains tax. Gains from disposal of shares, other titles of equity (excluding investment fund certificates) and other securities are subject to income tax at a special rate of 10% unless the taxpayer elects to include the gain in his taxable base for progressive income tax purposes. An exemption currently applies to shares held for more than 12 months.</p> |
| United Kingdom | <p>Gains from the sale of investments are subject to capital gains tax (UK Government stocks are exempt). These gains are merged with taxable income for the purpose of determining the tax rate which can range from 25 to 40%. Husband and wife each have an annual exemption of UKL 5 000. Gains are computed by reference to the value of the asset as at 31 March 1982 or subsequent acquisition with the addition of an inflation-related indexation allowance. Gains on foreign assets are taxed on a remittance basis.</p> |
| Austria | <p>No special capital gains tax. Generally gains from the sale of shares or bonds are not subject to income tax unless:</p> <ol style="list-style-type: none"> held as business assets; from speculative transactions (sales within one year from the date of acquisition); where a 'substantial interest' is held (shareholder owns, or owned at any time during the preceding five years, directly or indirectly more than 10% of the corporation's share capital). <p>In the first two cases, the gains are taxed as ordinary income. In the third case the tax is assessed at half the normal rate and a part of the gain may also be exempted.</p> |

| | |
|-------------------------|--|
| Sweden | No capital gains tax. Gains realized on the disposal of any assets are taxable as income from capital and thus taxed together (with other income from capital at a flat rate of 30%). |
| Switzerland | No separate capital gains tax; however, a few cantons have introduced a special capital gains tax with respect to gains from moveable property. Gains from the sale of shares or bonds are only subject to federal tax if used as a business asset. Other capital gains are imposed in nearly half the cantons according to various provisions. |
| United States | No separate capital gains tax. Capital gains are treated at the federal level as ordinary income, but taxed at a maximum rate of 28%. |
| B. Non-residents | |
| Belgium | The same rules apply as for residents. Usually not taxable. |
| Denmark | Usually not subject to taxation, unless realized in the course of a trade or business carried on in Denmark. |
| Germany | Generally not subject to income tax unless: (a) held as assets of a German permanent establishment; (b) 'substantial interest' (see rules for residents). |
| Greece | As for resident taxpayers. Capital gains are not subject to income tax. |
| Spain | Gains from the sale or other disposal of shares and bonds are subject to income tax at the final rate of 35%. |
| France | Generally exempt from income tax unless: (a) held as assets of a French business; (b) a 'substantial interest' is held. |
| Ireland | The capital gains tax is computed in the same way as for residents. |
| Italy | The rules of computing the special tax on capital gains are the same as for residents. |
| Luxembourg | Generally not subject to income tax unless: (a) held as a business asset of a permanent establishment; (b) disposal of a 'substantial interest' within six months from the date of acquisition; (c) there is a 'substantial interest' or liquidation distribution but then only if the person has previously been a resident for more than 15 years who became non-resident less than five years before the sale or the receipt of the liquidation distribution. The gains are taxed as ordinary income, subject to a minimum rate of 14%. Gains falling under (c) are adjusted for inflation in the same way as residents' capital gains. |
| Netherlands | Gains realized by a non-resident on the sale of shares or bonds of a resident corporation are generally exempt from Netherlands tax. However, income tax at a special rate of 20% is imposed, if the gain is realized on the sale of all or part of a 'substantial interest'. |
| Portugal | Non-residents' gains from the disposal of shares etc. are taxed in the same way as residents' gains. |
| United Kingdom | Capital gains realized by non-residents on the disposal of assets situated in UK areas are not subject to tax, unless used in, or for the purpose of, a trade or business carried on in the UK through a branch or agency. |

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| Austria | <p>Gains realized by a non-resident individual from the sale of shares or bonds are generally not subject to tax unless:</p> <ul style="list-style-type: none"> (a) the shares or bonds are held as business assets of an Austrian permanent establishment; or (b) the gains are realized from the sale of shares of an Austrian corporation in which the shareholder owns (or owned at any time within the preceding five years), directly or indirectly, a 'substantial interest' constituting generally more than 10% of a corporation's stock. <p>In both cases tax is levied at ordinary levels. No reduced rates are available to non-residents.</p> |
| Sweden | <p>Capital gains realized from the disposal of shares or bonds by a non-resident individual will not generally be subject to Swedish taxation. However, capital gains made from the sale of Swedish shares, and convertible bonds and other similar securities by a person within 10 years of moving from Sweden, are taxable there (unless there are treaty provisions to the contrary).</p> |
| Switzerland | <p>There is no special federal capital gains tax in Switzerland. A non-resident is subject to cantonal or municipal taxes on capital gains from immovable property and, if engaged in a trade or business in Switzerland, on capital gains on movable property forming part of the business assets of that enterprise in Switzerland.</p> |
| United States | <p>Capital gains 'effectively connected' with the conduct of a US trade or business are subject to the regular individual capital gains taxation. Capital gains from the disposition of 'US real property interest', including shares in US immovable property companies, are treated as though the gains were 'effectively connected'. Capital gains from other US sources are taxable only if realized by non-resident aliens physically present in the United States 183 days or more during the taxable year. In such a case, the net capital gain is subject to the flat rate of 30%.</p> |

Annex 3B

Treatment of losses and the internal market¹

by

Prof. Dr Albert J. Rädler
University of Hamburg

1 — Importance of tax treatment of losses

The tax treatment of losses is an important aspect of our subject because it has a strong impact on risk-taking: the higher the degree of risk inherent to an investment the more important becomes the issue whether, when and where the loss can be set off from taxable income.

2 — Domestic aspects of tax loss compensation

Even in the mere domestic context, tax treatment of losses covers many aspects. Some of them are subsequently listed.

(a) Economic unit versus legal entity

One main source of difficulties is the fact that from an economic point of view, corporate groups are treated as a unit, whereas tax law usually takes a legalistic approach: each separate legal entity, even when fully integrated into a group, is treated as a separate taxable entity; there are exceptions to that taxation principle in some Member States based on different technical approaches (such as full consolidation or a simple takeover of profits and losses) and different legal requirements (such as giving up limited liability as in the case of German *Organschaft*).

(b) Impact of linkage to commercial accounts

The way in which current losses are taken into account may differ. Usually those countries which adhere to the linkage of tax accounting to commercial accounting also take into account for tax purposes the specific write-offs required by commercial accounting, for example on obsolete machinery, participations in companies with permanent losses, etc. In other countries some of these losses can only be taken into account when the asset is sold or the subsidiary is liquidated. In the same category of

¹ Revised version of a working paper first submitted to the Committee on 3 January 1992.

issues belongs the question at what point future losses from pending contracts can be taken as a deduction for tax purposes. Those timing differences in the different Member States should be resolved under the heading of harmonization of the tax base.

(c) Elements of loss deduction

The main issues in domestic loss treatment are the following:

- (i) Are there any limitations on compensating losses from different activities or from or with different categories incurred within the same company, such as, for example, for capital losses or for losses originating in different divisions?
- (ii) To what extent can net losses be carried forward and/or carried back? Are there any limitations? National practice of Member States tends more and more to a net loss carry-back of one to three years and its indefinite carry-forward.
- (iii) Can net losses of a subsidiary be set off from the net income of the parent company, for example by way of tax consolidation or by way of a subvention payment?
- (iv) Can the parent company claim a write-down of the tax base of the shares in a loss-making subsidiary?
- (v) How and when can losses expected from pending contracts be deducted from the tax base?

(d) Conclusion

In summary, it can be said that within a Member State the tax treatment of losses incurred usually does not result in major internal distortions of competition. Certainly, a generous loss treatment produces at the same time the risk of tax avoidance, for example when loss-making companies are acquired for the sole purpose of taking advantage of their tax loss carry-forward. Moreover, Member States with the most generous loss treatment might attract high-risk investments from other Member States. Entrepreneurs will be less reluctant to incur high-risk investments when current tax deductions for start-up expenses and the cost of failure are available at an early stage. As a general principle it may be said that losses receive a better tax compensation if they are incurred within the same company than in a subsidiary.

3 — Treatment of losses incurred in another Member State

(a) Foreign losses are treated less favourably

Losses incurred in another Member State usually receive a tax treatment less favourable than that for losses incurred in the same Member State. Quite often foreign losses can only be compensated with current or subsequent income from the same source in the same country. Still today, losses incurred in another Member State are treated in the same way as foreign losses, i.e., losses incurred in third countries. Conceptually, there are two main reasons for this less favourable treatment of foreign losses:

- (i) The first one is quite an understandable consequence of tax policy: Member States which do not tax certain types of income from foreign sources are not inclined to accept the deduction of corresponding losses from their own tax base.
- (ii) Secondly, when corresponding foreign income is taxable at home, Member States are still reluctant to accept foreign losses as a deduction. Reasons for that attitude may be that the domestic rules on establishing taxable income are regarded as too generous to be extended to foreign losses, or that the tax administration is in principle suspicious of losses incurred abroad, seeing them mainly as an instrument of tax avoidance or even evasion.

In principle, treatment of foreign losses is less of a problem in those countries, such as the United Kingdom and the United States, which strictly follow the concept of taxation of worldwide income also in tax treaties.

(b) Deduction with recapture

Those countries which follow the exemption method for certain categories of foreign income either based on domestic tax law or on tax treaty law generally still do accept losses from a foreign permanent establishment as a current deduction from the domestic tax base under specific conditions. The most common condition is the recapture of future profits, i.e. income to the extent of losses previously deducted must be reintegrated into taxable income when they arise. Otherwise this privileged loss treatment is usually restricted to income from pure commercial or industrial activities, sometimes also limited to the first years after the setting-up of a permanent establishment. This recapture treatment is in substance the solution proposed by the Commission in its draft directive.

No similar practice exists for losses of foreign subsidiaries; even the possibility of writing down the tax base of the participation is sometimes more restricted or unavailable with respect to foreign subsidiaries. Such restrictions would not be in violation of Article 52 as long as the same rules apply to participations in domestic subsidiaries, but might violate other provisions which deal with the internal market. The Commission's proposal does include such a measure.

(c) Tax consolidation

Very few countries accept complete tax consolidation of foreign subsidiaries. Exceptions are France and Denmark. In the case of France, the option requires the express consent of the French tax authorities. The technical requirements to exercise this option are regarded as rather complicated. Only a few large French groups make use of this option. Even in those cases, however, tax consolidation is limited to the deduction of losses incurred in foreign subsidiaries at the level of the parent company.

A complete consolidation of a group would require that the country of a subsidiary gives up its taxing rights because the parent in another Member State is in a loss position. This, however, can only be anticipated in the very long term.

(d) Taxation in the capital-importing Member State

As far as the capital-importing country is concerned, it is already guaranteed by Article 52 of the Treaty of Rome that permanent establishments of enterprises in other Member States receive the same tax loss treatment as domestic enterprises.

4 — Conclusions

Under existing taxation rules new investments in other Member States are effectively treated less favourably than those in their own Member State. The reason is that in the other Member State there is no income base to currently set off start-up and other losses for new investments. This situation changes, however, when the business already owns in the other Member State a substantial income base from which losses resulting from additional risks can be covered.

When the home country grants less favourable loss treatment to its enterprises for investments in other Member States (for example by restricting the loss deduction to income of the same kind in the same country), this policy might have the result that investors from that particular country are induced to invest at home rather than in another Member State. Such practice may be in conflict with Community law such as Article 67 of the Treaty; certainly it violates the spirit of a free internal market. Therefore, when the proposed Community-wide minimum corporation tax rate together with the minimum harmonization of the tax base are implemented, such practices have to disappear. We therefore propose Community legislation that whenever Member States tax their residents on certain categories of income from other Member States, the rules on loss deduction for these categories of income must be the same as for corresponding losses from domestic sources.

We would recommend that group consolidation should work in such a way that losses of branch operations and subsidiaries in Member States can be immediately deducted from income at the parent's level with the possibility of future recapture; however, we are reluctant to propose that losses at either the parent company's or sister companies' level in other Member States can be used to set off profits in a subsidiary in another Member State. Such far-reaching consolidation should be left to a final stage of economic integration.

Annex 4A

Key assumptions and restrictions¹

4A.1 As shown in Table 4A.1, the following simplifications are made in order to reduce the number of possible calculations. Firstly, only manufacturing industry is considered. (In some countries, different tax rates are applied to profits made in other sectors.) Secondly, the investment is in one of three types of asset — machinery, industrial buildings, or inventories. The true rates of economic depreciation for machinery and buildings are assumed to be 12.3 and 3.6%, respectively. Inventories are assumed not to depreciate. Thirdly, it is assumed that the company can raise finance in one of three ways — debt, new share issues, and retained earnings. Accordingly, investments financed by debt, new share issues, and retained earnings provide investors with returns in the form of interest, dividends, and capital gains, respectively. Furthermore, it is also assumed that all companies are making a profit and will therefore generally take the maximum permissible capital allowances, and that interest payments are fully deductible. In other words, there is no ‘tax exhaustion’.

4A.2 These simplifications inevitably affect the nature of the results obtained. Variation in effective tax wedges and the cost of capital is reduced by the fact that only one parameter can be chosen as a representative of what may be many different parameters relevant for different situations. For example, many countries have several different depreciation rates for various classes of assets, but for each country as a whole only a typical depreciation rate for machinery and industrial buildings is chosen. In addition, the actual real economic depreciation of any particular building or item of machinery may differ from the assumed real depreciation rates given in Table 4A.1. Moreover, the distinction between different types of finance is in some cases rather blurred by more complex instruments, such as, convertible bonds, private placements, etc. The range of such methods of finance is sufficiently large, however, to exclude any comprehensive treatment of them. Taking only nine measures of the tax wedges and cost of capital (three types of asset × three methods of finance) in each country is clearly a large simplification of the true situation.

4A.3 The tax wedge and cost of capital will vary according to the type of asset (because of different depreciation allowance rates relative to the assumed true economic depreciation rates) and the type of finance (because the tax treatment of interest, dividends and capital gains differs). This results in many different possible combinations of assets and finance. In order to facilitate an overall interpretation of the effective tax wedges and cost of capital, an average of the different options was calculated initially using the proportion of the total capital stock in each country accounted for by each asset and the proportion of finance raised by the company accounted for by each type of finance. This average measure is seen as representing an equiproportional increase in the size of the corporate sector. Although this averaging provides a general assessment of the situation in any particular country, it tends to lead to an estimate of the average

¹ A more detailed discussion of the assumptions and restrictions used can be found in OECD (1991).

marginal tax wedge and average cost of capital which may be lower than the 'true' average marginal tax wedge and cost of capital. This is due to the fact that most investment may be done in a particular asset financed by a particular method precisely because it is the most tax-efficient way to operate, thereby exaggerating the importance of that element of the asset/finance matrix in the calculation of the average tax wedge and cost of capital.

4A.4 The proportions of investment in each type of asset and the proportions of company finance from each source of funds for those countries where data were available are summarized in Table 4A.2. These proportions are used to weight the relevant wedges for each of the nine asset/finance combinations to give an overall average tax wedge and cost of capital. The weights which are used are those which reflect an equiproportional increase in the capital stock, financed in the same manner as the existing stock. This means that the average composition of the current capital stock and sources of finance is also the composition of the marginal investment.¹

4A.5 Ideally, weights based on an equiproportional increase in the capital stock and the way in which it is financed should be based on the market value of the stock and the types of finance. Unfortunately, the weights used have been calculated in different ways. There is no 'right' set of weights, but a problem arises when different methods of calculation are used — namely, two countries with identical tax regimes and identical capital stocks and financing behaviour might be presented as having different tax rates because of differences in the calculation of weights. To avoid this, the base case results given below reflect typical weights given by countries who valued their stock of assets at replacement cost and valued their debt/equity ratio at market value, with the split of equity into retentions and new shares made on the basis of recent experience. Accordingly, these weights are 50% for machinery, 27% for industrial buildings and 23% for inventories; together with 35% for debt, 10% for new shares, and 55% for retentions. All calculations in this chapter, except those in Table 4C.3, are based on common weights.

4A.6 Some other fundamental limitations, which relate to the King-Fullerton methodology, are: current investment decisions are assumed to be made on the basis of the current tax rules, and the current inflation rate. In fact, the 'expected' profitability of investment depends on expected future returns and therefore on expected future inflation rates and tax parameters. The King-Fullerton tax wedges are the appropriate parameters for simulating business decision-making only if current inflation and tax rates form an unbiased guide to future inflation and tax rates. The general downward trend of tax rates within the European Community and OECD in recent years suggests that this condition may not be satisfied, in which case, the relevant interpretation of

¹ This approach raises a number of conceptual difficulties. Firstly, the asset and finance composition of the marginal investment may be different from the average of the asset composition and financing structure of capital stock. Secondly, if the tax system distorts company choices either in terms of asset or financing structures, then that activity is given a higher weight in the overall tax wedge. Suppose, for example, in the absence of tax, companies would finance investments equally by debt and new equity, but that the tax system encourages firms to use debt to provide 80% of their finance. Using these actual weights to calculate the overall average would weight the average tax rate closer to that of debt. Whilst this set of weights is of some importance, it would also be of interest to know the set of weights which would be appropriate in the absence of tax distortions. The weights appropriate for marginal investments in the absence of tax are, however, unknown.

the results generated by this model is that they form the basis on which firms would make marginal investment decisions, if they expected no further changes.

4A.7 Furthermore, it should be recognized that the King-Fullerton methodology is not the only possible way of computing estimates of the effects of taxation. Alternative assumptions will give different results.¹ However, the King-Fullerton methodology does have the advantage of being the most familiar of such models internationally. The results produced by the model should be understood as summarizing and quantifying the essential features of the tax system in a relatively straightforward manner; they provide an estimate of the distortive effects of the tax system for typical investments. The actual effects of the tax system will, of course, vary according to the particular investment project which a company undertakes.

4A.8 Besides these broad limitations on the results, there are a number of specific omissions, which have, in most countries, a relatively minor influence on the tax wedge and cost of capital calculations. All wealth taxes are ignored, as are government grants. The latter are often given to companies investing in particular regions or types of activity, sometimes at government discretion. Inclusion of grants would require some judgment to be made about those which are sufficiently general to warrant inclusion. Instead of making such arbitrary decisions, it is more satisfactory to exclude them altogether, especially because they rarely take the form of general grants.

¹ See, for example, Boadway et al. (1984), Daly et al. (1986), and Devereux et al. (1991).

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TABLE 4A.1

Summary of restrictions and assumptions

| | | |
|--|--|----------------------|
| <i>Restrictions</i> | | |
| Sector | Manufacturing | |
| Types of asset | Machinery, industrial buildings, inventories | |
| Sources of finance | Retained earnings, new equity, debt | |
| <i>Assumptions</i> | | |
| | Machinery | Industrial buildings |
| Economic depreciation rate ¹ | 12.3% | 3.6% |
| Length of life for tax purposes ² | 8 years | 25 years |
| Inventories are assumed not to depreciate | | |

¹ These estimates are derived from Hulten and Wykoff (1981).

² Where no other rate specified.

TABLE 4A.2

Proportion of total investment in each type of asset and proportion of total finance by each source of capital¹

| | Buildings | Machinery | Inventories | Retained earnings | New equity | Debt |
|----------------------|-----------|-----------|-------------|-------------------|------------|------|
| Belgium | 0.35 | 0.30 | 0.35 | 0.23 | 0.21 | 0.56 |
| Denmark | 0.29 | 0.33 | 0.38 | 0.20 | 0.15 | 0.65 |
| Germany | 0.34 | 0.38 | 0.28 | 0.42 | 0.08 | 0.50 |
| Greece | — | — | — | — | — | — |
| Spain | — | — | — | — | — | — |
| France | 0.23 | 0.55 | 0.22 | 0.30 | 0.11 | 0.59 |
| Ireland | 0.32 | 0.53 | 0.15 | 0.79 | 0.08 | 0.13 |
| Italy | — | — | — | — | — | — |
| Luxembourg | — | — | — | — | — | — |
| Netherlands | 0.35 | 0.53 | 0.12 | 0.55 | 0.06 | 0.39 |
| Portugal | 0.14 | 0.73 | 0.13 | 0.47 | 0.03 | 0.50 |
| United Kingdom | 0.24 | 0.53 | 0.23 | 0.73 | 0.10 | 0.17 |
| Austria ² | 0.33 | 0.50 | 0.17 | 0.23 | — | 0.67 |
| Canada | 0.28 | 0.51 | 0.21 | 0.56 | 0.09 | 0.35 |
| Japan | — | — | — | — | — | — |
| Sweden | 0.35 | 0.37 | 0.28 | 0.59 | 0.05 | 0.37 |
| Switzerland | 0.26 | 0.40 | 0.34 | 0.40 | 0.00 | 0.60 |
| United States | 0.23 | 0.48 | 0.29 | 0.59 | 0.00 | 0.41 |

¹ For countries where figures are not available, the average is used.

² No split between new equity and retained earnings available.

Source: OECD, 1991.

Annex 4B

Tax parameters used in calculations for EC countries¹

TABLE 4B.1

Corporation tax rates used in the calculations

(%)

| | National tax rate on distributed profit | National tax rate on retained profit | Local tax rate | Local tax deductible? | Imputation rate as proportion of gross dividend |
|---------------------|---|--------------------------------------|----------------|-----------------------|---|
| Belgium | 39 | 39 | 0 | | 0 |
| Denmark | 38 | 38 | 0 | | 0 |
| Germany | 36 | 50 | 13 | Yes | 36 |
| Greece | 0 | 40 ¹ | 0 | | 0 |
| Spain | 35 | 35 ⁵ | 0 | Yes | 0 |
| France ² | 42 | 34 | 0 | | 33.3 |
| Ireland | 10 ^{1,3} | 10 | 0 | | 5.5 |
| Italy | 36 | 47.8 | 0 ⁴ | | 36 |
| Luxembourg | 33 | 33 | 9.1 | Yes | 0 |
| Netherlands | 35 | 35 | 0 | | 0 |
| Portugal | 36 | 36 | 3.6 | No | 0 |
| United Kingdom | 34 | 34 | 0 | | 25 |

¹ Tax rate on manufacturing companies.

² France has a system which permits a reduction in the tax on dividends paid out for the first six years after a new share issue. In effect, the discount rate changes after six years. For new equity the discount rate for the first six years is amended so that γ becomes

$$\gamma' = \gamma \left(1 + \frac{0.534\tau^R (1 - r^D)}{1 - \tau^R} \right)$$

³ The Irish tax rate on foreign-source income is 43%.

⁴ Local taxes included in national tax rates.

⁵ Spain does not have a local tax, but there is a levy by the local Chambers of Commerce of around 1.5%.

¹ As far as possible, the tax systems modelled are those which were in place on 1 January 1991.

TABLE 4B.2

Capital allowances for industrial buildings¹

| | First period | | | Second period | | | Extra first year allowance (%) |
|----------------------|--|--------------------|--------------------------------|--|--------------------|---------------------------------|--------------------------------|
| | Straight-line (SL) or declining balance (DB) | Allowance rate (%) | Length of first period (years) | Straight-line (SL) or declining balance (DB) | Allowance rate (%) | Length of second period (years) | |
| Belgium | DB | 10.0 | 7 ³ | SL | 5.0 | ufd ² | 1.0 + inf ⁴ |
| Denmark | SL | 6.0 | 10 | SL | 2.0 | ufd | |
| Germany ⁵ | SL | 10.0 | 4 | SL | 5.0 | 3 | |
| Greece | SL | 8.0 | ufd | | | | |
| Spain | SL | 7.5 | ufd | | | | 5.0 |
| France | SL | 5.0 | ufd | | | | |
| Ireland | SL | 50.0 | 1 | SL | 4.0 | ufd | |
| Italy | SL | 5.0 | ufd | | | | |
| Luxembourg | SL | 4.0 | ufd | | | | |
| Netherlands | DB | 6.6 | ufd | | | | |
| Portugal | SL | 5.0 | ufd | | | | |
| United Kingdom | SL | 4.0 | ufd | | | | |

¹ Where there is no statutory rate, or where statutory rates vary within the broad category of buildings, a typical rate is shown and used in the calculations.

² Until fully depreciated.

³ Switch-over at the optimal point is compulsory.

⁴ The Belgian additional depreciation is set at 1% plus the rate of inflation, within the limits of 3 and 10%.

⁵ Germany allows for depreciation of assets at 10% for four years, 5% for a further three years and 2.5% thereafter.

TABLE 4B.3

Capital allowances for machinery¹

| | First period | | | Second period | | | Extra first year allowance (%) |
|----------------|--|--------------------|--------------------------------|--|--------------------|---------------------------------|--------------------------------|
| | Straight-line (SL) or declining balance (DB) | Allowance rate (%) | Length of first period (years) | Straight-line (SL) or declining balance (DB) | Allowance rate (%) | Length of second period (years) | |
| Belgium | DB | 40 | 2 ³ | SL | 20 | ufd ² | 1 + inf ⁴ |
| Denmark | DB | 30 | ufd | | | | |
| Germany | DB | 30 | 4 | SL | 10 | ufd | |
| Greece | SL | 20 | ufd | | | | |
| Spain | DB | 20 | ufd | | | | 5.0 |
| France | DB | 35.7 | 5 | SL | 5.5 | ufd | |
| Ireland | DB | 50 | 1 | DB | 12.5 | ufd | |
| Italy | SL | 17.5 | 3 | SL | 10 | ufd | |
| Luxembourg | DB | 30 | 2 | SL | 20 | ufd | |
| Netherlands | DB | 25 | 3 | SL | 12.5 | ufd | |
| Portugal | DB | 31.25 | ufd | | | | |
| United Kingdom | DB | 25 | ufd | | | | |

¹ Where there is no statutory rate, or where statutory rates vary within the broad category of machinery, a typical rate is shown and used in the calculations.

² Until fully depreciated.

³ Switch-over at the optimal point is compulsory.

⁴ The Belgian additional depreciation is set at 1% plus the rate of inflation, within the limits of 3 and 10%.

TABLE 4B.4

Tax treatment of inventories

| Tax treatment of nominal gains in the value of inventories | |
|---|--|
| Untaxed (e.g. LIFO) | Germany, Greece, Italy, Netherlands, Portugal |
| Taxed (e.g. FIFO) | Belgium, Denmark, ¹ France, Ireland, Luxembourg, Spain, United Kingdom |

¹ Thirty per cent of the value of stocks can be deducted each year but is added back into taxable income in the following years. This is modelled by setting $v = 0.7$.

TABLE 4B.5

Treatment of foreign-source income from treaty countries

| Residence country | Treatment of foreign-source dividend income from treaty countries | Treatment of foreign-source interest income from treaty countries |
|------------------------|--|--|
| Belgium ^{1,2} | Exemption of 90%, deduction on rest | Worldwide credit |
| Denmark ^{3,4} | Exemption | Credit by source |
| Germany | Exemption | Credit by source |
| Greece | Credit by source | Credit by source |
| Spain ⁶ | Credit by source | Credit by source |
| France ^{1,5} | Exemption of 95%, deduction on rest | Credit by source |
| Ireland | Credit by source | Credit by source |
| Italy | Credit by source | Credit by source |
| Luxembourg | Exemption | Credit by source |
| Netherlands | Exemption | Credit by source |
| Portugal | Credit by source | Credit by source |
| United Kingdom | Credit by source | Credit by source |

¹ For Belgium and France, a weighted average of the values corresponding to exemption and deduction is used.

² Belgian interest income from abroad is grossed up by a rate of $\frac{15}{85}$ but the tax due on the interest is then reduced by 15%. This results in a tax payment on interest income of $\frac{24}{85}$ of the net income received.

³ Denmark has a foreign tax allowance of half of the tax on foreign-source income, calculated before treaty or non-treaty reliefs, if the income is from a branch or else from a 100%-owned subsidiary where an option to be taxed jointly is taken. In the calculations, this allowance is modelled as involving a reduction in the foreign statutory corporate tax rate of 4.75% provided the project is equity financed. The exceptions are Belgium and Greece which receive no allowance.

⁴ Denmark exempts interest payments from Portugal and Spain.

⁵ France exempts dividend payments from Ireland.

⁶ Spain exempts interest payments from Portugal.

TABLE 4B.6

Treatment of foreign-source income from non-treaty EC countries

| Residence country | Treatment of foreign-source dividend income from non-treaty EC countries | Treatment of foreign-source interest income from non-treaty EC countries | Non-treaty EC countries | |
|-------------------|--|--|--|-------------------------------------|
| Belgium | Same as treaty | Same as treaty | Greece | |
| Denmark | Credit by source | Same as treaty | | |
| Germany | Same as treaty | Same as treaty | | |
| Greece | Same as treaty | Same as treaty | | |
| Spain | Same as treaty | Same as treaty | | |
| France | Same as treaty | Same as treaty | | |
| Ireland | Deduction | Deduction | | |
| Italy | Same as treaty | Same as treaty | | Greece, Luxembourg, Portugal, Spain |
| Luxembourg | Same as treaty | Same as treaty | | |
| Netherlands | Same as treaty | Deduction | | |
| Portugal | Deduction | Deduction | Portugal Greece, Ireland, Luxembourg, Netherlands | |
| United Kingdom | Same as treaty | Same as treaty | | |

TABLE 4B.7

Withholding tax rates on dividend payments used in calculations¹

| Source country | Residence country (%) | | | | | | | | | | | |
|-----------------------------|-----------------------|---------|---------|--------|-------|--------|---------|-------|------------|-------------|----------|----------------|
| | Belgium | Denmark | Germany | Greece | Spain | France | Ireland | Italy | Luxembourg | Netherlands | Portugal | United Kingdom |
| Belgium | — | 15 | 15 | 15 | 15 | 10 | 15 | 15 | 10 | 5 | 15 | 5 |
| Denmark | 15 | — | 10 | 30 | 10 | 0 | 0 | 15 | 5 | 0 | 10 | 0 |
| Germany | 15 | 15 | — | 25 | 15 | 0 | 15 | 10 | 15 | 15 | 15 | 15 |
| Greece | 25 | 42 | 25 | — | 42 | 42 | 42 | 25 | 42 | 35 | 42 | 42 |
| Spain | 15 | 10 | 10 | 25 | — | 15 | 25 | 10 | 10 | 10 | 10 | 10 |
| France | 10 | 0 | 0 | 25 | 10 | — | 10 | 15 | 5 | 5 | 15 | 5 |
| Ireland | 0 | 0 | 0 | 0 | 0 | 0 | — | 0 | 0 | 0 | 0 | 0 |
| Italy | 15 | 15 | 32 | 25 | 15 | 15 | 0 | — | 15 | 0 | 15 | 5 |
| Luxembourg | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | — | 0 | 0 | 0 |
| Netherlands | 5 | 0 | 10 | 5 | 5 | 5 | 0 | 0 | 3 | — | 25 | 5 |
| Portugal | 15 | 15 | 15 | 25 | 15 | 10 | 25 | 15 | 25 | 25 | — | 12 |
| United Kingdom ² | -11 | -11 | 0 | 0 | 0 | 0 | 0 | -11 | -11 | -11 | 0 | — |

¹ Withholding tax rates used are those applying to payments from wholly owned subsidiaries to foreign corporate parents.

² The UK generally charges no withholding taxes on dividends. However, in some circumstances part of the imputation credit is extended to foreign direct investors. Suppose a payment of UKL 75 is made to a Belgian parent. Advance corporation tax of 25% is charged, but the Belgian parent is entitled to receipts of UKL 8.125, approximately 11% of the UKL 75 dividend. This yields a negative entry of 11% in the table.

TABLE 4B.8

Withholding tax rates on interest payments used in calculations¹

(%)

| Source country | Residence country | | | | | | | | | | | |
|----------------|-------------------|---------|---------|--------|-------|--------|---------|-------|------------|-------------|----------|----------------|
| | Belgium | Denmark | Germany | Greece | Spain | France | Ireland | Italy | Luxembourg | Netherlands | Portugal | United Kingdom |
| Belgium | — | 10 | 0 | 10 | 10 | 15 | 15 | 10 | 10 | 10 | 10 | 5 |
| Denmark | 0 | — | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Germany | 0 | 0 | — | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Greece | 15 | 46 | 10 | — | 46 | 10 | 46 | 10 | 46 | 10 | 46 | 0 |
| Spain | 15 | 10 | 10 | 25 | — | 10 | 25 | 12 | 10 | 10 | 15 | 12 |
| France | 0 | 0 | 0 | 0 | 0 | — | 0 | 0 | 0 | 0 | 0 | 0 |
| Ireland | 15 | 0 | 0 | 30 | 30 | 0 | — | 10 | 0 | 0 | 30 | 0 |
| Italy | 15 | 15 | 0 | 10 | 12 | 15 | 10 | — | 10 | 10 | 15 | 10 |
| Luxembourg | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | — | 0 | 0 | 0 |
| Netherlands | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Portugal | 15 | 15 | 10 | 25 | 15 | 10 | 25 | 15 | 25 | 25 | — | 10 |
| United Kingdom | 15 | 0 | 0 | 0 | 12 | 0 | 0 | 10 | 0 | 0 | 10 | — |

¹ Withholding tax rates used are those applying to payments from wholly owned subsidiaries to foreign corporate parents.

Annex 4C

Additional tables

TABLE 4C.1

Cost of capital for domestic investment with country-specific inflation rates¹

| | Average for each type of asset | | | Average for each type of finance | | | Overall average | Standard deviation |
|----------------|--------------------------------|-----------|-------------|----------------------------------|------------|------|-----------------|--------------------|
| | Buildings | Machinery | Inventories | Retained earnings | New equity | Debt | | |
| Belgium | 5.3 | 4.2 | 8.4 | 6.9 | 6.9 | 2.8 | 5.4 | 2.6 |
| Denmark | 6.0 | 5.3 | 6.7 | 7.2 | 7.2 | 3.3 | 5.8 | 2.0 |
| Germany | 5.1 | 5.2 | 6.8 | 8.9 | 2.1 | 1.2 | 5.5 | 3.9 |
| Greece | 3.4 | 4.0 | 2.3 | 8.5 | -2.8 | -2.8 | 3.5 | 5.7 |
| Spain | 5.6 | 5.6 | 8.9 | 8.2 | 8.2 | 2.9 | 6.3 | 2.9 |
| France | 5.4 | 4.6 | 7.3 | 7.0 | 3.5 | 3.5 | 5.4 | 2.1 |
| Ireland | 4.9 | 5.0 | 5.5 | 5.4 | 5.0 | 4.6 | 5.1 | 0.5 |
| Italy | 6.2 | 5.5 | 5.0 | 9.4 | 0.9 | 0.9 | 5.6 | 4.3 |
| Luxembourg | 6.9 | 4.9 | 8.5 | 7.9 | 7.9 | 3.3 | 6.3 | 2.6 |
| Netherlands | 6.0 | 5.2 | 6.3 | 6.9 | 6.9 | 3.4 | 5.7 | 1.8 |
| Portugal | 5.6 | 5.1 | 4.7 | 8.2 | 8.2 | -0.4 | 5.2 | 4.1 |
| United Kingdom | 5.6 | 5.2 | 8.2 | 8.0 | 4.4 | 3.2 | 6.0 | 2.6 |
| EC average | 5.5 | 5.0 | 6.6 | 7.7 | 4.9 | 2.2 | 5.5 | 2.9 |
| Austria | 5.4 | 4.0 | 8.6 | 7.0 | 7.0 | 2.4 | 5.4 | 2.8 |
| Canada | 6.2 | 5.3 | 8.5 | 8.3 | 5.4 | 3.2 | 6.2 | 2.7 |
| Japan | 7.0 | 5.9 | 7.4 | 8.6 | 8.6 | 2.7 | 6.5 | 2.9 |
| Sweden | 4.5 | 4.0 | 7.6 | 7.2 | 4.4 | 1.5 | 4.9 | 3.0 |
| Switzerland | 5.6 | 5.1 | 5.7 | 6.7 | 6.7 | 3.0 | 5.4 | 1.8 |
| United States | 6.6 | 5.2 | 6.1 | 7.5 | 7.5 | 2.6 | 5.8 | 2.4 |

¹ Assuming the subsidiary is financed by one-third retentions by the subsidiary, one-third new equity from the parent, and one-third debt from the parent; real interest rate of 5% everywhere; personal taxes are zero; parent raises finance in weighted average of debt, new shares, and retained earnings.

TABLE 4C.2

Cost of capital for domestic investment with country-specific inflation rates and actual interest rates¹

| | Average for each type of asset | | | Average for each type of finance | | | Overall average | Standard deviation |
|----------------|--------------------------------|-----------|-------------|----------------------------------|------------|------|-----------------|--------------------|
| | Buildings | Machinery | Inventories | Retained earnings | New equity | Debt | | |
| Belgium | 6.8 | 5.4 | 10.1 | 8.5 | 8.5 | 3.7 | 6.8 | 3.0 |
| Denmark | 8.5 | 7.4 | 9.2 | 9.9 | 9.9 | 4.9 | 8.1 | 2.5 |
| Germany | 5.9 | 5.8 | 7.9 | 9.9 | 2.6 | 1.7 | 6.3 | 4.2 |
| Greece | -3.4 | -2.3 | -5.9 | 0.0 | -7.5 | -7.5 | -3.4 | 4.1 |
| Spain | 9.2 | 8.9 | 12.9 | 12.2 | 12.2 | 5.4 | 9.9 | 5.6 |
| France | 7.6 | 6.4 | 9.6 | 9.4 | 5.0 | 5.0 | 7.5 | 2.5 |
| Ireland | 6.0 | 6.2 | 6.7 | 6.6 | 6.1 | 5.7 | 6.2 | 0.5 |
| Italy | 7.7 | 6.8 | 6.7 | 11.3 | 1.8 | 1.8 | 7.0 | 4.7 |
| Luxembourg | 6.7 | 4.8 | 8.3 | 7.6 | 7.6 | 3.2 | 6.1 | 2.6 |
| Netherlands | 7.7 | 6.7 | 8.0 | 8.7 | 8.7 | 4.5 | 7.3 | 2.1 |
| Portugal | 3.7 | 3.5 | 2.6 | 6.0 | 6.0 | -1.7 | 3.3 | 3.7 |
| United Kingdom | 4.4 | 4.1 | 6.8 | 6.6 | 3.4 | 2.2 | 4.8 | 2.4 |
| EC average | 5.9 | 5.3 | 6.9 | 8.1 | 5.4 | 2.4 | 5.8 | 3.0 |
| Austria | 7.9 | 6.2 | 11.4 | 9.9 | 9.9 | 4.1 | 7.8 | 3.4 |
| Canada | 5.2 | 4.4 | 7.4 | 7.2 | 4.6 | 2.5 | 5.3 | 2.5 |
| Japan | 5.9 | 5.0 | 6.1 | 7.3 | 7.3 | 2.1 | 5.5 | 2.6 |
| Sweden | 2.6 | 2.2 | 5.5 | 5.1 | 2.3 | 0.1 | 3.0 | 2.7 |
| Switzerland | 5.7 | 5.2 | 5.8 | 6.8 | 6.8 | 3.1 | 5.5 | 1.8 |
| United States | 5.1 | 4.0 | 4.5 | 5.9 | 5.9 | 1.7 | 4.4 | 2.1 |

¹ No personal taxes; average weights. In Austria, a comparable real interest rate was unavailable, and a real interest rate of 7% was imposed.

TABLE 4C.3

**Cost of capital for domestic investment with country-specific inflation rates, actual interest rates
and country-specific weights¹**

| | Average for each type of asset | | | Average for each type of finance | | | Overall average | Standard deviation |
|----------------|--------------------------------|-----------|-------------|----------------------------------|------------|------|-----------------|--------------------|
| | Buildings | Machinery | Inventories | Retained earnings | New equity | Debt | | |
| Belgium | 5.7 | 4.5 | 8.8 | 9.3 | 9.3 | 4.2 | 6.4 | 3.1 |
| Denmark | 6.9 | 6.1 | 7.6 | 10.2 | 10.2 | 5.1 | 6.9 | 2.5 |
| Germany | 4.8 | 4.9 | 6.4 | 10.2 | 2.6 | 1.6 | 5.3 | 4.3 |
| France | 6.4 | 5.4 | 8.3 | 9.3 | 4.9 | 5.0 | 6.3 | 2.3 |
| Ireland | 6.0 | 6.2 | 6.7 | 6.6 | 6.0 | 5.6 | 6.2 | 0.5 |
| Italy | 7.7 | 6.8 | 6.7 | 11.3 | 1.8 | 1.8 | 7.0 | 4.7 |
| Netherlands | 7.5 | 6.5 | 7.9 | 8.6 | 8.6 | 4.5 | 7.0 | 2.1 |
| Portugal | 2.5 | 2.4 | 1.2 | 5.9 | 5.9 | -1.4 | 2.3 | 3.7 |
| United Kingdom | 5.2 | 4.8 | 7.7 | 6.6 | 3.4 | 2.3 | 5.6 | 2.1 |
| Austria | 6.0 | 4.5 | 9.3 | 9.6 | 9.6 | 3.9 | 5.8 | 3.2 |
| Canada | 5.2 | 4.5 | 7.5 | 7.2 | 4.5 | 2.5 | 5.3 | 2.5 |
| Japan | 5.9 | 5.0 | 6.1 | 7.3 | 7.3 | 2.1 | 5.5 | 2.6 |
| Sweden | 2.6 | 2.3 | 5.7 | 5.3 | 2.4 | 0.3 | 3.3 | 2.8 |
| Switzerland | 4.8 | 4.4 | 4.8 | 6.9 | 6.9 | 3.1 | 4.6 | 1.9 |
| United States | 4.8 | 3.8 | 4.2 | 5.9 | 5.9 | 1.6 | 4.1 | 2.2 |

¹ No personal taxes. In Austria, a comparable real interest rate was unavailable, and a real interest rate of 7% was imposed. Only those countries with some data on weights are included. Averages across countries are not calculated because of differences in the ways in which the weights have been calculated.

TABLE 4C.4

Cost of capital for transnational investment when the subsidiary is financed by its own retained earnings¹

| Residence (investment from) | Source (investment to) | | | | | | | | | | | |
|--------------------------------|------------------------|---------|---------|--------|-------|--------|---------|-------|------------|-------------|----------|----------------|
| | Belgium | Denmark | Germany | Greece | Spain | France | Ireland | Italy | Luxembourg | Netherlands | Portugal | United Kingdom |
| Belgium | 6.9 | 7.2 | 8.8 | 7.1 | 7.5 | 7.0 | 5.4 | 8.8 | 7.8 | 7.0 | 7.3 | 7.4 |
| Denmark | 6.9 | 7.2 | 8.2 | 7.1 | 7.0 | 6.6 | 5.2 | 8.1 | 7.3 | 6.6 | 6.9 | 6.9 |
| Germany | 6.9 | 7.2 | 8.8 | 7.1 | 7.5 | 7.0 | 5.4 | 8.8 | 7.8 | 7.0 | 7.3 | 7.4 |
| Greece | 6.9 | 7.2 | 8.8 | 7.1 | 7.5 | 7.0 | 5.4 | 8.8 | 7.8 | 7.0 | 7.3 | 7.4 |
| Spain | 6.9 | 7.2 | 8.8 | 7.1 | 7.5 | 7.0 | 5.4 | 8.8 | 7.8 | 7.0 | 7.3 | 7.4 |
| France | 6.9 | 7.2 | 8.8 | 7.1 | 7.5 | 7.0 | 5.4 | 8.8 | 7.8 | 7.0 | 7.3 | 7.4 |
| Ireland | 6.9 | 7.2 | 8.8 | 7.1 | 7.5 | 7.0 | 5.4 | 8.8 | 7.8 | 7.0 | 7.3 | 7.4 |
| Italy | 6.9 | 7.2 | 8.8 | 7.1 | 7.5 | 7.0 | 5.4 | 8.8 | 7.8 | 7.0 | 7.3 | 7.4 |
| Luxembourg | 6.9 | 7.2 | 8.8 | 7.1 | 7.5 | 7.0 | 5.4 | 8.8 | 7.8 | 7.0 | 7.3 | 7.4 |
| Netherlands | 6.9 | 7.2 | 8.8 | 7.1 | 7.5 | 7.0 | 5.4 | 8.8 | 7.8 | 7.0 | 7.3 | 7.4 |
| Portugal | 6.9 | 7.2 | 8.8 | 7.1 | 7.5 | 7.0 | 5.4 | 8.8 | 7.8 | 7.0 | 7.3 | 7.4 |
| United Kingdom | 6.9 | 7.2 | 8.8 | 7.1 | 7.5 | 7.0 | 5.4 | 8.8 | 7.8 | 7.0 | 7.3 | 7.4 |

¹ Investment in a weighted average set of assets. Inflation at 3.1% everywhere. No personal taxes.

TABLE 4C.5

Cost of capital for transnational investment when the subsidiary is financed by new equity from the parent¹

| Residence (investment from) | Source (investment to) | | | | | | | | | | | |
|--------------------------------|------------------------|---------|---------|--------|-------|--------|---------|-------|-----------------|------------------|----------|-------------------|
| | Belgium | Denmark | Germany | Greece | Spain | France | Ireland | Italy | Luxem- bourg | Nether- lands | Portugal | United Kingdom |
| Belgium | 5.4 | 7.9 | 6.5 | 4.0 | 8.1 | 8.5 | 4.6 | 7.0 | 6.7 | 6.4 | 8.0 | 5.4 |
| Denmark | 7.1 | 5.8 | 5.8 | 6.0 | 6.6 | 6.4 | 4.1 | 6.3 | 5.9 | 5.2 | 7.1 | 4.7 |
| Germany | 7.2 | 6.3 | 5.5 | 2.0 | 6.5 | 6.6 | 3.3 | 9.8 | 5.0 | 6.1 | 7.6 | 4.8 |
| Greece | 7.4 | 12.6 | 7.1 | 5.1 | 10.9 | 14.4 | 10.9 | 7.9 | 5.9 | 6.2 | 10.8 | 6.8 |
| Spain | 7.2 | 6.9 | 6.2 | 6.0 | 6.1 | 8.1 | 7.4 | 6.7 | 6.4 | 6.1 | 7.6 | 6.3 |
| France | 6.7 | 5.8 | 4.1 | 6.1 | 8.1 | 5.4 | 4.1 | 6.5 | 6.3 | 6.1 | 7.1 | 6.0 |
| Ireland | 6.9 | 6.4 | 5.8 | 13.8 | 19.7 | 7.8 | 5.1 | 5.8 | 6.7 | 6.6 | 19.9 | 7.2 |
| Italy | 7.4 | 8.0 | 3.9 | 7.2 | 9.1 | 11.1 | 10.2 | 6.0 | 8.1 | 8.9 | 7.9 | 9.8 |
| Luxembourg | 6.4 | 6.2 | 6.0 | 5.9 | 7.0 | 7.4 | 4.3 | 6.6 | 6.2 | 5.8 | 9.0 | 5.0 |
| Netherlands | 6.1 | 5.9 | 6.2 | 5.0 | 7.2 | 7.6 | 4.4 | 5.1 | 6.4 | 5.7 | 9.2 | 5.2 |
| Portugal | 7.0 | 6.8 | 6.0 | 12.5 | 7.0 | 8.6 | 9.1 | 6.6 | 12.6 | 16.9 | 5.7 | 6.8 |
| United Kingdom | 5.9 | 5.7 | 5.8 | 5.9 | 7.2 | 7.8 | 7.7 | 5.1 | 6.2 | 6.0 | 7.3 | 5.9 |

¹ Investment in a weighted average set of assets. Inflation at 3.1% everywhere. No personal taxes; parent raises finance in a weighted average of debt, new equity and retained earnings.

TABLE 4C.6

Cost of capital for transnational investment when the subsidiary is financed by borrowing from the parent¹

| Residence (investment from) | Source (investment to) | | | | | | | | | | | |
|--------------------------------|------------------------|---------|---------|--------|-------|--------|---------|-------|-----------------|------------------|----------|-------------------|
| | Belgium | Denmark | Germany | Greece | Spain | France | Ireland | Italy | Luxem- bourg | Nether- lands | Portugal | United Kingdom |
| Belgium | 5.4 | 5.1 | 3.2 | 5.0 | 6.9 | 5.5 | 6.8 | 5.9 | 5.1 | 5.0 | 6.3 | 6.3 |
| Denmark | 5.8 | 5.8 | 4.3 | 6.4 | 3.1 | 6.4 | 6.7 | 5.7 | 6.1 | 5.9 | 3.1 | 6.1 |
| Germany | 9.0 | 8.8 | 5.5 | 5.7 | 7.5 | 9.6 | 9.5 | 9.8 | 8.0 | 9.1 | 9.5 | 8.6 |
| Greece | 5.9 | 8.1 | 3.6 | 5.1 | 8.0 | 9.4 | 10.9 | 5.5 | 5.9 | 6.2 | 7.1 | 6.8 |
| Spain | 5.7 | 5.9 | 4.1 | 6.5 | 6.1 | 6.6 | 7.4 | 5.5 | 6.0 | 5.9 | 3.2 | 6.3 |
| France | 5.0 | 5.1 | 2.8 | 4.9 | 6.1 | 5.4 | 6.5 | 4.6 | 5.4 | 5.4 | 5.2 | 5.8 |
| Ireland | 6.2 | 6.4 | 4.6 | 14.3 | 15.3 | 7.2 | 5.1 | 5.8 | 6.7 | 6.6 | 14.9 | 7.2 |
| Italy | 7.3 | 8.0 | 3.6 | 7.2 | 9.1 | 10.3 | 13.2 | 6.0 | 8.1 | 8.9 | 7.7 | 9.8 |
| Luxembourg | 5.8 | 6.0 | 4.4 | 6.4 | 6.6 | 6.7 | 6.8 | 5.8 | 6.2 | 6.1 | 6.7 | 6.2 |
| Netherlands | 5.3 | 5.6 | 4.1 | 5.0 | 6.3 | 6.3 | 6.5 | 5.0 | 5.9 | 5.7 | 8.7 | 6.0 |
| Portugal | 6.0 | 6.2 | 4.4 | 13.0 | 6.7 | 7.1 | 10.8 | 5.8 | 8.2 | 9.4 | 5.7 | 6.8 |
| United Kingdom | 4.9 | 5.2 | 3.1 | 4.8 | 6.0 | 6.1 | 7.7 | 4.4 | 5.5 | 5.5 | 5.3 | 5.9 |

¹ Investment in a weighted average set of assets. Inflation at 3.1% everywhere. No personal taxes; parent raises finance in a weighted average of debt, new equity and retained earnings.

TABLE 4C.7

Cost of capital for transnational investment when the subsidiary is financed by its own retained earnings¹

| | Domestic (source = residence) | Average cost of capital ² | | Standard deviation | |
|----------------|----------------------------------|--|---|--------------------|--------|
| | | Residence (investment from named country into others) | Source (investment into named country from others) | Residence | Source |
| Belgium | 6.9 | 7.4 | 6.9 | 0.9 | 0.0 |
| Denmark | 7.2 | 7.0 | 7.2 | 0.8 | 0.0 |
| Germany | 8.8 | 7.2 | 8.8 | 0.8 | 0.2 |
| Greece | 7.1 | 7.4 | 7.1 | 0.9 | 0.0 |
| Spain | 7.5 | 7.3 | 7.4 | 0.9 | 0.2 |
| France | 7.0 | 7.4 | 7.0 | 0.9 | 0.1 |
| Ireland | 5.4 | 7.5 | 5.4 | 0.7 | 0.1 |
| Italy | 8.8 | 7.2 | 8.8 | 0.8 | 0.2 |
| Luxembourg | 7.8 | 7.3 | 7.7 | 0.9 | 0.1 |
| Netherlands | 7.0 | 7.4 | 6.9 | 0.9 | 0.1 |
| Portugal | 7.3 | 7.4 | 7.2 | 0.9 | 0.1 |
| United Kingdom | 7.4 | 7.3 | 7.4 | 0.9 | 0.1 |
| EC average | 7.3 | 7.3 | 7.3 | 0.8 | 0.1 |
| Austria | 6.8 | 7.4 | 6.8 | 0.8 | 0.2 |
| Canada | 7.7 | 7.4 | 7.7 | 0.9 | 0.2 |
| Japan | 8.7 | 7.4 | 8.7 | 0.9 | 0.2 |
| Sweden | 6.0 | 7.4 | 6.0 | 0.9 | 0.1 |
| Switzerland | 6.5 | 7.4 | 6.5 | 0.9 | 0.2 |
| United States | 7.4 | 7.4 | 7.4 | 0.9 | 0.2 |

¹ Investment in a weighted average set of assets. Inflation at 3.1% everywhere. No personal taxes.

² Averages for EC countries are based on investments to and from other EC countries. Averages for non-EC countries are based on investments into and from the EC countries.

TABLE 4C.8

Cost of capital for transnational investment when the subsidiary is financed by new equity from the parent¹

| | Domestic (source = residence) | Average cost of capital ² | | Standard deviation | |
|----------------|----------------------------------|--|---|--------------------|--------|
| | | Residence (investment from named country into others) | Source (investment into named country from others) | Residence | Source |
| Belgium | 5.4 | 6.6 | 6.8 | 1.4 | 0.5 |
| Denmark | 5.8 | 5.9 | 7.1 | 0.9 | 1.9 |
| Germany | 5.5 | 5.9 | 5.8 | 2.0 | 0.9 |
| Greece | 5.1 | 9.2 | 6.8 | 2.7 | 3.3 |
| Spain | 6.1 | 6.8 | 8.9 | 0.7 | 3.6 |
| France | 5.4 | 6.1 | 8.6 | 1.1 | 2.2 |
| Ireland | 5.1 | 9.7 | 6.4 | 5.2 | 2.6 |
| Italy | 6.0 | 8.3 | 6.7 | 1.8 | 1.3 |
| Luxembourg | 6.2 | 6.3 | 6.9 | 1.2 | 1.9 |
| Netherlands | 5.7 | 6.2 | 7.3 | 1.3 | 3.2 |
| Portugal | 5.7 | 9.1 | 9.2 | 3.3 | 3.5 |
| United Kingdom | 5.9 | 6.4 | 6.2 | 0.9 | 1.4 |
| EC average | 5.7 | 7.2 | 7.2 | 1.9 | 2.2 |
| Austria | 5.3 | 6.7 | 7.2 | 1.1 | 1.7 |
| Canada | 6.1 | 6.3 | 9.0 | 1.4 | 2.9 |
| Japan | 6.5 | 7.7 | 9.5 | 0.9 | 3.1 |
| Sweden | 5.0 | 6.7 | 6.7 | 1.2 | 3.1 |
| Switzerland | 5.5 | 6.6 | 6.7 | 1.2 | 1.7 |
| United States | 5.9 | 6.7 | 8.3 | 1.0 | 3.8 |

¹ Investment in a weighted average set of assets. Inflation at 3.1% everywhere. No personal taxes; parent raises finance in a weighted average of debt, new equity, and retained earnings.

² Averages for EC countries are based on investments to and from other EC countries. Averages for non-EC countries are based on investments into and from the EC countries.

TABLE 4C.9

Cost of capital for transnational investment when the subsidiary is financed by borrowing from the parent¹

| | Domestic (source = residence) | Average cost of capital ² | | Standard deviation | |
|----------------|----------------------------------|--|---|--------------------|--------|
| | | Residence (investment from named country into others) | Source (investment into named country from others) | Residence | Source |
| Belgium | 5.4 | 5.6 | 6.1 | 1.0 | 1.1 |
| Denmark | 5.8 | 5.4 | 6.4 | 1.2 | 1.2 |
| Germany | 5.5 | 8.6 | 3.8 | 1.1 | 0.6 |
| Greece | 5.1 | 7.0 | 7.2 | 1.9 | 3.1 |
| Spain | 6.1 | 5.7 | 7.4 | 1.1 | 2.9 |
| France | 5.4 | 5.2 | 7.4 | 0.9 | 1.5 |
| Ireland | 5.1 | 8.7 | 8.4 | 3.8 | 2.2 |
| Italy | 6.0 | 8.5 | 5.8 | 2.3 | 1.4 |
| Luxembourg | 6.2 | 6.1 | 6.4 | 0.6 | 1.1 |
| Netherlands | 5.7 | 5.9 | 6.7 | 1.1 | 1.6 |
| Portugal | 5.7 | 7.7 | 7.1 | 2.4 | 3.1 |
| United Kingdom | 5.9 | 5.3 | 6.9 | 1.1 | 1.2 |
| EC average | 5.7 | 6.7 | 6.7 | 1.6 | 1.8 |
| Austria | 5.3 | 6.2 | 6.1 | 0.5 | 1.9 |
| Canada | 6.1 | 7.6 | 8.1 | 0.8 | 2.2 |
| Japan | 6.5 | 7.6 | 6.5 | 0.9 | 2.0 |
| Sweden | 5.0 | 5.4 | 6.5 | 0.6 | 1.6 |
| Switzerland | 5.5 | 5.4 | 6.8 | 0.6 | 1.5 |
| United States | 5.9 | 6.1 | 6.9 | 0.8 | 1.5 |

¹ Investment in a weighted average set of assets. Inflation at 3.1% everywhere. No personal taxes; parent raises finance in a weighted average of debt, new equity and retained earnings.

² Averages for EC countries are based on investments to and from other EC countries. Averages for non-EC countries are based on investments into and from the EC countries.

Annex 5A

The effects of taxation on international investment and economic efficiency

by

Peter Birch Sørensen
Copenhagen Business School

1 — The issues

While some features of corporate taxation in European Community (EC) as well as non-EC countries have converged during the last decade, considerable differences still remain. In assessing the need for further coordination or harmonization of taxes on corporate-source income, a crucial question is whether the existing tax differentials seriously distort the pattern of transnational capital flows in the Community, or whether the distortions are only of minor magnitude, posing no substantial threat to the proper functioning of the single market. The present paper attempts to provide a preliminary answer to this question, based on theoretical observations and on the existing empirical evidence on the effects of taxation on international investment.

As a background to the discussion, Section 2 briefly reviews some recent trends in international capital flows. Section 3 points out some important determinants of capital flows, emphasizing the distinction between international portfolio investment and international direct investment, and Sections 4 and 5 discuss how taxes on capital income are likely to affect the two forms of investment, as seen from a theoretical perspective. Sections 6, 7 and 8 then consider the available empirical evidence on the importance of taxation for international investment and financing decisions, with the main emphasis on foreign direct investment. The sections review simulation studies, econometric analyses, business surveys and a few case studies. In Section 9 we briefly discuss the effects of international tax differentials on economic efficiency and review some recent estimates of the magnitude and cross-country distribution of the efficiency gains from corporate tax harmonization. The main conclusions of the paper are finally summarized in Section 10.

2 — Recent trends in international capital flows

During the last two decades international capital flows have grown rapidly, not only in absolute terms, but also relative to the national incomes of most countries in the world. Table 5A.1 provides a summary of the evolution of global capital flows in the 1980s. The table distinguishes between international direct investment, involving the investor's acquisition of a controlling interest in a foreign business enterprise, and international portfolio investment which involves no such controlling interest. A foreign

ownership share of 25% or sometimes just 10% is usually considered evidence of a controlling foreign interest and hence is recorded as a direct investment. The term 'portfolio investment' in Table 5A.1. covers the acquisition of foreign long-term bonds and foreign corporate equities other than those registered as direct investment. The category 'other capital' in the table is a residual category covering such items as loans, deposits, short-term bills and bonds, etc. From an economic viewpoint these items might often just as well have been recorded as portfolio investment.

The figures in Table 5A.1 unfortunately reflect the poor quality of the data on international capital flows in many countries. Thus, in the absence of any errors and omissions or inconsistencies in statistical definitions across countries, the figures for direct investment 'abroad' and 'in the reporting economy' should be identical, just as the figures for 'assets' and 'liabilities' should be equivalent. Similarly, as a matter of bookkeeping identities, the global aggregate net capital flows as well as the current account balances of all countries in the world should amount to zero, but Table 5A.1 nevertheless postulates a current account deficit for the world as a whole. Among other things, this recorded world deficit is due to the fact that substantial amounts of capital exports and the associated inflows of interest, dividends and profits from abroad go unreported, leaving the (erroneous) statistical impression that the world at large is a net capital importer.

Keeping these data limitations in mind, and noting that the dividing lines between portfolio investment, direct investment and other capital flows are of course somewhat arbitrary, the figures in Table 5A.1 nevertheless give a rough impression of the relative importance of the various types of investment. It is seen that although portfolio capital flows are still somewhat larger than direct investment flows, the latter form of investment has risen dramatically during the 1980s.

Table 5A.2 illustrates recent trends in inward and outward direct investment flows in the EC and its main trading partners. Even allowing for inflation, the table clearly indicates that almost all EC countries have experienced significant increases in foreign direct investment flows between the 1970s and the 1980s. Table 5A.2 also suggests that a substantial part of the recent increase in global direct investment flows can be attributed to a sharp rise in direct investment into the United States. However, the major EC countries have also contributed significantly to the global surge in direct investment, both as capital importers and capital exporters.

It should be mentioned that border-crossing gross international capital flows have expanded even more rapidly than the net international capital flows recorded in the tables. For example, the global stock of outstanding international bank loans (net of redepositing) rose from 5 to 17% of industrial countries' GNP from 1973 to 1989, and the volume of international equity transactions increased by 18% a year on average between 1979 and 1988.¹

The ongoing improvements in communication technologies are no doubt an important reason for the growing internationalization of capital markets. Another main reason is the international trend towards financial deregulation and dismantling of foreign exchange controls and capital controls, as exemplified by the liberalization of capital flows in the European Community since 1 July 1990. Whereas the effects of economic policies in one country were previously transmitted to other countries mainly through

¹ See IMF, 1991, p. 5.

international markets for goods and services, additional 'spill-over effects' are now transmitted via the capital markets. This development has increased the need for international coordination of economic policies, including tax policies.

3 — Determinants of international capital flows

To gain a better understanding of the effects of taxation on international capital flows, it is useful to consider briefly the various factors influencing these flows.

The basic function of the international capital market is to bridge the gaps between aggregate saving and aggregate investment in individual countries. A country will tend to be a net capital importer if investment opportunities in the country are perceived to be particularly favourable and/or if the ratio of national savings to national income is relatively low. A low national savings rate may in turn be caused by factors such as a low propensity to save among businesses and individuals, a large government budget deficit, and/or a demographic pattern involving relatively many people in the stages of life where one typically dissaves.

As already indicated, capital flows among countries may take the form of portfolio investment (broadly defined to include the 'other capital' flows in Table 5A.1), or they may consist of direct investment. The factors motivating the two types of flows are likely to differ significantly. International portfolio investment involves the purchase of securities issued in a foreign country. In the absence of institutional barriers and lack of information about investment opportunities, portfolio investors will tend to invest abroad rather than at home if — at a given level of risk exposure — the net return to foreign investment exceeds the net return on domestic investment. Portfolio investors may also choose to invest abroad because such international diversification may enable them to reduce the overall risk attached to their portfolios. In short, international portfolio investment can be seen as a normal arbitrage activity taking advantage of cross-country differentials in net returns on securities in a given risk class and exploiting international possibilities for diversification of risks.

While portfolio capital flows are thus governed mainly by movements in the general level of interest rates and/or stock prices in individual countries, direct investment flows are motivated by desires to exploit specific business opportunities arising in particular markets. Apart from possible institutional barriers such as exchange controls or capital controls, other barriers of a more fundamental nature will often hamper foreign direct investment. A foreign direct investor may be at a disadvantage due to factors such as the costs of communication between the parent firm and the foreign branch or subsidiary; incomplete knowledge of the language and culture of the host country; lack of familiarity with the local business environment in the host country; special risks such as the risk of exchange-rate changes; special costs of stationing managers or technicians abroad, etc.

On this background, it is often said that the following three conditions have to be met for foreign direct investment to take place.¹ First, to overcome the barriers just mentioned, the foreign direct investor must have some specific competitive advantage

¹ The following is a summary of the so-called 'eclectic' and widely accepted theory of foreign direct investment developed by Dunning (1981; 1988).

relative to local firms. This advantage may take the form of special technical know-how and/or special skills in management, organization or marketing.

Second, it must be profitable for the foreign investor to use these intangible assets (by establishing an additional production unit) rather than leasing them to other firms through licensing agreements, subcontracting, franchising, etc. This condition will be met when the intangible assets are of a rather specialized or complex nature, so that they cannot easily be transferred to other firms.

Third, the host country must have some locational advantage relative to the home country of the foreign investor. Otherwise the investor would prefer to serve the foreign market through exports from his home country rather than by establishing a new production unit abroad. The locational advantage of the host country may take many forms, including low labour costs, efficient infrastructure and public service inputs, proximity to market outlets, a favourable tax climate, etc.

In summary, foreign direct investment is likely to take place when the specific competitive advantage of a business enterprise combines with an advantage of organizing production through a multiplant firm and an advantage of locating a plant abroad rather than at home.

A few other factors influencing the pattern of international direct investments should be mentioned. In some cases these investments may be driven mainly by considerations of long-term business strategy. For instance, foreign direct investment by one firm may induce other leading firms in the industry to undertake similar investments in an attempt to maintain their market shares. As another example, a company may choose to set up operations in a foreign market in order to 'appropriate' or 'pre-empt' that market before indigenous firms have the chance to develop. In other words, foreign direct investment may sometimes be motivated by a desire to deter potential future competitors from entering the foreign market.

In the presence of institutional barriers to trade such as tariffs, a firm may also choose to undertake foreign direct investment behind the trade barrier as an alternative to exports to the foreign market.

Finally, if high transactions costs, government regulations, lack of information or other factors make it unattractive for portfolio investors to enter foreign stock markets, companies may undertake risk-spreading on behalf of their shareholders through foreign direct investment. Even if individual shareholders have good opportunities for international portfolio diversification, corporate managers may still have an interest in reducing the overall business risks of the company by investing in foreign markets.

These remarks suffice to indicate that direct investments across national borders may be influenced by a large set of factors, and they suggest that cross-country tax differentials will rarely be the main driving force behind such investments. With this in mind, we now turn to a discussion of the impact of taxation on capital flows.

4 — The effects of capital income taxation on international portfolio investment

As noted in Section 2, international portfolio investment is still the most important form of international capital flows, particularly if one includes the large short-term flows through financial institutions. Changes in corporate taxation can have a signifi-

cant influence on portfolio capital flows through their impact on the domestic level of interest rates and stock prices. In addition, portfolio investment will be affected by personal taxes on capital income.

A country's net capital imports (positive or negative) are equal to the difference between total investment and total saving in the country. The level of private consumption and savings is determined by numerous factors, but the most important ones are widely agreed to be the level of disposal income and private net wealth. Since different age-groups have different propensities to save, because people normally wish to smooth their level of consumption relative to the level of their incomes over the life cycle, the demographic pattern is another potentially important determinant of aggregate saving. On the basis of economic theory, one would also expect the after-tax rate of return to saving to influence the level of private saving, although there is considerable controversy over the magnitude of this effect.

Predicting the level of investment in a country has turned out to be more difficult than forecasting consumption. However, theoretical as well as empirical research has indicated that the level of corporate investment tends to be high when the stock market value of corporate assets is high relative to the replacement value of these assets. If the stock market puts a higher value on an additional unit of some corporate asset than the purchase price of this asset, the corporation will be able to increase the net wealth of its shareholders by acquiring additional units of the asset. A tax policy which raises the level of stock prices relative to the prices of physical business assets will therefore tend to stimulate business investment.¹ At the same time, such a policy will also tend to depress the private savings rate, because a higher market value of shares implies an increase in private wealth which will stimulate consumption.

The likely short- and medium-term effects of various tax instruments on a country's net capital imports are summarized in Table 5A.3. The table assumes that tax revenues are spent in a way which more or less neutralizes the impact of taxation on aggregate demand so that effects on savings and investment stemming from changes in the rate of employment and capacity utilization can be ignored. It is further assumed that the domestic stock market is dominated by investors subject to domestic tax rules. Finally, in accordance with normal practice in the OECD area, Table 5A.3 assumes that interest income is taxed according to the residence principle so that investors face the same effective tax rate on interest income from domestic and foreign sources.

As indicated in Table 5A.3, a rise in the personal tax rate on interest income in a country will tend to increase its net capital imports. By lowering the net return to interest-bearing assets, the higher tax on interest will make investment in shares relatively more attractive, and the resulting increase in the demand for shares will raise their market value. As a consequence, real corporate investment will be stimulated. In addition, the rise in shareholder wealth and possibly also the fall in the after-tax interest rate will tend to stimulate consumption at the expense of saving. The rise in investment and the fall in savings will put upward pressure on domestic (pre-tax) interest rates, and this will attract portfolio capital from abroad.

¹ In the economic literature this hypothesis is referred to as the 'q-theory' of investment. Another popular hypothesis is the so-called 'neoclassical' investment theory according to which business investment varies positively with the expected level of sales relative to the existing capital stock and negatively with the (tax-adjusted) cost of capital. Although these two theories may seem rather different, they are in fact consistent with each other, as demonstrated by Hayashi (1982).

A rise in the domestic corporate income tax rate will have the opposite effect on net capital imports. A higher corporate tax rate will lower expected future net dividends from the corporate sector, thereby reducing the market value of shares and discouraging corporate investment. At the same time the drop in shareholder wealth will induce shareholders to increase their rate of saving in order to restore (at least partially) their wealth position. The net result of falling investment and rising savings will be a downward pressure on domestic interest rates, which will lead to smaller capital imports (or higher capital exports).

A higher personal tax on dividends, or a reduction of imputation credits for the underlying corporate tax on distributed profits, will increase the cost of finance raised through new issues of shares, thereby discouraging corporate investment financed through this channel. However, since most corporate investment tends to be financed through debt or retained earnings, the effect on aggregate investment is likely to be small. Because a higher dividend tax will be capitalized in lower share values, it will also reduce the wealth and increase the savings of shareholders. The total effect on capital imports will therefore be negative, but probably modest.

A higher personal tax on capital gains from shares increases the tax burden on corporate investment financed by retained earnings, and it therefore reduces such investment. The short-term effect on the market value of outstanding shares can be shown to be uncertain,¹ so the short-term effect on savings cannot be predicted a priori. However, the net effect of a higher capital gains tax rate on capital imports is likely to be negative, due to the fall in investment demand.

Investment incentives in the form of investment grants, investment tax credits, accelerated depreciation for tax purposes, etc. will stimulate investment by reducing the net cost of business assets faced by firms. The effect on private wealth and saving is ambiguous. On the one hand, incentives for new investment reduce the effective price of new capital equipment relative to 'old' capital, and this tends to reduce the market value of the existing capital stock. On the other hand, the incentives also increase the expected future profitability of existing investment plans, and this tends to increase stock market values. At any rate, the total effect on capital imports is likely to be positive, due to the rise in investment expenditure.

As already noted, the above analysis of the effects of personal tax rates assumes that the 'marginal' shareholder whose behaviour governs the evolution of share prices is a domestic household investor. If the typical marginal shareholder is in fact a tax-exempt institution (e.g. a pension fund), the effects on corporate investment of changes in personal tax rates will tend to be negligible. Unfortunately very little is known about the identity of 'marginal' investors.

Another proviso to the analysis summarized in Table 5A.3 should be mentioned. As the stock markets of individual countries become increasingly integrated, it is possible that the main effect of changes in personal tax rates in a single country will be to change the ownership pattern of shares rather than the level of domestic investment and saving. For instance, a higher tax on dividends received by domestic residents will reduce the share prices which domestic investors are willing to pay, since investment in interest-bearing assets will become relatively more attractive. The result may be that domestic shareholders choose to sell a substantial part of their shares to foreign

¹ This is shown in Nielsen and Sørensen (1991).

investors who are not affected by the rise in the domestic dividend tax rate. In other words, given the presence of a large group of foreign investors in the domestic stock market, the fall in domestic stock prices resulting from a higher dividend tax on domestic residents is likely to be quite limited.

Table 5A.3 does not report on the likely effects of withholding taxes on dividends and interest income. Such taxes can typically be credited against the investor's final tax liability, and in that case they will have no impact on investment incentives and capital flows. However, if the marginal investors are tax-exempt and therefore not eligible for tax credits, or if they are tax evaders who do not declare their investment income, withholding taxes will obviously tend to deter investment and reduce net capital inflows into the country. Section 6 will refer to some anecdotal evidence indicating that in practice withholding taxes can have a very strong influence on portfolio capital flows.

5 — The effects of the corporate tax system on foreign direct investment

In Section 3 it was mentioned that one condition for foreign direct investment (FDI) to take place is that the firm finds it more profitable to establish operations in some foreign country rather than expanding operations at home. Although cross-country differences in corporate tax rules will usually only be one among several factors determining the relative profitability of investment in different countries, international tax differentials must be expected to have some influence on the location and magnitude of FDI, in so far as firms strive to maximize after-tax profits.

The tax incentive to undertake outward FDI will depend on the method used by the parent company's home country (residence country) to alleviate international double taxation of the profits deriving from FDI. As explained in Chapters 2 and 3 of the main report, residence countries usually apply either the exemption method or the credit method. Under the exemption method the profits from foreign operations are simply exempt from tax in the residence country of the parent company, whether these profits are retained for investment abroad or repatriated by the parent.

Under a pure credit method all profits earned abroad would be subject to the corporate income tax of the parent's country of residence, but at the same time the residence country would grant a full credit (including a refund, if necessary) for the source-country taxes already paid in the host country of the foreign branch or subsidiary. The credit systems applied in practice deviate from such a pure credit method in two major ways. First, the credit granted by the residence country is limited to the amount of domestic tax that would otherwise be due on the foreign-source income. Hence, the firm will always pay the higher of the domestic and the foreign tax rate on its foreign-source income. Second, ordinary business income from foreign subsidiaries is normally taxed by the residence country of the parent company only to the extent that these profits are repatriated in the form of dividends. This is usually referred to as a system of 'credit with deferral', because home-country taxes on foreign profits are deferred until the time of repatriation.

The required pre-tax rate of return (the 'cost of capital') on foreign investments is also likely to be affected by the particular method chosen to finance the activity of foreign affiliates. The reason is that different financial instruments are typically subject to different tax treatment both at the corporate level and at the level of individual

investors. As indicated in Table 5A.4, a multinational corporation can use at least nine different methods of financing for investment abroad, even if one assumes for simplicity a clear dividing line between debt and equity. A foreign subsidiary can raise finance by local borrowing, by issuing shares to minority shareholders, or by retaining its own earnings. Alternatively, the subsidiary may receive debt or equity capital from the parent company which may in turn raise its funds by borrowing, by retaining earnings or by issuing new shares. In general, the cost of capital will differ according to the particular financing pattern chosen by the multinational, due to the different tax treatment of debt and equity capital and the different treatment of retained and distributed profits.

Given this complex background, Tables 5A.5 and 5A.6 attempt to summarize the expected effects on outward FDI of a rise in the domestic and the foreign corporate income tax rate, respectively. The analysis underlying the tables assumes that the multinational corporation strives to maximize the market value of the shares of the parent company, i.e. that corporate managers always try to pursue an investment policy that is in the best interest of the parent company's shareholders. An alternative hypothesis, which is sometimes advanced in the literature on multinational enterprises, is that managers strive to maximize the growth rate of the company's global operations, possibly subject to some constraint such as a minimum required rate of return to shareholders or a minimum acceptable dividend pay-out ratio. The implications of such behaviour for the effects of tax policy will be briefly discussed at the end of this section.

To interpret Tables 5A.5 and 5A.6, it is useful to keep in mind that total FDI consists of the profits retained abroad in foreign affiliates plus transfers of debt and equity capital from domestic parent companies to foreign affiliates. Further, the foreign retained earnings as well as the transfers of parent funds may serve to finance additional real investment activity abroad, or they may serve to finance the acquisition of (shares in) existing foreign firms. To understand how taxation is likely to affect total FDI, one must therefore analyse how a change in tax policy can be expected to influence the real investment expenditure of foreign affiliates and the incentive to acquire foreign firms. In Tables 5A.5 and 5A.6, these tax effects are denoted the 'real investment effect' and the 'acquisition effect', respectively. In addition, one must analyse how tax policy affects the incentive to finance investment abroad through retentions in foreign affiliates or through parent transfers rather than through borrowing in the local foreign capital market or in the world capital market. Thus, if a change in tax policy induces foreign affiliates to substitute borrowing from third parties for retained earnings or for transfers from the parent, this will be registered as a negative 'financial effect' in Tables 5A.5 and 5A.6.

Table 5A.5 indicates the expected effect of a rise in the corporate income tax rate of the parent company's country of residence. The first column in the table assumes that the country of residence applies the exemption method of relieving international double taxation of equity income earned abroad. Thus, the return to equity capital invested abroad will only be subject to the foreign corporate tax rate, whereas interest payments received from foreign affiliates (which are generally deductible abroad) will be subject to the domestic corporate tax rate. Under these circumstances, it can be shown that a rise in the domestic corporate tax rate will make foreign real investment financed by loans from the parent to the foreign affiliate less attractive, provided the parent raises its own funds through retentions or through new share issues. On the other hand, one

can also show that it becomes more attractive for the parent to borrow at home (benefiting from interest deductibility) and use the proceeds to finance foreign investment by injection of new equity into foreign affiliates. Thus, there are offsetting effects on the tax incentive to undertake real investment abroad, and it is likely that the net effect on the foreign real investment activity of domestic multinationals (the 'real investment effect') will be negligible, as indicated in Table 5A.5.¹

Similarly, the higher domestic corporate tax rate is not likely to have any appreciable effect on the incentive of domestic direct investors to acquire foreign firms (the 'acquisition effect') when foreign-source equity income is exempt from domestic corporation tax. There would indeed be a greater incentive for a domestic corporation to borrow at home in order to acquire shares in foreign corporations, but at the same time the incentive to buy foreign shares by means of corporate equity capital raised at home would decrease.

Nor is there likely to be any substantial 'financial effect' on outward FDI. The increase in transfers to foreign affiliates financed through domestic borrowing would be more or less offset by a reduction of transfers financed by domestic equity capital. Further, one can show that the higher domestic corporate tax rate would not affect the attractiveness of financing FDI through retained earnings abroad rather than local borrowing abroad. In summary, while the total effect on outward FDI of a rise in the domestic corporate tax rate would not necessarily be exactly zero under the exemption method, it is likely to be very small.

If the residence country of the parent company relieves international double taxation of corporate equity income by means of the method of credit with deferral, the effects of a higher domestic corporate tax rate would be identical to the effects under the exemption system if the foreign corporate tax rate exceeds the domestic rate, for in this case all the foreign-source profits of the parent company are effectively taxed at the foreign corporate tax rate, due to the limitation on the foreign tax credit.

However, when the foreign rate of corporation tax is below the domestic rate, the credit system implies that the parent company effectively faces the domestic corporate tax rate on profits repatriated from foreign subsidiaries. In that case, a rise in the domestic tax rate must be expected to reduce outward FDI, as indicated in the second column of Table 5A.5.² Indeed, a reduction of the after-tax profitability of foreign real investment can be avoided only if the foreign investment is financed by retentions in the foreign subsidiary or if the parent provides the finance by borrowing at home and injecting new equity into the subsidiary. In the latter case, the higher domestic tax on repatriated foreign profits is offset by larger interest deductions from the domestic tax base. In the former case (retentions abroad), the profitability of foreign investment is left unaffected due to the deferral of the home-country tax. It is true that once the profits from foreign operations are repatriated, they cannot escape the higher domestic tax. However, if the tax increase is permanent, the additional domestic tax burden on

¹ For the other financing possibilities displayed in Table 5A.4, it can be shown that the rise in the home-country corporate tax rate will have no effect on the cost of capital in foreign direct investment under the exemption method. The results reported here and in the rest of this section follow from the formal analysis in Sørensen (1991).

² Note, however, that the incentive to undertake domestic investment would be reduced even more, since the higher domestic corporate tax rate would fall on all domestic profits whereas it would fall only on those foreign profits which are repatriated.

repatriations will be the same regardless of the timing of repatriations. Therefore, the tax increase should not influence the decision of the parent to forgo repatriations today and reinvest earnings abroad in order to be able to increase repatriated profits tomorrow, since an additional home-country tax must be paid whether repatriations are made today or tomorrow.¹ Yet, for all other financial policies of the multinational except the two just mentioned here, the higher domestic corporate tax rate will inevitably reduce the profitability of real foreign direct investment, and this is why a negative real investment effect is recorded in Table 5A.5 under the system of credit with deferral.

The 'acquisition effect' on outward FDI is also likely to be negative, because domestic corporations acquiring foreign firms will face a higher domestic tax on the earnings from these firms.

Finally, it can be demonstrated that the higher domestic corporate tax provides an incentive to substitute local borrowing abroad for retentions abroad, implying a negative 'financial effect' on outward FDI. Hence the total effect on FDI under credit with deferral will be unambiguously negative, as stated in Table 5A.5. Under a pure credit system, this negative total effect on outward FDI would be even stronger, since the higher domestic corporate tax rate would then fall on all foreign profits, whether repatriated or not. Hence the negative signs in the third column of Table 5A.5.

Table 5A.6 indicates the likely effects on outward FDI of a rise in the foreign (i.e. host country) corporate income tax rate. Under a system of exemption, the parent company would receive no domestic credit for the higher foreign tax liability, and the incentive to undertake real investment abroad would therefore decline. The higher foreign corporate tax rate would also induce the multinational to substitute local borrowing abroad for retention of earnings abroad and for transfers of new equity from the parent, implying a negative financial effect on outward FDI. On the other hand, since the higher foreign tax rate falls on resident as well as non-resident owners of foreign corporations, it will induce more or less the same fall in the price which the two investor groups would be willing to pay for shares in foreign companies. Hence, it is unlikely that the tax increase will induce investors residing abroad to sell their shares to non-resident investors, i.e. one would expect a negligible acquisition effect on FDI, as indicated in Table 5A.6. Yet, the total effect on FDI will still be negative, due to the real investment effect and the financial effect.

Under a system of credit with deferral, the effect on outward FDI of a higher host-country corporate tax rate is more uncertain. On the one hand, it can be shown that there will be a decline in the profitability of real foreign investment financed by the retained earnings of the subsidiary or by parent retentions which are transferred to the subsidiary. On the other hand, one can also demonstrate that foreign real investment financed through borrowing by the parent and re-lending to the subsidiary will become *more* profitable because the value of the 'tax shield' implied by interest deductibility in the subsidiary increases with the foreign tax rate. Thus the net effect on foreign real investment is, in principle, uncertain, although it will most likely be negative, unless the multinational relies heavily on debt finance.

The 'financial effect' on outward FDI will also be negative under credit with deferral, because the higher foreign corporate tax rate will make it profitable to substitute

¹ A formal proof of this proposition is given in Hartman (1985).

borrowing abroad for retention of earnings abroad. By contrast, the ‘acquisition effect’ on FDI is likely to be positive. The reason is that non-resident direct investors operating abroad are at least partly shielded from the higher foreign corporation tax through the foreign tax credit granted by their home country, whereas investors residing in the foreign country must bear the full burden of the higher foreign tax. Therefore, the latter investors are likely to sell off part of their shareholdings to non-resident direct investors who will now be willing to pay relatively more for the shares because their relative tax position has improved.

In principle, the total net effect of a higher host country corporate tax rate on outward FDI is thus uncertain under credit with deferral, although one might expect the negative effects to dominate. In contrast, under a pure credit system a domestic multinational would be completely shielded from the higher foreign tax rate, and it would therefore face unchanged incentives for foreign real investment and financing. However, there would be a positive acquisition effect — and hence a positive total effect — on FDI because investors residing abroad would now face a higher tax burden relative to non-resident direct investors.

In addition to manipulating the corporate tax rate, host countries can also use investment incentives in their attempts to influence the level of corporate investment. By and large, the ‘real investment effect’ and the ‘acquisition effect’ on inward FDI of host-country investment incentives such as investment tax credits, accelerated depreciation, etc. will be qualitatively similar to the real investment effect of a fall in the host country’s statutory corporate tax rate.

A withholding tax on dividends paid to non-resident investors is another instrument available to source countries. Under a credit system of international double tax relief, such a tax will be credited by countries of residence, and hence will not act as a deterrent to inward FDI, provided that the foreign parent company is not in an ‘excess credit position’, i.e. provided that the limitation on the foreign tax credit is not binding. However, under an exemption system, or under a binding credit limitation, withholding taxes on dividends will indeed reduce the incentive for FDI financed by equity transfers from parent companies and will induce multinationals to rely more on finance through retention of earnings in foreign subsidiaries. At least this is the case to the extent that multinationals cannot circumvent withholding taxes through so-called ‘treaty-shopping’ practices, i.e. by re-routing dividends through holding companies or affiliates in countries where withholding taxes have been reduced or eliminated in accordance with bilateral tax treaties.

As mentioned in the beginning of this section, the analysis underlying Tables 5A.5 and 5A.6 assumes that the multinational enterprise attempts to maximize the market value of the shares of the parent company’s stockholders. It is sometimes claimed that this is not a realistic description of the behaviour of the managers of large multinational corporations. Thus, some writers have pointed out that in so far as corporate managers have some leeway to pursue their own interests, they are more likely to favour investment policies which will tend to maximize the growth rate of the multinational’s global activities.

These two alternative hypotheses regarding the behaviour of multinationals may have different implications for the effects of the corporation tax, although this will not always be the case. For instance, whether the multinational attempts to maximize the market value of its shares or the growth rate of its assets, it will tend to cut back on

investment in a host country which raises its corporate tax rate. Hence, the results stated in the first two columns of Table 5A.6 should be fairly robust with respect to alternative assumptions about the motives of corporate managers.

However, the effects on outward FDI of a rise in the home-country corporate tax rate will differ, depending on the goal pursued by managers. If share value maximization is the overriding goal, a higher corporate tax rate in the country of residence will not only discourage the multinational's investment at home, but under a credit system it will also have a negative effect on the company's investments in other countries, according to Table 5A.5. By contrast, for a growth maximizing multinational corporation the effect on outward FDI would tend to be positive. The reason is that under growth maximization the corporation would tend to redirect its total investment volume away from higher-tax countries towards lower-tax countries. Thus, it would respond to a higher home-country corporate tax rate by increasing investment abroad at the expense of investment at home.

The likely similarities and differences in the effects of the corporation tax on domestic and foreign investment under the two alternative patterns of behaviour are summarized in Table 5A.7. Since a pure credit system of international double tax relief is not found in practice, the table assumes that international double taxation is relieved either through a system of exemption or through a system of credit with deferral.

Some evidence bearing on the empirical validity of the two alternative views of corporate behaviour underlying Table 5A.7 will be reported in Section 7(b).

6 — Evidence on the effects of taxation on international portfolio investment

The analysis of the two preceding sections has led to several predictions regarding the effects of taxation on international capital flows. The following two sections survey a number of empirical studies in an attempt to evaluate whether the tax effects suggested by economic theory do in fact occur in practice, and whether they are quantitatively significant.

The present section focuses on international portfolio investment. It is well known that international flows of portfolio capital can be very volatile and sometimes respond very quickly and dramatically to actual or expected changes in asset prices and exchange rates. Because of this volatility, it is difficult to obtain robust and reliable estimates of the quantitative effects of taxation on portfolio investment by applying formal statistical and econometric methods. Another obstacle to the application of such methods is the fact that different categories of portfolio investors may be subject to very different tax rules, and that the identity of (and hence the effective marginal tax rate faced by) the 'marginal' investors is generally unknown.

In assessing the importance of taxation for these capital flows, one is therefore often forced to rely on evidence of a more anecdotal and informal nature. The decade of the 1980s did in fact provide several pieces of evidence of this character.

The analysis of Section 4 suggested that investment incentives are likely to generate a capital inflow, because they will stimulate domestic investment demand and drive up the level of domestic interest rates. The huge capital inflows into the United States in the first half of the 1980s indicate that tax incentives for investment may indeed be

quite powerful. The US Economic Recovery Tax Act of 1981 introduced an investment tax credit of 10% and a very generous system of depreciation allowances, termed the accelerated cost recovery system. The combined effect of these two investment incentives was estimated to be roughly equivalent to a system of full expensing, i.e. immediate write-off of all investment expenditure. In the three years following the Economic Recovery Tax Act, the United States experienced a sharp rise in domestic private investment and domestic real interest rates and a dramatic increase in net capital imports, mostly in the form of portfolio investment. While other and possibly more important factors such as the combination of a tight monetary policy and a strongly expansionary fiscal policy undoubtedly contributed to the rise in US capital imports, it seems clear that the investment incentives must have played an important role, since it would otherwise be hard to explain how US investment could recover so strongly from 1981 to 1984 in the face of a steeply rising real interest rate (see Sinn 1988).

Bovenberg et al. (1990) have undertaken a more systematic analysis of the relationship between tax policies and capital flows between the United States and Japan in the 1980s, focusing on the tax incentives faced by portfolio investors. The authors calculated tax wedges on savings and on corporate investment in the two countries in 1980, 1984 and 1987. They found that the corporate tax burden on corporate assets located in Japan exceeded the tax burden on assets located in the United States, while a US saver faced a heavier personal tax burden than a Japanese saver for assets located in both countries. Since relatively high taxes on savings (e.g. personal taxes on interest income) and relatively low taxes on investment (e.g. corporation taxes) will tend to stimulate capital imports into a country, the authors suggested that the different tax structures in the United States and Japan can to some extent explain the bilateral flows of portfolio capital between the two countries in the 1980s.

Another recent episode in US tax policy indicates that portfolio capital flows may be very sensitive to withholding taxes, suggesting that tax-exempt investors and/or evaders of personal income tax play an important role in the international market for portfolio capital, since these investor groups will normally not be able to obtain a credit for withholding taxes paid. Until 1984, the United States imposed a withholding tax of 30% on interest payments from US debtors to non-residents. However, under a bilateral tax treaty interest paid from the United States to lenders resident in the Netherlands Antilles was exempt from the withholding tax. Further, the Netherlands Antilles imposed only a small tax on such interest income, so the tax treaty provided a means by which US borrowers could have access to the Eurodollar market without paying the withholding tax which would otherwise be due. This led many US corporations to establish financing subsidiaries in the Netherlands Antilles through which foreign funds could be channelled to the United States. The motivation of the US parent corporations was the obvious one that the interest rate on debt subject to the 30% withholding tax tended to be higher than the interest rate on loans which escaped the tax. Clearly, this indicates that the lenders in the Euromarkets did not receive a full credit for the US withholding tax.

In 1984 the US Government repealed the 30% withholding tax on most interest, and as a consequence the borrowing by US parent corporations through Netherlands Antilles affiliates collapsed, as illustrated in Table 5A.8. The first column in the table shows total US direct investment abroad, and the second column shows the part of this investment which was financed by transfers of debt and equity capital from US parent companies. In the period 1982-84, the latter figures are substantially negative,

implying that the US parents did in fact receive a net injection of funds from foreign affiliates. The last two columns of the table show that most of this phenomenon can be explained by parent transactions with Netherlands Antilles affiliates. Both these columns are strongly negative until 1984, because US parents received large loans through these affiliates until the US withholding tax was abolished. After that time (1984) it is seen from Table 5A.8 that net transfers from US parents to Netherlands Antilles affiliates turned positive, indicating that parent companies repaid large amounts of debt to those affiliates when the tax benefit of re-routeing debt flows through the Netherlands Antilles disappeared.

As another example of the strong effects of the US withholding tax on interest, McLure (1989, pp. 13 and 14) mentions that its repeal seems to have contributed to the massive flight of Latin American-owned capital into the United States during the last decade.

The recent experience of the Federal Republic of Germany confirms the impression that withholding taxes can have a powerful influence on international flows of portfolio capital. In early 1989, Germany introduced a modest 10% domestic withholding tax on interest income. This resulted in a substantial flight of assets to financial intermediaries (many of which were branches of German banks) based in Luxembourg, where no withholding taxes are imposed. Faced with these pressures from the capital market, the German Government had to abolish the withholding tax after a few months. This recent episode, together with the other anecdotal evidence presented in this section, indicates the need for international tax coordination to avoid distortions of international capital flows.

7 — Evidence on the effects of the corporate tax system on international direct investment

While portfolio capital flows often display a dramatic response to short-term opportunities for higher after-tax rates of return, international direct investment usually involves considerations of long-term business strategy and, as mentioned earlier, is therefore likely to be less influenced by tax factors.

Because foreign direct investment normally implies a long-term commitment by the investor, it is less volatile than portfolio investment. For this reason FDI is more susceptible to formal statistical analysis, and quite a number of econometric studies of tax effects on FDI have in fact been carried out. In addition, some authors have attempted to simulate the effects of various tax policies on FDI, using numerical simulation models incorporating 'plausible' estimates of the parameters of the equations describing the economic behaviour of firms and households. Furthermore, as an alternative to the more quantitative methods, some researchers have undertaken business surveys, asking corporate managers to indicate the importance of tax factors for business investment decisions. Finally, as in the case of portfolio investment, there is some anecdotal evidence on the effects of taxation on international direct investment.

This section briefly reviews some of these pieces of evidence, starting with simulation studies, proceeding to econometric studies and business surveys, and ending with a recent case study.

7(a) Simulation studies

The simulation studies reviewed here were based on numerical simulation models the parameters of which were chosen such that the models could reproduce (i.e. 'explain') a set of economic data for a given country in a given year.¹ It is important to note that a given data set can often be reproduced by several different parameter combinations, whereas the simulated effects of policy changes will depend on the particular parameter combination embodied in the model. The builders of simulation models do of course strive to choose 'plausible' parameter values, drawing on relevant empirical evidence produced by other researchers. However, sometimes such evidence is inconclusive or even non-existing. The analyst is then forced to rely on his own subjective parameter estimates, and this is one reason why the results of simulation studies must be interpreted with great care.

In recent years researchers have undertaken a vast number of simulation analyses of the effects of various types of tax policies and tax reforms. To limit the scope of the present survey, this section will only consider two studies which focus explicitly on the effects of the corporation tax on international capital flows.

The first of these studies (summarized in Table 5A.9) was carried out by Horst (1977). He developed a model of a 'representative' profit-maximizing multinational enterprise facing all the essential features of the US corporate tax system. The model was calibrated so as to reproduce a data set relating to US outward foreign direct investment in 1974. Among other things, the model was able to simulate the effects of a change in the average foreign rate of corporation tax on domestic real investment by US parent companies, on foreign real investment by US subsidiaries operating abroad, and on the net flow of funds from US parents to foreign subsidiaries.

In Table 5A.9 these effects are stated in terms of elasticities. The elasticity measures the percentage change in the variable explained induced by a 1% change in the foreign host-country tax rate. Thus, the figure of -0.6 in the last column of Table 5A.9 implies that, if the foreign corporate tax rate were to fall from, say, 50 to 40%, corresponding to a 20% drop in the tax rate ($(50 - 40)/50 = 0.2$), the foreign real investment by US subsidiaries would increase by $20 \times 0.6 = 12\%$. The elasticities embodied in the Horst model also imply that such a foreign tax cut would reduce domestic real investment by US parents by $20 \times 0.3 = 6\%$, and that it would increase the net transfer of funds from US parents to foreign subsidiaries by $20 \times 6.8 = 136\%$. These results suggest that while the tax effects on real investment activity are certainly not negligible, the effects of changes in tax rates on the financial behaviour of multinationals may be considerably stronger.²

The bottom part of Table 5A.9 reports some tax elasticity estimates implied by a simple simulation model of the Canadian economy developed by Damus et al. (1991), based

¹ By comparison, in the conventional econometric models used to simulate the effects of macroeconomic policy, the equations of the model are estimated by econometric methods on the basis of time-series data covering a longer period.

² Going back to the bottom row of Table 5A.7, one sees that the effects of a higher host-country tax rate in the Horst model correspond to those which one would expect to find if the objective of corporate managers was to maximize the growth of the firm rather than the wealth of the parent company's shareholders. Horst does in fact state that his behavioural assumptions 'would most aptly characterize a management-controlled firm whose primary objective was the growth of the firm and for whom dividends to shareholders are comparable to a tax on consolidated earnings' (Horst, 1977, p. 379).

on a data set for 1980. The authors perform two types of simulations. In the first one, they assume that foreign companies investing in Canada pay full home-country tax on their Canadian investment income and receive a full credit for corporate taxes paid to the Canadian authorities. In that case foreign investors will face the same effective tax rate on their domestic and their Canadian income, and capital flows into Canada will therefore be governed by the differences in pre-tax rates of return between Canada and the rest of the world (mainly the United States).

In the second type of simulations, Damus et al. assume that foreign investors do not receive (full) credit for the Canadian corporation tax and that their investment flows are therefore governed by the difference between the Canadian and the foreign after-tax rates of return on corporate investment.

When transnational investment is governed by after-tax rates of return, the simulation model implies that a 1% increase in Canadian corporate taxes induces a 0.34% fall in Canadian net capital imports, as stated in Table 5A.9. By contrast, when capital flows respond to the differences in pre-tax rates of return, a 1% increase in the Canadian corporation tax is estimated to lead to a (modest) increase of 0.02% in capital imports into Canada. The reason is that the adjustment of the Canadian economy to the higher domestic corporation tax induces a rise in the pre-tax rate of return on investment in Canada. This in turn tends to attract foreign investors who are shielded by their foreign tax credits from the higher Canadian tax.

While the results of Damus et al. are only suggestive, due to the many simplifying assumptions underlying their simulation model, the results do at least indicate that the choice between alternative methods of international double taxation relief may have important implications for the quantitative effects of the corporation tax on international capital flows.

7(b) Econometric studies

The main advantage of simulation studies is that they are able to account not only for the direct effect of a change in tax policy, but also for the indirect effects emerging as the economy adjusts to the new tax rules. On the other hand, one obvious limitation of numerical simulation models is that they are typically based on a data set for a single country in a single year, and that the parameter values incorporated in the models often are not based on 'hard' statistical evidence.

By comparison, the econometric studies surveyed in this section are based on statistical analyses of time-series data covering many years and/or on analyses of cross-section data covering several countries. Unfortunately for the purposes of this report, there are very few econometric studies of the effects of corporate taxation on foreign direct investment within the European Community. Instead, most analyses have focused on inward and outward FDI in the United States.

The study by Snoy (1975, Chapters 26 and 27) still appears to be the most comprehensive econometric analysis of tax effects on FDI in the EC. Besides analysing US direct investment into Europe, Snoy examined direct investment flows from four (present) EC countries into 14 West European countries over the period 1966-69. For all the four countries of residence concerned (Belgium, France, the United Kingdom and Germany), he found that outward FDI responded negatively to a higher effective corporate tax

rate in the foreign host countries, as indicated in Table 5A.10. For instance, the bottom row of the table implies that on average a host country raising its effective corporate tax rate by 10 percentage points would experience a 2.7 percentage point fall in the ratio of German FDI to total manufacturing investment in the host country, and a fall of 3.3 percentage points in the proportion of total European investment by German multinationals which would flow into that particular host country.

While all of the estimated tax effects have the expected negative sign, Table 5A.10 reveals that some of the estimates have a low statistical significance, implying that they are rather uncertain. These difficulties probably reflect the fact that the number of statistical observations at Snoy's disposal was fairly small, due to the limited sample of host countries incorporated in his analysis. Despite these caveats, Snoy's pioneering analysis clearly supports the view that the corporation tax can have non-negligible effects on foreign direct investment.

As already suggested, the overwhelming majority of econometric studies of tax effects on international direct investment has been based on data for the United States reflecting American leadership in this field of research as well as the greater availability of relevant data in the United States. Table 5A.11 reports some recent estimates of the elasticity of inward FDI in the United States with respect to the US corporate tax rate. Since a large part of direct investment into the United States is undertaken by European multinationals, these estimates also have some relevance in a European context.

The table shows the estimated percentage change in inward US FDI induced by a 1% increase in the US corporation tax. Since the tax consequences of FDI financed by retained earnings in foreign subsidiaries may differ from the tax liability associated with FDI financed by transfers of funds from the parent company, all authors have estimated the tax elasticity of the two types of investment separately.

It is seen from Table 5A.11 that, although the econometric analyses have usually confirmed the a priori expectation of a negative effect of the US corporation tax on inward FDI, the estimated tax effects vary quite substantially, in terms of size as well as in terms of statistical significance. Part of this variation stems from differences in the methodologies applied, but another part is due to the fact that the data on FDI as well as the data on effective tax rates used in the studies have been revised over time.

While the first three studies recorded in Table 5A.11 found that the negative tax effect on FDI financed through retentions was statistically much more significant than the effect on FDI financed through parent transfers, the recent study by Slemrod (1990) arrived at the opposite result. These apparently conflicting findings may reflect the fact that parent transfers seem to have become more important as a marginal source of finance in recent years. In the 1960s, retentions in foreign-owned subsidiaries accounted for a greater part of US inward FDI than transfers from foreign parents, but during the 1980s parent transfers have grown many times as large as retentions (see Jun (1989) Table 1).

The recent trend towards reliance on parent transfers is closely related to the fact that foreign acquisitions of existing US firms became the dominant form of US inward FDI during the 1980s, as shown by Auerbach and Hasset (1991, Table 1). Indeed, Auerbach and Hasset argue that the lack of robustness of earlier estimates of tax effects on FDI may be due to the fact that the studies reported in Table 5A.11 did not distinguish between FDI in the form of acquisitions, and FDI in the form of investment in new capital. Whereas the latter form of investment will depend on the statutory corporate

tax rate, investment tax credits, depreciation schedules, etc., the attractiveness of FDI in the form of acquisitions will also depend on the extent to which capital gains taxes on corporations and shareholders can be deferred, when a US firm merges with or is taken over by a foreign corporation. In general, the tax consequences of acquisitions and of investment in new capital will differ, and when the relative importance of the two forms of investment changes over time, one might therefore expect that studies of tax effects on aggregate FDI for different time periods would not obtain very robust results.

Another reason why one may find different quantitative tax effects on aggregate FDI for different time periods may be that the effects on FDI from residence countries applying a tax credit system are likely to differ from the tax effects on FDI from residence countries applying the exemption system. This is because the foreign tax credit will at least partly shield parent companies in credit countries from higher host-country tax rates on their foreign subsidiaries, whereas parent companies in exemption countries receive no credit for higher host-country tax rates. Therefore, if the proportions of total inward FDI deriving from credit countries and exemption countries change over time, the quantitative effect on total inward FDI of a change in the domestic corporate tax rate must also be expected to change.

On the basis of this reasoning, Slemrod (1990) applied econometric methods in an attempt to identify significantly different effects of the US corporate tax rate on FDI into the United States from credit countries and exemption countries, respectively. He found little evidence of such differences. However, as pointed out by Hartman (1985), this may be due to the fact that the industry composition of FDI from the different residence countries varies considerably. Different industrial sectors may be subject to different tax rules and may display different sensitivities to tax factors, and these differences may outweigh the effects of differences in the residence-country tax system on the tax elasticity of FDI from individual countries of residence.

Overall, it seems fair to conclude from Table 5A.11 that there is in fact some evidence of a negative effect of the US corporation tax on foreign direct investment into the United States, even though the quantitative effect remains rather uncertain.

There is also considerable evidence of significant tax effects on outward foreign direct investment from the United States, as witnessed by Table 5A.12. The early study by Snoy (1975, Chapter 27) found that a 10 percentage points lower effective corporate tax rate in one European host country would on average increase the annual growth rate of US FDI into that country by almost 7 percentage points in the period 1966-69.

Hartman (1981) found that US outward FDI financed by retentions in foreign US subsidiaries (accounting for approximately 70% of total US outward FDI in the 1975-79 period) responded positively to the rate of return on FDI after foreign corporation tax and negatively to the after-tax return on corporate investment in the United States. The latter result is consistent with growth-maximizing behaviour by US multinationals, as indicated in Table 5A.7. In a subsequent study, Boskin and Gale (1987) re-estimated Hartman's model of US outward FDI, using revised data and covering a longer time period. This led to a downward revision of the estimated negative effect on FDI of the US after-tax return, but Boskin and Gale roughly confirmed Hartman's estimate of the quantitative effect of the foreign after-tax rate of return.

As stated in Table 5A.12, Hartman and Frisch (1983) also found quite strong effects of host-country tax rates on US direct investment abroad, whereas they did not identify

any significant effect of US taxes on repatriated profits. The latter finding suggests that retained earnings abroad may have been the dominant marginal source of finance for US outward FDI in the period studied by Hartman and Frisch.

In contrast to other analysts, Jun (1990) could not find any significant tax effects on FDI financed by retentions abroad, but he did find that the marginal effective corporate tax rate on investment within the United States had a negative effect on outward FDI financed by transfers from US parents.

The recent study by Grubert and Mutti (1989) of US outward FDI appears to be the most comprehensive one in terms of the host countries covered. The authors found a strong negative effect of average effective host country tax rates on FDI from the United States. They also discovered that the higher the initial tax rate, the stronger the negative investment effect of a rise in the host country tax rate appears to be.

In addition to the evidence on tax effects on inward and outward foreign direct investment in the United States, there are a number of econometric studies of the effects of inter-State tax differentials on the location of business investment within the United States. This type of evidence may become increasingly relevant for the EC as economic and monetary integration in the Community proceeds.

The earlier literature on the effects of inter-State tax differentials in the United States is surveyed in Carlton (1979). These studies generally found little econometric evidence of substantial tax effects on the location of new capital investment. However, as more sophisticated data sets and statistical methods have been developed in recent years, there is mounting evidence of significant tax effects on the geographical pattern of investment. Thus, Bartik (1985) found a negative elasticity of -0.2 of new branch plant openings with respect to the State corporate income tax rate, and Papke (1987) also identified a negative effect of State taxes on new capital investment in the State.

A comprehensive study of tax effects on the upstart of new single establishment manufacturing plants in the United States in the period 1975 to 1982 was recently undertaken by Papke (1991). After having isolated the effects of differences in other economic characteristics across States, this study found evidence of a significant negative tax effect on the start-up of new manufacturing plants in half of the industries examined. The study revealed that different industries are not attracted and repelled by the same set of State characteristics, and that they differ markedly in their responsiveness to State taxes. The estimates by Papke indicate that the elasticity of new manufacturing plant openings with respect to the combined effective marginal federal, State and local business tax rate varies between -1.6 and -15.7 . These results are a clear warning against broad generalizations regarding the likely quantitative effects of business taxes on the location of business investment. The effects seem to vary considerably across different industries.

7(c) Survey studies

Because econometric studies of tax effects on foreign direct investment often meet with considerable technical difficulties, including the lack of relevant and reliable data, and because it may be very difficult to quantify some of the factors influencing investment decisions such as the perceived 'political risk' of investing in a country, it is often useful to supplement the quantitative studies by studies of a more qualitative nature.

A number of scholars have attempted to analyse the relative importance of tax factors for the location of international direct investment by undertaking business surveys based on a questionnaire method. The typical approach taken in these studies has been to ask the executives of a selected group of multinational firms to describe and possibly rank the various factors determining their choice of investment location.

While such studies can be very illuminating, their findings must still be interpreted with great care. As noted by Snoy (1975, p. 291), there is always a danger that the design of the questionnaire may invite a particular type of answer, and there is the possibility that the replies of some investors reflect an *ex post facto* rationalization of a decision based on other considerations or simply the wish that taxes be as low as possible. Further, the fact that there are always some firms in a sample which never respond to the questionnaires may imply that the group of respondents is not representative of the entire group of investors.

Keeping these caveats in mind, this section briefly considers some business surveys incorporating evidence on the impact of taxes on foreign direct investment.¹ In a survey study from the early 1970s, Schollhammer² investigated the locational strategies of 140 multinational enterprises based in the United States, the United Kingdom, France, and Germany. The multinationals were asked to rank, in order of importance, a large number of possible influences on their choice of location for foreign affiliates, using a scale ranging from 1.0 (of no importance) to 4.0 (very important). According to the study, the two main factors determining the choice of a particular country as a location of affiliates were supply conditions (infrastructure etc.) and perceptions of 'political risks'. The tax factor (divided into five subcategories) was ranked third in the list of nine main categories of locational determinants, and on the scale from 1.0 to 4.0, taxation was given a mean weight of 3.04, with a standard deviation of 0.411. Further, the study found that for European-based multinationals, the tax factor was in fact the second most important determinant of investment location, being surpassed only by the supply factor.

While the study by Schollhammer considered locational possibilities on a world basis, a survey undertaken in 1968 by the Centre de recherches économiques et de gestion of Lille³ focused on the factors determining the location of investment in north-western Europe (the Benelux countries, Germany, the United Kingdom, Switzerland and the northern and eastern parts of France). The survey was based on questionnaires addressed to executives of 40 selected enterprises and to their financial counsels, and it made a distinction between factors affecting the choice among countries in north-western Europe, and factors influencing the choice among regions within a particular country. The main conclusion of the survey was that availability of telecommunications, manpower qualifications and transport facilities were the most important determinants of investment location. However, among the factors depending on the nation State, the 'fiscal factor' was listed as the most important one, being more important than credit facilities, State aids, availability of industrial zoning, and administrative efficiency.

In addition to the above studies covering several countries, there are a number of survey studies analysing direct investment into or out of particular European countries. Around

¹ A more detailed review of a number of early business surveys relating to FDI in Europe is given by Snoy (1975, Chapter 28).

² Schollhammer's study is contained in an unpublished dissertation. His results are reviewed in Dunning and Yannopoulos (1973).

³ A summary of this study is provided by Falise and Lepas (1970).

1970, the University of Ghent undertook a study of the determinants of foreign direct investment into Belgium.¹ Of the 342 Belgian affiliates of foreign enterprises covered by the survey, 261 were new establishments created since 1945. Fifty-seven per cent of these affiliates were owned by multinationals based in the United States, while 30 and 13% were owned by companies from other EC countries and from the rest of the world, respectively. The firms were asked to give the reasons for their choice of Belgium as a host country, as well as the reasons for their choice of a particular region in Belgium. As far as the choice of Belgium was concerned, the study found that the most important locational factors were the labour market situation, infrastructure, the fiscal system, State aids, and credit facilities. The most relevant aspect of the Belgian fiscal system was considered to be the corporate tax system, although the personal income tax rules for foreigners stationed in Belgium were also of some importance for multinationals based in the USA and other non-EC countries. Within the group of EC-based companies, the Dutch multinationals were the most sensitive to the Belgian corporation tax. This finding is interesting, because it confirms the expectation that tax factors will be more important for international investment, the higher the degree of integration of the national economies.

Ireland has a long tradition of using fiscal incentives to attract foreign direct investment. In 1966, the Irish Industrial Development Authority conducted a survey of 81 foreign firms operating in Ireland,² asking them to indicate, among a group of seven factors, the two most important ones for their choice of Ireland as a location for investment. Thirty-six per cent of the firms listed fiscal incentives as their primary locational factor, and 63% indicated this factor as the second most important one for their locational choice. The conclusion was that fiscal incentives, mainly in the form of export profits tax relief and grants, had attracted more firms to Ireland than any of the other factors listed such as availability of labour, market accessibility, availability of local raw materials, and availability of existing factory and plant.

In a study of US investment in Scotland, Forsyth (1972) interviewed 105 Scottish subsidiaries of US multinationals and inquired into their reasons for locating in Scotland. One-third of the 96 firms that answered gave as the principal reason the availability of government financial inducements, and one-sixth of the firms mentioned these inducements as the second most important factor. The availability of labour was another important element in location decisions.

While informative, the survey studies mentioned above may not accurately reflect the current situation, because they were undertaken about two decades ago, when the world economy was not as integrated as it is today. Particular interest therefore attaches to the more recent surveys by Devereux and Pearson (1989) and Wilson (1991).

Devereux and Pearson distributed a questionnaire to a large sample of UK firms. 173 of the firms responded, including around a quarter of the 200 largest UK companies. About 45% of the respondents were directors, and only 12% were tax-managers who might be inclined to exaggerate the importance of taxation for investment decisions. Among other things, companies were asked whether taxes influenced them when deciding in which country to locate an investment. Respondents were allowed to say whether tax was 'always', 'usually', 'sometimes' or 'never' a relevant consideration and a major factor.

¹ The study is described in Van den Bulcke (1971).

² See Industrial Development Authority, Ireland (1967).

The answers to this question are summarized in Table 5A.13. The table indicates that the international corporate tax system does influence foreign direct investment. The relatively high proportion of the respondents giving no answer to the question is explained by the fact that not all of the companies in the sample had invested abroad and therefore did not consider the question to be relevant to them.

Devereux and Pearson also enquired about the relevance of particular aspects of the tax system for location decisions. Their findings, which are also reported in Table 5A.13, suggest that corporate tax rates are most important, followed by withholding tax rates and depreciation rates, and then by tax loss provisions. Grants seem to have the least effect.

Wilson (1991) studied 68 investment location decisions made by a sample of nine US-based multinational companies during the period 1965-90. The sample included three pharmaceutical companies, three semiconductor companies, and one company from chemicals, materials, and software, respectively. The firms were generally very large, including three companies with 1990 sales in excess of USD 5 billion. In an effort to highlight the importance of tax as well as non-tax factors in location decisions, Wilson selected firms with manufacturing facilities in both low- and high-tax countries. The study was based on careful interviews with chief financial officers and other high-level managers from each company.

The broad conclusions from Wilson's study generally confirm the findings of earlier business surveys. Thus Wilson found that taxes are an important consideration in locating manufacturing facilities, although they rarely dominate the decision process. Depending on the industry, manufacturing location decisions are also influenced by operating requirements, marketing issues, and the global strategic needs of the company. At the same time, Wilson concluded that the location of business activities which can easily be 'decoupled' from the other operations of the multinational company, e.g. administrative and distribution centres, is indeed largely dictated by tax considerations.

Overall, the impression left by the business surveys reviewed in this section is that, although the corporate tax system is rarely the major determinant of the location of foreign direct investment, it does have an influence on international investment decisions. Whether this influence is distortionary depends on the extent to which the corporation tax can be seen as a payment for public services provided to corporations. Several of the survey studies referred to above suggest that the availability of infrastructure is of major importance for the choice of location. Hence, if a high corporate tax burden in a country simply reflects a high quality of the local infrastructure provided by government, the international pattern of investment would probably not be distorted by corporate tax differentials. However, casual observation suggests that there is rarely a systematic relationship between the effective corporate tax rate in a country and the value of public (infrastructural) services offered to businesses. It would therefore seem unwarranted to conclude from the survey studies that cross-country differentials in effective corporate tax rates create no serious distortions of the international investment pattern.

7(d) A case study: the effects of the 1986 US Tax Reform Act on international investment flows

One reason why econometricians have often arrived at different quantitative estimates of the effects of taxation on international investment flows is that it is technically very difficult to isolate the effects of changing tax rules from the effects of changes in all

the other factors influencing investment. However, the occurrence of major tax reforms provides a special opportunity to evaluate the effects of taxation on economic behaviour. At least for a few years following a major change in economic policy, it may be reasonable to assume that a substantial part of the observed change in behaviour is due to the policy change, provided the economy is exposed to no other major 'shocks' in the same period.

The US Tax Reform Act of 1986 is an example of such a 'landmark' policy change involving significant changes in the tax incentives faced by households and firms. Thus, the Reform Act combined large cuts in marginal tax rates with a wide number of measures to broaden the tax base. For corporations operating in the United States, the tax reform implied a fall in the statutory federal corporate tax rate from 46 to 34%, and an elimination of the investment tax credits previously applied to equipment and machinery as well as less-generous depreciation allowances. In addition, certain measures were taken to limit the ability of US-based multinational enterprises to shift their taxable worldwide income from domestic to foreign sources, thereby limiting the opportunities for these firms to take advantage of the US foreign tax credit mechanism. How would one expect these changes in US corporate tax rules to affect outward and inward foreign direct investment in the United States and is the recent evidence on US FDI consistent with these expected tax effects?

One important effect of the tax reform was to increase significantly the number of US-based multinationals who are in an 'excess credit position'. Since the credit granted by the US Government for taxes paid abroad cannot exceed the amount of US tax on foreign-source income, the lower statutory US corporate tax rate has implied that US multinationals often do not receive a full credit for the foreign taxes on income repatriated from foreign affiliates. The lower limit on the US foreign tax credit should provide an incentive for US multinationals to shift their foreign investments towards foreign low-tax countries. There is some evidence that US firms have in fact reacted in this way. Thus, in the years following the tax reform, the growth of capital expenditures by foreign affiliates of US corporations in European countries with low effective corporate tax rates has been markedly higher than the growth of capital expenditures by US affiliates in European high-tax countries, as demonstrated by Slemrod (1989, Table 1).

The effects of the 1986 Tax Reform Act on the incentives for foreign direct investment into the United States are less obvious. The tax reform was estimated to increase the marginal effective corporate tax rate on additional real investment by US corporations, because the effect of the lower statutory tax rate was outweighed by the measures to broaden the corporate tax base. Thus, for US affiliates of foreign parent companies resident in 'territorial' countries (which offer no credit for US taxes), the higher effective US tax rate must have reduced the incentive to undertake real investment in the United States. On the other hand, foreign multinationals based in countries offering a foreign tax credit will at least be partly shielded from the higher effective rate of tax on their US investments. Hence these foreign firms should have improved their tax status relative to domestic US corporations, and therefore one might expect an increase in acquisitions of US firms by multinationals from foreign countries operating a tax credit system, as argued by Scholes and Wolfson (1990).

The data for recent years reveal that there has been a surge in foreign acquisitions of US firms, and that the share of these acquisitions accounted for by countries applying the tax credit method (the UK and Japan) has indeed increased significantly (see

Auerbach and Hassett, 1991). However, as Auerbach and Hassett point out, it is highly debatable whether this change in takeover activity was actually due to the Tax Reform Act. By reducing incentives for new real investment, the Act made it more attractive for US firms to expand by acquiring other existing US firms rather than adding to their own physical capital stock. For this reason, one could expect US firms to bid up the stock market value of other existing domestic firms. In contrast, foreign multinationals from tax credit countries would be less affected by the abolition of the investment tax credit and the fall in the statutory US tax rate and hence should be less willing to pay a higher price for existing US firms. Auerbach and Hassett (op. cit.) therefore suggest that the rise in acquisitions of US corporations by UK and Japanese multinationals simply reflects the general worldwide increase in FDI from these countries in recent years.

In summary, the pattern of US direct investment in Europe in the last few years confirms the expected effects of the Tax Reform Act of 1986. On the other hand, the effects of the Act on incentives for foreign direct investment into the United States seem rather complex, and it is not clear that the recent pattern of US inward FDI can be explained by the tax reform.

7(e) Tax effects on foreign direct investment: a brief summing-up

As one might have expected, the numerous studies reviewed above suggest that it is not an easy task to identify, let alone to quantify, the effects of the corporate tax system on transnational direct investment flows. Section 7 considered four types of evidence of tax effects on FDI: simulation studies, econometric studies, business survey studies, and a case study. All types of studies were noted to have certain limitations but, taken together, they do seem to support the view that the influence of the corporation tax on the international location of investment cannot be neglected.

The first of the two simulation studies reviewed in Section 7(a) suggested that the effect of changes in corporate tax rates on the financial behaviour of multinational companies may be considerably stronger than the effects on the real investment activity of multinationals, although the latter effects may still be significant. The second simulation study indicated that not only the magnitude, but even the sign of the effect on inward FDI of a change in the domestic corporate tax rate may depend crucially on the method of international double tax relief applied by the dominant foreign capital-exporting countries.

The results of econometric analyses of tax effects on FDI can sometimes be conveniently summarized in terms of the estimated tax elasticities. The elasticity of FDI with respect to the corporate tax rate measures the percentage change in FDI induced by a 1% change in the corporate tax rate. Hence, if the elasticity of inward FDI with respect to the domestic corporate tax rate were, say -2.0 , a cut in the corporate tax rate from 40 to 36% (i.e. a 10% drop in the corporate tax burden) would increase inward FDI in the country by $2 \times 10 = 20\%$. Unfortunately, no recent studies of corporate tax elasticities of FDI in Europe exist, but econometric analyses based on US data have typically found elasticities of inward US FDI with respect to the US corporation tax ranging from about -1.0 to about -4.0 . Judged on the basis of the most recent studies, the lower elasticity estimate of about -1 appears to be the more plausible one. Econometric studies of US outward FDI have also typically identified significant tax effects, but again the quantitative estimates seem to differ considerably. This

dispersion of estimates reflects a number of technical obstacles to econometric analyses of foreign direct investment, including data problems. One drawback of many of the econometric studies may be that they have been based on highly aggregated data. Thus, recent evidence on the location of investment within the United States suggests that the sensitivity of location decisions to inter-State tax differentials varies greatly from one type of industry to another.

Survey studies based on questionnaires to business executives can often provide an additional insight into the importance of tax factors on the international location of an investment. Most of these business surveys indicate that although cross-country corporate tax differentials are typically less important for the choice of location than factors such as the availability of relevant infrastructural facilities, the tax rules of the host country are almost always considered a 'relevant factor', and often even a 'major factor' in location decisions.

As a supplement to other types of evidence, Section 7(d) briefly discussed whether the recent pattern of foreign direct investment into and out of the United States is consistent with the investment effects which one might expect to follow from the sweeping US Tax Reform Act of 1986. It was found that while the recent behaviour of outward US FDI seems to conform with the expected effects of the tax reform, the observed pattern of FDI into the United States in the last few years cannot easily be explained by reference to the change in corporate tax rules.

8 — The effects of taxation on the financing and internal pricing behaviour of multinational firms

The discussion in Section 5 suggested that changes in corporate tax rates are likely to alter the financial behaviour of transnational corporations, as well as their real investment activity. From an economic viewpoint, tax distortions of the allocation of real investment are more serious than tax-induced distortions of financial patterns. Indeed, adjustment of financial patterns can help to mitigate the distortionary tax effects on real investment activity, as corporations substitute more 'tax-efficient' modes of finance for those with higher tax costs. At the same time, tax-induced changes in financial patterns, such as the substitution of debt finance for equity finance to take advantage of interest deductibility, are not entirely unproblematic from the viewpoint of the authorities, because these financial reactions typically reduce tax revenues, and because they may reduce the financial solidity of the corporate sector.

Policy-makers and revenue authorities have also expressed concern about the ability of multinational firms to shift taxable income from high- to low-tax jurisdictions through so-called 'transfer-pricing', i.e. through manipulation of the prices of goods and services traded within a multinational group of related firms with the purpose of reducing the worldwide tax liability of the group. A technique serving a similar purpose in the practice of 'thin capitalization' whereby debt and the associated deductible interest expenses are reallocated to affiliates of the multinational group located in high-tax jurisdictions. In so far as transfer-pricing and thin capitalization take place, these practices will clearly reduce worldwide corporate tax revenues, but at the same time they will also tend to reduce the distortionary effects of taxation on real investment.

This section briefly reviews some evidence on tax effects on the financing and internal pricing behaviour of multinationals. As a supplement to the previous analysis of the

effects of taxation on real investment decisions, the evidence in this section is of some interest, partly because it provides further information on the extent to which corporations respond to tax incentives, and partly because it indicates the extent to which individual governments may be able to increase the taxable paper profits reported within their jurisdictions by reducing their (statutory) corporate tax rates.

8(a) Taxation and corporate financial policy

The investigation in Section 5 indicated that, in a country relieving international double taxation through the method of credit with deferral, a rise in the domestic corporate tax rate will tend to reduce dividend remittances from abroad and induce multinationals to finance a greater part of their FDI through retention of earnings in foreign subsidiaries. On the other hand, a rise in the foreign corporate tax rate is likely to have the opposite effect, because it implies a greater tax burden on foreign retained earnings.

The econometric studies of tax effects on the dividend remittance behaviour of US-based multinationals summarized in Table 5A.14 all confirm these expectations. The recent comprehensive study by Hines and Hubbard (1990) also indicates that, when a US parent company has an excess of foreign tax credits, it tends to increase its dividend repatriations. This is likewise what one would expect, given that a company in an excess credit position will not face any additional US tax on additional dividend income from abroad.

Some of the results recorded in Table 5A.14 have interesting implications for the revenue effects of the corporation tax. For instance, if the negative elasticity of subsidiary dividends with respect to the home-country tax rate is numerically larger than one, as estimated by Kopits (1972), a higher home-country corporate tax rate will reduce the revenue from the taxation of the foreign-source income of resident multinationals, because the percentage fall in the tax base (dividends from foreign subsidiaries) will exceed the percentage rise in the tax rate.

A recent study by Hogg and Mintz (1991) provides further evidence of tax effects on the financial decisions of multinational companies. Hogg and Mintz investigated the effects of recent US and Canadian tax reforms on the financing behaviour of 28 US multinationals operating in Canada in the period 1983-89. On the basis of economic theory, the authors predicted that the tax reform measures would: (i) favour the use of more local debt finance of US subsidiaries in Canada, (ii) induce US parent companies to increase their cross-border charges (management fees, royalties, specific expense reimbursements, etc.) to Canadian subsidiaries, and (iii) reduce the incentive to reinvest earnings in Canada and probably increase dividend payouts from Canadian subsidiaries to US parents.

Hogg and Mintz found that their data tended to confirm hypotheses (i) and (iii) although they warned that non-tax factors might also have contributed to the registered rise in debt and dividend payout ratios. On the other hand, the authors found no significant increase in cross-border charges (hypothesis (ii)), but they suggested that a change in the auditing practices of Canadian authorities might have discouraged the predicted increase in these charges.

8(b) Taxation and transfer-pricing

When allocating their taxable worldwide income among the different jurisdictions in which they operate, multinational corporations are obliged to apply so-called 'arm's-length' prices to the transactions between the various entities within the multinational group. According to the arm's-length principle, the prices applied to intra-group transactions must conform to the open market prices which would have been charged if the transactions had taken place between unrelated parties.

However, the goods and services traded within a multinational group are often so specialized that no directly comparable products are traded among unrelated parties in an open market. This may make it very difficult to identify the relevant arm's-length prices and may leave multinationals with some possibility to set transfer prices with the purpose of shifting taxable income to low-tax jurisdictions. In an effort to prevent such practices, the tax authorities in many developed countries have issued detailed and complex guidelines for the determination of proper transfer prices on intra-group transactions where no comparable 'unrelated-party' prices exist.

Such official transfer-pricing rules clearly constrain the possibilities for income shifting. Another constraint on transfer-pricing stems from the need to ensure an efficient coordination of activities within the multinational group. For large firms with global operations, it will often be costly and impractical to keep separate sets of books for the tax authorities and for internal accounting purposes. A multinational corporation applying 'artificial' transfer prices therefore runs the danger of sending distorted price signals to the firm's division managers and inducing them to make inappropriate decisions.

Because of these constraints, it is an open empirical question whether multinationals are in fact able to shift significant amounts of taxable income from high- to low-tax jurisdictions through transfer-pricing. Researchers have only recently begun to offer systematic quantitative evidence on this issue.

Once again, this research has relied mainly on data from the United States. Thus, the study by Grubert and Mutti (1989) referred to in Section 7(b) used regression analysis of cross-country data for 1982 on manufacturing affiliates of US multinationals to investigate whether affiliates located in low-tax countries tended to report higher rates of taxable profits than affiliates in high-tax countries. To control for cross-country differences in pre-tax profitability, the authors used GDP growth rates as an indicator of economy-wide profitability in the various foreign host countries. After allowing for this factor, Grubert and Mutti found a significant and large negative relationship between host-country tax rates (statutory as well as effective average tax rates) and the rates of taxable profits in foreign affiliates. In other words, affiliates of United States multinationals appear to declare relatively more income in low-tax jurisdictions, consistent with the hypothesis of income-shifting through transfer-pricing and thin capitalization.

Hines and Rice (1990) also analysed cross-country aggregate data from 1982 on US non-bank majority-owned foreign affiliates. They studied the effects of host-country tax rates on the reported profits of foreign affiliates, using various measures of pre-tax profits. Applying regression analysis, Hines and Rice found a negative relation between all of these profit measures and host-country average tax rates, in accordance with the hypothesis of income-shifting.

While Grubert and Mutti and Hines and Rice focus on the shifting of income between the different foreign affiliates of US multinationals, Harris et al. (1991) address the question of income-shifting between US parents and their foreign affiliates. They study data on 200 US manufacturing firms from 1984-88 to see if the ratio of US taxes to either US sales or US assets depends in a systematic way on the presence of foreign affiliates in various high- or low-tax regions. After controlling for a number of other factors affecting the US tax liability of parent companies, the authors find that this liability is related to the location of foreign subsidiaries in a way which is consistent with tax-motivated income-shifting. Thus, US parents with subsidiaries in foreign 'tax haven' countries tend to have lower US tax ratios, while parents with subsidiaries in foreign high-tax regions pay higher US taxes relative to their US sales and assets. After having considered a number of alternative explanations for these results, the authors interpret their findings as evidence of income-shifting. At the same time, they estimate that income-shifting by US multinationals leads only to small reductions in overall US tax revenue.

Grubert et al. (1991) also investigate income-shifting between the United States and other countries. Their point of departure is the observed fact that the taxable income of foreign US controlled companies operating in the United States is significantly lower than the rates of taxable profits reported by domestic US firms. Using large data sets from the 1980s, the authors analyse whether this difference in taxable profits (relative to sales and assets) can be taken as evidence of income-shifting out of the United States, or whether it can be ascribed to other factors. They estimate that various quantifiable non-tax factors (including start-up costs, exchange rate fluctuations, etc.) can account for about half of the observed difference between the reported profitability of domestic US firms and foreign-controlled companies. This leaves the other half to be explained by transfer-pricing distortions or other factors. However, it is worth mentioning that Harris et al. find no evidence of a systematic tendency for foreign-controlled companies to engage in thin capitalization.

As a supplement to the econometric and statistical evidence mentioned above, the business survey by Wilson (1991) offers some qualitative evidence on recent trends in transfer-pricing. As already mentioned, the use of distorted transfer prices may make it difficult for multinationals to ensure a rational and efficient internal coordination of their different activities. To avoid this difficulty, multinational firms may establish separate transfer prices for tax and managerial purposes, or they may use pre-tax profit measures which do not depend on transfer prices to evaluate the performance of lower-level managers. Interestingly, all of the nine US multinationals in Wilson's interview study used one of these alternatives. The interviews undertaken by Wilson also revealed a common perception among corporate managers that the scope for 'aggressive' transfer-pricing has been diminished in recent years, due to the growing use of official guidelines on the setting of transfer prices, and due to better and tougher audits by taxing authorities in the leading countries.

9 — Estimates of the size and distribution of efficiency gains from corporate tax harmonization

A major purpose of the analysis in this paper is to provide a more solid foundation for a discussion of the following basic policy issues. Would a programme of partial or full corporate tax harmonization in the European Community have a significant

impact on transnational investment flows within Europe? Further, would corporate tax harmonization be likely to generate a noticeable economic gain to the Community as a whole, and if so, what would be the likely distribution of this gain?

Sections 7(a) and 7(b) reviewed a number of simulation and econometric studies offering quantitative estimates of the effects of the corporation tax on international investment flows. In principle, simulation models and econometric analyses can also provide estimates of the effects of an international harmonization of the corporation tax on the international pattern of investment. Through such estimates one may obtain a better impression of the magnitude of the investment distortions caused by existing corporate tax differentials, and one may get an impression of the size and distribution of the potential economic gains from tax harmonization.

This section considers an early as well as a recent estimate of the effects of corporate tax harmonization in Europe. To facilitate the interpretation of these studies, it will be useful to start out with a brief discussion of some of the economic mechanisms underlying the results.

In a world of high capital mobility, there will be a tendency for the rates of return after corporation tax to be equalized across countries. Consequently, the pre-tax rates of return on investment will tend to be relatively low in countries where effective corporate tax rates are relatively low, and vice versa. A programme of corporate tax harmonization would imply that effective tax rates would have to be raised in low-tax countries and lowered in high-tax countries. Corporate investment would then tend to be reallocated away from countries offering relatively low pre-tax rates of return towards countries offering relatively high rates of return before tax. This would imply a rise in the total income of the countries participating in the harmonization programme, because the fall in income in the previous low-tax countries (due to the export of capital from these countries) would be outweighed by the rise in income in the previous high-tax countries. In short, capital would tend to be reallocated towards countries where it can be invested more productively, and this would imply a gain in economic efficiency for the group of countries as a whole.

However, this aggregate efficiency gain would be unevenly distributed across countries and across socioeconomic groups within individual countries. Generally speaking, countries experiencing an export of capital as a result of the harmonization programme would suffer a loss of national income,¹ whereas countries faced with an inflow of capital from abroad would see their national income levels go up.

Turning to effects of corporate tax harmonization on income distribution within individual countries, the national gain to the countries receiving an increase of investment from abroad would mainly accrue to wage-earners (and possibly land-owners) in those countries. For the owners of capital in the previous high-tax countries, the gain from a lower corporate tax burden would gradually be eroded, because the inflow of additional investment from abroad would tend to drive down the pre-tax rate of return on investment in the country. Conversely, in the prior low-tax countries suffering from

¹ However, in some extreme cases this may not be true. If a country offers very generous tax incentives, implying a large negative marginal effective corporate tax rate on foreign investment into the country, a reduction of capital imports may actually raise the national income of the country by reducing the amount of tax subsidies transferred to foreigners. Note, however, that such a scenario presumes that the capital-importing country is initially pursuing a tax policy which is not in its own best interest.

an outflow of capital, the national loss would mainly be felt by wage-earners who would be faced with a lower demand for labour resulting from a falling investment level. For the owners of capital in these countries, the higher corporate tax burden would gradually be compensated by a rise in the pre-tax rate of return on investment stemming from a lower supply of capital to the country.

Finally, a programme of corporate tax harmonization would clearly imply some amount of redistribution between the private and public sectors in individual countries. Governments which initially levied high average effective corporate tax rates would see their revenues go down, while governments imposing low effective rates of corporation tax before the harmonization took effect would experience a rise in revenues.

If the total economic gain from corporate tax harmonization is positive, as one would expect it to be, the gainers from the harmonization should in principle be able to compensate the losers, so as to leave all the parties involved better off than they were at the outset. Yet, in practice, such a scenario may be very difficult to implement, since it would require that a programme of corporate tax harmonization be supplemented by policy measures to redistribute income across and within EC Member States.

The magnitude of the redistributive effects of corporate tax harmonization will depend on the sensitivity of investment flows to an equalization or approximation of effective corporate tax rates across countries. The early study by Snoy (1975, Chapter 27) suggests that this sensitivity may be quite high. Drawing on his own econometric analysis reviewed in Section 7(b), Snoy estimated the change in direct investment flows which would have occurred in his sample of West European countries in the period 1965-70, if those countries had all accepted to set their effective corporate tax rate equal to the prevailing average rate.

The main results of this exercise are summarized in Table 5A.15. The table shows the estimated effects of European corporate tax harmonization on the inflow of direct investment from the United States, and the estimated effects for each European host country on total inward FDI from all other countries. It is seen that the calculated effect of this hypothetical harmonization programme was very large for several of the countries concerned. For instance, Snoy's econometric analysis implies that Spain would have experienced a fall in the annual growth rate of inward FDI from the United States from 14.7 to 4.4%.

It must be stressed that if the harmonization of corporate taxes were implemented today, the changes of investment flows into particular countries would likely be quite different, because the corporate tax systems have undergone substantial changes since the period 1965-70 considered by Snoy. It is also conceivable that the changes of transnational investment flows induced by tax harmonization would on average be somewhat smaller than those indicated in Table 5A.15, since there has been some convergence of marginal effective corporate tax rates in Europe in recent years. Further, the economic environment has changed since the time of Snoy's study, and at any rate considerable statistical uncertainty attaches to his estimates, so at best the figures in Table 5A.15 are only indicative of the size of the changes in direct investment flows which might be induced by corporate tax harmonization.

A more recent estimate of the effects of corporate income tax harmonization within the EC has been offered by Fuente and Gardner (1990). They base their calculations on a highly simplified simulation model of a 'world' economy consisting of the EC, the United States and Japan. Estimates of marginal effective corporate tax wedges of

the type presented in Chapter 4 of the main report are incorporated into the model of Fuente and Gardner to capture the (dis)incentives for investment implied by the corporate tax system. The simulation model is calibrated so as to be able to reproduce a data set on the capital stocks invested in the various countries in 1985. The model is then used to simulate the reallocation of these capital stocks and the ensuing changes in net domestic products (output levels) resulting from various hypothetical EC tax harmonization programmes.

Fuente and Gardner consider three alternative harmonization scenarios. In scenario (1) they assume that statutory corporate income tax rates are allowed to stay at their 1990 levels, but that the corporate income tax bases in EC countries are partially harmonized in accordance with the EC Commission's draft proposal from 1988 for (partial) harmonization of the business income tax base. This scenario still leaves room for a standard deviation of 1.1 percentage points in marginal effective corporate tax wedges across EC member countries. Scenario (2) includes scenario (1) plus an equalization of individual countries' statutory corporate income tax rates around the 1990 weighted EC average of 43%. The scenario further assumes the elimination of local income taxes on corporations, but it retains the existing differences in the degree of dividend tax relief, the existing taxes on the value of corporate assets or corporate net worth, and differences in depreciation rates¹ and investment grants. The harmonization of statutory tax rates in scenario (2) only reduces the standard deviation of marginal effective corporate tax wedges within the EC by 0.3 percentage points relative to scenario (1), leaving a 0.8 percentage point standard deviation of effective tax wedges. Scenario (3) assumes complete equalization of company tax systems in the EC. In particular, this implies abolition of capital-based taxes and investment grants and the introduction of a common imputation system involving a credit on dividends equivalent to 50% of the underlying corporation tax, with this credit being extended to all EC residents. By construction, scenario (3) reduces the standard deviation of marginal effective corporate tax wedges within the EC to zero.

Table 5A.16 reports the estimated effects on net domestic products (net output levels) of these alternative harmonization scenarios, on the assumption of free capital mobility between the EC and the rest of the world, consisting of the United States and Japan. The figures in the last three columns are index numbers which are measured relative to the first column. The numbers in the first column indicate the output levels which would prevail if EC capital markets were fully integrated, i.e. if after-tax returns to corporate investment were completely equalized, given the actual non-harmonized tax rules prevailing in 1990. These output levels of an 'integrated' Europe with non-harmonized tax systems are measured relative to the 1985 output levels calculated by the model. For example, Table 5A.16 shows that Portugal can expect an increase in potential output of about 28.5% relative to 1985 as a result of EC capital market integration, if the 1990 tax rules are maintained. Further, relative to the output level associated with a completely integrated European capital market, Portugal would experience an additional output gain of 2.2% in case of complete EC corporate tax harmonization, as indicated in the last column of Table 5A.16.

According to the table, countries such as Portugal, Ireland, Greece, the UK and Spain will be the major beneficiaries of European capital market integration under the 1990

¹ The EC Commission's 1988 draft proposal for tax-base harmonization did not require an equalization of depreciation rates.

tax rules, whereas Germany will be the major loser from the integration process. These estimates simply reflect the hypothesis that in a unified EC capital market, capital will flow from countries such as Germany with a high effective corporate tax rate to the countries just mentioned where effective tax rates are relatively low.

Table 5A.16 also suggests that the reallocation of potential output levels which would follow from corporate tax harmonization would be fairly modest compared to the reallocation that would seem to follow from the process of capital market integration. Thus, the table predicts that no country would experience an additional change in potential output in excess of 1.6% if the EC Commission's 1988 draft proposal for partial harmonization of the corporate tax base were implemented. If such base harmonization were supplemented by harmonization of statutory corporate tax rates, Germany would apparently experience a noticeable output gain of 3%, while Ireland would suffer an output loss of 2.7%, but for most other countries the output changes would be small. For the EC as a whole, the two harmonization scenarios would imply an output gain of less than 1%.

On the other hand, the Fuente/Gardner simulation model implies that a complete harmonization of corporate tax systems (scenario (3)) would yield an increase in total Community output of about 2%. Germany and Italy would be the major beneficiaries, while countries such as Ireland and Luxembourg would lose. The total EC output gain of 2% may be compared to the expected gains from the completion of the single market, which have been estimated by the EC Commission to be in the order of 4.5 to 6.5% of EC output.

It is important to note from Table 5A.16 that most of the EC gain from corporate tax harmonization would apparently come at the expense of the rest of the world. The specific harmonization scenario (3) considered by Fuente and Gardner implies a reduction of the average value of the marginal effective corporate tax rate in Europe. This leads to an increase in the demand for capital in the EC area which in turn drives up European interest rates, thereby attracting capital from the United States and Japan and reducing the output and income levels of those countries. The main reason for the fall in the effective tax rate on European capital in scenario (3) is that this scenario involves an increase in the average degree of dividend tax relief in the EC. However, as Fuente and Gardner themselves recognize, the quantitative effect of dividend tax relief on the cost of corporate capital is rather uncertain. At any rate, the main point of their analysis is that the level around which effective corporate tax rates are harmonized will be crucial for the magnitude and even the sign of the gains from harmonization. If tax rates are harmonized at a high level, capital will be driven out of Europe, and the Community as a whole could then suffer a loss of output and income.

The quantitative estimates of Fuente and Gardner should not be taken too literally. As already indicated, they are based on a highly stylized and simplified simulation model and are therefore rather uncertain. In particular, the model considers only the static effects of the reallocation of the existing world capital stock induced by tax harmonization. The dynamic effects of tax harmonization on savings, capital accumulation and economic growth are not incorporated into the model. Again, the sign and magnitude of these effects would depend crucially on the level around which effective tax rates were harmonized. Harmonization at a low level could spur savings and growth, whereas equalization of tax rates at a high level would be likely to have the opposite effect.

The discussion above has focused on the effects of tax harmonization on the international allocation of business investment. It is worth noting, however, that harmonization of corporate tax systems could also have beneficial effects on the international allocation of risk-taking. At present, countries applying an imputation system of dividend tax relief often do not extend their dividend tax credits to non-resident shareholders. When only resident shareholders can benefit from dividend tax relief, they will typically be willing and able to pay a higher price for domestic shares than non-resident investors. The tax discrimination against foreign shareholders thus tends to segregate the national stock markets from each other.

If the harmonization of corporate tax systems would involve the elimination of all forms of tax discrimination against non-resident shareholders, the integration of national stock markets would be facilitated, and investors would be in a better position to take advantage of the possibilities for international diversification of their portfolios. The removal of the tax barriers to entry into foreign stock markets would provide investors with greater opportunities for the spreading of risks, and this would yield a welfare gain and encourage risk-taking.

10 — Summary and conclusions

This paper has considered the effects of capital taxation on international investment and economic efficiency.

The first part of the paper discussed the likely effects of taxation on capital flows from a theoretical perspective. In the discussion of international flows of portfolio capital, it was pointed out that personal taxes on capital income as well as withholding taxes on interest and dividends have an indirect effect on the international location of corporate investment through their impact on the level of interest rates and stock prices in individual countries.

The analysis of foreign direct investment stressed that taxes can rarely be expected to be the dominant determinant of the international location of investment, and that the effects of the corporation tax on FDI will generally depend on the method of international double tax relief, on the source of investment finance, and on the objectives pursued by corporate managers.

The paper proceeded to review various pieces of evidence on tax effects on international investment. Some anecdotal evidence was presented to suggest that changes in corporate tax rules may sometimes have important effects on transnational flows of portfolio capital through their impact on interest rates. Further, several episodes in recent years have indicated that portfolio capital flows as well as the financial behaviour of multinational companies can be strongly influenced by withholding tax rates.

The main emphasis of the empirical sections was on foreign direct investment which is most directly affected by the corporate tax system. Four types of evidence of tax effects on FDI were reviewed: simulation studies, econometric studies, business surveys, and a case study of the US tax reform of 1986. The main results from all of these studies were summarized in Section 7(e). The overall conclusion was that although considerable uncertainty remains regarding the quantitative effects of the corporation tax on FDI, there is substantial evidence of non-negligible tax effects on the international location of business investment. At the same time, there is some evidence to suggest

that the distortionary impact of taxation on real investment decisions may be mitigated by tax-induced changes in financial patterns and by the possibility of shifting taxable income to low-tax jurisdictions through transfer-pricing.

The final part of the paper surveyed an econometric study and a simulation study of the effects of corporate tax harmonization in Europe, focusing mostly on the more recent simulation study. This study, based on a highly simplified model, suggested that the output gain from corporate tax harmonization for the EC as a whole would be rather modest, amounting to about 2% of total output in the case of complete harmonization. Further, the total gain would be unevenly distributed across EC Member States, since the present low-tax countries would in fact suffer a loss, and within each country the national gains or losses would be felt mainly by wage-earners in the long run. Additional important points were that most of the harmonization gains to the EC would tend to come at the expense of the rest of the world, and that the EC gain would depend crucially on the level at which effective corporate tax rates were harmonized. Thus, harmonization at a high level could actually inflict a loss on the Community as a whole, by driving capital out of Europe.

It may seem difficult to reconcile the tentative conclusions that the effects of corporate tax differentials on international investment may be quite significant, whereas the potential output and income gains from EC corporate tax harmonization appear to be modest. However, the two conclusions are not really inconsistent, once one considers that the elasticity of net aggregate output with respect to capital inputs is typically estimated to be around 0.2 to 0.3. Elasticities of this magnitude imply that even fairly large reallocations of the world capital stock would only cause rather modest reallocations of output across countries. For instance, if the elasticity of output with regard to capital input is 0.2, an increase in the capital stock of 10% — which would require a substantial investment flow — would only raise output by 2%.

In the study of the effects of EC corporate tax harmonization reviewed in Section 9, a complete harmonization of EC corporate tax systems (involving among other things a common imputation system with a 50% dividend tax credit) was in fact estimated to raise the total capital stock in the EC by 9.2% via an inflow of investment from the rest of the world. The greater part of the estimated 2.1% output gain for the EC as a whole stemmed from this capital inflow, while only a very small part of the gain could be ascribed to an improvement of the allocation of the initial EC capital stock within the Community.

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TABLE 5A.1

International capital flows on a global scale, 1982-88

| | (billion SDR) | | | | | | |
|--|---------------|--------|--------|--------|--------|--------|--------|
| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 |
| Capital account balance | 56.7 | 63.8 | 47.6 | 38.2 | 7.2 | 4.9 | 27.3 |
| Direct investment | 26.9 | 14.2 | 13.0 | -14.1 | -19.6 | -28.5 | -9.7 |
| Abroad | -21.6 | -31.4 | -39.0 | -61.5 | -83.7 | -112.8 | -109.4 |
| In the reporting economy | 48.6 | 45.5 | 52.0 | 47.4 | 64.1 | 84.3 | 99.8 |
| Portfolio investment | -12.0 | 15.0 | 27.0 | 36.2 | -7.3 | -19.2 | -32.2 |
| Assets | -60.2 | -42.9 | -53.5 | -115.1 | -158.7 | -99.3 | -156.8 |
| Liabilities | 48.1 | 57.9 | 80.5 | 151.3 | 151.4 | 80.0 | 124.6 |
| Other long-term capital | 23.9 | 14.3 | 1.1 | 22.7 | -3.1 | -7.3 | -7.0 |
| Assets | -85.8 | -82.8 | -69.0 | -57.8 | -62.8 | -74.5 | -45.3 |
| Liabilities | 109.7 | 97.1 | 70.1 | 80.4 | 59.7 | 67.2 | 38.3 |
| Other short-term capital | -14.8 | 24.8 | 24.2 | 10.1 | 33.5 | 123.0 | 76.2 |
| Assets | -203.5 | -101.7 | -146.5 | -201.5 | -375.9 | -359.1 | -258.8 |
| Liabilities | 188.7 | 126.5 | 170.7 | 211.5 | 409.4 | 482.1 | 335.0 |
| Reserves | 30.4 | -19.9 | -33.1 | -15.4 | -21.0 | -119.5 | -30.9 |
| Liabilities constituting foreign authorities' reserves | 2.3 | 15.5 | 15.4 | -1.3 | 24.7 | 56.4 | 30.8 |
| <i>Memorandum items</i> | | | | | | | |
| Current account balance | -85.9 | -64.1 | -69.5 | -62.9 | -36.1 | -12.2 | -41.3 |
| Net errors and omissions | 29.1 | 0.1 | 21.5 | 23.9 | 28.3 | 6.9 | 13.8 |

Source: IMF (1991, Table 1).

TABLE 5A.2

**Inward and outward direct investment flows in the EC
and its main trading partners**

| | Cumulative flows of inward direct investment | | Cumulative flows of outward direct investment | |
|---------------------------------|--|---------|---|---------|
| | 1971-80 | 1981-89 | 1971-80 | 1981-89 |
| <i>EC countries</i> | | | | |
| Belgium/Luxembourg ¹ | 9 215 | 20 020 | 3 213 | 14 854 |
| Denmark | 1 561 | 308 | 1 063 | 476 |
| Germany ¹ | 13 957 | 16 535 | 23 130 | 85 253 |
| Greece | n.a. | 6 145 | n.a. | n.a. |
| Spain | 7 060 | 46 000 | 1 274 | 8 196 |
| France ¹ | 16 908 | 43 225 | 13 940 | 85 736 |
| Ireland | 1 659 | 1 113 | n.a. | n.a. |
| Italy ¹ | 5 698 | 24 993 | 3 597 | 27 859 |
| Netherlands | 10 822 | 25 729 | 27 829 | 51 038 |
| Portugal ² | 536 | 5 813 | 38 | 202 |
| United Kingdom | 40 503 | 121 048 | 55 112 | 184 154 |
| <i>Main trading partners</i> | | | | |
| Japan ¹ | 1 424 | 3 281 | 18 052 | 185 826 |
| United States ³ | 56 276 | 354 712 | 134 354 | 176 464 |

¹ These countries do not include reinvested earnings in their foreign direct investment statistics.

² Figures for Portugal are only available from 1975 onward.

³ US data have been revised to exclude capital gains and losses, bringing them more into line with the data for other countries.

Source: OECD. The figures are based on balance of payments data.

TABLE 5A.3

**The likely effects of taxation on net imports of portfolio capital
in the short and medium term**

| Effect on | Personal tax on interest income | Corporation tax | Personal tax on dividends | Personal tax on capital gains | Investment incentive |
|--------------------|---------------------------------|-----------------|---------------------------|-------------------------------|----------------------|
| Investment | + | - | - | - | + |
| Saving | - | + | + | ? | ? |
| Net capital import | + | - | - | ?(-) | ?(+) |

NB: The signs in brackets indicate the most likely effects. The table is based on the theoretical analysis in Nielsen and Sørensen (1991).

TABLE 5A.4

**Alternative methods of financing real investment
by a foreign subsidiary¹**

Financing from external sources

1. Borrowing by the subsidiary in the local or global capital market.
2. New share issues by the subsidiary to minority shareholders in the local or global capital market.

Financing from internal sources²

3. Retention of earnings by the subsidiary.
4. Retention by the parent and lending.
5. Retention by the parent and purchase of new shares from the subsidiary.
6. Borrowing by the parent and lending to the subsidiary.
7. Borrowing by the parent and purchase of new shares from the subsidiary.
8. New share issues by the parent and lending to the subsidiary.
9. New share issues by the parent and purchase of new shares from the subsidiary.

¹ For simplicity, the table ignores the possibility of loans from one foreign subsidiary to another.
² The financing methods 3 to 9 represent foreign direct investment.

TABLE 5A.5

**Likely effects on outward foreign direct investment
of a rise in the domestic corporate income tax rate¹**

| | Method of international double tax relief | | |
|------------------------|---|-----------------------------------|-------------|
| | Exemption | Credit with deferral ² | Pure credit |
| Real investment effect | (0) | - 3 | - |
| Acquisition effect | (0) | - 3 | - |
| Financial effect | (0) | - | - |
| Total effect | (0) | - | - |

¹ The table is based on the theoretical analysis in Sinn (1988) and Sørensen (1991). The effects shown in the table can also be interpreted as the impact on inward foreign direct investment of a rise in the foreign corporate tax rate.

² It is assumed that the domestic corporate tax rate exceeds the foreign corporate tax rate. Otherwise the effects under credit with deferral are identical to the effects under exemption.

³ If the foreign subsidiary finances investment through its own retentions, the effect will be negligible.

TABLE 5A.6

Likely effects on outward foreign direct investment of a rise in the foreign corporate income tax rate¹

| | Method of international double tax relief | | |
|------------------------|---|----------------------|-------------|
| | Exemption | Credit with deferral | Pure credit |
| Real investment effect | – | (–) | 0 |
| Acquisition effect | 0 | + | + |
| Financial effect | – | – | 0 |
| Total effect | – | ?(–) | + |

¹ The table is based on the theoretical analysis in Sinn (1988) and Sørensen (1991). The effects shown in the table can also be interpreted as the impact on inward foreign direct investment of a rise in the domestic corporate tax rate.

TABLE 5A.7

The effects of corporate tax rates on the investment activity of a multinational company under alternative assumptions regarding management behaviour

| | Objective of corporate manager | | | |
|---|--------------------------------|--|---------------------|--------------------|
| | Value maximization | | Growth maximization | |
| | Effect on: | | Effect on: | |
| | domestic investment | foreign investment | domestic investment | foreign investment |
| Effect of a rise in the domestic corporate tax rate | Negative | Zero ¹ or negative ² | Negative | Positive |
| Effect of a rise in the foreign corporate tax rate | Zero | Negative | Positive | Negative |

¹ Under the system of exemption.

² Under the system of credit with deferral.

TABLE 5A.8

**US direct investment abroad
and transactions with Netherlands Antilles finance affiliates**

(billion USD)

| | Total US direct investment | | Netherlands Antilles affiliates | |
|------|----------------------------|------------------|---------------------------------|------------------|
| | Direct investment abroad | Parent transfers | Direct investment abroad | Parent transfers |
| 1982 | -2.4 | -3.7 | -8.6 | -9.4 |
| 1983 | 0.4 | -6.8 | -3.1 | -4.1 |
| 1984 | 2.8 | -5.7 | -2.0 | -2.8 |
| 1985 | 17.3 | -1.1 | 4.2 | 3.4 |
| 1986 | 28.0 | 9.1 | 5.1 | 5.4 |

Source: Jun (1989, Table 2; 1990, Table 2.2).

TABLE 5A.9

**Simulation studies of the effects
of the corporate income tax on capital flows**

| Author | Database | Variables explained | Elasticity with respect to host-country corporate income tax ¹ |
|---------------------------------|--------------------|---|--|
| Horst (1977) ² | US 1974 data | Domestic real investment by US parent companies | + 0.3 |
| | | Foreign real investment by US subsidiaries | - 0.6 |
| | | Net capital outflow from US parents to foreign subsidiaries | - 6.8 |
| Damus, Hobson and Thirsk (1991) | Canadian 1980 data | Canadian capital imports | Capital imports governed by after-tax return: - 0.34 Capital imports governed by pre-tax return: + 0.02 |

¹ The elasticity measures the percentage change in the variable explained induced by a 1% increase in the tax rate.² The elasticities reported here were calculated by Kopits (1976, p. 645) on the basis of the simulation model developed by Horst.

TABLE 5A.10

Estimates of tax effects on foreign direct investment
from four (present) EC countries into 14 West European countries, 1966-69

(changes in percentage points)

| Home country of investing company | Effect of a one percentage point increase in effective host-country corporate tax rate on the ratio of FDI to total manufacturing investment | Effect of a one percentage point increase in effective host-country corporate tax rate on the fraction of total European FDI received by that host country |
|-----------------------------------|--|--|
| Belgium | -0.004 ¹ | -0.088 ¹ |
| France | -0.033 ¹ | -0.495 |
| United Kingdom | -0.610 | -0.191 ¹ |
| FR of Germany | -0.271 | -0.333 |

¹ Estimate with low statistical significance.

Source: Snoy (1975).

TABLE 5A.11

Econometric estimates of the effects of the US corporate income tax rate
on inward foreign direct investment in the United States¹

| Author | Data period | Elasticity of FDI with respect to US corporate tax rate | | |
|------------------------|-------------|---|----------------------------------|--------------------|
| | | FDI financed by retained earnings | FDI financed by parent transfers | Total FDI |
| Hartman (1984) | 1965-79 | -3.6 | -9.5 ² | n.a. |
| Boskin and Gale (1987) | 1956-84 | -16.0 | Insignificant | n.a. |
| Young (1988) | 1953-84 | Interval: -1.0 to -3.83 | -1.48 ² | n.a. |
| Slemrod (1990) | 1956-84 | Insignificant ³ | -1.4 ³ | -1.16 ³ |

¹ The elasticities shown in the table indicate the percentage change in inward FDI induced by a 1% increase in the average effective US corporate tax rate. Part of the differences in estimates can be ascribed to data revisions.² Estimate with low statistical significance.³ Elasticity with respect to US marginal effective corporate tax rate.

TABLE SA.12

Econometric studies of the effects of the corporate tax system
on US outward foreign direct investment

| Author | Data set | Variables explained | Main findings |
|---------------------------|---|---|--|
| Snoy (1975) | Cross-section data on US FDI into 11 West European countries, 1966-69 | Average annual growth rate of US FDI in host country (I_g) Ratio of US FDI to total manufacturing investment in host country (I_r) | A 10 percentage point fall in the effective host-country corporate tax rate would: <ul style="list-style-type: none"> • increase I_g by 6.7 percentage points, • increase I_r by 2.5 percentage points. |
| Hartman (1981) | Time series, 1965-79 | Aggregate US FDI financed by retained earnings abroad, in proportion to US GNP (Ire/Y) | Elasticity of (Ire/Y) with respect to: <ul style="list-style-type: none"> • after-tax return on corporate investment in the United States: -0.66, • return on FDI after foreign corporation tax: $+1.4$. |
| Boskin and Gale (1987) | Time series, 1965-84 | Aggregate US FDI financed by retained earnings abroad, in proportion to US GNP (Ire/Y) | Elasticity of (Ire/Y) with respect to: <ul style="list-style-type: none"> • after-tax return on corporate investment in the United States: -0.2,¹ • return on FDI after foreign corporation tax: between $+1.2$ and $+1.3$. |
| Hartman and Frisch (1983) | Cross-section data on US FDI into 16 foreign host countries, 1968-72 | Growth rate of US FDI in host country over the period 1968-72 (I_g) 1972 stock of US-owned assets in host country (A) | <ul style="list-style-type: none"> • A one percentage point increase in the rate of return on FDI after foreign corporation tax raises I_g by 12 percentage points, • elasticity of A with respect to effective host-country corporate tax rate: -0.26, • additional US taxes on repatriated profits have no significant influence on FDI. |
| Jun (1990) | Time series, 1965-86 | Aggregate US FDI financed by transfers from US parents, in proportion to US GNP (It/Y) | <ul style="list-style-type: none"> • Significant positive effect on (It/Y) of marginal effective corporate tax rate on US investment, • no other significant tax effects on FDI. |
| Grubert and Mutti (1989) | Cross-section data on US FDI into 33 foreign host countries in 1982 | Stock of US-owned net plant and equipment in foreign host country (NPE) | A fall in the effective host-country corporate tax rate from 20 to 10% increases NPE by 65%. |

¹ The difference between this elasticity estimate and the corresponding one of Hartman (1981) can be ascribed to data revisions.

TABLE 5A.13

Results of the Devereux/Pearson survey of 173 UK companies

Question: 'In deciding in which country to locate a new production plant, how often are tax rates and grants a relevant consideration or a major factor in your location decision?' (Percentage of respondents who answered; non-response rate in final column)

| | Always | Usually | Sometimes | Never | No answer |
|------------------------|--------|---------|-----------|-------|-----------|
| Relevant consideration | 47.8 | 28.3 | 23.9 | 0 | 25.8 |
| Major factor | 18.9 | 24.3 | 40.5 | 16.2 | 40.3 |

Source: Devereux and Pearson (1989, Table 3.2).

Question: 'How often are the following a relevant consideration or a major factor when deciding the location of an investment?' (Percentage of respondents of restricted sample who answered each section; non-response rate in final column)

| | Always | Usually | Sometimes | Never | No answer |
|--------------------------------|--------|---------|-----------|-------|-----------|
| <i>Tax rates</i> | | | | | |
| Relevant consideration | 56.5 | 22.6 | 17.7 | 3.2 | 0 |
| Major factor | 30.8 | 21.2 | 34.6 | 13.5 | 16.1 |
| <i>Withholding tax rates</i> | | | | | |
| Relevant consideration | 39.7 | 37.9 | 17.2 | 5.2 | 6.4 |
| Major factor | 18.5 | 25.9 | 40.7 | 14.8 | 12.9 |
| <i>Depreciation provisions</i> | | | | | |
| Relevant consideration | 36.1 | 27.9 | 26.2 | 9.8 | 1.6 |
| Major factor | 22.6 | 11.3 | 37.7 | 28.3 | 14.5 |
| <i>Tax loss provisions</i> | | | | | |
| Relevant consideration | 34.5 | 29.3 | 29.3 | 6.9 | 6.4 |
| Major factor | 14.5 | 20.0 | 41.8 | 23.6 | 11.3 |
| <i>Automatic grants</i> | | | | | |
| Relevant consideration | 25.4 | 25.4 | 40.7 | 8.5 | 4.8 |
| Major factor | 12.7 | 21.8 | 47.3 | 18.2 | 11.3 |
| <i>Discretionary grants</i> | | | | | |
| Relevant consideration | 25.9 | 22.4 | 43.1 | 8.6 | 6.4 |
| Major factor | 12.5 | 21.4 | 44.6 | 21.4 | 9.7 |

Source: Devereux and Pearson (1989, Table 3.4).

TABLE SA.14

Econometric studies of tax effects on the financial behaviour
of US multinational corporations¹

| Author | Data set | Variables explained | Main findings |
|--------------------------|--|--|--|
| Kopits (1971) | Cross-section data for 18 developed host countries, 1962 | Subsidiary dividends (D) | Elasticity of D with respect to: host-country corporate tax rate: + 6.0, home-country corporate tax rate: - 7.9. |
| Kopits (1972) | Cross-section data for 23 less developed host countries, 1962 | Subsidiary dividends (D) | Elasticity of D with respect to: host-country corporate tax rate: - 0.4. |
| Ness (1973) | Cross-section data for 19 foreign host countries, 1969-71 | Subsidiary retained earnings (R) | Elasticity of R with respect to: host-country corporate tax rate: - 0.8, home-country corporate tax rate: + 1.0. |
| Mutti (1981) | Cross-section data for 11 foreign host countries, 1972 | Subsidiary dividends (D) | A one percentage point fall in US corporate tax rate increases D by 0.75%. |
| Hines and Hubbard (1990) | Cross-section micro-data for 12 041 US controlled foreign corporations, 1984 | Ratio of subsidiary dividends to subsidiary assets (D) | A one percentage point fall in US corporate tax rate increases D by 4% when the US parent has a deficit of foreign tax credits, D is increased when the US parent has an excess of foreign tax credits. |

¹ The elasticity estimates implied by the studies of Kopits (1971; 1972) and Ness (1973) were calculated by Kopits (1976).

TABLE 5A.15

Estimates of the effects of a hypothetical perfect equalization
of average effective corporate tax rates on foreign direct investment
into Western Europe in the period 1965-70

(%)

| Host country | Annual growth rate of direct investment from the United States | | Ratio of total inward direct investment flows to total investment in manufacturing | |
|--------------------|---|------------------------------------|---|------------------------------|
| | Actual growth rate | Estimated ¹ growth rate | Actual ratio | Estimated ¹ ratio |
| Belgium/Luxembourg | 18.0 | 11.5 | 23.4 | 20.7 |
| Denmark | 15.6 | 10.7 | 3.7 | -1.1 |
| FR of Germany | 12.7 | 16.1 | 6.2 | 5.4 |
| Spain | 14.7 | 4.4 | n.a. | n.a. |
| France | 11.7 | 10.4 | 3.2 | 8.7 |
| Italy | 12.8 | 7.3 | 4.7 | 6.6 |
| Netherlands | 24.4 | 20.8 | 15.4 | 15.2 |
| United Kingdom | 8.5 | 12.1 | 9.0 | 9.9 |
| Norway | 9.6 | 11.0 | n.a. | n.a. |
| Sweden | 23.4 | 19.1 | 3.6 | 6.9 |
| Switzerland | 21.0 | 12.9 | 15.2 | 3.6 |

¹ Estimates on the assumption of perfect equalization of effective corporate tax rates.

Source: Snoy (1975, Tables 27.4 and 27.5). Figures for Greece, Ireland and Portugal were not available.

TABLE 5A.16

Estimated effects on output levels
of corporate tax harmonization in the European Community¹

| | (a) Output level in an integrated market without harmonization (1985 = 100) | Harmonization scenario (Index, column (a) = 100) | | |
|----------------|---|---|-------|-------|
| | | (1) | (2) | (3) |
| Belgium | 98.9 | 99.3 | 98.7 | 99.9 |
| Denmark | 100.9 | 98.9 | 98.5 | 99.8 |
| FR of Germany | 90.7 | 101.2 | 103.0 | 105.4 |
| Greece | 118.4 | 101.6 | 101.0 | 102.2 |
| Spain | 111.1 | 100.4 | 98.9 | 101.1 |
| France | 94.7 | 101.4 | 101.4 | 101.2 |
| Ireland | 120.5 | 99.8 | 97.3 | 98.1 |
| Italy | 99.8 | 99.5 | 100.0 | 103.2 |
| Luxembourg | 96.6 | 99.0 | 99.1 | 98.6 |
| Netherlands | 95.9 | 101.2 | 100.0 | 102.3 |
| Portugal | 128.5 | 101.6 | 101.2 | 102.2 |
| United Kingdom | 115.9 | 101.0 | 101.0 | 99.9 |
| EC | 101.9 | 100.7 | 100.9 | 102.1 |
| Japan | 100.0 | 99.5 | 99.4 | 98.5 |
| United States | 100.0 | 99.5 | 99.4 | 98.5 |
| World | 100.0 | 100.0 | 100.0 | 100.1 |

¹ The estimates assume a common inflation rate of 2%. Output levels are measured by net domestic product. An explanation of the three alternative harmonization scenarios is given in the text.

Source: Fuente and Gardner (1990, Table 10).

Annex 5B

The sensitivity of the questionnaire responses to various factors

This Annex gives a more detailed breakdown of the responses to the questionnaire. It is intended to provide an indication of whether there was a systematic difference in responses depending on the following factors: country of respondent, sector in which respondent operates, position of responsibility of respondent and size of company of respondent.

There are four size categories, which split the respondents into four groups of equal size. 'Small' companies are defined as having an annual turnover of less than just over ECU 6.1 million. 'Medium I' have an annual turnover between just over ECU 6.1 million and just under ECU 44.6 million, 'medium II' between just under ECU 44.6 million and just under ECU 215.3 million and 'large' more than ECU 215.3 million.

The tables in this Annex correspond to those in Chapter 5 of the report. Thus, for example, Table 5B.5 gives a detailed breakdown of the results reported in Table 5.5 of Chapter 5.

The figures shown in each of Tables 5B.5, 5B.6 and 5B.7 are the average responses for each group, when the following values are assigned to different responses: always = 1, usually = 2, sometimes = 3, never = 4. A figure of, say, 1.7 would therefore indicate that the responses were heavily weighted towards the view that taxation is often either a relevant consideration or a major factor in various decisions. Such an average of course has no precise interpretation; it is intended only as an approximate guide to differences in response between the various categories.

The figures shown in Table 5B.8 are again average responses. In this case, the respondent was asked to choose a response from 1 to 5 where 1 = not at all and 5 = substantially. Again, the figures in this table therefore have no precise interpretation. Once again, however, they should offer some evidence regarding differences of response between the different groups.

For each table, the figures in parentheses in column 1 indicate the number of respondents in each group. The number answering each specific question may be smaller. Figures in parentheses in the other columns indicate that there were fewer than 10 responses to that question. Finally, Iceland was excluded from the country analysis because of lack of responses.

TABLE 5B.5

The decision as to the location of an operation may be more or less influenced by the tax systems of the countries concerned. In deciding in which country to locate the following types of operation, how often are taxes faced by your firm in alternative locations a relevant consideration and a major factor in your decision?

| | Production plant | | Sales outlet | | Coordination centre | | R&D centre | | Financial services centre | |
|-----------------------------|------------------------|--------------|------------------------|--------------|------------------------|--------------|------------------------|--------------|---------------------------|--------------|
| | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor |
| All (965) | 1.92 | 2.49 | 2.28 | 2.78 | 1.92 | 2.25 | 2.23 | 2.68 | 1.56 | 1.77 |
| Parents (584) | 1.97 | 2.56 | 2.34 | 2.86 | 1.81 | 2.13 | 2.23 | 2.69 | 1.48 | 1.67 |
| <i>By country</i> | | | | | | | | | | |
| Austria (28) | 2.22 | 2.43 | 2.50 | 2.52 | 1.87 | 2.08 | 2.45 | 2.45 | 1.29 | 1.42 |
| Belgium (48) | 1.97 | 2.52 | 2.29 | 2.89 | 1.20 | 1.32 | 1.95 | 2.56 | 1.27 | 1.41 |
| Denmark (77) | 1.74 | 2.44 | 2.04 | 2.78 | 1.78 | 2.26 | 1.78 | 2.33 | 1.28 | 1.44 |
| Finland (11) | 2.82 | 3.45 | 2.82 | 3.45 | (1.56) | (2.11) | (2.50) | (3.38) | 1.55 | 2.00 |
| France (17) | 1.58 | 2.45 | 2.13 | 2.69 | 1.45 | 1.73 | (1.44) | (2.11) | 1.17 | 1.33 |
| Germany (109) | 1.72 | 1.76 | 2.31 | 2.37 | 1.80 | 1.97 | 2.12 | 2.31 | 1.54 | 1.61 |
| Greece (26) | 1.65 | 2.25 | 1.63 | 2.19 | 2.39 | 2.93 | 2.56 | 3.07 | 2.10 | 2.44 |
| Ireland (62) | 1.53 | 2.03 | 2.39 | 2.96 | 1.78 | 2.07 | 1.96 | 2.39 | 1.32 | 1.37 |
| Italy (92) | 1.79 | 2.86 | 1.93 | 2.69 | 2.14 | 2.59 | 2.33 | 2.91 | 1.62 | 1.90 |
| Luxembourg (19) | 1.53 | 2.31 | 1.79 | 2.92 | 1.55 | 2.00 | 1.55 | 3.00 | 1.40 | (1.78) |
| Netherlands (144) | 2.27 | 2.64 | 2.49 | 2.92 | 2.05 | 2.18 | 2.59 | 2.90 | 1.84 | 1.93 |
| Portugal (36) | 1.28 | 2.04 | 1.67 | 2.39 | 1.83 | 2.47 | 2.00 | 2.23 | 1.29 | 1.71 |
| Spain (17) | (2.38) | (2.75) | 2.18 | (2.57) | (2.57) | (2.50) | (2.29) | (2.67) | 2.09 | (2.14) |
| Sweden (38) | 2.44 | 3.19 | 3.09 | 3.64 | 1.20 | 1.39 | 2.74 | 3.06 | 1.32 | 1.52 |
| Switzerland (24) | 2.00 | 2.08 | 2.80 | 3.00 | 2.55 | (2.56) | (2.50) | (2.50) | 1.50 | 1.47 |
| United Kingdom (213) | 2.14 | 2.92 | 2.26 | 2.82 | 2.18 | 2.69 | 2.31 | 2.81 | 1.79 | 2.19 |
| <i>By sector</i> | | | | | | | | | | |
| Industrial (652) | 1.92 | 2.49 | 2.29 | 2.79 | 1.92 | 2.24 | 2.26 | 2.72 | 1.56 | 1.76 |
| Retail (66) | 1.82 | 2.28 | 2.42 | 3.00 | 1.89 | 2.08 | 2.28 | 1.69 | 1.61 | 1.76 |
| Financial services (65) | (2.25) | (3.00) | 2.10 | 2.61 | 2.25 | 2.50 | (2.40) | (2.50) | 1.73 | 2.05 |
| Non-financial services (57) | 2.21 | 3.06 | 2.21 | 3.00 | 1.96 | 2.47 | 2.17 | (2.67) | 1.38 | 1.50 |
| Other (117) | 1.83 | 2.40 | 2.26 | 2.64 | 1.86 | 2.24 | 2.03 | 2.53 | 1.49 | 1.73 |

| | Production plant | | Sales outlet | | Coordination centre | | R&D centre | | Financial services centre | | |
|--|------------------------|--------------|------------------------|--------------|------------------------|--------------|------------------------|--------------|---------------------------|--------------|--|
| | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | |
| <i>By responsibility of respondent</i> | | | | | | | | | | | |
| Taxation (363) | 1.98 | 2.56 | 2.20 | 2.71 | 1.77 | 2.17 | 2.16 | 2.66 | 1.50 | 1.75 | |
| Finance (376) | 1.90 | 2.52 | 2.38 | 2.89 | 2.05 | 2.42 | 2.22 | 2.69 | 1.63 | 1.80 | |
| Business strategy (129) | 1.87 | 2.22 | 2.26 | 2.71 | 2.16 | 2.63 | 2.42 | 2.76 | 1.70 | 1.77 | |
| Other (74) | 1.85 | 2.43 | 2.33 | 2.83 | 1.87 | 2.33 | 2.48 | 2.89 | 1.46 | 1.77 | |
| <i>By size</i> | | | | | | | | | | | |
| Small (214) | 1.85 | 2.47 | 2.11 | 2.72 | 1.95 | 2.29 | 2.27 | 2.77 | 1.51 | 1.72 | |
| Medium I (230) | 1.93 | 2.52 | 2.23 | 2.69 | 2.08 | 2.58 | 2.32 | 2.79 | 1.71 | 1.96 | |
| Medium II (214) | 1.94 | 2.35 | 2.41 | 2.84 | 2.14 | 2.33 | 2.18 | 2.41 | 1.56 | 1.65 | |
| Large (214) | 2.01 | 2.70 | 2.36 | 2.91 | 1.60 | 1.99 | 2.23 | 2.86 | 1.45 | 1.75 | |

TABLE SB.6

'In deciding in which country to locate a business activity, please indicate how often the following specific aspects are a relevant consideration and a major factor in your decision?'

| | Tax rates on business profits | | Withholding taxes on dividends and interest | | Tax base | | Compliance costs | | Special investment incentives | | Surplus ACT <i>précompte</i> , etc. | |
|----------------------|-------------------------------|--------------|---|--------------|------------------------|--------------|------------------------|--------------|-------------------------------|--------------|-------------------------------------|--------------|
| | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor |
| All (965) | 1.78 | 2.28 | 1.90 | 2.37 | 2.09 | 2.52 | 2.61 | 3.00 | 1.87 | 2.25 | 2.24 | 2.62 |
| Parents (584) | 1.82 | 2.33 | 1.94 | 2.42 | 2.16 | 2.59 | 2.75 | 3.11 | 1.95 | 2.35 | 2.31 | 2.68 |
| <i>By country</i> | | | | | | | | | | | | |
| Austria (28) | 1.92 | 2.00 | 1.56 | 1.65 | 1.96 | 2.00 | 2.45 | 2.57 | 1.78 | 1.90 | 2.13 | 2.19 |
| Belgium (48) | 2.05 | 2.43 | 1.97 | 2.30 | 2.16 | 2.47 | 2.78 | 3.15 | 2.23 | 2.50 | 2.37 | 2.70 |
| Denmark (77) | 1.61 | 2.19 | 1.86 | 2.16 | 1.77 | 2.19 | 2.25 | 2.57 | 1.85 | 2.26 | 2.24 | 2.60 |
| Finland (11) | 2.55 | 3.36 | 2.09 | 2.82 | 3.00 | 3.55 | 3.27 | 3.82 | 2.36 | 3.00 | 2.91 | 3.63 |
| France (17) | 1.69 | 2.50 | 1.75 | 2.43 | 2.00 | 2.64 | 2.25 | 3.00 | 1.87 | 2.57 | 1.87 | 2.46 |
| Germany (109) | 1.60 | 1.67 | 2.01 | 2.10 | 1.92 | 1.96 | 2.25 | 2.77 | 1.64 | 1.70 | 2.31 | 2.34 |
| Greece (26) | 1.43 | 1.90 | 1.70 | 2.05 | 1.62 | 2.16 | 1.71 | 2.16 | 1.14 | 1.26 | 1.67 | 2.18 |
| Ireland (62) | 1.50 | 2.05 | 1.95 | 2.39 | 2.00 | 2.31 | 2.72 | 3.21 | 1.73 | 2.26 | 2.16 | 2.59 |
| Italy (92) | 1.69 | 2.42 | 1.85 | 2.67 | 1.89 | 2.63 | 2.30 | 3.00 | 1.57 | 2.04 | 2.07 | 2.67 |
| Luxembourg (19) | 2.41 | 2.33 | 1.65 | 2.60 | 1.65 | 2.38 | 1.86 | 2.38 | 1.29 | 1.94 | 1.50 | 2.27 |
| Netherlands (144) | 2.01 | 2.31 | 1.88 | 2.27 | 2.18 | 2.65 | 2.81 | 3.08 | 2.10 | 2.34 | 2.36 | 2.51 |
| Portugal (36) | 1.42 | 2.00 | 1.71 | 2.15 | 2.00 | 2.52 | 2.11 | 2.67 | 1.34 | 1.96 | 1.73 | 2.42 |
| Spain (17) | 2.00 | 2.43 | 2.18 | (2.57) | 2.45 | (3.29) | 2.54 | (3.00) | 2.18 | (2.71) | 2.18 | (2.71) |
| Sweden (38) | 2.22 | 3.09 | 2.27 | 3.00 | 2.86 | 3.37 | 3.34 | 3.63 | 2.49 | 3.00 | 2.95 | 3.43 |
| Switzerland (24) | 1.79 | 1.89 | 1.89 | 2.06 | 2.11 | 2.22 | 3.11 | 3.22 | 2.26 | 2.28 | 2.33 | 2.41 |
| United Kingdom (213) | 1.86 | 2.58 | 1.87 | 2.60 | 2.26 | 2.83 | 2.68 | 3.21 | 2.01 | 2.59 | 2.26 | 2.77 |

| | Tax rates on business profits | | Withholding taxes on dividends and interest | | Tax base | | Compliance costs | | Special investment incentives | | Surplus ACT <i>précompte</i> , etc. | |
|--|-------------------------------|--------------|---|--------------|------------------------|--------------|------------------------|--------------|-------------------------------|--------------|-------------------------------------|--------------|
| | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor |

By sector

| | | | | | | | | | | | | |
|-----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Industrial (652) | 1.79 | 2.27 | 1.93 | 2.40 | 2.08 | 2.50 | 2.63 | 3.01 | 1.79 | 2.15 | 2.30 | 2.64 |
| Retail (66) | 2.00 | 2.38 | 1.95 | 2.44 | 2.28 | 2.73 | 2.70 | 2.97 | 2.00 | 2.38 | 2.33 | 2.73 |
| Financial services (65) | 1.71 | 2.28 | 1.73 | 2.11 | 2.23 | 2.58 | 2.72 | 3.02 | 2.31 | 2.78 | 2.14 | 2.47 |
| Non-financial services (57) | 1.90 | 2.49 | 1.98 | 2.51 | 2.21 | 2.70 | 2.70 | 3.16 | 2.32 | 2.86 | 2.16 | 2.65 |
| Other (117) | 1.64 | 2.25 | 1.77 | 2.32 | 1.99 | 2.49 | 2.43 | 2.92 | 1.94 | 2.38 | 2.03 | 2.57 |

By responsibility of respondent

| | | | | | | | | | | | | |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Taxation (363) | 1.76 | 2.28 | 1.79 | 2.28 | 2.10 | 2.52 | 2.73 | 3.09 | 1.85 | 2.24 | 2.19 | 2.57 |
| Finance (376) | 1.83 | 2.34 | 2.00 | 2.49 | 2.12 | 2.59 | 2.54 | 2.95 | 1.93 | 2.30 | 2.30 | 2.69 |
| Business strategy (129) | 1.76 | 2.11 | 1.92 | 2.32 | 2.01 | 2.33 | 2.49 | 2.88 | 1.84 | 2.16 | 2.29 | 2.59 |
| Other (74) | 1.76 | 2.34 | 2.02 | 2.45 | 2.12 | 2.55 | 2.62 | 3.05 | 1.92 | 2.30 | 2.25 | 2.78 |

By size

| | | | | | | | | | | | | |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Small (214) | 1.75 | 2.23 | 1.74 | 2.20 | 1.90 | 2.36 | 2.34 | 2.76 | 1.72 | 2.02 | 2.11 | 2.57 |
| Medium I (213) | 1.71 | 2.25 | 1.95 | 2.38 | 2.08 | 2.51 | 2.50 | 2.90 | 1.81 | 2.10 | 2.13 | 2.40 |
| Medium II (214) | 1.89 | 2.22 | 2.09 | 2.41 | 2.20 | 2.51 | 2.80 | 3.07 | 2.00 | 2.29 | 2.48 | 2.71 |
| Large (214) | 1.83 | 2.49 | 1.87 | 2.56 | 2.21 | 2.75 | 2.84 | 3.32 | 2.01 | 2.57 | 2.29 | 2.78 |

TABLE SB.7

'The financial and legal structure of your international operations may be more or less influenced by tax considerations. Please indicate how often tax considerations are a relevant consideration and a major factor in the following decisions'

| | Subsidiary or branch | | Local or parent financing | | If local, equity, debt or retentions | | If parent, equity or debt | | Route profits via third country | |
|----------------------|------------------------|--------------|---------------------------|--------------|--------------------------------------|--------------|---------------------------|--------------|---------------------------------|--------------|
| | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor |
| All (965) | 1.72 | 2.06 | 1.70 | 1.98 | 1.75 | 2.08 | 1.73 | 2.00 | 1.88 | 2.04 |
| Parents (584) | 1.67 | 2.04 | 1.66 | 1.93 | 1.70 | 2.01 | 1.68 | 1.92 | 1.88 | 1.98 |
| <i>By country</i> | | | | | | | | | | |
| Austria (28) | 1.83 | 1.90 | 1.74 | 1.84 | 1.91 | 2.11 | 1.75 | 1.86 | 1.68 | 1.83 |
| Belgium (48) | 2.05 | 2.19 | 1.88 | 2.03 | 2.10 | 2.32 | 1.82 | 2.13 | 1.76 | 2.21 |
| Denmark (77) | 1.75 | 2.21 | 1.84 | 2.21 | 1.81 | 2.14 | 1.89 | 2.14 | 1.77 | 2.08 |
| Finland (11) | 1.64 | 2.18 | 1.64 | 2.18 | 1.91 | 2.64 | 1.55 | 2.27 | 1.40 | 1.50 |
| France (17) | 1.38 | 1.80 | 1.40 | 1.73 | 1.34 | 1.80 | 1.64 | 2.07 | 1.50 | 1.93 |
| Germany (109) | 1.73 | 1.67 | 1.74 | 1.69 | 1.76 | 1.73 | 1.74 | 1.71 | 1.69 | 1.58 |
| Greece (26) | 1.50 | (1.89) | 2.00 | 2.18 | 2.00 | 2.10 | (2.11) | (2.44) | (2.43) | (2.71) |
| Ireland (62) | 1.75 | 2.10 | 1.69 | 2.07 | 1.59 | 1.93 | 1.67 | 1.98 | 2.06 | 2.13 |
| Italy (92) | 1.74 | 2.30 | 1.69 | 2.00 | 1.74 | 2.31 | 1.73 | 2.11 | 1.85 | 2.10 |
| Luxembourg (19) | 1.71 | 2.13 | 1.60 | 2.29 | 1.81 | 2.27 | 2.00 | 2.64 | 2.00 | 2.33 |
| Netherlands (144) | 1.78 | 2.10 | 1.70 | 1.89 | 1.74 | 1.95 | 1.82 | 2.00 | 2.16 | 2.30 |
| Portugal (36) | 1.60 | 2.29 | 1.24 | 2.00 | 1.30 | 2.25 | 1.33 | 2.20 | 2.19 | 2.64 |
| Spain (17) | 2.38 | (2.33) | (3.00) | (3.20) | (3.00) | (3.33) | (3.00) | (3.25) | (3.80) | (4.00) |
| Sweden (38) | 1.92 | 2.53 | 1.67 | 2.14 | 1.72 | 2.14 | 1.65 | 2.03 | 1.80 | 1.87 |
| Switzerland (24) | 1.63 | 1.72 | 1.61 | 1.65 | 1.94 | 2.00 | 1.28 | 1.28 | 1.75 | 1.80 |
| United Kingdom (213) | 1.54 | 1.98 | 1.60 | 1.96 | 1.65 | 2.10 | 1.62 | 1.93 | 1.87 | 1.97 |

| | Subsidiary or branch | | Local or parent financing | | If local, equity, debt or retentions | | If parent, equity or debt | | Route profits via third country | |
|--|------------------------|--------------|---------------------------|--------------|--------------------------------------|--------------|---------------------------|--------------|---------------------------------|--------------|
| | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor | Relevant consideration | Major factor |
| <i>By sector</i> | | | | | | | | | | |
| Industrial (652) | 1.78 | 2.12 | 1.69 | 1.95 | 1.75 | 2.05 | 1.74 | 1.98 | 1.90 | 2.03 |
| Retail (66) | 1.58 | 1.92 | 1.82 | 2.14 | 1.84 | 2.18 | 1.88 | 2.18 | 1.74 | 2.10 |
| Financial services (65) | 1.43 | 1.95 | 1.71 | 2.03 | 1.90 | 2.38 | 1.61 | 1.95 | 1.89 | 1.97 |
| Non-financial services (57) | 1.70 | 2.05 | 1.71 | 1.86 | 1.68 | 2.06 | 1.66 | 1.97 | 2.14 | 2.32 |
| Other (117) | 1.66 | 1.95 | 1.72 | 2.12 | 1.73 | 2.13 | 1.71 | 2.07 | 1.76 | 2.00 |
| <i>By responsibility of respondent</i> | | | | | | | | | | |
| Taxation (363) | 1.59 | 1.95 | 1.65 | 1.91 | 1.70 | 2.03 | 1.66 | 1.90 | 1.72 | 1.88 |
| Finance (376) | 1.76 | 2.13 | 1.69 | 1.99 | 1.74 | 2.07 | 1.75 | 2.00 | 2.02 | 2.21 |
| Business strategy (129) | 1.98 | 2.22 | 1.70 | 2.07 | 1.75 | 2.13 | 1.78 | 2.15 | 1.95 | 2.07 |
| Other (74) | 1.84 | 2.17 | 2.00 | 2.23 | 2.11 | 2.38 | 1.98 | 2.36 | 2.23 | 2.23 |
| <i>By size</i> | | | | | | | | | | |
| Small (214) | 1.68 | 2.04 | 1.58 | 1.86 | 1.66 | 2.00 | 1.68 | 1.98 | 1.85 | 2.09 |
| Medium I (213) | 1.73 | 1.97 | 1.83 | 2.03 | 1.90 | 2.16 | 1.89 | 2.06 | 2.12 | 2.19 |
| Medium II (214) | 1.92 | 2.28 | 1.90 | 2.19 | 1.92 | 2.23 | 1.89 | 2.15 | 2.02 | 2.13 |
| Large (214) | 1.56 | 1.99 | 1.53 | 1.89 | 1.61 | 2.01 | 1.59 | 1.89 | 1.73 | 1.89 |

TABLE 5B.8

| | Does tax affect form of repatriation? | Do thin capitalization rules result in higher tax? | Do transfer-pricing rules result in higher tax? | Does tax planning enable tax to be paid in chosen country? | Does tax affect decision to undertake EC mergers? |
|----------------------|---------------------------------------|--|---|--|---|
| All (965) | 3.40 | 2.28 | 2.47 | 2.54 | 3.01 |
| Parents (584) | 3.51 | 2.32 | 2.53 | 2.61 | 3.01 |
| <i>By country</i> | | | | | |
| Austria (28) | 3.70 | 2.53 | 2.38 | 2.82 | 3.42 |
| Belgium (48) | 3.94 | 2.50 | 2.47 | 2.68 | 3.25 |
| Denmark (77) | 3.28 | 2.42 | 2.40 | 2.59 | 2.94 |
| Finland (11) | 3.90 | (2.89) | 2.80 | 2.80 | 2.60 |
| France (17) | 4.40 | 2.82 | 3.27 | 2.21 | 3.53 |
| Germany (109) | 3.29 | 1.84 | 2.74 | 2.19 | 3.47 |
| Greece (26) | 3.75 | (2.44) | (2.29) | (3.13) | 3.50 |
| Ireland (62) | 3.24 | 2.05 | 2.06 | 2.59 | 2.88 |
| Italy (92) | 3.35 | 3.07 | 3.24 | 3.37 | 3.51 |
| Luxembourg (19) | 4.00 | (3.22) | 2.83 | (2.11) | 3.40 |
| Netherlands (144) | 3.26 | 2.12 | 2.25 | 2.48 | 2.41 |
| Portugal (36) | 3.88 | 2.80 | 2.89 | 2.35 | 3.40 |
| Spain (17) | (2.56) | (2.14) | (2.63) | (2.13) | (3.38) |
| Sweden (38) | 3.57 | 2.30 | 2.83 | 2.91 | 2.78 |
| Switzerland (24) | 3.39 | 2.21 | 2.89 | 2.44 | 2.72 |
| United Kingdom (213) | 3.25 | 2.09 | 2.12 | 2.33 | 2.78 |

| | Does tax affect form of repatriation? | Do thin capitalization rules result in higher tax? | Do transfer-pricing rules result in higher tax? | Does tax planning enable tax to be paid in chosen country? | Does tax affect decision to undertake EC mergers? |
|--|---------------------------------------|--|---|--|---|
| <i>By sector</i> | | | | | |
| Industrial (652) | 3.42 | 2.34 | 2.60 | 2.62 | 3.08 |
| Retail (66) | 3.44 | 2.21 | 2.32 | 2.54 | 3.03 |
| Financial services (65) | 3.40 | 2.49 | 2.37 | 2.48 | 3.18 |
| Non-financial services (57) | 3.73 | 2.05 | 1.85 | 2.56 | 2.59 |
| Other (117) | 3.07 | 1.97 | 2.20 | 2.14 | 2.70 |
| <i>By responsibility of respondent</i> | | | | | |
| Taxation (363) | 3.58 | 2.36 | 2.64 | 2.58 | 3.18 |
| Finance (376) | 3.26 | 2.26 | 2.38 | 2.52 | 2.79 |
| Business strategy (129) | 3.23 | 2.14 | 2.30 | 2.54 | 3.09 |
| Other (74) | 3.19 | 1.94 | 2.13 | 2.35 | 3.04 |
| <i>By size</i> | | | | | |
| Small (214) | 3.60 | 2.50 | 2.53 | 2.67 | 3.25 |
| Medium I (213) | 3.11 | 2.12 | 2.12 | 2.41 | 2.89 |
| Medium II (214) | 3.33 | 2.24 | 2.64 | 2.63 | 2.94 |
| Large (214) | 3.50 | 2.26 | 2.46 | 2.52 | 3.01 |

Annex 6

Tax treaties and the internal market¹

by

Prof. Dr Albert J. Rädler
University of Hamburg

I — Introduction

A bilateral tax treaty is the classical instrument used by States to avoid double taxation in cross-border investments and transactions. Today, the network of income tax treaties between EC members would be complete but for the lack of agreements with and between some southern Member States.² There are even fewer treaties among Member States concerning taxes on capital and inheritances.

Article 220 of the EEC Treaty requires Member States to enter into negotiations to conclude agreements on the avoidance of double taxation. This objective has certainly not been reached by the Member States:

- (i) Even on income taxes a small number of agreements are still missing (see above).
- (ii) The lack of agreements on inheritance and gift taxes is an impediment to the free movement of persons within the Community, especially owners of enterprises and companies, particularly of SMEs.

Therefore, Member States should close the existing gaps in their treaty networks as soon as possible. The Commission should take the necessary action to safeguard that the Member States comply with their obligations under Article 220.

The existing double taxation agreements do not completely avoid double taxation in all instances. There are divergences in legal definitions of tax laws and also in the factual appreciation by the tax authorities of the Member States which cannot always be settled by the mutual agreement procedure. As far as transfer-pricing is concerned the new Convention on Arbitration Procedure was signed by the Member States in 1990;³ it will be an important step forward when it becomes operative. However, since ratification by all Member States is required before it enters into force, it may not come into use for a number of years.

¹ Revised version of a working paper first submitted to the Committee on 2 December 1991.

² In detail, the following bilateral agreements are missing: Denmark-Greece*, Greece-Spain**, Greece-Ireland*, Greece-Luxembourg*, Greece-Portugal, Spain-Ireland*, Portugal-Luxembourg*, Portugal-Netherlands and Portugal-Ireland (treaties under negotiation are marked with *, treaties signed but not yet in force are marked with **).

³ Directive 90/463/EEC, approved by the Council of Ministers on 23 July 1990.

Those Member States who have ratified the Convention should apply it immediately on a bilateral basis without waiting for the formal ratification by the remaining Member States.

In addition, Member States should agree on common definitions of important terms (such as the term 'serious penalty' in Article 8 of the Directive on arbitration procedure).¹

Due to the important efforts of the OECD Committee on Taxation, the provisions of double taxation agreements are to a large extent uniform based on the 1977 OECD Model Income Tax Treaty and similar model treaties for taxes on capital and inheritances. In recent years, however, treaties based on the OECD model find a source of conflict with the emergence of national treaty policy. Some major industrial countries have strived to formulate their own treaty policy for guidance in their tax treaty negotiations.

In the future, the substantial uniformity between the provisions of tax treaties between OECD countries should certainly be continued as well within the Community; however, in some areas the existence of the internal market seems to require some adjustments within the Community. Those adjustments should be based on the following objectives:

- (i) neutrality between investments made by investors from the different Member States and between different forms of doing business;
- (ii) the special needs of SMEs; and
- (iii) the need for simplification.

Subsequently, some proposals are discussed to amend the 1977 OECD Model Treaty, the need for a multinational tax treaty within the Community is analysed and some proposals are made for the tax treaties with third countries.

II — Proposals for amendments to the 1977 OECD Model Income Tax Treaty

As already mentioned, the OECD Model Treaty has been widely accepted in OECD Member States and other States. This is an important reason to proceed carefully in proposing substantial changes to its text for application within the Community.

1. Inclusion of taxes on capital, estate and inheritances

Within the Community, all taxes on capital, estate and inheritances must be covered by a tax treaty. Therefore, these taxes should be included in Article 2 of the OECD Model Treaty (taxes covered). They are of particular importance for small and medium-sized enterprises.

¹ Under this Article of the Convention on Arbitration, Member States can unilaterally decide whether or not to suspend the procedure if a serious penalty can be applied to the taxpayer. Regrettably, the term 'serious penalty' is defined differently in each Member State.

2. Definition of the term ‘company’

Presently, the determination whether or not an entity is treated as a corporate body for tax purposes is made under national law. As a result, some countries treat a partnership as a taxable unit, whereas other countries disregard the partnership and tax only the individual or corporate partners on their respective shares of the partnership income. Our objective was to find a uniform treatment for partnerships.

Therefore Article 3, paragraph 1(b) of the OECD Model Treaty should be changed as follows:

‘The term “company” means any body corporate. A company shall be treated as a corporation for tax purposes; the term “company” includes commercial partnerships. An association established under the civil code is not a company.’

The second part of the sentence of Article 3, paragraph 1(b) of the OECD Model Treaty should be deleted:

‘or any entity which is treated as a body corporate for tax purposes.’

3. Common interpretation

The reference to domestic law in Article 3, paragraph 2 of the OECD Model Treaty is ambiguous.

Any dispute on interpretation between Member States shall be submitted to an EC Consultation Board.

4. Permanent establishments should be treaty subjects

The cause for many mutual agreement procedures arises from the fact that most treaty rights cannot be invoked by permanent establishments. On the other hand, in many countries taxation of permanent establishments approaches that of resident businesses.

Thus, a permanent establishment or a fixed place of business should be considered a resident of the Member State in which it is situated for the application of the tax treaties of this Member State with other Member States. Article 4 of the OECD Model Treaty should be expanded accordingly.

5. Place of management of corporations

The concept expressed in Article 5 that a company can have only one place of management is obsolete; particularly after a merger more than one place of management can exist.

Tax treaties should take this situation into account.

6. Definition of permanent establishments

(a) Objectives

The main objectives in dealing with permanent establishments are:

- (i) to grant the right of taxation to the country of residence to the largest extent possible, because this country is in a better position to levy and collect tax than the source country;
- (ii) to provide for equal and fair treatment of both permanent establishments and subsidiaries (see point 4 above); and
- (iii) to eliminate or reduce estimates of profits, whenever possible.

Therefore the catalogue of business activities which are not treated as permanent establishments (Article 5, paragraph 4 of the OECD Model Treaty) should be expanded, as discussed below in (b) to (d). The introduction of a minimum corporate tax rate as proposed in our report would be in line with the underlying philosophy.

(b) Mere technical installations

Today it is unclear whether and to what extent permanent technical installations which do not require continued attendance by an individual, such as bank cash dispensers and similar 'pure' computer installations, constitute permanent establishments.

These installations should not be treated as permanent establishments.

(c) Treatment of dependent agent

Today the tax consequences of the existence of a dependent agent follow mainly from the factual circumstance whether the agent has an authority to sign orders on behalf of the business (Article 5, paragraph 5 of the OECD Model Treaty). Considering the means of communications available today, this provision developed more or less into a mere tax-planning option for taxpayers. Actually, the taxpayer can decide whether the income of a sales agent should be taxed in the source country or at home without facing any serious inconveniences.

Therefore this provision should be deleted entirely. In the internal market the right to tax should belong exclusively to the country in which the home office is located.

(d) Treatment of independent agent

Activities of an independent agent do not, as a rule, create a permanent establishment for the enterprise. Article 5, paragraph 6 of the OECD Model Treaty provides as a general rule that the independent agent is not treated as a permanent establishment.

Therefore, in connection with the general philosophy explained, the last part of Article 5, paragraph 6, which limits its field of application to such persons who are acting in the ordinary course of the business, should be deleted.

7. Determination of profits of permanent establishments

The rules on the determination of the income to be attributed to permanent establishments are not clear. In Article 7, paragraph 2 of the OECD Model Treaty the arm's-length principle establishes the determination of the income of a permanent establishment; its field of application is limited in paragraph 2 concerning the charging of interest or royalties etc. Uniformity should be established for the treatment of permanent establishments and subsidiaries (see also the comments under point 6 above).

Problems also arise concerning the timing of the realization of income when current and fixed assets are transferred to another permanent establishment of the enterprise in another Member State. This constitutes the need for a uniform treatment within the Community. Of course, preference would belong to a common solution within the OECD.

8. Taxation of associated enterprises

Concerning transfer-pricing, it must be safeguarded that in case of an adjustment by one Member State double taxation will not arise. The signing of the Convention on the arbitration procedure is an important step forward.

As a practical matter, problems often arise with regard to the apportionment of overhead expenses between associated enterprises. The same rule of expense allocation shall apply in the same way to permanent establishments and to affiliated companies. The Member States together with the Commission should develop common rules for the treatment of group expenses and cost-sharing agreements.

9. Dividends

The tax treatment of dividends will largely depend on the acceptance of the proposals of this Committee on the corporate tax system and the corporate minimum tax rate. In any case, no withholding tax shall be levied when the shareholder provides proof that he is the beneficial owner of the dividend income and is an EC resident taxpayer (e.g. by submitting his tax number).

10. Taxation of interest and royalties

A general minimum withholding tax of 10% on interest (Article 11 of the OECD Model Treaty) and royalty payments (Article 12 of the OECD Model Treaty) should be levied. If the recipient proves that he is the beneficial owner of the interest and royalty payments and submits proof that he is an EC resident by submitting his tax number, then in principle no withholding tax should be levied. Only the less industrialized Member States may be allowed to levy a withholding tax of 10% during a transitional period of up to 10 years for which tax the beneficiary will receive an unrestricted credit in his home country. No such withholding tax shall be levied on interest received by banking and other regulated financial institutions.

A problem exists with regard to the distinction between royalties and group expenses. To solve this problem one might consider allowing the less industrialized countries to levy the same 10% withholding tax on group expenses as on royalties.

11. Dependent personal services

The taxation of employees sent abroad temporarily should be both unified and simplified. Whereas the basic condition that they will not be taxed in the country in which the work is performed, provided they do not stay there for more than 183 days in the tax year, is common in tax treaties, its interpretation and additional conditions vary widely. For example, there are no clear rules on how the 183 days should be calculated. There are different rules for personnel assigned to a foreign permanent establishment and to a subsidiary, and the rules may also vary when the employee in his resident country is employed by a permanent establishment of a foreign company. The rules are too complicated and burdensome for small and medium-sized enterprises.

12. Taxation of artistes and athletes

Taxation of artistes and athletes (Article 17 of the OECD Model Treaty) is at the fringe of our mandate. However, we would like to point out that under the existing rules both overtaxation and undertaxation may arise, since the proper deduction of costs incurred by artistes and athletes is difficult to determine. National rules may be in conflict with the non-discrimination clauses provided by the EEC Treaty.

Another important aspect which needs special attention, particularly in low-tax countries, is the incorporation of artistes and athletes.

13. Use of the exemption method

Article 23A of the OECD Model Treaty now provides that a resident of one country who derives income from another country, which according to the treaty 'may be taxed' in the other country, is exempt from tax in his country of residence.

The words 'may be taxed' shall be replaced by 'has been subject to taxation'.

This proposal intends to make it impossible that income is taxed in neither of the two countries (so-called 'white income').

In addition, income from permanent establishments and subsidiaries should be treated alike. The proposed introduction of a minimum tax rate of 30% would make it no longer necessary to require an engagement in an active trade or business in order to obtain the tax exemption.

This, of course, requires strict discipline of Member States in the conclusion of tax treaties with third countries.

14. Use of the credit method

Article 23B of the OECD Model Treaty provides an alternative to the exemption method to States which use the tax credit method. Whereas the exemption method follows the capital import neutrality concept (CIN), the tax credit method is in line with the capital export neutrality concept (CEN). With the proposed introduction of a minimum tax rate of 30% and the subsequent convergence of tax rates, the material difference between the two concepts becomes smaller. Most members of the Committee feel that under competition rules investors from different Member States should be taxed in a similar way and therefore prefer the exemption method to the credit method.

15. Non-discrimination

The non-discrimination clause of Article 24 of the OECD Model Treaty should be amended to expressly cover any discrimination prohibited by the EEC Treaty.

16. Mutual agreement procedure

In Article 25 of the OECD Model Treaty concerning the mutual agreement procedure a new paragraph should be added which states that the EC Arbitration Convention has precedence over the provisions of this Article. In addition, it could be added that Member States will use the Arbitration Convention bilaterally as long as it is not ratified by all Member States.

17. Exchange of information

It should be added to Article 26 of the OECD Model Treaty that EC regulations have precedence over the provisions of this Article.

18. Territorial extension

Concerning the territorial extension of the treaties in Article 28 of the OECD Model Treaty, it must be clarified that the tax treaties of Member States may in principle not be extended to any territories which do not fall under the scope of the Treaty of Rome, i.e. where the proposed rules on a minimum tax rate would not apply. This exclusion would include the following territories:

Monaco, San Marino, Vatican City State, Andorra, Isle of Man, Guernsey, Jersey, Gibraltar, Madeira, Canary Islands, Faeroe Islands, the overseas countries and territories or any former colonies such as Macao, etc.

Any inclusion of such territories with full or partial sovereignty and/or different tax systems from the Member State to which they have a special relationship should need Community approval.

III — Nature of tax treaties within the Community

The emerging European single market brings two issues to the fore which concern the future nature of tax treaties between Member States: the first one concerns distortions created by bilateral agreements with other Member States and the second one the issue of a Community-wide multilateral double taxation agreement.

1. Discriminatory effects of tax treaties

It is absolutely unacceptable in the single market that bilateral tax treaties between Member States give preferential tax treatment to enterprises in one or several Member States and not to enterprises resident in the remaining Member States.

For example, a Member State having a withholding tax of 10% on interest which is paid to non-residents may reduce this withholding tax for enterprises of certain Member States to 0%, of other Member States to 5%, and for those from the remaining Member States the tax remains at 10%. Such a policy would be in conflict with basic Community principles concerning competition undistorted by government rules. There are good reasons to believe that such treatment is already today in conflict with the provisions against discrimination of the Treaty of Rome, especially under the principle of Community preference. However, if this should not be the case, distortions of this kind have to disappear immediately, based on Community action.

A similar point concerns special incentives granted to taxpayers resident in only some Member States.

A good example is the full or partial extension of the imputation tax credit to taxpayers of only certain treaty countries, which sometimes may even be more favourable to taxpayers in third countries. Such treaty preferences should already today be in violation of Community principles. This is even more so, when such preferences cannot be achieved by all taxpayers resident in the EC by interposing a company in a particular Member State. This is the case, for example, between the United Kingdom and the Netherlands, where the UK imputation tax credit is only granted to a Dutch company when it is controlled by Dutch persons (Article 10(b) (d) (i)).

The issue is even more acute when the special privileges are not granted to resident persons but only to non-residents.

It is an open question whether in those instances the most-favoured nation principle does apply already today based on the principle of Community preference.

2. Conclusion of a multinational tax treaty

Certainly it would be a possibility to overcome these problems of discrimination and distortions by concluding a multilateral tax treaty between all Member States either in the framework of the Treaty of Rome or in a special convention. Alternatively, these problems may also be solved by some form of coordinated action between Member States and the Commission. These issues should be more closely investigated and studied by a special group of experts.

Another aspect is special tax incentives granted by capital-exporting Member States in favour of those Member States in which per capita income is comparatively low. For example, some capital-exporting countries grant fictitious tax credits (tax sparing) on interest received from a debtor resident in those countries. It is obvious that such a provision cannot be automatically extended, on the basis of most-favoured nation or Community preference, to all capital-exporting countries. On the other hand, it must be requested from a specific Member State using this instrument that the same benefit is granted to all Member States in approximately the same economic situation.

IV — Tax treaties with third countries

Under the rules of fair competition, the same or at least similar principles should apply in the tax treaties between individual Member States and third countries, especially those treaties concluded with the most important trading and investment partners of the Community such as the United States, Japan and the other OECD Member States; to a lesser degree this also applies to the treaties with the existing and emerging newly industrialized countries (NICs) of Asia and the Americas. For this purpose coordination of tax treaty policies by the Commission is recommended. Then it would not be necessary to transfer the right to conclude tax treaties with third countries to the Community itself.

On the other hand, one must admit that the coordination function of the Commission will be rather far-reaching and, therefore, it would certainly be simpler and cheaper for treaty negotiations between the Member States and third countries to be negotiated concurrently by all Member States together with the Commission. Uniform tax treaties might derive from this concept in practice.

Aspects which are presently in conflict with fair competition are:

- (i) different withholding tax rates in the tax treaties between Member States and a specific third country;
- (ii) different definitions of essential terms such as residency, permanent establishments, dividends, etc.;
- (iii) anti-abuse clauses, for example treaty-shopping clauses, in tax treaties concluded by Member States with third countries which discriminate against taxpayers in other Member States; reference is made to the treaty-shopping clauses concluded by Germany, France and Spain with the United States;
- (iv) extension of imputation tax credits in a more favourable way than to EC taxpayers.

If the Committee's proposals on a minimum corporation tax rate and on the common corporation tax system are adopted, it will be an important task for the Commission together with Member States to determine which categories of companies of those treaty States do qualify for the Community dividend exemption, i.e. by proving that the dividends have been subject to a comparable tax burden of 30%.

Annex 8

Definition of the 'ACID' test

If one unit of pre-tax profit in the company is distributed, the cash dividend paid to the shareholders is $1 - t^D$, where t^D , is the corporate tax rate on distributions. Under a classical system, shareholders must pay income tax of m^D on this income, leaving them with a net income of $(1 - m^D)(1 - t^D)$. In the case of an imputation system, the shareholder is deemed to have paid personal tax at rate c , the imputation rate (expressed as a proportion of the grossed-up dividend). In effect, the cash dividend is grossed-up by a factor of $1 - c$ and then personal tax at a rate m^D is paid on the grossed-up amount. In this case the net income of the shareholder is $(1 - m^D)(1 - t^D)/(1 - c)$. By contrast, if an unincorporated business earns one extra unit of profit it is simply taxed at the personal tax rate on earnings of the owner, m^E , and hence the net income of the owner is $1 - m^E$. The ACID test¹ is simply the ratio of these two amounts:

$$\text{ACID} = \frac{(1 - m^D)(1 - t^D)/(1 - c)}{(1 - m^E)}$$

¹ This version of the ACID test differs from that of King, M. (*Public policy and the corporation*, Chapman and Hall, London, 1977) in the treatment of split-rate systems. Essentially, however, it is the same test.

Annex 9A

Tax coordination and competition in Canada: some lessons for the European Community¹

by

M. Daly
Commission of the European Communities

I — Introduction

As impediments to the establishment and functioning of a single internal market are dismantled and the European Community moves towards closer economic and monetary union, it will have to be prepared to confront various kinds of tax problems arising as a result of increased factor mobility. These problems relate to the achievement of an efficient allocation of resources within the Community, the equitable distribution between Member States of the taxes levied on multinational enterprises, the administrative feasibility of taxing mobile factors in the absence of obstacles to their cross-border movement, and the desire of Member States to retain as much national autonomy as possible in tax matters in order to pursue their own economic and social objectives. Since such issues have already been faced and, in some cases, resolved to varying degrees by federal countries elsewhere in the world, there are perhaps certain lessons to be learned from these countries' experience.

Accordingly, the main purpose of this study is to examine the functioning of the source-based corporate taxes in Canada. (Two accompanying studies by Thalmann (see Annex 9B) and Weiner (see Annex 9C) contain similar examinations of such taxes in Switzerland and the United States, respectively.) Attention is focused on the evolution, design, and administration of provincial corporation taxes in Canada, as well as on the ways in which the federal and provincial governments have addressed the types of tax problems mentioned above, and their possible applicability to the Community.

Canada's experience is of interest because, notwithstanding the fact that its provinces are more important fiscally than the equivalent level of subnational government in any other of the five advanced federations (shown in Table 9A.1) with respect to both total tax revenues and expenditures, it manifests one of the highest degrees of horizontal tax harmonization. The main features of federal-provincial tax arrangements in Canada are described in the subsequent sections, beginning with some historical background.

¹ In preparing this study, the author has greatly benefited from discussions with R. Bird, R. Goergen, J. Sasseville, and J. Weiner. The views expressed are the sole responsibility of the author, however, and, as such, have not been endorsed by members of the Committee of Experts.

II — Historical background

Provinces are empowered by the British North America Act, and now the Canadian Act, to levy and collect direct taxes. Personal income taxes were imposed as early as 1876 by British Columbia and the first corporation income tax was levied by Prince Edward Island in 1894. The federal government introduced its corporation tax in 1916 and its personal income tax in 1917, ostensibly as temporary measures to defray the cost of the First World War. They were never abandoned, however, and were instead continued after the war. By 1941, all provinces had their own corporation income taxes, and all but two levied personal income taxes also. Hence, the corporation and personal tax fields have long been jointly occupied by both the federal and provincial governments. The existence, indeed predominantly, of the federal corporation tax has undoubtedly resulted in pressure on provincial governments, not just by the federal government, but also by taxpayers and tax administrators to adopt tax bases that are similar to that used for federal tax purposes.

During the past 50 years, Canada has tried almost every type of federal tax system currently in existence, from the so-called 'tax jungle' of Switzerland to the highly centralized system long characteristic of Australia. No doubt, the evolution of Canada's federal tax system reflects provinces' changing perspectives concerning the trade-off between the benefits of coordination and the loss of provincial autonomy.

In the 1930s, the absence of coordination in municipal, provincial, and federal income taxation resulted in what the Royal Commission on Dominion Provincial Relations (1940) described as a 'competitive scramble for revenues' and a system of corporate taxes that was complex 'beyond belief'. The Commission reported a maze of taxes, which had grown 'in a completely unplanned and uncoordinated way' and which violated 'every canon of sound taxation'. It deplored 'the inevitable inequity, lack of uniformity and lack of efficiency arising from divided jurisdiction', finding that 'investments in different forms of business are taxed at different rates in the same province; investments in the same kind of business are taxed at different rates in different provinces; investments in businesses operating on a national scale are double and triple-taxed with no relation to earning power'. As a consequence, the Commission recommended that the provinces withdraw completely from both the personal and corporate income tax fields, leaving them instead to the federal government, which would have imposed geographically uniform bases and rate structures. In return, provinces would have received compensatory grants from the federal government. However, the recommendations of the Commission were rejected by the provinces of Alberta, British Columbia, and Ontario at a federal-provincial conference held in 1941.

Nevertheless, since they were eager to cooperate with the federal government in the prosecution of the Second World War and its financing, the provinces subsequently entered into the wartime tax agreements. Under these agreements, the provinces suspended their corporate and personal income taxes in return for federal transfers, which later became known as tax rentals, thereby bringing about almost complete centralization of such taxes. The system of tax rentals continued after the war under the tax rental agreements.

The first post-war tax rental agreements with seven provinces (Ontario and Quebec having opted out) provided for a compulsory 5% provincial corporation income tax as well as rules for allocating taxable income to provinces, with formula apportionment

(based on sales and wages) being confined to a residual role. More specifically, the tax authorities could use this rule only if separate accounts were not forthcoming, or if the taxpayer agreed. In 1952, however, the roles of the separate accounts rule and the formula apportionment rule were switched, so that the former could only be used where proper separate accounts were kept, or where they could be adjusted so as to be acceptable. In all other cases, the formula rule was henceforth to be used. The right to allocate profits on the basis of companies' own separate accounts was subsequently withdrawn in 1962 on the grounds that 'few companies were using it and it was an administrative headache'.¹

Prior to 1957, provinces participating in the tax rental agreements received a per capita payment from the federal government in exchange for their withdrawal from the personal and corporate income tax field. These per capita payments involved an element of implicit equalization.² An explicit system of equalization payments was introduced in 1957.

In 1962, the tax rental arrangements were abandoned and replaced by a system of 'abatements' together with the first of a series of tax collection agreements, which have continued up until the present. 'Abatement' entails a reduction of federal corporate income tax (currently 10 percentage points) to make room for the provinces to collect their own corporate income taxes. Under the tax collection agreements, the federal government collects income taxes for any province (or territory), provided the jurisdiction's income tax legislation meets certain conditions regarding the definition of the tax base, the allocation rules, and, in the case of the personal income tax, the rate structure. Originally, provincial income tax legislation was required to conform strictly with federal legislation. Since 1972, however, although participating provinces are still required to adhere to the federal definition of the tax base, they have been allowed greater freedom to alter their tax systems. For example, the requirement that provinces express their tax as a single percentage rate of federal tax has been eased, and provinces have been permitted to introduce a variety of their own tax credits and special measures. This increased freedom is the result of provinces' desire to use the income tax system as an instrument to achieve their own social and economic objectives and of provinces' growing importance on both the tax side and the expenditure side. The outcome is that Canada now has one of the most decentralized income tax systems of any country in the world, and yet one of the most harmonized.

III — Objectives and scope of the tax collection agreements (TCAs)

The TCAs enable federal and provincial governments to exercise their respective powers of taxation in a coordinated manner in order to promote the efficiency, equity, administrative feasibility, simplicity, and transparency of their corporation tax systems. Such tax coordination promotes these objectives by minimizing the economic distortions and inequities arising from double taxation as well as from the use of discriminatory tax measures, and by reducing administrative and compliance costs. At the same time,

¹ See Smith (1976), p. 560.

² See Economic Council of Canada (1983), p. 91.

the agreements are intended to allow provinces sufficient flexibility to enable them to pursue their own social and economic goals, even though this may obviously conflict with provinces' stated desire 'to limit the scope for potentially damaging tax competition'.¹

There are four key aspects of the TCAs that are designed to accomplish the foregoing objectives. First and foremost is the requirement that participating provinces adhere to the federal definition of the tax base, which approximates equity income at book value. Provinces' adherence to a common tax base allows taxpayers to make their business decisions without having to take into account differences among provinces in the rules for computing taxable income. It also means that taxpayers need use only one tax form, thus reducing their compliance costs.

Secondly, provinces use a common, albeit arbitrary, two-factor formula to apportion taxable income among jurisdictions. According to this formula, each participating province taxes a fraction of the nationwide income of the firm equal to the average of the fractions of sales and wages arising in the province, compared with the total for the country as a whole.² A common apportionment formula combined with a common tax base ensures that no element of income escapes tax or is taxed by more than one province, thereby eliminating double taxation in a way that is much less complex than the corresponding method used at the international level.³ Furthermore, adoption of a common apportionment formula reduces the opportunities for tax arbitrage.

Thirdly, the administration of federal and provincial corporation taxes by a single agency (together with the complete exchange of information between federal and provincial auditors) considerably reduces tax collection costs and the scope for tax evasion.

Fourthly, the willingness of the federal government to administer provincial tax credits and other special measures (for a nominal fee), provided they satisfy certain guidelines,⁴ has accorded provinces some degree of flexibility in their use of the corporation tax to pursue social and economic objectives. Moreover, by persuading participating provinces to rely on non-discriminatory tax credits (or statutory tax rate cuts) rather than

¹ See the extract from the collective statement of the provinces reported in Department of Finance, Canada (1981), p. 33.

² The designers of this formula presumably felt that a single-factor formula using gross receipts might attribute too great a share of the company's profits to the province where its head office was located, and that an additional factor giving weight to the profit from the activities performed in the province by its employees would better reflect reality (see Smith, 1976). Special allocation rules apply to certain industries such as transportation and financial institutions because of the different nature of their activities.

³ A common tax base is obviously a precondition for formula apportionment.

⁴ These guidelines were stated formally in 1981 in a submission by the Department of Finance to the parliamentary task force on federal-provincial fiscal arrangements.

'First, the measure must be able to be administered reasonably efficiently. Second, the measure must not significantly erode or have the potential to erode the essential harmony and uniformity of the federal and provincial income tax systems. Third, the measure must not jeopardize the efficient functioning of the Canadian economic union by the erection of income tax barriers to normal interprovincial investment flows.'

The third condition has been the most contentious since it has been interpreted in such a way as to preclude any incentives that encourage residents of a province to invest in firms that are involved in activities primarily in that province and/or have their headquarters there. This interpretation would seem, despite the criticism, to be consistent with the principle of non-discrimination.

adjustment in the tax base to provide incentives, the TCAs enhance the transparency of provinces' tax systems because the former type of incentives are generally more visible than the latter.

In addition, the tax collection agreements preclude certain forms of tax competition, particularly discriminatory tax measures giving an advantage to local firms.

The potential for tax diversity is further mitigated by the system of equalization payments and federal conditional grants, which together with the tax collection agreements, form integral parts of the present federal-provincial fiscal arrangements. Equalization payments are cash transfers from the federal government which are designed to bring all the below-average provinces' tax capacities up to a specified average. In this regard, it is noteworthy that the Canadian constitution, as amended in 1982, requires the federal government to make equalization payments to the provinces to enable them to provide similar levels of public services with comparable tax rates.¹

IV — Main features of corporate tax harmonization and diversity in Canada

(a) Tax base

Corporation taxes are levied by all 10 provinces (as well as by the two territories), seven of which are signatories to tax collection agreements with the federal government, and therefore adhere to the federal definition of the corporation tax base. Three provinces, Alberta, Ontario, and Quebec, which together account for more than three-quarters of the country's total corporate taxable income, collect their own corporation taxes. Nevertheless, even these three provinces use definitions of the tax base that are very similar to the federal definition, and they have all adopted the same two-factor formula as participating provinces for purposes of apportioning the corporation tax base among jurisdictions.²

The major differences arise in Ontario and Quebec, where some of the tax incentives embodied in the corporation tax base prior to federal tax reform in 1988 have been retained. More specifically, Quebec continues to allow an immediate write-off on all manufacturing and processing investments undertaken in the province, while Ontario introduced a 15% allowance on such investments in its 1988 budget, and in the same budget introduced an additional deduction for research and development expenses.

Disputes over the allocation of the corporate tax base between provinces are usually settled in the federal courts, since such disputes generally relate to the interpretation of the federal Income Tax Act, which is the basis for provincial taxes. In Ontario, for example, even though the provincial corporation tax differs to some extent from the

¹ See Boadway (undated) and Economic Council of Canada (1983) for a more detailed discussion of these redistributive programmes.

² Recently, Ontario decided to apply a different allocation formula to some companies under its jurisdiction because it was concerned that they were setting up retail operations abroad in order to avoid provincial tax. See Boadway et al. (undated), p. 41.

federal tax, all assessments must be disputed first at the federal level. As a result, disputes between provinces over transfer-pricing are rare.

(b) Tax credits

A number of provinces, including those which participate in tax collection agreements, provide special investment incentives delivered in the form of tax credits. As in the case of the deductions described above, some of these measures have had the effect of partially continuing incentives that were embodied in the combined federal-provincial tax system before the 1988 federal tax reform. For example, Manitoba has a 6% investment tax credit (up to half of the provincial tax otherwise payable), while Quebec allows a tax credit for wage expenses associated with research and development, a measure which is, in effect, a continuation of the former federal credit for scientific research and development.

Other tax credits reflect other provincial objectives. Five provinces (British Columbia, Alberta, Saskatchewan, Ontario and Quebec) provide a refundable tax credit on investments in small business venture investment corporations, an initiative first introduced in Ontario during the mid-1970s. In addition, Ontario allows a tax credit for the purchase of pollution abatement equipment.

(c) Statutory corporation tax rates

The main feature of tax diversity with respect to provincial corporation taxes is the large discrepancies between statutory tax rates in Quebec and in the rest of Canada. As shown in Table 9A.2, for example, the general rate in Quebec for large non-manufacturing companies is 5.5%, which is 10 percentage points less than the rate in neighbouring Ontario. These discrepancies are fully reflected in combined federal and provincial corporation tax rates, since provincial corporation taxes are not deductible for purposes of computing federal corporation taxes. The federal rate applicable to large non-manufacturing companies is 28% (see Table 9A.3).

The relatively low statutory corporation tax rate in Quebec is not considered to have greatly affected total investment or employment in the province, partly because the lower rate has (at least until recently) been offset by Quebec's higher payroll taxes. There is some evidence, however, that the lower rate in Quebec has encouraged tax arbitrage, which has resulted in a movement of some corporate tax base into the province from elsewhere. The resulting revenue gain for Quebec is widely viewed as having been at the expense of other provinces, notably Ontario, thereby lowering the total amount of provincial corporation taxes paid by companies both inside and outside Quebec.¹

(d) Integration of corporate and personal income taxes

The corporation tax is partly integrated with the personal income tax using the dividend gross-up and tax credit method, which is applied to dividends received by resident taxpayers from Canadian companies. The tax credit is provided at a standard rate,

¹ Although solid evidence is not available, one tax practitioner has estimated that for clients of his firm alone, the amount of Ontario's tax base transferred to Quebec as a result of transactions between related companies designed to take advantage of the lower statutory corporation tax rate in Quebec is well over CAD 1 billion. See Bossons (1991).

which is currently 25% ($16\frac{2}{3}$ federal plus $8\frac{1}{3}$ provincial),¹ irrespective of the corporation tax paid on underlying company profits, or, indeed, whether the company is in a taxpaying position or not. Since personal taxes are residence-based while corporation taxes are source-based,² the dividend tax credit associated with provincial income tax can be paid by a province which is different from the one where the corporation tax was paid originally and the credit is not related to the actual amount of corporation taxes paid. Moreover, there is no 'clearing house' mechanism by which the source provinces, in effect, transfer the credited portion of their corporation taxes to the provinces where shareholders reside.

These features of the Canadian tax system arise in large part from the fact that shareholder credits are not related to the amount of corporation taxes actually paid. This situation has created obvious opportunities for tax arbitrage, which tends to erode the income tax base. The federal government gradually acted to counteract this erosion by substantially reducing the dividend tax credit and by implementing a large corporation's tax of 0.2% on paid-up capital. Since the latter is creditable against the corporate surtax, in a way it serves as a minimum tax designed to fulfil a role similar to the imputation taxes (advance corporation tax, *précompte*, etc.) that are employed by some EC Member States. (The large corporation tax also plays the role of a minimum tax on multinational firms, because it weakens their ability to reduce tax liabilities in Canada by shifting taxable profits to relatively low-tax countries.)

It is also noteworthy that the dividend tax credit is granted to domestic shareholders in domestically controlled companies for dividends received by these companies from abroad. Hence, not only is the dividend tax credit non-discriminatory as far as investment in different provinces is concerned, but for domestically controlled companies, there is no bias against foreign investment, as is generally the case under EC Member States' imputation systems.

(e) Taxation of interprovincial income flows

Double taxation of dividend flows between companies in different provinces does not arise because intercorporate dividend payments within Canada are tax-free. Moreover, no withholding taxes are levied on interprovincial income flows. Hence, in economic terms, capital import neutrality (rather than capital export neutrality) prevails as far as intercorporate income flows between provinces are concerned.

¹ This is an approximation. The actual method of calculating the dividend tax credit is as follows: dividends are grossed up by one-quarter. Federal taxes are calculated and a tax credit of $16\frac{2}{3}\%$ of the dividend paid (or $13\frac{1}{3}\%$ of the grossed-up dividend) is given for federal taxes. Provincial taxes are then calculated as a percentage of federal taxes, thus compounding the credit. For example, Ontario levies taxes at a rate of 53% of federal taxes. Therefore, the dividend tax credit is $(16\frac{2}{3}\% + 0.53) \times (16\frac{2}{3}\%) = 25.5\%$, which is roughly equivalent to a system that provides a tax credit equal to the amount by which dividends are grossed-up. The amount of the credit varies by province.

² The residence principle is considered to be appropriate for a progressive tax structure based on ability to pay, because it takes into account taxpayers' income from all sources in determining their tax liability. By contrast, source-based provincial corporate income taxes are usually justified on the grounds of the services that a firm receives from the province where it conducts its business. See Economic Council of Canada (1983).

(f) Taxation of groups of companies

Unlike in the United States, where federal tax law requires companies controlled by common shareholders to file consolidated tax returns, no such integration of corporation tax bases is permitted in Canada. This lack of consolidation in Canada provides related companies with an incentive to engage in tax arbitrage operations that reallocate tax bases between them and thereby minimize total provincial tax payments, since only the income of each company is allocated among provinces by the apportionment formula.

The filing of consolidated returns by related companies has been proposed on a number of occasions,¹ but the federal government has been reluctant to allow it on the grounds that it would facilitate the transfer of losses to profitable companies within a group and thus reduce federal tax revenues in the short run.

(g) Taxation of foreign-source income

The allocation of corporate taxable income between foreign and domestic sources is determined by the same formula as that used to allocate income among provinces. The effect, therefore, is to divide a multinational company's total income into a pie, of which part represents the foreign-source income and another part the Canadian-source income, the latter being divided again into smaller portions of provincial income. Since only the portions of the Canadian-source income are subject to provincial corporation tax, in so far as provinces adhere to the same allocation formula, double taxation of foreign-source income at the provincial level is avoided. Foreign-source income is taxed instead at the full federal rate (that is, there is no abatement), with a worldwide credit provided for taxes paid abroad. For purposes of determining federal corporation taxes, separate accounting prevails with respect to the rest of the world.

V — Other aspects of tax diversity and coordination

(a) Provincial capital taxes

Capital taxes, which constitute an additional source of tax diversity within Canada, used to be levied by most provinces but their relative importance has declined in recent years. Currently only four provinces (Saskatchewan, Manitoba, Ontario, and Quebec) levy taxes on the paid-up capital of non-financial corporations.² Saskatchewan and Quebec levy capital tax at a rate of 0.5%, whereas in Manitoba and Ontario the rate is 0.3%. The base for the tax is (with some minor qualifications) equal to the book value of assets less current accounts payable. Unlike the federal large corporations' tax, which is creditable against the portion of federal corporate surtax related to Canadian income, provincial taxes on paid-up capital are in addition to existing corporation taxes. It has been estimated that a tax of 0.3% of corporate paid-up capital is the

¹ See, for example, the Report of the Royal Commission on Taxation (1967), Vol. 4, p. 260.

² Banks and trust companies continue to be singled out in most jurisdictions for punitive treatment, being subjected to taxes on paid-up capital at rates ranging from 1.5 to 3%.

approximate equivalent of a supplementary corporation tax levied at a rate of 1.5%.¹ Such capital taxes are less susceptible to the types of manipulative accounting practices (e.g. transfer-pricing and thin capitalization) that are intrinsic to taxes levied on profits.

(b) Estate taxes

Canada's experience with estate taxes provides an interesting example of how tax competition can lead to the disappearance of a tax altogether. Prior to 1972, British Columbia, Ontario, and Quebec, together with the federal government, levied separate estate taxes. As part of the overall federal tax reform of 1971, however, the federal government began to tax at death capital gains that had accrued on assets, and at the same time withdrew from the taxation of estates. Six other provinces (all those remaining except Alberta) hastily entered the arena, but their use of such taxes steadily declined, so that currently, not a single province levies a tax on estates. As one observer remarked, 'given the high mobility of wealthy individuals, a set of uncoordinated and independent ... provincial death taxes seem unlikely to be an important source of revenue in any country'.²

VI — Current concerns³

The present arrangements for tax coordination between the federal and provincial governments have been in place for roughly 30 years, and have changed little during that period. There is some pressure for changing the tax collection agreements, however, arising as a result of a number of provincial concerns.

Firstly, provinces have become increasingly dissatisfied with the fact that under the TCAs, the federal government retains the exclusive right to modify the corporate and personal tax bases. Their dissatisfaction has been exacerbated by the major federal tax reforms implemented recently, although the issue is raised almost every time tax changes are announced in federal budgets. The absence of provincial control over the tax base is an important reason for three major provinces not being party to TCAs, and is cited by provinces contemplating withdrawal from such agreements. It is unclear why some form of consultation with the provinces regarding tax base changes could not be instituted.

Secondly, as mentioned earlier, the federal government is now willing (for a nominal fee) to administer provincial tax credits, provided they are non-discriminatory. In this regard, the federal government decides which credits are admissible. Not surprisingly, the provinces argue that this limits their ability to use tax credits under the corporation tax as an instrument of economic policy.

Thirdly, the apportionment formula has also been a bone of contention, especially since it provides incentives for firms to choose the jurisdiction in which to report

¹ See Bossons (1991), p. 312.

² See Break (1980), p. 50.

³ For a more exhaustive discussion of these and other concerns, see Boadway (undated) and Boadway et al. (undated).

final sales. The application of the formula is monitored by a joint federal-provincial committee, which has considered switching from the existing formula to one based on origin, as is used internationally. Such a switch has been rejected, however, on the grounds that it would not result in any major improvement compared with the present system.

Fourthly, one significant source of irritation, which is alleged to have induced Alberta to withdraw from the corporation TCA and to have discouraged Ontario from rejoining, is provincial dissatisfaction with federal audit procedures. The provinces have argued that federal auditors are not as vigilant as they might be with respect to purely provincial tax measures. Indeed, Alberta claims that the increased revenues from properly auditing its oil and gas industry tax credits more than compensates for the costs of collecting its own corporation tax. Actually, there does not seem to be anything in the TCAs which precludes provinces from implementing their own audit procedures alongside those of the federal government. To do so, however, would seem to defeat part of the purpose of the agreements.

Lastly, the federal government occupies more tax room than is needed to finance its own expenditures. The excess revenue is used for transfers to the provinces and enables the federal government to enforce harmonization of both taxes and expenditures. It has been suggested that more tax room should be given to the provinces, accompanied by a corresponding reduction in transfers.

As a result of provinces' dissatisfaction with the existing arrangements, the federal government is currently examining ways in which the provinces might be accorded greater flexibility under the tax collection agreements. In a discussion paper issued in June 1991, the federal government acknowledged that under the existing agreements, the benefits from harmonization and simplicity together with the limited scope for tax shopping are offset by the lack of flexibility which prevents provinces from using their tax regimes to pursue their different social and economic objectives. A committee has been established by the federal government in order to consider possible changes to the present federal-provincial tax collection agreements.

VII — Summary and conclusions

Coordination in Canada currently involves provinces forgoing their right to choose their own tax base and apportionment formula. In return, they are freer than they would otherwise be to set their statutory corporate tax rates at levels which enable them to satisfy their own revenue requirements, without provoking unduly large shifts in corporation tax revenues as a consequence of tax arbitrage. The latter arises when firms attempt to minimize tax payments by shifting profits from high- to low-tax jurisdictions. Provinces' adherence to a common apportionment formula also ensures that corporate profits are not doubly taxed at the provincial level, as would be the case if provincial tax systems overlapped. This method of eliminating double taxation is much simpler than those used at the international level. In addition, administration costs and taxpayer compliance costs are lower than would be the case if each province chose and administered its own corporation tax separately.

At the same time, provinces are at liberty to use the corporation tax as an instrument of economic policy in order to encourage new investment by altering marginal effective tax rates. In general, however, provinces have altered their marginal effective tax rates mainly by changing statutory corporation tax rates or by providing non-discriminatory investment tax credits rather than by changing the corporation tax base. This situation has the added advantages of simplifying the corporation tax system and ensuring that tax incentives are reasonably transparent.

In the case of Canada, therefore, the benefits of tax harmonization (together with federal equalization payments) have, up to now, been considered by the provinces to be sufficiently great to persuade them to forgo a large degree of their sovereignty in tax matters.

Perhaps the most important lesson to be drawn from this study is that tax harmonization in Canada has been accomplished mainly as a result of its evolution in line with other developments and overriding national objectives (such as, equalization programmes, constitutional changes, and even winning wars) that are supported by the provinces, rather than by binding federal legislation. The achievement of a high degree of harmonization in the absence of legally binding measures is undoubtedly attributable in large part to the predominance of federal corporate (and personal) income taxes, which results in pressure by taxpayers and tax administrations for coordination. Tax harmonization is also greatly facilitated by the existence of federal equalization payments to the provinces in order to compensate for the latter's different tax capacities. These payments are designed to enable the provinces to provide similar levels of public services at comparable tax rates.¹ It follows that tax coordination is bound to be much more difficult to accomplish in the European Community, where corporate taxes are levied exclusively by Member States, and where equalization payments are practically non-existent.

¹ Hence, equalization payments of some form or other may be necessary in the EC not only to ensure Member States' acceptance of monetary union but also to facilitate tax harmonization.

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TABLE 9A.1

Harmonization decentralization spectrum: A comparison of five federations, 1989

| | Australia ¹ | FR of Germany | Canada | United States ¹ | Switzerland ¹ |
|--|------------------------|---------------|--------|----------------------------|--------------------------|
| Number of units | 8 | 11 | 10 | 50 | 26 |
| State as a percentage of total: | | | | | |
| Expenditures | 44.0 | 26.5 | 48.0 | 26.6 | 34.4 ² |
| Tax revenue | 16.2 | 22.0 | 40.4 | 20.4 | 22.3 |
| Taxes on income, profits, capital gains | n.a. | 40.9 | 36.8 | 16.8 | 40.7 |
| State revenue as a percentage of expenditure | 49.8 | 83.0 | 79.1 | 86.2 | 73.7 ² |
| Features of State corporation tax: | | | | | |
| Tax base uniformity | n.a. | n.a. | Yes | No | No |
| Tax rate uniformity | n.a. | n.a. | No | No | No |
| Allocation formula uniformity | n.a. | n.a. | Yes | No | Yes |

NB: n.a. = not applicable.

¹ 1988.² 1984.Source: Adapted from Bird (1986), Table 7.1 and Bird (1987), Table 1, using data contained in *Government finance statistics yearbook*, Volume XIV, 1990, International Monetary Fund.

TABLE 9A.2

Provincial statutory corporation tax rates, 1991

| Province | General rate | | Small business rate | |
|-----------------------|--------------|--------|---------------------|-------|
| | | | | |
| British Columbia | 14.0 | | 9.0 | |
| Alberta | 15.0 | (9.0) | 9.0 | (0.0) |
| Saskatchewan | 15.0 | | 10.0 | |
| Manitoba | 17.0 | | 10.0 | |
| Ontario | 15.5 | (14.5) | 10.0 | |
| Quebec | 5.5 | | 3.0 | |
| New Brunswick | 16.0 | | 9.0 | |
| Prince Edward Island | 15.0 | | 10.0 | |
| Nova Scotia | 15.0 | | 10.0 | |
| Newfoundland | 17.0 | | 10.0 | |
| Yukon | 10.0 | (2.5) | 5.0 | (2.5) |
| Northwest Territories | 10.0 | | 10.0 | |

(%)

NB: Numbers in parentheses are the rates applicable for manufacturing corporations on income earned in the province from manufacturing and processing activities. In Ontario, this rate is extended to income from mining, farming, logging and fishing.

Source: Department of Finance, Canada.

TABLE 9A.3

Federal corporation tax rates, 1991

| Basic rate | 38 |
|--|----|
| Federal rate ¹ | 28 |
| Manufacturing corporations ¹ | 23 |
| Small business corporations ^{1,2} | 12 |

(%)

¹ These rates are after the 10 point reduction for income earned in a province. They are the rates effectively applicable to the federal tax base, if the income is earned in a Canadian province.² The small businesses rate applies only to the first CAD 200 000 of business profits of qualifying firms.

Source: Department of Finance, Canada.

Annex 9B

Tax coordination and competition in Switzerland

by

P. Thalman
University of Geneva

I — Historical background

'Switzerland is the oldest and probably the best functioning example of a highly federalistic State, as it developed from the need to combine in a small community four different native languages, two major religious affiliations, and substantial differences in economic power and cultural background.'¹

Fiscal federalism in Switzerland has its roots in history. It results not from planned development but from political compromises among the cantons. They were jealous of their autonomy and yet needed to coordinate. The Constitution of 1848 transformed the relatively loose confederation of cantons into the present federal State. It took the power to raise custom duties from the cantons and gave it to the national government. The forgone revenues were progressively replaced by taxes on income and wealth.

There lies the origin of a form of fiscal specialization that still exists today: the national government raises mostly indirect taxes while the 26 cantons and about 3 000 communes earn the largest part of their revenues from direct taxation (see Table 9B.1). Each entity has its own budget, which is related to that of the other entities through several politically determined transfers. Specialization is not absolute: the two war efforts in this century forced the national government to levy its own tax on income and wealth. Introduced in 1941 on the basis of emergency legislation, the tax for national defence (called federal direct tax since 1982) was extended on a provisional basis, without fundamental changes, on average every six years and now until 1994.²

The history of this country is reflected in its political structure. The cantons enjoy sovereignty in so far as it is not limited by the federal constitution; they retain all powers that are not explicitly delegated to the national government. The cantons' major instruments of control over the national government are (i) the requirement for constitutional votes to gather approval in a majority of cantons, and (ii) the upper council of the Legislative Assembly, where each canton is represented by two delegates. In addition, cantons and municipalities are consulted on new federal legislation before it is brought before the Legislative Assembly, both in broadly-based commissions and

¹ Nowotny (1983), p. 266.

² For the history of federal taxes, see Oechslin (1967), Bieri (1979) and Administration fédérale des contributions (1991a).

in a procedure of consultation. Those instruments give equal weight to small and large cantons and protect language minorities.¹ In effect, the complex system of Swiss federalism makes it very difficult and time-consuming for true reforms to be enacted. That is particularly true for reforms that aim at increasing political and fiscal centralization. A relatively small number of cantons can suffice to block a project.

The cantons are free to levy all kinds of taxes, in so far as they are not explicitly reserved to the national government. Among the latter there are customs duties, a turnover tax, a withholding tax on capital income, and stamp duties. The national government shares with the cantons the right to levy a tax on the income and wealth of households and firms. However, the federal direct tax (FDT) is limited in time and will expire in 1994 if a new extension is not approved by the electorate. The Constitution requires the national government to take account of cantonal and communal taxes when setting its own rate. It imposes forms of taxation and ceilings on the rates of the FDT. Table 9B.1 shows the major sources of revenue for the national government, the cantons as a whole and the communes as a whole.

Each canton also delegates some competence to the lower tier, its communes or municipalities.² The communes enjoy an autonomy granted by cantonal law that is protected by the Federal Court of Justice. The degree of communal autonomy is different in every canton. They may only levy taxes that are delegated to them by the canton.

To understand the diversity of the fiscal landscape of Switzerland, we must visualize the economic differences that exist among the cantons. Table 9B.2 shows that per capita income changes widely from one canton to another. Some of the differences can be explained by geographical factors: the richest cantons are densely populated and located on the central plateau while the poorest cantons are sparsely populated and located in the mountains.

II — Main features of federal and local corporation taxes³

The Swiss tax system distinguishes 'natural' and 'legal' persons. Natural persons are households. Unincorporated enterprises are not distinct taxpayers; instead, their profits and equity are added to the incomes and wealth of their owners. Incorporated enterprises take mostly the form of limited liability, shareholder companies. They are treated as distinct entities for tax purposes, so-called 'legal' or 'moral' persons.

The addition of the profits of personal firms to the incomes of their owners constitutes the main difference in tax treatment compared with that of incorporated enterprises. The tax base itself is determined basically in the same way, at least for unincorporated firms that are large enough to be required to keep books.⁴

¹ For more detail, see Dafflon (1977), pp. 72-78. There is also a form of horizontal cooperation among the cantons: ministerial conferences on education or accounting practices, for instance.

² For lists of the tasks allocated to the cantons and to the communes, see Bieri (1979), pp. 43-44.

³ For taxes other than those that are levied on corporate profits and equity, the reader may refer to the brief description in OECD (1989/90), Appendix III.

⁴ Zuppinger et al. (1984), pp. 163-164.

The next sections describe the law as of 1991. Modifications are due to be implemented over the next years, particularly as regards cantonal taxes. Indeed, a law was just approved, which aims at harmonizing cantonal taxation. Its innovating features will be mentioned in Section IV(c).

The 'federal law on the harmonization of the direct taxes of the cantons and communes' of 14 December 1990, pursues formal harmonization only. The constitutional basis for tax harmonization gave the national government a mandate for working towards uniform definitions of tax objects, the circle of taxpayers, the bases of calculation, and rules over tax dispute. It does not allow for uniform tax rates, schedules, deductions or allowances.

Some formal harmonization has already taken place. Indeed, numerous cantons which altered their direct taxation since 1941 used the FDT as a model. They often did so under the pressure of their tax administrations, which are also responsible for collecting the FDT for the national government.¹ Still, important differences remain, not only as regards the tax rates and schedules but also as regards the definition and delimitation of taxable items.

(a) Tax base

The base for the corporate income tax is net worldwide corporate income. It is measured as the balance of the profit-and-loss account. The accounts must satisfy the accounting rules of business law and a few rules that are specific to tax law (mainly for depreciation and provisions). Thus, the firm may have to add to the balance of the profit-and-loss account all deductions that do not correspond to business expenses and all incomes that were left out, in particular extraordinary incomes and realized capital gains.

Depreciation. For the FDT and in most cantons, the tax authority sets allowed rates for tax depreciation. In some cantons, in particular in Zurich, the firm may choose the speed at which it writes off its assets. The tax authority sets only a lower bound on the residual value in the books (e.g. 20% in Zurich) until the asset leaves the firm.² There are no investment credits.

Taxes paid. For the FDT and in all but eight cantons, all direct taxes paid to the national government, the cantons and the communes on income and equity are deductible in the year in which they are paid. In one canton (Berne), only half of the taxes paid may be deducted.³

Unrealized gains and losses. It is a legal accounting rule that unrealized gains not be added to profits but that book losses be included as soon as their realization becomes likely.

Historical costs. Another fundamental accounting rule requires corporations to carry assets in their accounts at historical costs.

¹ Dafflon (1986), p. 38.

² The tax harmonization law of 1990 does not provide for uniform cantonal depreciation rules (Zuppingier et al. (1984), pp. 179-181).

³ The tax harmonization law of 1990 provides for uniform deduction of all income and equity taxes paid.

Two systems are used in Switzerland to determine the tax base over time:

- (i) The 'praenumerando' system: the taxes a firm owes for 1991 and 1992 are based on its average profit in 1989 and 1990. The taxes for 1991 are due in 1992 (usually on 1 March) and those of 1992 are due in 1993. Alternatively, in the one-year system, the firm owes taxes every year based on its profit in the preceding year.
- (ii) The 'postnumerando' system: the taxes a firm owes for a given year are based on its profit in the same year but assessed and collected in the following year.

Currently, the national government and 12 cantons use the 'praenumerando' system with two-year periods, six cantons use the 'praenumerando' system yearly and the remaining eight cantons use the 'postnumerando' system.¹

Losses are automatically reported to some extent in the 'praenumerando' system. In addition, the FDT allows for the reporting over three taxation periods, i.e. over six years.²

(b) Statutory corporation tax rates

The tax rate on profits depends usually on the rate of return on equity. That coefficient is viewed as an indicator of the fiscal capacity of firms. For the FDT, there is a proportional ground tax of 3.63%, plus 3.63% on the portion of profit which raises the rate of return over 4%, plus again 4.84% on that part of profit which raises the rate of return above 8%. However, the tax may not exceed 9.8% of total net profit, a limit which is attained at a rate of return of 23%.³

Seven cantons use schedules similar to that of the FDT, with two or three steps. Nine cantons set the tax rate as a fraction of the rate of return on equity, with lower and upper bounds. The other cantons use standard progressive schedules, some applying different rates to distributed and retained earnings; two cantons apply a lower rate to that part of profits that does not exceed some limiting rate of return. Only in one canton is the rate of tax on profits constant (Jura).⁴

The communes in most cantons enjoy tax flexibility, as opposed to tax autonomy. That is, they may decide the tax rate but not define their own tax forms and schedules. In practice, communal taxation of income takes the form of a surcharge on cantonal taxes. It is driven essentially by the legal requirement of a balanced budget. The surcharge is of the same magnitude as the cantonal tax. In six cantons the surcharge is the same for all the communes. Some cantons rather share the proceeds of the corporate tax with their communes.

The sum of federal, cantonal and communal statutory tax rates ranges from a minimum of 11 to 30% of total net profit over the country.⁵ More will be said on those geographic tax differentials in Section IV.

¹ Administration fédérale des contributions (1988), p. 36.

² The laws of 1990 on the FDT and on tax harmonization allow for the reporting of losses over a maximum of seven years.

³ These rates are valid since the tax period 1975/76. Before that date they were lower by 10% and more. They have now reached the upper limit allowed by the Constitution.

⁴ The systems are described by Amman (1989) and Margairaz and Merkli (1989).

⁵ Rivier (1990), p. 98, OECD (1989/90), Appendix III.

The system of progressive profit taxation based on the rate of return on equity is believed to hurt labour-intensive firms compared with capital-intensive firms, and young firms that have not yet accumulated large reserves. The system is favourable to equity finance since greater net worth, obtained either from new shares or from retained profits, lowers the rate of return. Retaining earnings also avoids dividend taxation; it is particularly interesting because personal capital gains are untaxed in all but one canton (Graubünden).

On the other hand, those firms which are supposed to be at a competitive disadvantage due to tax progressivity do earn higher returns. Furthermore, they pay less of the tax on equity. Debt finance is favoured by the deductibility of interest payments while new share issues pay a federal stamp duty.¹

The progressive schedules used by the national government and many cantons result, by their designs, in marginal tax rates that jump considerably at boundary values of the rate of return. An extreme case is that of Zurich, where the combined cantonal and communal marginal tax rate jumps from 45.2 down to 22.6% at a rate of return of 20%.²

There is a tendency to move towards proportional taxation. The national government intended to replace the stepwise tax rate with a single constant rate of 8%, but its project was rejected by popular vote on 2 June 1991.

(c) Integration of corporate and personal income taxes

Corporate income distribution is subject to double taxation in the same manner as in the United States, the Netherlands and Luxembourg. Only three cantons apply a lower rate of tax to distributed earnings than to retained earnings. Nowhere are shareholders allowed to deduct any part of corporate taxes paid. If profits were fully paid out, the total (personal and corporate) rate of tax could exceed 67%. There are no plans to alleviate the taxation of dividends. Several reasons are advanced against such a reform: (i) the revenue losses would have to be compensated, probably by higher taxes on reinvested profits; (ii) any compensation of corporate taxes by lower personal taxes for shareholders would be complicated by the fact that corporate and personal income taxes rates are very different among the cantons and among the communes; (iii) any solution must make sure that corporate profits are not taxed more lightly than the profits of unincorporated firms.

In fact, it is very frequent for profits to be retained for very long periods. Distribution rates are low. Furthermore, the tax rates on corporate income are much lower than those that apply to personal income. On the other hand, the distributed and undistributed profits of unincorporated firms are added to the income of their owners who face steep progressivity. Thus, the latter may pay more taxes than shareholders in similar conditions. Finally, it is to be noted that if shareholders are subject to heavy taxation, this is not due to double taxation of dividends. Rather, the culprit is the wealth tax, which weighs heavy in comparison with the small returns on shares.

In conclusion, the issue of double taxation is not of great concern; it is not a centrepiece of tax harmonization efforts.³

¹ Zuppinger et al. (1984), pp. 231-233, OECD (1989/1990).

² Amman (1989).

³ Zuppinger et al. (1984), pp. 228-231.

(d) Taxation of intercantonal income flows

In theory, local taxes may hit taxpayers who exercise economic activities or hold assets in several cantons or countries according to the worldwide principle — all incomes and assets of a resident taxpayer are subject to local taxation — or according to the territoriality principle — all incomes that are sourced in the territory and assets located in the territory are taxable. If each canton may decide which system it chooses, double taxation may result. It would be actual — the same tax base is subject to taxation in two cantons — or it would be virtual — two cantons give themselves the competence to tax the same base but one renounces. Double cantonal taxation, actual or virtual, is contrary to the Constitution. On the other hand, taxpayers whose activities were taxed separately in different jurisdictions might escape the progressivity of the tax schedule. Some of their incomes might even go fully untaxed.

These problems are avoided in Switzerland through binding decisions of the Federal Court of Justice. Its case-law determines which canton is allowed to levy a tax on which base. The fundamental principles followed by the Federal Court of Justice are:¹

- (i) The firm must file a tax form in each canton of activity. It must report its total worldwide income. Since the cantonal tax rules differ, the firm's total taxable income will not be the same amount in all the cantons concerned.
- (ii) The tax rate in each canton depends on worldwide income of the firm subject to taxation. This principle is designed to guarantee that two firms earning the same total profit pay the same tax, whether or not they are active in the canton alone or also in other cantons and countries. It matters for all those cantons which apply progressive tax rates to corporate income.
- (iii) Each canton taxes a share of the firm's total taxable income, that total being defined according to the canton's law. The shares sum to one but, of course, the taxed incomes do not sum to any cantonal measure of total taxable income.
- (iv) The fundamental principle for calculating the shares is that the firm is taxed basically in the canton of the seat of its executive offices. Its 'permanent establishments', however, are taxed in the canton where they are located.

'Permanent establishments' are buildings and other installations (offices, factories, branches, etc.) which are dedicated permanently to contributing substantially to the activities of the firm. A firm's branches may keep their own separate accounts and produce distinct incomes. In that case, it is possible to separate the firm's taxable incomes among the cantons on the basis of those accounts.² This method is used only for banks as they are required by federal bank law to keep separate accounts in their branches. For other firms it would be easy to shift their profits to the canton with the lowest taxation. The apportionment of a firm's profit is usually based on other criteria, depending on the nature of the firm: turnover for a commercial enterprise, premiums earned for an insurance company, capitalized assets and payroll for an industrial enterprise. When the criterium selected gives too little weight to the activity of the headquarters, an initial share of profits of 10 to 20% may be attributed to them.³

For the tax on equity, the allotment of the tax base reflects the localization of the firm's assets. Buildings which are pure investment objects rather than being used directly

¹ See Dafflon (1986), pp. 32-36.

² The canton in which a branch makes losses is not entitled to any part of the tax base.

³ Gunter (1988), Rivier (1990), Chapter 40.

by the firm are not 'permanent establishments'. Their value and incomes are taxed separately in the canton of their location.

(e) Taxation of groups of companies

To avoid treble (or more) taxation of the dividends received by a parent company from its affiliates, those dividends can be deducted by the former from its taxable income. However, for the FDT and in most cantons, the progressive tax rate applied to profits minus dividends is based on total profits. Taxes due are reduced in the proportion of the dividends received to total gross income of the parent company. Some cantons are moving towards a system where taxes due are reduced in the (greater) proportion of the dividends received to net profits. The FDT and 15 cantons allow for the deduction of dividends when they are received from holdings of at least 20% or SFR 2 million, that is, from so-called 'substantial interests'. Nine cantons set similar lower bounds and only two cantons do not allow for any reduction.¹

Firms whose principal activity consists in holding participation in other companies receive special treatment in numerous cantons, the so-called 'holding's privilege'. They are fully exempted from income taxes. This privilege is granted for variable proportions of income from participation in total income. Therefore, holding companies benefit from undue tax breaks on non-dividend income (mainly interest and licence income) paid to them by their affiliates. Those payments are deducted by the latter from their taxable income.²

(f) Taxation of foreign-source income

For international taxation, Switzerland follows the same system of exemption with progressivity as for the taxation of intercantonal income flows: tax rates are determined on the basis of worldwide income, but the earnings of immovable property and 'permanent establishments' located abroad are exempted from Swiss taxes. To apply that principle, the same apportionment rules are applied as for intercantonal taxation.

International double-taxation treaties broaden the definition of 'permanent establishments'. They introduce the principle that they should be treated like independent entities dealing 'at arm's-length' with fictitious firms. That principle matters both for the calculation of tax bases and for their apportionment. It is abandoned for some transactions between the main firm and its establishment, notably for interest payments and some management services. In general, the OECD model for tax treaties is observed.

When a firm exercises its international activities through an independent legal entity, how should dividends received by the parent firm be taxed? In general, bilateral treaties share the power to tax by setting maximal rates on dividends paid. Dividends from 'substantial interests' are free of tax, by application of the rules governing the taxation of groups of companies.

Both bilateral treaties signed by the national government and unilateral measures it takes to prevent double taxation are binding for the cantons.³

¹ Gunter (1988), Rivier (1990), pp. 335-355.

² Margairaz and Merkli (1989), p. 35.

³ Rivier (1990), pp. 335-355.

(g) Related taxes

On top of taxes on their profits, firms pay federal and cantonal taxes on their equity. They also pay federal stamp duties on the transfer of securities and other commercial documents and the issuance of shares. In addition, they are required to withhold a tax on their dividend and interest payments.

The tax base for the corporate equity tax is total worldwide net worth. It is the sum of share equity raised and of open and hidden reserves. The 12 cantons with two-year periods of profit taxation and the national government base the equity tax on the situation on the first day of the period for which taxes are calculated. The other 14 cantons use five different reference dates. The tax on corporate equity is levied at a flat rate for the FDT (0.0825% since the 1973/74 tax period) and in all but six cantons. Cantonal tax rates range from 0.202 to 0.85% (for SFR 1 million of equity).

Federal stamp duties are levied on the following bases:

- (i) on new shares issued or on similar participation rights; the rate is 3%;
- (ii) on the sale of securities to or by a Swiss title trader. The securities concerned are Swiss or foreign shares, bonds, and all other assets similar to those two categories. The rate is 0.15% for Swiss securities and 0.3% for foreign securities.

The withholding tax is levied only by the national government on the returns of mobile assets, at a rate of 35%. Thus, every payment from the firm to its shareholders is subject to the tax that does not modify the face value of shares.¹ The rate of 35% can be compared to the top statutory rate on personal income (central and local taxes) of 44%.

The taxes withheld can be recovered by residents (firms or persons) when they report the corresponding capital incomes. Foreign residents cannot recover the withholding tax, unless a treaty of double taxation exists between their country of residence and Switzerland. Most of those treaties allow only for partial reimbursement of the taxes withheld; effective tax rates range from 5 to 15%. In effect, one-fifth of the proceeds from the withholding tax was never reclaimed (on average over the last 10 years).

III — Revenue-sharing and equalization

(a) Historical evolution and development

Originally, the national government made payments to the cantons as compensation for the loss of revenue sources. Thus, in 1848, when the monopoly of customs was transferred to the national government, the excess of the duties over the limited needs of the national government was returned to the cantons. Later, the cantons were granted shares in federal revenues as indemnities for collection costs (the FDT is collected by the cantons) or as incentives for cooperation.

Before an equalization law was passed in 1959, the national government attempted several times to reduce or suppress revenue-sharing programmes. It claimed that it

¹ Rivier (1990), p. 107ff.

needed the funds itself. The cantons opposed such changes because they feared they would not be able to raise the same revenue themselves; the local electorate would oppose the higher taxes.

The equalization law of 1959 completely changed the perspective on revenue-sharing. It was to be used more and more for revenue equalization among the cantons.¹ That change in perspective is not unrelated to the increasing differences in cantonal per capita incomes and to the above-average voting power of the poorer cantons.²

(b) Apportionment formulas

The cantons were granted the following percentages of major federal taxes in 1990:

30% of the federal direct tax, and

10% of the net proceeds of the withholding tax.

For each tax, specific parts of the funds available for revenue-sharing are reserved for revenue equalization (e.g. 13% out of the 30% for the FDT revenue). The remainder is allotted on the basis of the method of tax collection. When tax collection is administered by the cantons, a constant proportion of the total cantonal yield of the tax is returned to each canton (e.g. 17% of the FDT). When tax collection is administered by the national government (e.g. the withholding tax), there is no statistic of cantonal yields. A fixed proportion of net tax yield (total yield minus administration costs) is returned to the cantons in proportion to their population. Thus, of the 85% of available funds that were not redistributed on the basis of capacity in 1972, 54% were allotted according to their origin and 31% were shared in proportion to populations.³

The formulas for revenue equalization are very complex. For instance, of the 13% of the proceeds of the FDT which are reserved to that purpose, each canton will receive the following share, starting in 1992:

$$2.71828(-0.0192104 \times \text{IFC}) \times \text{POP} \times K$$

where IFC is the index of the canton's financial capacity, POP is its population, and K is a constant that guarantees that the shares received by the cantons add up to one.⁴

The 10% of the net proceeds of the withholding tax are shared as follows among the cantons: half of the available funds are allotted in proportion to population and half are shared equally among all the cantons whose index of financial capacity is below a certain ceiling.

How important is revenue-sharing for the cantons? In 1989, revenue-sharing contributed to the total revenues of the cantons in proportions ranging from 4 to 16% (6% on average). In comparison, conditional grants from the national government (subsidies) contributed up to 4% to cantonal revenues (14% on average). Those numbers reveal that the proportion of unconditional grants to conditional grants is very low compared with other federal countries.⁵ Table 9B.2 shows the dependency of each canton on total transfers from the national government. Comparing those numbers with income per

¹ Dafflon (1977), pp. 139-141 and 158-173.

² Frey (1977).

³ Dafflon (1977), p. 145.

⁴ Administration fédérale des contributions (1991a).

⁵ Bangerter (1990). Compare with King (1984), p. 185.

capita or the index of fiscal capacity, the expected relationship appears: poorer cantons receive more help from the national government. The richest canton (Zug) still receives relatively generous transfers because of the return-to-origin component in FDT revenue-sharing.

(c) Cantonal revenue-sharing

Grants from the cantons to their communes follow similar principles as the grants from the national government to the cantons. The unconditional grants received by a commune depend on its population and its fiscal capacity. They are not related to expenditure needs or performance. The initiative for seeking cantonal contributions comes from the lower tier. So does the opposition to extensive revisions.¹

IV — Current concerns

(a) Economic efficiency and tax competition

Table 9B.3 shows the great disparity in cantonal tax rates on corporate profits (first column).² That disparity is dampened when account is taken of the FDT and the relatively uniform taxes on equity (columns 2 and 3). Such taxes have been compared with other differences among the cantons. The main result is that no relationship can be found, either with the economic capacity of the cantons, or with the taxation of individuals, or with public services. It does not appear that poorer cantons systematically attract firms with lower taxes. The converse is not true either: they are not poorer because of excessive business taxation, nor do they try to extract the maximum of tax revenue. No compensation seems to exist between the taxation of individual income and corporate profit, nor is it possible to distinguish different cantonal preferences for business taxation. Finally, cantons with higher corporate taxes do not seem to offer more public services or infrastructure.³ It is difficult, after those observations, to find an economic rationale for the tax differentials. An explanation could probably be found in the changing power of interest groups over time and space.

The substantial differences in corporate taxation among cantons suggest potential for tax arbitrage. Yet, the geographic differentials in effective tax rates on corporate income and equity are believed to be relatively innocuous for location choices. They do not weigh heavy compared to other business cost differentials.⁴ Non-cost factors, like communication possibilities and labour pools, are believed to be more important. The cantons view location efficiency as too weak an argument for relinquishing control over taxation and for modifying vested interests for it. If anything, they would rather grant specific tax breaks to attract business to less developed regions and to pursue their own redistributive policy. The canton of Zug with its low taxes is often stigmatized

¹ Bieri (1979), pp. 65-66.

² Calculations are reported for a representative firm that produces profits amounting to 20% of equity. Administration fédérale des contributions (1991b), (Tables 18 and 20) shows that in terms of net profits, the median net worth is SFR 50 million and the median rate of return on equity is 20%.

³ Dafflon (1977, 1991a), Nowotny (1983).

⁴ It is very difficult to estimate the impact of differentials in effective tax rates on capital location since Switzerland carries no statistic of capital stocks.

by the other cantons as a 'tax haven'. That debate, however, hinges more often on the issues of equity and inadequate law enforcement than on tax competition.

The differentials in cantonal tax rates shown in Table 9B.3 depend much on the multiples applied in that particular year (1989) to its basic rate by each canton and its capital. The communal coefficients vary considerably within each canton. For instance, in the canton of Fribourg, where cantonal law sets an upper limit of 1.0 on the communal multiples, 66% of the communes applied a coefficient of 1.0 in 1988 while 14% applied a coefficient of 0.8 or less. The lowest coefficient was 0.3.¹ Obviously, those differences in communal statutory rates are of similar magnitudes as intercantonal differentials.

It is not clear that intercommunal differentials in tax rates reflect tax competition among the communes. Indeed, the multiples are often the instrument used to satisfy the legal constraint of a balanced budget. On the other hand, a small commune which manages to attract some major firms can reduce its coefficient. Still, corporate taxation remains a major source of revenue for central urban communes. Those communes suffer more from the competition of their neighbouring communes for higher-income households than from competition for business seats.²

(b) Tax holidays

Even if intercantonal and intercommunal competition for business settlement is not a dominant concern, some cantons still have the reputation of being tax havens. They manage to attract a disproportionate number of seats of national or international companies. Incentives take the form of material or administrative help with acquiring land, low-interest loans, tax exemptions, and accelerated depreciation.

In addition, some cantons are particularly attractive for holding and other companies which do not exercise any important productive activity. Table 9B.3 shows that in the canton with the highest tax on holding companies (Vaud), the statutory rate is almost three times higher than in the most favourable canton (Schaffhausen).

The practice of granting incentives to attract enterprises had reached such magnitude after the Second World War that several cantons signed an agreement limiting such concessions. They were allowed only to encourage industrial development, for a maximum of 10 years. Those measures became somewhat effective after being introduced into the federal constitution, in 1958. The national government was granted the power to issue regulations, but it never made much use of that power.³ However, the federal law on tax harmonization (see below) limits tax concessions to 10 years for newly established firms.

The legislation intended to limit tax holidays requires the local tax law to be enforced equally for all taxpayers. It does not prevent cantons from taxing certain items very lightly or not at all. Intracantonal discrimination is banned, intercantonal discrimination

¹ Dafflon (1991a).

² Still, the maximum spread in total statutory tax rates is not much greater than shown in Table 9B.3 because the capital with the highest tax rate happens to have close to the highest coefficient of its canton (Zurich) and the capital with the lowest tax rate imposes the lowest coefficient of its canton (Zug).

³ Buschor, König, Rey, and Rondi (1984), p. 63.

is not. The legislation does not coordinate regional development either: every canton may grant the tax concessions to new industries as it wishes.¹

In fact, 'there is growing evidence that the use of tax relief is not appropriate in the Swiss case. Two problems have emerged. Firstly, tax relief is obtainable by immigrant industries only and this has been denounced as inequitable to developing local industries. Secondly, the tax relief method relates the value of the incentive to high initial profitability, which may run counter to the need for longer and more stable types of investment. Many companies decentralize only the more footloose part of their business, with the decision centre remaining outside the region. These "subcompanies" are quickly removed or closed down when the tax relief provision ends, when the profitability diminishes or in the case of economic downswing'.²

(c) Tax harmonization

Some harmonization of the tax base has already taken place. Indeed, numerous cantons which altered their direct taxation since 1941 used the FDT as a model. They often did so under the pressure of their tax administrations, responsible for collecting both cantonal and federal taxes.³ Still, important differences remain, as we saw, not only as regards the tax rates and schedules but also as regards the definition and delimitation of taxable items.

More harmonization is to be enforced over the course of the next decade, based on two recent laws: the 'federal law on the harmonization of the direct taxes of the cantons and the communes' and the 'federal law on the federal direct tax', both dated of 14 December 1990. They will come into effect on 1 January 1993. The first law is a model tax law which designates the income and wealth taxes (both personal and corporate) the cantons and communes may raise, as well as the principal terms thereof. The cantons must adapt their laws to the federal law. That law does not rule over all the terms of direct taxation. Indeed, the national government had been given the mandate to work towards uniform definitions of tax objects, the circle of taxpayers, the bases of calculation, and rules over tax disputes (formal harmonization). The cantons did not give up their sovereignty over tax schedules, rates, deductions and allowances (no material harmonization). For the latter items, cantonal law continues to apply. The second federal law will adapt the terms of the FDT to match the clauses of the harmonization law.

The main items of corporate taxation to be harmonized are:

- (i) all income and equity taxes paid shall be deductible;
- (ii) corporate taxation shall be based on the 'postnumerando' system: the firms may choose their own 12-month period;
- (iii) losses may be reported over a maximum of seven years;

¹ The equalization law of 1959 (see Section IIIa) set further limits on tax holidays because the national government was not prepared to pay higher transfers to cantons that were granting tax rebates. In fact, those measures never applied (Dafflon (1977), p. 90).

² Dafflon (1977), pp. 89-91.

³ Dafflon (1977), pp. 218-219.

- (iv) taxes due shall be reduced by the ratio of dividends received from 'substantial interests' to net profit: 'substantial interests' are holdings of at least 20% or SFR 2 million;
- (v) the 'holding's privilege' shall apply in all the cantons but not for the FDT: firms shall be dispensed from cantonal and communal income taxation when their participation or returns from participation make at least $\frac{2}{3}$ of their total assets or revenues;¹
- (vi) equity shall be taxed on its value at the end of the tax period.

The history of those recent harmonization laws is very revealing about the process of tax reform in Switzerland.² The debate truly started in 1968, when the conference of directors of cantonal finance departments designated a commission to elaborate a complete model tax law to be used as a guide for future harmonization efforts. The project was terminated by the end of 1972. It made it already clear that harmonization would only apply to formal aspects of taxation and leave the right to set rates and schedules with the cantons. The experts first believed that harmonization could be obtained by intercantonal agreement. Soon it became clear that the cost of compliance with a unanimity rule would be too high. Indeed, the project would have to be accepted (without modifications) by each cantonal parliament and each cantonal electorate. A solution imposed at the national level was unavoidable.

By the end of 1973, a second commission had prepared a project law for the FDT parallel to the model law for cantonal and communal direct taxes. Between 1974 and 1977 a broad-based consultation gathered comments and suggestions on the two legal projects and on a new clause of Constitution. That clause would mandate the national government to work towards material harmonization of direct taxation. In 1974, two parliamentary initiatives and two popular initiatives (more than 50 000 signatures) launched by centre-left parties strived at pushing the harmonization efforts at the national level. They wanted to reserve more power to the national government than the two projects aforementioned. One of the popular initiatives asked for centralized direct taxation which would only allow the cantons to levy a multiple on the national taxes. The other one intended to reserve corporate taxation to the national government. Both were opposed by majorities in the Legislative Assembly. They were rejected in popular votes in 1976 and 1977 respectively.

In 1976, the national government was given, by popular vote, the mandate to work towards the material harmonization of direct taxation. That article specified explicitly that 'the cantons participate in the elaboration of the federal laws'. A new consultation was undertaken in 1978 among the cantons, the political parties and the other interested organizations. Their comments were integrated into a new project of federal law on tax harmonization in 1980. In 1983, the national government delivered a message to the Legislative Assembly advocating that law and the law on the FDT. Deliberations took place in the two councils of the Legislative Assembly and in their commissions. It was only by the end of 1990 that both councils agreed on the two laws which are dated 14 December 1990.

¹ Masshardt (1975).

² Maintaining the 'holding's privilege' was promoted to the rank of a *sine qua non* condition for the harmonization project by several cantons.

During the debate on tax harmonization, the following considerations were determinant for inducing the cantons to agree to give up some, but not much, of their tax sovereignty:¹

- (i) Taxpayers do not understand the geographical diversity of tax burdens. They feel it to be unjust.
- (ii) The diversity complicates the task of tax administrations (who raise local and national taxes) as well as that of taxpayers active in several cantons.
- (iii) Revenue equalization is problematic when not all cantons drain their tax base equally.

The cantons were not willing to give up their right to set tax rates and schedules for the following reasons:

- (i) Tax burden differentials are believed to be compatible with the efficient allocation of resources. However, the differentials should be congruous with coordinated regional development. That target can be reached through national grants that offset differences in cantonal revenue-raising capacity. Once they are relieved of the concern of covering their expenses, the cantons can adapt their tax rates to the objective of balanced growth.
- (ii) As long as no national consensus exists on the appropriate degree of redistribution, each canton should be allowed to implement its progressive tax tariff.
- (iii) Each canton should have the possibility to determine its own mix of taxes and public services.
- (iv) 'Equalization of the cantons' tax tariffs ... would modify so many vested interests that it would be politically unacceptable.'²

(d) Fiscal stabilization

The historical development of federal taxation, described in Section I, has led to the introduction into the Constitution of tight limits on the national government's fiscal flexibility. Thus, Article 41 defines the taxes it may levy and the tax bases. It sets very narrow limits on the statutory tax rates. Any meaningful change in federal taxes must be approved by the electorate. Many local governments face similar constitutional restrictions. Changes in taxation are very time-consuming and backdating is not an accepted practice.³

In fact, since 1978, the Constitution allows the national government to raise tax supplements or to grant rebates on a temporary basis, to stabilize the economy. That clause is of little practical application, in particular because such changes would affect the cantons through revenue-sharing.⁴

The lack of flexibility is not the only impediment to fiscal policy. When tax changes are finally implemented, they often develop their effects only after lags of several years. The FDT, for instance, taxes income according to the two-year 'praenumerando'

¹ Commission intercantonale d'information fiscale (1983).

² Dafflon (1977), pp. 102-113, Ritschard (1970), pp. 26-27, and Höhn (1970), pp. 48-49 predicted the gains from rationalization to be too weak to justify the administrative costs of the process.

³ Dafflon (1977), p. 110.

⁴ Dafflon (1977), p. 220.

system. As a consequence, tax changes implemented in year T affect the taxable incomes of the years T + 1 and T + 2, which serve as base for taxes paid in the years T + 3 and T + 4.

A further limit on fiscal stabilization resides in the required vertical coordination. Indeed, national tax revenues account for only 43.6% of total tax revenues (in 1989).¹ In terms of expenditures, the share of the national government is even lower at 35.2%. The ratio of expenditures by the national government to GNP is 9.0%, while total public expenditure amounts to 25.6% of GNP.

As a result, the responsibility for avoiding business cycles is left to the central bank.

V — Conclusion

The Swiss cantons managed lately to agree on some measures of formal harmonization. They should suppress, in due time, the most blatant administrative headaches. The cantons had to entrust the national government with elaborating a project and with pushing it through the Legislative Assembly. They participated in all the steps of drafting the law. They all recognized the importance of administrative simplicity and greater understandability for taxpayers. The law was forbidden to infringe on cantonal sovereignty over tax rates and schedules.² Still, the cantons opposed strong resistance to any fundamental change. At least, firms active in several cantons may soon be able to file a single tax form for all cantons and the national government. Cantonal auditors may also be happier with understanding a single tax code.

The debate around tax harmonization (and the duration of the process from the first cantonal initiatives at the end of the 1960s to the laws of 1990) showed that fundamental changes in the federal tax system of Switzerland are not to be expected. There have been many calls for uniform tax rates on corporate income or, at least, for tax differentials that result from a policy of coordinated regional development.³ There have also been calls for a single corporation tax at the national level, for the integration of corporate and personal taxes, etc. Right now, several political initiatives are under way that want to force the national government to give up direct taxation and to concentrate, instead, on consumption taxes. Table 9B.1 shows that income and wealth taxes contribute only 17% of total tax revenues of the national government, against more than 80% for the lower levels. Unfortunately for that approach, there have already been three attempts to replace the obsolete turnover tax by a more easily expandable VAT. All failed in popular vote.

All of those proposals of real fiscal reforms, which originated in political as well as academic circles, were rejected in the political arena. Some observers have come to favour Switzerland adhering to the EC to help push tax reforms.

¹ Nowotny (1983).

² This ratio is based on revenues inclusive of cantonal shares.

³ See Schwartz (1978), pp. 57-58 and the references therein.

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TABLE 9B.1
Public revenues in 1989

(million SFR)

| | National government ¹ | Cantons | Communes |
|-----------------------------------|----------------------------------|---------|----------|
| Taxes on | | | |
| Income and wealth | 8 838 | 18 824 | 13 930 |
| Income of individuals | 2 834 | 11 954 | 9 631 |
| Wealth of individuals | 0 | 1 151 | 918 |
| Corporate profits | 1 076 | 2 310 | 1 373 |
| Corporate capital | 151 | 700 | 394 |
| Withholding tax | 2 398 | 0 | 0 |
| Stamp duties | 2 379 | 0 | 0 |
| Other | 169 | 2 709 | 1 614 |
| Consumption and expenditure taxes | 15 111 | 1 179 | 67 |
| Revenue-sharing | 3 | 2 169 | 619 |
| Federal direct tax | 0 | 1 870 | 0 |
| Withholding tax | 0 | 269 | 0 |
| Cantonal taxes | 3 | 0 | 619 |
| Other | 0 | 30 | 0 |
| Grants-in-aid and reimbursements | 20 | 7 980 | 4 111 |
| From the national government | 0 | 5 186 | 60 |
| From the cantons | 20 | 0 | 4 051 |
| From the communes | 0 | 2 794 | 0 |
| Other | 2 024 | 7 284 | 8 888 |
| Total | 25 996 | 37 436 | 27 615 |

¹ Revenues net of actual cantonal shares.

Source: Administration fédérale des finances, 1991.

TABLE 9B.2

Cantonal disparities in 1989

| | | Population (1 000) | GNP per capita (SFR 1 000) | Index of fiscal capacity | Share of CIT in total tax revenue (C + C)(%) | Dependency ratio (%) |
|----|----------------|-----------------------|-------------------------------|--------------------------------|---|----------------------------|
| ZH | Zurich | 1 153 | 48.7 | 151 | 15.1 | 12.4 |
| BE | Berne | 943 | 34.4 | 71 | 5.2 | 23.1 |
| LU | Lucerne | 613 | 31.6 | 67 | 7.1 | 24.6 |
| UR | Uri | 34 | 30.2 | 30 | 4.8 | 52.7 |
| SZ | Schwyz | 109 | 32.6 | 79 | 6.4 | 33.0 |
| OW | Obwalden | 29 | 29.0 | 49 | 8.3 | 41.8 |
| NW | Nidwalden | 32 | 37.7 | 90 | 12.8 | 30.7 |
| GL | Glarus | 38 | 43.0 | 90 | 6.6 | 22.9 |
| ZG | Zug | 85 | 65.0 | 202 | 19.1 | 23.1 |
| FR | Fribourg | 204 | 33.7 | 62 | 5.9 | 26.1 |
| SO | Solothurn | 223 | 34.5 | 84 | 8.0 | 18.3 |
| BS | Basle-City | 192 | 56.0 | 171 | 16.1 | 9.4 |
| BL | Basle-Land | 230 | 38.0 | 102 | 7.4 | 10.6 |
| SH | Schaffhausen | 71 | 34.1 | 100 | 10.0 | 20.7 |
| AR | Appenzell A-Rh | 51 | 31.9 | 69 | 8.7 | 27.8 |
| AI | Appenzell I-Rh | 14 | 28.7 | 51 | 9.3 | 34.9 |
| SG | St Gallen | 416 | 33.0 | 87 | 11.4 | 22.9 |
| GR | Graubünden | 177 | 34.3 | 67 | 11.6 | 40.9 |
| AG | Aargau | 490 | 36.1 | 96 | 12.4 | 17.7 |
| TG | Thurgau | 202 | 31.1 | 93 | 8.4 | 17.2 |
| TI | Ticino | 287 | 30.6 | 76 | 14.4 | 24.4 |
| VD | Vaud | 576 | 36.8 | 90 | 8.1 | 15.8 |
| VS | Valais | 249 | 29.0 | 44 | 8.1 | 37.9 |
| NE | Neuchâtel | 160 | 33.1 | 54 | 9.7 | 37.1 |
| GE | Geneva | 378 | 49.6 | 152 | 13.2 | 10.5 |
| JU | Jura | 65 | 29.6 | 37 | 6.0 | 42.8 |
| | Total | 6 723 | 38.3 | 100 | 10.8 | 19.6 |

NB: Population: OFS, Annuaire statistique de la Suisse, (1991).

GNP per capita: OFS, *Vie économique*, Vol. 9 (1991), Table B18.

Index of fiscal capacity: 1990-91, Dafflon (1991).

Share of corporate income tax (CIT) in total tax revenues of cantons and communes (C + C): Administration fédérale des finances (1991), Table 68.

Dependency ratio: share of total revenues granted by national government, Bangerter (1990).

TABLE 9B.3

Corporate tax rates in capital cities (1989)

(%)

| | | CIT rate (C+C) | CIT rate (N+C+C) | CIT and capital tax (N+C+C) | Effective marginal structures (N+C+C) | Tax rate equipment (N+C+C) | Total tax, holding company |
|----|----------------|-------------------|---------------------|-----------------------------------|--|----------------------------------|----------------------------------|
| ZH | Zurich | 23.8 | 29.4 | 31.6 | 41.8 | 40.6 | 1.9 |
| BE | Berne | 13.9 | 20.5 | 23.8 | 45.5 | 42.1 | 1.7 |
| LU | Lucerne | 20.0 | 26.0 | 28.4 | 42.0 | 39.7 | 1.7 |
| UR | Uri | 16.4 | 22.6 | 26.5 | 42.1 | 41.3 | 1.5 |
| SZ | Schwyz | 15.1 | 21.6 | 24.2 | 39.2 | 38.2 | 1.8 |
| OW | Obwalden | 15.5 | 22.0 | 24.2 | 38.1 | 37.0 | 1.7 |
| NW | Nidwalden | 14.9 | 21.6 | 23.2 | 37.1 | 35.9 | 1.5 |
| GL | Glarus | 18.1 | 24.2 | 28.9 | 49.2 | 48.0 | 2.0 |
| ZG | Zug | 9.6 | 16.8 | 18.5 | 31.9 | 31.0 | 1.7 |
| FR | Fribourg | 18.0 | 24.2 | 27.0 | 42.5 | 41.5 | 2.5 |
| SO | Solothurn | 18.0 | 24.2 | 27.2 | 40.2 | 39.3 | 1.6 |
| BS | Basle-City | 17.1 | 23.2 | 26.6 | 43.3 | 42.3 | 2.0 |
| BL | Basle-Land | 14.9 | 21.2 | 25.9 | 47.4 | 46.5 | 2.0 |
| SH | Schaffhausen | 16.9 | 23.3 | 25.4 | 41.0 | 39.8 | 1.3 |
| AR | Appenzell A-Rh | 15.6 | 22.1 | 24.9 | 46.7 | 37.3 | 1.5 |
| AI | Appenzell I-Rh | 15.8 | 22.3 | 24.8 | 50.5 | 40.5 | 1.5 |
| SG | St Gallen | 15.1 | 21.5 | 24.7 | 53.1 | 41.6 | 2.2 |
| GR | Graubünden | 22.7 | 28.4 | 32.4 | 48.9 | 47.1 | 1.3 |
| AG | Aargau | 17.5 | 23.7 | 26.9 | 43.2 | 42.2 | 1.8 |
| TG | Thurgau | 15.7 | 22.1 | 24.8 | 46.9 | 43.6 | 1.6 |
| TI | Ticino | 22.2 | 27.9 | 31.1 | 51.0 | 44.4 | 1.7 |
| VD | Vaud | 18.6 | 24.7 | 27.4 | 50.2 | 45.0 | 3.6 |
| VS | Valais | 19.0 | 25.0 | 28.4 | 51.7 | 46.2 | 1.8 |
| NE | Neuchâtel | 23.3 | 28.8 | 32.4 | 53.5 | 46.6 | 1.9 |
| GE | Geneva | 18.5 | 24.7 | 27.3 | 48.1 | 42.5 | 1.9 |
| JU | Jura | 15.2 | 21.7 | 24.6 | 46.4 | 43.6 | 1.6 |

NB: Assumptions: Representative firm with equity capital of SFR 50 million and profits of SFR 10 million.

The statutory rates (basic rates times 1989 multiples) are calculated from Administration fédérale des contributions (1990).

CIT rate (C+C): Cantonal and communal statutory tax rates on corporate profits (before tax).

CIT rate (N+C+C): National, cantonal and communal statutory tax rates on corporate profits.

CIT and capital tax rate (N+C+C): National, cantonal and communal statutory taxes on corporate profits and equity, calculated as a proportion of net profit.

Effective marginal tax rate for corporations: King-Fullerton formula, Zarin-Nejadan (1991).

Total tax holding company: Statutory CIT and capital tax rate (N+C+C) for a company benefiting from the 'holding's privilege', with net profit of SFR 0.16 million.

Annex 9C

Tax coordination and competition in the United States of America

by

Joann E. Weiner
Harvard University and
the US Department of the Treasury

I — Introduction¹

The three levels of government in the United States of America, national, state, and local, conduct their policies relatively independently of one another within a federal system.² The US Constitution sets few legal boundaries to many government policy choices and, in particular, grants tremendous fiscal sovereignty to the states. For example, it provides that all powers not specifically granted to the federal government fall under state authority. Moreover, the Constitution restrains state tax actions in only a limited sense — it prohibits states from entering treaties and imposing tariffs.

Although it imposes few direct restrictions, the US Constitution restrains state tax policy in a less direct sense, through the commerce and due process clauses. These two clauses establish that state tax policy must not discriminate against interstate commerce and that the state income tax must be reasonably related to the activity conducted in the state.

II — The US tax system

The federal government taxes the worldwide income of US-based multinational companies at a 34% rate. To avoid double taxation, the government offers foreign tax credits. It also allows US multinational enterprises to defer US taxes due on most types of foreign-source income until that income is repatriated. Double tax treaties govern additional aspects of the division of multinational income between countries.

State governments tax company income earned in the state (source basis), at rates ranging from about 3 to 12%. States may not tax income earned outside of state boundaries.

¹ Most of the material in this paper is drawn from Weiner (1992, Chapter 2).

² The census identified 83 237 federal, state and local governmental units in 1987. US Department of Commerce, Bureau of the Census, (1989), p. 266.

Historical background

Adoption of the state corporate income tax

In 1901, Hawaii, then a US territory, introduced a tax on corporate income, which it modelled after the US federal tax of 1894. State corporate income taxation began in 1911 when Wisconsin introduced a graduated tax on corporate income.

In 1913, the federal constitutional prohibition against direct taxation was amended; this amendment led to revisions of numerous state constitutions and, as a result, 17 states had adopted the corporate income tax by the end of the 1920s. Fiscal pressures of the Great Depression, compounded by criticism of the high levels of state property tax,¹ led an additional 15 states to adopt the tax in the 1930s. Twelve states introduced the corporate tax in the next three decades. Two states introduced the tax in 1971, bringing the total number of states with the corporate income tax to the present 45 of 50 states, plus the District of Columbia.²

State tax methods

State tax methods differ in at least three ways: first, in the manner of taxation; second, in the taxation of groups of companies; and third, in the geographic scope of taxation.

On the first issue, states tax corporations in three manners: (i) separate accounting, (ii) specific allocation, and (iii) formula apportionment. Under separate accounting, a firm calculates revenue and expenses for its operations in each state, using market-based ('arm's-length') transfer-pricing to value intra-company transactions that cross state lines. Under specific allocation, a firm allocates, partially or in entirety, various types of income, such as dividends, royalties and interest, to specific states for tax purposes. Under formula apportionment, a firm operating in more than one state measures its state income by its share of business activity in the state. For example, if 10% of a multistate company's activity is located in a state, one-tenth of its income is considered to have been earned in that state.

States tax groups of companies in different manners. In some states, the taxable entity consists solely of the parent and its unincorporated branches or divisions (single-entity accounting). In other states, the taxable entity also includes the separately incorporated but functionally integrated activities (multiple-entity accounting).

The practice of combining the separately incorporated but functionally integrated activities of multiple-entity firms into a single taxable unit is known as unitary taxation, or unitary combination. Formula apportionment is often referred to, in error, as unitary taxation. Apportionment refers to the process of dividing income using a formula based on the location of business activity; unitary taxation refers to those operations which are included in the apportionment formula. For example, all of the states that tax corporate income use apportionment, but fewer than half of those states use unitary taxation.

¹ In 1992, property taxes accounted for 37% of state tax revenues, compared with 6% of revenues from the corporate income tax. See Advisory Commission on Intergovernmental Relations (1964), p. 20.

² Michigan is included in this total, although since 1976, Michigan has taxed value-added, instead of corporate income, in the state.

A combined business eliminates inter-affiliate transactions when determining the taxable income of the enterprise.¹ States generally define a business to be unitary if there is unity of ownership, operation or use between the controlling parent and its affiliates. Some states also classify a business as unitary if operations in one jurisdiction depend on or contribute to operations in another.

Finally, the geographic scope of unitary taxation varies across the states. States may employ a water's-edge combination (domestic unitary taxation) or a worldwide combination (worldwide unitary taxation). Water's-edge combination states exclude foreign affiliates from the combined firm. Worldwide combination states may include unitary foreign parents and affiliates in the combined firm.²

Frank M. Keesling, one of the founders of the unitary tax concept, provides the following rationale for unitary taxation: (1) to prevent tax avoidance through manipulation of transactions between controlled corporations; and (2) to ensure equal and uniform treatment of multiple- and single-entity corporate business (National Tax Association, 1974, p. 277).

Development of formula apportionment

State corporate taxation did not begin with apportionment. In the early years of state taxation, most firms operated within a single state, and neither firms nor states required an alternative to separate accounting for income tax purposes. Formula apportionment was available, but separate accounting was more commonly used. Eventually, as Hellerstein (1975) remarks, the states adopted apportionment 'out of sheer necessity' as they searched for a workable and simple method to divide multistate income across the states.

Formula-based taxation began in the states in the late 1800s as a means to tax intangible property values of the transcontinental railroad system. States began to use apportionment for income tax purposes at the turn of the century, and the US Supreme Court soon sanctioned the 'unit rule' for taxing manufacturing income.³ The Court reasoned that a series of transactions, beginning with manufacture in one state and ending with sale in other states generated income for a multistate company. This integrated series of cross-border transactions made it impossible to allocate specifically profits earned by the processes located within state borders. Thus, the Court argued that an apportionment method was necessary to determine state income.

Although only three states taxed company income in 1916, most states imposed business taxes such as incorporation and franchise fees, sales and use taxes, and capital stock taxes. To begin rationalizing the multitude of state business taxes, the National Tax Association (NTA) that year set out to create a model state business tax system. The NTA's initial efforts focused on creating uniformity within a system of separate

¹ Operations combined for state tax purposes may differ from those consolidated for federal tax purposes. In a combined report, all entities under common control and in the same line of business are fully combined into a single report for tax purposes. Federal rules specify a minimum ownership share before the firm may file a consolidated return, and all activities are included, regardless of the line of business.

² For details on the development and an analysis of unitary taxation, see the essays in McLure, (1984, 1986).

³ *Underwood Typewriter Co. v Connecticut* (1920).

accounting. As a first step, the NTA in 1919 proposed that a state income tax, applied to net federal income, replace all existing taxes on business.

In the mean time, business expansion across state lines was pushing the states toward the apportionment system. But, since there was little coordination among the states, apportionment formulas varied widely. For example, the formulas in the eight taxing states in 1920 included various combinations of tangible and intangible property, receivables, sales, manufacturing costs, wages, salaries and purchases.

The states' uncoordinated approach to apportionment led the NTA to abandon its separate accounting approach and consider how to divide multistate income among the states using a system of apportionment and allocation. The NTA assigned this task to an eight-member committee composed of business representatives, state tax authorities and academic experts.

Since non-uniform practices create the possibility that a multistate firm could be subject to tax on more (or less) than 100% of its income, the NTA focused greater attention on trying to encourage the states to adopt a uniform formula than on determining which factors should be included in the formula. For example, the NTA noted that: 'From the standpoint of the taxpayer, uniformity between states is by all odds the most essential requisite' (NTA, 1922, p. 201). The committee suggested that a taxpayer would not mind paying a tax based on a formula with three-quarters the weight on property and one-quarter the weight on sales, or vice versa, 'so long as he is taxed only on one hundred percent altogether' (NTA, 1922, p. 201).

In addition, the NTA noted that the apportionment method may not be 'unduly criticized' simply on the grounds that the formula is arbitrary: 'All methods of apportionment of trading profits are arbitrary — the cutting of the Gordian knot', (NTA, 1922, pp. 201-202). Indeed, the NTA noted that 'there is no one right rule of apportionment ... The only right rule ... is a rule on which the several states can and will get together as a matter of comity' (NTA, 1922, p. 202).

Consequently, the NTA in 1922 unanimously adopted a resolution calling for the adoption 'of a uniform rule by states, calculated to fairly and equitably apportion such net business income' (NTA, 1922, p. 491). The recommended formula included two factors — tangible property and business — each with an equal weight. The formula would apply only to manufacturing and merchandising companies.¹

The states did not adopt the NTA's recommendation. By 1929, the 17 states then taxing company income used nine different formulas; only one state used the recommended property-business formula (Table 9C.1). Reflecting the dominance of manufacturing or merchandising business in the state, the most common formulas apportioned income on the basis of either property or sales.

Facing failure by the states to adopt its theoretically correct formula, the NTA shifted its efforts toward defining a formula that would require the fewest changes in state tax practices. After examining state practices, the NTA concluded that a property, payroll and sales formula, with each factor accounting for one-third of the total weight, would be the most acceptable formula to the states. In 1933, the NTA recommended that the states adopt the so-called 'Massachusetts' formula.

¹ 'Business' includes labour (i.e. wages, salaries and compensation), materials (i.e. purchases of goods, materials and supplies) and sales receipts.

The NTA chose the Massachusetts formula not because this particular formula apportioned income more accurately than any other formula, but because 'uniformity is preferable to scientific accuracy' in apportioning multistate income. Furthermore, the NTA noted that the formula: (i) is simple and well-balanced; (ii) leads to a fair allocation that requires fewer departures from the standard; and (iii) is based on 10 years of experience in Massachusetts that has been satisfactory to both taxpayers and tax administrators. By 1948, nearly 45% of taxing states, compared with 12% two decades earlier, used the three-factor formula (Table 9C.1).

The NTA examined additional aspects of state taxation and, in 1951, the NTA presented broad guidelines for both income apportionment and allocation of specific items. (NTA, 1951, pp. 451-465). The rules were as follows:

- (a) apportion manufacturing and merchandising income using an equally weighted property-payroll-sales formula;
- (b) allocate net income from finance, insurance, investment, service, construction and public utility activities using separate accounting;
- (c) classify a taxpayer according to the activity producing the largest gross receipts;
- (d) allow both taxpayer and tax administrator to apply a different tax calculation method in hardship cases.

The NTA recommendations spurred further convergence toward the three-factor formula. The percentage of states using the Massachusetts formula rose from 45% in 1953, to 68% in 1963, to 89% in 1977, and to 96% in 1989 (Table 9C.1).

Movement away from separate accounting

While the NTA was attempting in the 1920s and 1930s to eliminate domestic double taxation in the states of the USA, the Fiscal Committee of the League of Nations and the International Chamber of Commerce were attempting to eliminate international double taxation. This international group issued two recommendations to avoid international and interstate double taxation: (i) use separate accounting in international matters, and (ii) use formula apportionment in state matters.

Mitchell Carroll, financial expert of the Fiscal Committee, explained this national-international division by noting that there is a 'fundamental difference' between doing business in the states of the USA and in the various European countries. Barriers to cross-border business expansion in Europe, caused by tariffs, competitive objectives, language, currencies and methods of doing business, force the taxpayer to segregate business done by territory (NTA, 1931, p. 197). Economic conditions in the USA, by contrast, make it difficult to determine income attributable to operations by state so that companies are less inclined to segregate transactions along state borders.

In fact, the NTA supported separate accounting in the states if companies maintained their books in that manner. However, the NTA recognized that most companies would not maintain such books, and that apportionment would be necessary for multistate tax purposes. Thus, the NTA affirmed its support for state formula apportionment.

A business leader verified the NTA's conjecture, noting that separate accounting may be the standard for international taxation, but apportionment has 'distinct advantages and conveniences' in state taxation. Most business managers prefer apportionment over

separate accounting because 'American business has grown freely across state lines without the necessity heretofore of keeping complete accounts for each branch. It would be a great expense to the taxpayers to set up and maintain such accounts and to tax officials to audit them' (NTA, 1932, p. 206).

The NTA surveyed states and businesses in 1938 to gauge their preferences in state taxation. A majority of both states and businesses supported formula apportionment. Of the 26 states that replied, 65% preferred the formula approach and the remainder preferred separate accounting. Business expressed similar preferences; of the 40 companies that responded, 55% favoured formula apportionment and opposed separate accounting. Thirty-eight per cent of the companies preferred separate accounting, and the remainder expressed no preference.

Firms favoured apportionment because separate accounting 'is expensive, impracticable [and] necessarily arbitrary in the allocation of overhead items' and because 'it is impossible to determine, in most cases, the profit at various stages of production or distribution' (NTA, 1939, p. 200). Separate accounting is viable only where there are distinct organizations in each separate state, each with its own sales force and factory and with no interlocking transactions.

Firms with distinct state operations favoured separate accounting because they maintained their internal books on this basis. In essence, non-integrated firms found separate accounting satisfactory while highly integrated firms found it not only impractical, but also impossible, to maintain accounts on a separate basis by state.

Faced with difficulties in monitoring the accuracy of arm's-length prices used by such integrated firms, state support for separate accounting dissipated. By the 1960s, just 13% of taxing states exhibited a preference for separate accounting.

The federal government concurred with the states' view. In the early 1960s, the Congress Willis Committee recommended eliminating separate accounting at the state level. In 1977, the US Congress reiterated this view, reporting that '[the arm's-length approach] already produces significant problems when applied at the federal level and would be virtually impossible to administer at the state level as applied to interstate transactions. Thus, there is no significant disagreement that the states must use some type of apportionment formula, ... since there would be no practical way of determining what income of a company is earned within a state as opposed to being earned within other states (or foreign countries).'

A businessman reviewed the testimony presented by representatives of organizations, companies, and state tax administrators before the Willis Committee and noted that 'the majority of those testifying favoured the uniform allocation formula' (NTA, 1963, p. 293). He noted that 'some, but not all, of the representatives of companies (the taxpayers) were in favour of the uniform allocation formula' (NTA, 1963, p. 293).¹

Not all of the disputes over the application of formula apportionment have been settled, e.g. the treatment of non-business income and income produced outside the USA. Indeed, several commentators have noted that 'agreement on the desirability of uniformity in apportionment and agreement on the particular method of apportionment are two different matters' (NTA, 1973, p. 310). Nevertheless, there has been broad agree-

¹ The writer speculated that, in fact, taxpayers were opposed to a uniform formula, for fear that states without an income tax would then be forced to adopt the tax (NTA, 1963, p. 296).

ment among businesses, states and the federal government for several decades that apportionment in the appropriate system for taxing multistate income.

Choice of factors in the formula

Ideally, the apportionment formula should both take into account the factors that generate the income and be simple to administer. Unfortunately, these two goals tend to conflict with one another. For example, a formula that precisely reflects every income-generating activity soon becomes administratively complex. To balance these two goals, many NTA proposals have emerged as a compromise between accuracy in income attribution and simplicity in application.

The apportionment factors should reflect the character of the business and the economic activities that generate income. Since the state tax system is based on source, the location of these factors becomes important in determining state income. Broadly speaking, net income arises from investment of capital in tangible property, the contribution of personnel and receipt of revenues as the product is sold. But the importance of each of these factors varies across types of business. For example, property is more important in manufacturing while sales are more important in merchandising.¹

There is broad agreement on the roles of tangible property and payroll in generating income. Intangible property, although an important element in generating income, is generally excluded because of difficulties in determining its location.

Disagreement arises over the role of sales in generating income. Some claim that both demand (the market) and supply (the factors of production) generate income. Thus, sales should be included in the formula to account for both income-generating activities. Others claim that it is the processes up to the sale that generate income. The sale simply records when the income is received.

Ultimately, the NTA decided to include the value of sales receipts in the state where sold (the destination state) in the formula. It gave three reasons:

- (i) to balance the other two factors;
- (ii) to reduce the opportunity to avoid taxes by manipulating the location of sales; and
- (iii) to apportion some income to the market state and away from the manufacturing state.

Congressional action

After remaining on the sidelines throughout the development of state apportionment systems, in September 1959 the US Congress enacted the first federal legislation establishing specific minimal standards that subject a business to state income taxation. Public Law 86-272, known as the Interstate Tax Limitation Act, prohibits state taxation

¹ Most states modify the formula for non-manufacturing and non-merchandising firms to account for factors relevant for their lines of business. For example, the value of loans would be important for financial corporations. This paper addresses the issues pertaining to manufacturing and merchandising businesses.

of the net income of companies engaged solely in interstate commerce when the only connection with the state is solicitation of sales or using an independent contractor to make sales. This law followed by six months a US Supreme Court decision that upheld state taxation of companies who merely maintained a sales office in a state.¹ Despite repeated pleas from the business community to impose federal restrictions on state income taxation, this legislation remains the only federal action regulating state tax matters in the area of multistate business taxation.

Public Law 86-272 also required the Congress 'to make full and complete studies of all matters pertaining to the taxation of interstate commerce by all the states'. Following this mandate, the Congress established a special subcommittee under the chairmanship of Edwin Willis, which heard testimony from dozens of witnesses on the expenses of complying with state tax laws, the effect of present laws on business decisions, the extent to which variation in state apportionment practices resulted in overlapping taxes and created inequities, and the extent to which state tax administrators authorized variations from statutory laws. In 1964 and 1965, the Willis Committee issued a four-volume report containing its recommendations, among others, that:

- (a) formula apportionment should be the sole method for dividing income; specific allocation should not be allowed; and
- (b) multistate income should be apportioned using a two-factor formula composed of property and payroll.

The Committee eliminated separate accounting to remove the need to establish 'hypothetical' prices for intercompany transactions. It dropped the sales factor to facilitate compliance and to eliminate the controversy that had raged over how to define the 'elusive concept of "source of income"' regarding sales.²

The Committee's recommendations extended beyond apportionment. The Committee proposed restricting taxes on capital stock, gross receipts, and sales in interstate commerce. It also recommended that the federal government, not the individual states, set tax policy affecting companies that operate outside the USA.

Because the Willis proposal on the apportionment formula went against common state practice, the NTA disagreed with the recommendation of the property-payroll formula. The NTA had been recommending uniform adoption of the three-factor Massachusetts formula for more than 30 years. Furthermore, all but two of the 38 taxing states included sales receipts in the apportionment formula.

Following the Willis Committee report, Congress introduced a bill to implement the proposals. For most of the next two decades, Congress annually introduced such bills (six bills were introduced to the Ninety-third Congress) designed to restrict state taxation of multistate business. None of these bills has passed both houses of Congress and been enacted into law.

¹ *Northwestern States Portland Cement Co. v Minnesota; Williams v Stockham Valves and Fittings, Inc.* 358 US 450 (1959).

² The Willis Committee found that state revenues were not highly sensitive to the formula. For 37 of 38 states, less than 1% of state tax revenue would be affected in the choice between the best and worst formula (Vol. 1, ch. 16).

State actions to achieve greater uniformity

Meanwhile, the states independently pursued means to coordinate state corporate tax laws. First, the National Tax Association had established in 1955 the Committee on the Interstate Allocation and Apportionment of Business Income for purposes of encouraging adoption of a uniform allocation and apportionment formula. This committee had been preceded by the Committee on Apportionment of Manufacturing and Mercantile Business Income, which the NTA had established in 1916. Second, significant progress toward uniformity had already occurred in 1957 when the 66th National Conference of Commissioners on Uniform State Laws (NCCUSL) adopted the Uniform Division of Income for Tax Purposes Act (UDITPA). States that adopt UDITPA agree to apportion business income using the equally weighted three-factor formula and to allocate non-business income to specific states. These rules apply to manufacturing and mercantile businesses.

UDITPA establishes standard definitions for the factors. The property factor includes owned and rented tangible property, measuring owned property at historical cost and rented property at eight times net annual rent at their average values during the year.

Payroll includes wages, salaries, commissions and other compensation for personal services. The definition is derived from the federal Model Unemployment Compensation Act, which all states have adopted.

Sales are measured by gross receipts from sales of tangible personal property delivered to or shipped to a purchaser in the state (i.e. in the destination state). Sales shipped to a state where they would be untaxed, or to the federal government, are returned to the state of origin for taxation (this rule is known as the sales 'throwback' rule).

Unfortunately, the states failed to endorse the grand designs of UDITPA. At the time the Willis Committee was undertaking its investigation of state tax practices, only two states had adopted the Act.

Fear of additional federal intervention following adoption of Public Law 86-272 and the Willis Committee recommendations encouraged the states to pursue additional alternatives to federal legislation. These efforts led to creation of the Multistate Tax Commission (MTC) in 1967. The Multistate Tax Compact (the 'Compact'), which was developed as part of the MTC in 1966, defines the Commission's purposes as follows:

- (i) to facilitate proper determination of state and local tax liability of multistate taxpayers;
- (ii) to promote further uniformity and compatibility in state tax laws;
- (iii) to facilitate taxpayer compliance; and
- (iv) to avoid duplicative taxation.

The Compact includes the income division rules outlined in UDITPA and adopts the federal income tax base as the starting-point for defining taxable state income.

Rapid adoption of the MTC's provisions led the states to argue that this voluntary action precluded the need for federal legislation to achieve uniformity in state tax matters. The MTC firmly opposes federal intervention in state tax matters.

The Container decision and the unitary tax controversy

Although many aspects of apportionment were solved during the 1960s, one aspect of state taxation — unitary taxation — continued to plague both state and federal tax authorities. In the early 1970s, the NTA saw unitary taxation as the most pressing problem in multistate taxation (NTA, 1971, p. 455). Unitary taxation centres on several issues, including:

- (i) determining which affiliates to include in the combined return;
- (ii) measuring the net income of each unitary business; and
- (iii) applying the unitary doctrine to operations in foreign countries.

Although the practice has been controversial in the states, unitary taxation remained largely a domestic matter through the mid-1970s.¹ However, increasing use of worldwide unitary combination attracted foreign opposition to this aspect of state tax practice. Unitary taxation became a major point of contention in the tax treaty negotiations between the USA and the United Kingdom.²

A US Supreme Court decision in 1983 sanctioning California's use of worldwide combination for US-based multinational companies inflamed the dispute.³ The Supreme Court ruled that worldwide unitary taxation applied to a US-based multinational was not inherently unconstitutional. (The Court reserved judgment on the application of unitary combination to foreign-based multinationals.) In addition, the Court noted that because multiple taxation is as likely to occur under separate accounting as under formula apportionment, a state should not be required 'to give up one allocation method that sometimes results in double taxation in favour of another allocation method that sometimes has the same result'. Both separate accounting and formula apportionment are 'imperfect proxies' for measuring state income.

The *Container* decision intensified foreign business and foreign government opposition to worldwide combination. However, President Reagan, a firm opponent of federal intrusion on state fiscal sovereignty, rejected federal legislation as a solution. Nevertheless, continued foreign protests led the President to create a working group at the US Department of the Treasury in 1983 to arrive at a solution to the international dispute. In 1984, the group recommended:

- (a) limiting unitary combination to the water's-edge for both US and foreign-based multinationals;
- (b) increasing federal cooperation with and assistance to the states in providing tax information; and
- (c) maintaining a 'competitive balance' for US-based multinationals, foreign multinationals, and purely domestic businesses.

¹ US-based multinational opposition to worldwide combination focused on the inclusion of foreign-source dividends in apportionable income.

² The controversy entered tax treaty negotiations between the USA and the UK in 1975. The UK had inserted a provision, Article 9(4), which would have prohibited worldwide combination for UK companies. The US Senate approved the treaty in 1978 only after this provision was removed.

³ *Container Corporation of America v Franchise Tax Board of California* 103 S. Ct 2933 (1983).

Neither foreign governments nor multinational businesses were satisfied with these conclusions. Continued pressure from these groups combined with legislation introduced by the federal government in 1985 to restrict worldwide combination, forced the states away from worldwide unitary taxation. Within a year of the introduction of federal legislation, nine of the 11 states that had applied mandatory worldwide taxation at the time of the *Container* decision had repealed the practice.

Details of state apportionment practices, 1989¹

Apportionment formulas

States have achieved a great degree of uniformity in the apportionment formula for manufacturing businesses. All but two of the 46 taxing states use a three-factor formula. Of the 44 states that use a three-factor formula, 34 states apply the equally weighted property-payroll-sales formula (Table 9C.2). The formula weights each factor by one-third.

Ten states in 1989 (up from six in 1977) deviate slightly from the three-factor formula by doubling the weight on the sales factor. The formula weights sales by 50% and payroll and property by 25% each.

All states allow firms to petition to calculate their tax using a method other than apportionment, such as separate accounting, that measures state income more accurately. The tax authority has a reciprocal right and may insist on the use of an alternative method. Most state tax statutes specify different formulas or require separate accounting for industries for which that method better reflects state income.

Unitary tax practices

As for 1989, 18 states apply unitary taxation, according to the MTC (Table 9C.3).² The Willis Committee reported four unitary states in 1963.

It can be difficult to identify whether a state is in practice a unitary state, since a state listed as a unitary state may only rarely impose that method of taxation. Taking into account the frequency of use of unitary taxation reduces the number of unitary states. For example, according to the ACIR,³ 12 states regularly employ unitary taxation, compared with the 24 states it lists as making unitary taxation available. The ACIR reports 21 states as non-unitary (Table 9C.3).

Among the unitary states, only Alaska imposes mandatory worldwide combination. Five states, California, Idaho, Montana, North Dakota and Utah allow domestic combination upon election of the water's-edge alternative. Such an election usually requires payment of a fee. New Mexico and West Virginia allow companies to choose either worldwide or domestic combination.

¹ The District of Columbia is referred to as a state in this section.

² Multistate Tax Commission (1989), p. 32.

³ Advisory Commission on Intergovernmental Relations (1990), pp. 64 to 69.

State corporate tax practices, 1989

Taxing states and tax rates

In 1989, 45 of the 50 states plus the District of Columbia tax corporate income. Five states exempt corporate income from taxation: Nevada, South Dakota, Texas, Washington and Wyoming. All of the states that tax company income have statutory provisions for the use of formula apportionment.

Maximum statutory rates range from 3.4 to 12%. Fifteen states reduce the top rate for small businesses. Twelve states impose a minimum tax, which averages USD 136 (Table 9C.4).

Tax deductions and credits

Deductibility of state income taxes from federal tax liabilities reduces the combined federal-state corporate income tax burden by about one-third. In addition, many states further reduce the combined burden by allowing deductions for other taxes. Six states allow firms to deduct federal corporate income taxes from their state tax liability. Some states allow firms to deduct state corporate income taxes from their state tax liability. Seven states allow firms to deduct foreign taxes, 24 states do not, and 15 states follow federal rules. Most states include local income taxes in the state tax base (Table 9C.5).

Most states offer tax credits and other incentives to encourage business development and expansion in the state. These measures include credits for expenses on investment, enterprise zones, new jobs, fuel taxes, water and conservation control structures, research and development, employers' day care, handicapped workplace-modification expenses, economic development, and energy conservation credits, among others.

Tax base

Thirty-seven states use taxable federal income as the state taxable income base (Table 9C.6). The percentage of states that base state income taxes on the federal tax base has risen from 43% in 1962 to 80% in 1989. The state may adjust the tax base for items such as depreciation, municipal bond interest, foreign dividends and federal net operating losses. Three states do not allow depreciation under the federal accelerated cost-recovery system. Two states do not allow federal accelerated depreciation.

A number of states allow firms to carry net operating losses forward for 15 years and backward for three years (Table 9C.6). Several states collect taxes on capital stock and impose temporary surtaxes. These special rules change frequently. For example, three states added a temporary surtax on corporate income, and one state allowed a temporary franchise tax to expire in 1989.

Twenty-four states have adopted UDITPA rules on apportionment and allocation of income and on the definition of the factors included in the formula (Table 9C.6).

Integration of corporate and personal income taxes

There are no provisions to integrate corporate and personal income taxes at the state level in the USA.¹

Taxation of interstate income

None of the states imposes a withholding tax on payments made from a company in one state to an affiliate located in another state. Some states allocate dividends and other non-business income to specific states for tax purposes.

Taxation of groups of companies

When operating in one of the unitary states, companies combine the operations of their unitary businesses for tax purposes. Non-unitary states tax companies on the basis of their legally separate form. Many states allow firms that file consolidated returns at the federal level to consolidate at the state level.

Taxation of foreign-source income

States are constitutionally prohibited from taxing income earned outside their borders. However, states that combine unitary operations may include foreign-source dividends in the tax base.

The National Association of Tax Administrators surveyed state taxation of foreign-source income in 1983.² Twenty-seven states exempt in full or in part foreign-source dividends. The remaining states treat the dividends as taxable income subject to allocation or apportionment (Table 9C.6). All but 11 states treat foreign dividends in the same manner as domestic dividends.

States that use worldwide or water's-edge combination completely eliminate foreign-source dividends paid by one member of the unitary combined group to another. These states may tax foreign-source dividends received from non-unitary sources.

Other aspects of tax diversity

Michigan's single business tax

In 1976, Michigan replaced the seven separate taxes on business, including the tax on corporate income, with a single business tax applied to the value-added by the firm in its Michigan operations. Income attributed to Michigan for purposes of determining value-added is obtained using a three-factor formula. The US Supreme Court upheld the single business tax in 1991.³ Michigan is the only state with this type of tax.

¹ The US Treasury released a study in early 1992 calling for relief at the federal level of double taxation of corporate dividends.

² Federation of Tax Administrators (1984). State practices may change frequently. For example, the General Accounting Office (1982) reported seven states that completely exempt and three states that partially exempt foreign-source dividends. The lists do not overlap.

³ *Trinova v Michigan Department of Revenue* (1991).

Miscellaneous state business taxes

States impose a variety of taxes on business in addition to the income tax. These taxes include, among others, franchise, inventory, capital value, sales, severance, and stock and document taxes.

Twenty-eight states collect franchise or licence taxes from corporations for the privilege of doing business in the state. Sixteen states tax inventories. Twenty-six states tax the value of capital stock located in the state. Some states allow firms to allocate capital taxes using the state's apportionment formula. Forty-six states collect general sales taxes. Thirty-nine states impose severance taxes. Thirty-six states impose stock transfer or document recording taxes. Forty-three states tax realized capital gains from the sale or exchange of assets by corporations.

Local taxes

Some municipalities impose income taxes on corporations. The most important of these municipalities are New York City and the District of Columbia. Many local governments also impose sales and excise taxes.

Local governments in all states impose property taxes on assessed property values. The property tax accounts for about three-quarters of local own-source revenue. Many states have enacted limits to the local property tax burden.

Current concerns

Much of the controversy over worldwide combination and formula apportionment has subsided. However, some outstanding issues remain unresolved.

First, although only Alaska has mandatory worldwide combination, multinational businesses and the Congress are not satisfied with state action in eliminating worldwide combination. The Congress is considering bills that would prohibit any state from taxing on a worldwide unitary basis and that would restrict state taxation of foreign-source dividends.

Likewise, business continues to press its claims in the courts. The California courts ruled in two recent cases that worldwide combination violates the foreign commerce clause of the Constitution. The rulings have been appealed.

Second, disputes continue over state taxation of foreign-source dividends and US companies that primarily operate overseas (so-called '80/20' companies). States claim that they have the right to tax dividends paid to US multinationals from their foreign subsidiaries. Businesses claim that these dividends should be exempt since they are excluded from federal taxable income. States and businesses disagree over taxation of companies with at least 80% of their property and payroll located outside of the USA.¹ The states claim that all companies should be treated identically, regardless of the source of their income. Businesses claim that these companies are essentially foreign corporations, and therefore fall outside of the domestic water's-edge.

¹ This definition differs from the federal definition of an '80/20' company, which is based on the share of foreign income determined under federal source rules.

Third, pressure to impose a uniform apportionment formula seems to have subsided, since market forces seem to have been sufficiently strong to bring about the necessary convergence to avoid double taxation. However, because a number of states are increasing the relative weight on the sales factor, the possibility for jurisdictional and double taxation conflicts across states has increased.

On a related matter, the US Supreme Court has agreed to reconsider its 24-year-old decision that effectively prevented states from collecting taxes on most mail-order sales. Imposing the due process clause, the Court in 1967 banned states from imposing tax-collection obligations on businesses that had no physical presence within their borders.

Summary

Market competition rather than formal tax coordination sets tax policy in the USA, and these market forces have led the states to a substantial uniformity in their apportionment practices. For example, in 1989, all of the states that tax company income use formula apportionment and 96% of the states use a common three-factor formula.

Given variations in the definition of the factors and the variety of credits and tax rates across the states, however, it is possible to conclude that each state applies its own corporate tax system. Nevertheless, although non-uniformity creates the possibility of double taxation or taxation of less than full income, this possibility has not been severe enough to require intervention by the federal government to impose more uniformity on state tax practices than presently exists.

The independent development of state tax policies arises from the federal nature of the US system. States vigorously protect their sovereignty over tax policy. The inability of the US Congress to impose uniformity in multistate taxation, despite apparent benefits of uniformity to both taxpayers and tax administrators, reflects the strength of this sovereignty. Unlike the Canadian provinces, which have agreed to use a uniform apportionment system within federal tax collection agreements, the American states have repeatedly emphasized that uniformity would be too costly for them in terms of lost sovereignty.

The formula apportionment system is ideally suited to the economic conditions and the structure of business organization in the American states. The lack of barriers to cross-state expansion, the existence of a single currency and accounting system, the common federal tax base, the similar nature of state economies, and the highly integrated nature of multistate business operations make an apportionment system preferable to a separate accounting system. There is no question that the states and businesses feel that apportionment is necessary to determine state income. Multistate businesses do not generally maintain their internal books on a state-by-state basis, and the states do not have the power to enforce transfer-pricing rules to divide income along state lines. Transfer prices simply do not exist for most multistate businesses in the USA. Except in special circumstances, which are generally accommodated by state tax laws, businesses and the states view formula apportionment as the most appropriate system for taxing multistate business income.

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TABLE 9C.1

Apportionment formulas in use, various years

| | Number of states using each formula | | | | | |
|--------------------------------------|-------------------------------------|------|------|------|------|------|
| | 1929 | 1948 | 1953 | 1963 | 1977 | 1989 |
| Three factors | | | | | | |
| Property-payroll-sales | 2 | 15 | 16 | 26 | 41 | 44 |
| Property-mfg cost-sales | 1 | 5 | 3 | — | — | — |
| Two factors | | | | | | |
| Property-sales | 1 | 4 | 3 | 1 | 1 | — |
| Property-business | 1 | 2 | 1 | — | — | — |
| Property-mfg cost | — | 3 | — | — | — | — |
| Property-payroll | 1 | — | 1 | 1 | 1 | — |
| One factor | | | | | | |
| Property | 4 | — | — | — | — | — |
| Manufacturing cost | 1 | 1 | — | — | — | — |
| Sales | 2 | 3 | 4 | 2 | 2 | 1 |
| Other | 3 | n.a. | 5 | 5 | — | 1 |
| No formula | 3 ² | — | — | — | — | — |
| Number of taxing states ¹ | 17 | 34 | 35 | 38 | 46 | 46 |

NB: If the state uses multiple formulas, the formula is given for manufacturing companies. Some states may be listed more than once, since alternative formulas may be available. Manufacturing costs include labour, raw materials and other manufacturing costs.

mfg = manufacturing.

¹ Including Hawaii (tax adopted in 1901), the District of Columbia (1947), and Alaska (1949). Michigan, which taxes on value-added instead of income, uses an apportionment formula for purposes of the state corporate value-added tax.

² Montana required separate accounting in 1929. Georgia and Oregon had recently adopted the state income tax and had not yet specified the formula.

Sources: Gerstenberg (1929), pp. 163-171; Ratliff (1961), p. 29; *Report of Special Subcommittee on State Taxation*, Vol. 1 (1964), Tables 5 to 7, p. 119; Prentice-Hall (various years); and Commerce Clearing House (1977 and 1989).

TABLE 9C.2
State apportionment formulas, 1989

| State | Three-factor (property, payroll, sales) | | Other | Special conditions ¹ |
|----------------------|--|------------------------|-------|------------------------------------|
| | Equally weighted | Double-weight sales | | |
| Alabama | X | | | |
| Alaska | X | | | |
| Arizona | X | | | |
| Arkansas | X | | | |
| California | X | | | |
| Colorado | X | | | * |
| Connecticut | | X | | * |
| Delaware | X | | | |
| District of Columbia | X | | | |
| Florida | | X | | |
| Georgia | X | | | |
| Hawaii | X | | | |
| Idaho | X | | | |
| Illinois | | X | | |
| Indiana | X | | | |
| Iowa | | | X | * |
| Kansas | X | | | |
| Kentucky | | X | | |
| Louisiana | X | | | * |
| Maine | X | | | |
| Maryland | X | | | |
| Massachusetts | | X | | |
| Michigan | X | | | * |
| Minnesota | | | X | * |
| Mississippi | X | | | * |
| Missouri | X | | | * |
| Montana | X | | | * |
| Nebraska | X | | | * |
| New Hampshire | X | | | |
| New Jersey | X | | | |
| New Mexico | X | | | |
| New York | | X | | |
| North Carolina | | X | | |
| North Dakota | X | | | |
| Ohio | | X | | |
| Oklahoma | X | | | |
| Oregon | X | | | * |
| Pennsylvania | X | | | |
| Rhode Island | X | | | |
| South Carolina | X | | | * |
| South Dakota | | | | |
| Tennessee | X | | | |
| Texas | | | | |
| Utah | X | | | |
| Vermont | X | | | |
| Virginia | X | | | |
| Washington | | | | |
| West Virginia | | X | | |
| Wisconsin | | X | | |
| Wyoming | | | | |
| Number of states | 34 | 10 | 2 | 11 |

¹ Special conditions:
Colorado: Option to include only payroll and property
Connecticut: Non-manufactures; single-factor gross sales
Iowa: 100% sales
Louisiana: Three-factor for manufacture and merchandising, two-factor for services
Michigan: Taxes value-added in the state. State income is determined by the three-factor formula
Minnesota: Optional percent total property and payroll in Minnesota (15% each), percent total sales in Minnesota (70%)
Mississippi: Special provisions for specialized business
Missouri: 100% sales option, 50% origin, 50% destination
Nebraska: 100% sales by 1992
Oregon: Double-weight sales starting in 1991
South Carolina: Three-factor for manufacturers or dealers in tangible personal property; others 100% sales
Source: Advisory Commission on Intergovernmental Relations (1990), Vol. I, pp. 64 to 69.

TABLE 9C.3

Unitary states, 1989 — Unitary tax practices

| State | MTC | ACIR unitary taxation | | Non-unitary |
|----------------------|-----|-----------------------|-----------|-------------|
| | | Used often | Available | |
| Alabama | | | | Y |
| Alaska | Y | Y | Y | |
| Arizona | Y | | Y | |
| Arkansas | | | | Y |
| California | Y | Y | Y | |
| Colorado | Y | Y | Y | |
| Connecticut | | | | Y |
| Delaware | | | | Y |
| District of Columbia | | | | Y |
| Florida | | | | Y |
| Georgia | | | | Y |
| Hawaii | | Y | Y | |
| Idaho | Y | Y | Y | |
| Illinois | Y | | Y | |
| Indiana | Y | Y | Y | |
| Iowa | | | | Y |
| Kansas | Y | | Y | |
| Kentucky | Y | | Y | |
| Louisiana | | | | Y |
| Maine | Y | | Y | |
| Maryland | | | | Y |
| Massachusetts | | | | Y |
| Michigan | | | | |
| Minnesota | Y | | Y | |
| Mississippi | | | Y | |
| Missouri | | | | Y |
| Montana | Y | Y | Y | |
| Nebraska | Y | | Y | |
| New Hampshire | Y | Y | Y | |
| New Jersey | | | | Y |
| New Mexico | | | Y | |
| New York | Y | Y | Y | |
| North Carolina | | | Y | |
| North Dakota | Y | Y | Y | |
| Ohio | | | | Y |
| Oklahoma | | | Y | |
| Oregon | Y | Y | Y | |
| Pennsylvania | | | | Y |
| Rhode Island | | | | Y |
| South Carolina | | | | Y |
| Tennessee | | | Y | |
| Utah | Y | Y | Y | |
| Vermont | | | | Y |
| Virginia | | | | Y |
| West Virginia | | | | Y |
| Wisconsin | | | | Y |
| Number of states | 18 | 12 | 24 | 21 |

MTC = Multistate Tax Commission.

ACIR = Advisory Commission on Intergovernmental Relations.

Y = Yes.

NB: New Mexico and West Virginia allow water's-edge at the taxpayer's option. Arkansas allows consolidation at the taxpayer's option. California,

Idaho, Montana, North Dakota and Utah tax on a worldwide basis unless the taxpayer makes a water's-edge election.

Alaska combines on a worldwide basis.

Source: Advisory Commission on Intergovernmental Relations (1990), pp. 64 to 69; Multistate Tax Commission (1989), p. 32.

TABLE 9C.4
State corporate income tax data, 1989

| State | Year tax adopted | Corporate income tax rate | | Minimum tax (USD) |
|----------------------|------------------|---------------------------|-------------|-------------------|
| | | Minimum (%) | Maximum (%) | |
| Alabama | 1933 | | 5 | |
| Alaska | 1949 | 1 | 9.4 | |
| Arizona | 1933 | 2.5 | 10.5 | 50 |
| Arkansas | 1929 | 1 | 6 | |
| California | 1929 | | 9.3 | 600 |
| Colorado | 1937 | 5 | 5.5 | |
| Connecticut | 1915 | | 11.5 | 100 |
| Delaware | 1957 | | 8.7 | |
| District of Columbia | 1947 | | 10.0 | |
| Florida | 1971 | | 5.5 | |
| Georgia | 1929 | | 6 | |
| Hawaii | 1901 | 4.4 | 6.4 | |
| Idaho | 1931 | | 8 | 20 |
| Illinois | 1969 | | 4.8 | |
| Indiana | 1963 | | 3.4 | |
| Iowa | 1934 | 6 | 12 | |
| Kansas | 1933 | | 4.5 | |
| Kentucky | 1936 | 3 | 7.25 | |
| Louisiana | 1934 | 4 | 8 | |
| Maine | 1969 | 3.5 | 8.93 | |
| Maryland | 1937 | | 7 | |
| Massachusetts | 1919 | | 9.5 | 228 |
| Michigan | 1967 | | 2.35 | |
| Minnesota | 1933 | | 9.5 | |
| Mississippi | 1921 | 3 | 5 | |
| Missouri | 1917 | | 5 | |
| Montana | 1917 | | 6.75 | 50 |
| Nebraska | 1967 | 4.75 | 6.65 | |
| New Hampshire | 1970 | | 8 | |
| New Jersey | 1958 | | 9 | |
| New Mexico | 1933 | 4.8 | 7.6 | |
| New York | 1917 | | 9 | 250 |
| North Carolina | 1921 | | 7 | |
| North Dakota | 1919 | 3 | 10.5 | |
| Ohio | 1971 | 5.1 | 8.9 | 50 |
| Oklahoma | 1931 | | 5 | |
| Oregon | 1929 | | 6.6 | 10 |
| Pennsylvania | 1935 | | 8.5 | |
| Rhode Island | 1947 | | 9 | 100 |
| South Carolina | 1922 | | 5 | |
| Tennessee | 1923 | | 6 | |
| Utah | 1931 | | 5 | 100 |
| Vermont | 1931 | 5.5 | 8.25 | 75 |
| Virginia | 1915 | | 6 | |
| West Virginia | 1967 | | 9.525 | |
| Wisconsin | 1911 | | 7.9 | |
| US average | | 3.8 | 6.7 | 136 |
| Number of states | | 15 | 46 | 12 |

NB: The lowest level of income to which the minimum rate applies varies by state. In many states, companies are subject to taxes in addition to the income tax. The minimum tax also varies with the size of company in some states. Five states — Nevada, South Dakota, Texas, Washington and Wyoming — exempt corporate income from taxation. Michigan taxes value-added under the single business tax.

Sources: Commerce Clearing House (1989); Advisory Commission on Intergovernmental Relations (1990).

TABLE 9C.5

State corporate income tax data, 1989 — Deductibility from state tax liability

| State | Tax payments to: | | |
|------------------|------------------|--------------------|---------|
| | Federal | State ¹ | Foreign |
| Alabama | Y | | |
| Alaska | | | |
| Arizona | Y | | |
| Arkansas | | Y | Y |
| California | | | |
| Colorado | | Y | |
| Connecticut | | | Y |
| Delaware | | Y | * |
| Florida | | | * |
| Georgia | | | |
| Hawaii | | Y | Y |
| Idaho | | | * |
| Illinois | | Y | * |
| Indiana | | | * |
| Iowa | Y | Y | |
| Kansas | | | |
| Kentucky | | | |
| Louisiana | Y | Y | * |
| Maine | | | * |
| Maryland | | | * |
| Massachusetts | | | |
| Michigan | | | |
| Minnesota | | | |
| Mississippi | | | |
| Missouri | Y | | * |
| Montana | | | |
| Nebraska | | Y | Y |
| New Hampshire | | | * |
| New Jersey | | Y | Y |
| New Mexico | | Y | Y |
| New York | | | |
| North Carolina | | | |
| North Dakota | Y | | |
| Ohio | | Y | * |
| Oklahoma | | | |
| Oregon | | | |
| Pennsylvania | | | |
| Rhode Island | | Y | * |
| South Carolina | | | |
| Tennessee | | Y | * |
| Utah | | | |
| Vermont | | Y | * |
| Virginia | | | |
| West Virginia | | | * |
| Wisconsin | | | Y |
| Number of states | 6 | 14 | |

NB: Unless a state is marked with a 'Y' (i.e. 'Yes') it does not allow that type of tax to be deducted from the state tax liability.

¹ Arkansas, Colorado, Rhode Island and Tennessee do not allow own-state taxes to be deducted. Arizona and Georgia allow only own-state taxes to be deducted. Ten states that allow state taxes to be deducted do not allow own-state taxes to be deducted.

* Deductibility of foreign tax at the state level follows federal rules.

Sources: Commerce Clearing House (1989); Advisory Commission on Intergovernmental Relations (1990); Federation of Tax Administrators (1984).

TABLE 9C.6

State corporate income tax data, 1989

| State | Net operating loss deduction: | | Adoption of UDITPA | Exempt or partially exempt foreign-source dividends | Federal income used as state tax base |
|------------------|-------------------------------|-----------------|--------------------|---|---------------------------------------|
| | Back | Forward (years) | | | |
| Alabama | 0 | 15 | Y | Y | |
| Alaska | 3 | 15 | Y | | Y |
| Arizona | 0 | 5 | Y | Y | Y |
| Arkansas | 0 | 5 | Y | Y | |
| California | 0 | 15 | Y | | |
| Colorado | 0 | 15 | Y | | Y |
| Connecticut | 0 | 5 | | Y | Y |
| Delaware | 3 | 15 | | Y | Y |
| Florida | 0 | 15 | Y | | Y |
| Georgia | 3 | 15 | | Y | Y |
| Hawaii | 3 | 15 | Y | Y | Y |
| Idaho | 3 | 10 | Y | | Y |
| Illinois | 3 | 15 | Y | Y | Y |
| Indiana | 3 | 15 | | | Y |
| Iowa | 3 | 15 | | | Y |
| Kansas | 0 | 10 | Y | | Y |
| Kentucky | 3 | 15 | Y | Y | Y |
| Louisiana | 3 | 15 | | | |
| Maine | 3 | 15 | Y | | Y |
| Maryland | 3 | 15 | | Y | Y |
| Massachusetts | 0 | 5 | Y | Y | Y |
| Michigan | 0 | 10 | Y | | Y |
| Minnesota | 0 | 15 | | Y | |
| Mississippi | 0 | 5 | | Y | |
| Missouri | 3 | 15 | Y | Y | Y |
| Montana | 3 | 7 | Y | Y | Y |
| Nebraska | 0 | 5 | | Y | Y |
| New Hampshire | 0 | 5 | | | Y |
| New Jersey | 0 | 7 | | Y | Y |
| New Mexico | 3 | 15 | Y | | Y |
| New York | 3 | 15 | | Y | Y |
| North Carolina | 0 | 5 | | Y | Y |
| North Dakota | 3 | 15 | Y | | Y |
| Ohio | 0 | 15 | | Y | Y |
| Oklahoma | 3 | 15 | | | Y |
| Oregon | 0 | 15 | Y | | Y |
| Pennsylvania | 0 | 3 | Y | Y | Y |
| Rhode Island | 3 | 15 | | Y | Y |
| South Carolina | 0 | 15 | | Y | Y |
| Tennessee | 0 | 7 | Y | Y | Y |
| Utah | 3 | 5 | Y | | |
| Vermont | 3 | 15 | | | Y |
| Virginia | 3 | 15 | | Y | Y |
| West Virginia | 3 | 15 | | Y | Y |
| Wisconsin | 0 | 15 | Y | Y | |
| Number of states | | | 24 | 27 | 37 |

NB: Data as of October 1989; foreign-source dividend information as of December 1983.

The table does not include the District of Columbia.

Y = Yes.

UDITPA = Uniform Division of Income for Tax Purposes Act. Some states that adopt UDITPA have partially standardized their rules for calculating income. Many states that have not formally adopted UDITPA have adopted substantially similar provisions.

Source: Commerce Clearing House (1989); Advisory Commission on Intergovernmental Relations (1990).

Annex 10A

Harmonization of corporate income tax systems within the European Community¹

by

Prof. Dr Albert J. Rädler
Dipl. Kfm. Jens Blumenberg
University of Hamburg

I — Introduction

The measures already adopted in the field of direct taxes, in particular the parent/subsidiary Directive,² the mergers Directive,³ the Convention on Arbitration Procedure⁴ as well as the proposed directives on offsetting losses and on the elimination of withholding taxes on interest and royalty payments,⁵ apply only to intercompany relationships within the Community. In the proposal for an EC corporation tax system developed below, the prime consideration is to open national capital markets to portfolio investors from other Member States who up to now have been at a tax disadvantage; the main objective is to remove the income tax discrimination of portfolio investment in the Community. This is an important step towards a unified European capital market.

The next section of this paper discusses the need to harmonize corporation tax systems within the EC and examines possible solutions for a common system. Subsequently, two proposals for a uniform EC system are developed in Sections III and IV.

- (i) First, a common EC imputation system; this proposal is rather short and mainly intended to demonstrate the general problems of a common imputation tax system.
- (ii) Second, and much more detailed, an EC corporation tax system is presented with different forms of relief from double taxation of dividends at the level of the individual shareholder.

¹ Revised version of a background study first submitted to the Committee on 28 October 1991.

² Council Directive 90/435/EEC, 23.7.1990.

³ Council Directive 90/434/EEC, 23.7.1990.

⁴ Directive 90/436/EEC.

⁵ See, for example, Commission of the European Communities, 'Removal of tax obstacles to the cross-frontier activities of companies', in *Bulletin of the European Communities*, Supplement 4/91.

II — The need to harmonize corporation tax systems and possible solutions

Should corporation income tax systems be harmonized?

As the international economy becomes a global one and competitive conditions in the Community converge (e.g. cost of labour and capital, raw material and machinery as well as inflation rates), direct taxes become more important as a factor in competition. A glance at the various national systems of corporation tax and their different tax rates and tax bases shows that in some cases there are considerable discrepancies between Member States in the burden of corporate income tax. The nature and extent of company taxation significantly affects entrepreneurial decisions as to location, legal structure, financing and transfer-pricing. This is reflected in international discussion of thin capitalization, transfer-pricing, base companies, company tax reforms, etc.

In particular, the manner in which Member States currently give relief for the double taxation of dividends constitutes a major source of discrimination against cross-border investment flows. For example, an imputation system generally discriminates against investments in foreign stock in two respects:¹ first, the imputation tax credit is generally not extended to non-resident shareholders;² second, corporation taxes paid abroad are not recognized for imputation purposes (upon redistribution). These disadvantages do not exist in the case of the classical corporation tax system.³ However, the well-known adverse effects of the classical system at the national level make it unacceptable at the Community level (see below).

Given the considerable difference in the taxation of corporate and individual shareholders receiving dividends from domestic and foreign companies, it is our view that in the long run the creation of a true European (capital) market is feasible only if accompanied by a certain degree of harmonization of Member States' corporation tax systems. This need will become more acute and apparent when the monetary union is achieved.

Of course, harmonization of corporation taxes also requires some approximation of the tax bases (e.g. approximation of the rules on the depreciation of tangible and intangible assets, in particular of goodwill, inventory valuation, provisions, etc.). The rules concerning the determination of profits, however, are not discussed here.

¹ This discrimination might even be in conflict with existing Community law.

² Exceptions are some tax treaties between Member States such as the one between Germany and France where German individual shareholders are granted the French imputation credit.

³ The classical system is defined as a system of taxing corporate income in which retained and distributed income are taxed alike at the company level, and at the individual shareholder level the amount of dividends is fully subject to income tax at the general statutory rate (e.g. at the same rate as income from unincorporated business or from independent services).

Criteria and possible solutions for a uniform corporation tax system

1. Criteria for a uniform system of corporation tax

In harmonizing corporation tax systems in the Community, the following criteria should be borne in mind:

- (i) Taxation should be neutral in its effects on competition. Neutrality should exist:
 - between different legal structures (incorporated and non-incorporated business);
 - between different methods of financing (debt versus equity finance);
 - between distributed and undistributed profits; and
 - between investment in domestic shares and investment in the shares of companies of other Member States.
- (ii) The effects of corporate taxes on capital formation and the distribution of wealth, a main aim being to support the creation, expansion and strengthening of the European equity market.
- (iii) The need to take account of the special situation of multinationals having their headquarters in Member States where they carry on relatively little business. Under a traditional imputation system they would have to pay a corporation tax supplement (advance corporation tax, *précompte*, *Körperschaftsteuererhöhungsbetrag*), whenever domestic profits are not sufficient to pay dividends.
- (iv) Practicability, simplicity and transparency of tax rules, efficient tax collection and prevention of tax avoidance and tax fraud.
- (v) A need to guarantee Member States a steady flow of tax revenue based on fair distribution between the source State (i.e. the State in which the company is established and income is earned) and the shareholder's country of residence. This criterion seems to be crucial if proposals for harmonization measures are to be politically acceptable by all Member States.
- (vi) The effect of company taxes on investment in non-member countries and investment from non-member countries.

Not surprisingly, it would seem impossible to find an approach that completely satisfies all criteria (resembling the well-known problem of the 'magic square' of economic policy). Rather, the corporation tax systems proposed in Sections III and IV of this paper are the result of a compromise — these proposals should provide a base for a compromise solution and be acceptable to all Member States.

2. Possible candidates for an EC corporation tax system

When we started looking for the 'ideal system' we had in mind the following alternatives as candidates for an EC system:

- (1) A corporate tax system of partial or full imputation (see below phased plan for an EC imputation system, Section III).

(2) A system of partial shareholder relief that technically corresponds to the classical system at the level of the company but avoids the double taxation of dividends (see below system with shareholder relief, Section IV). There are several alternatives of how relief could be provided under such a system:

- (a) by applying a reduced (maximum) personal income tax rate at the level of the individual shareholder;¹
- (b) by granting a pre-defined imputation tax credit to the individual shareholder;
- (c) by exempting a specified (minimum) percentage of dividend income at the level of the individual shareholder.

(3) A system that applies a final withholding tax on dividend payments in the country of residence but does not impose any income tax at the level of the individual shareholder.²

(4) Recently, the US Treasury³ presented two radical proposals:

- (a) a system under which dividends are totally exempt from income tax at the shareholder's level;
- (b) a system that taxes corporations on profits before deduction of interest and dividend payments but levies no tax at the level of the recipient of the interest or dividend income.

Both the Belgian system and the two US proposals do not seem acceptable for the Community, because they would not allow the Member State to tax dividend income according to the personal overall situation of the shareholder. Problems were also seen with three other types of tax systems which do not appear to us as suitable solutions:⁴

(1) The so-called 'classical corporation tax system' which, although very easy to operate, bears heavy drawbacks at the national level (especially the discrimination of equity *vis-à-vis* debt finance, of incorporated *vis-à-vis* unincorporated business, of distributed *vis-à-vis* retained profits and the restraints it exerts on the capital market).

(2) The so-called 'split-rate' system (applying a substantially reduced rate on distributed profits) which requires a reduction of corporation tax paid upon dividend payments. The corporation tax system presently operated in Greece, under which the corporation gets a deduction for dividends paid, can be regarded as an extreme form of a split-rate system. Although the split-rate system certainly has some appeal at first glance, it has heavy disadvantages in the European dimension, because either the source State has to carry the fiscal burden or high withholding taxes continue to be imposed or a complicated mechanism of fiscal compensation between Member States would be necessary.

(3) Requiring Member States to extend their relief from double taxation on dividends on a unilateral basis to shareholders from other Member States would also offer no

¹ Similar systems are presently operated in Austria and in Sweden.

² Such a system is presently operated in Belgium.

³ 'Integration of the individual and corporate tax systems', report of the Department of the Treasury, Washington, DC, January 1992.

⁴ We did not consider the ACE proposal as a domestic candidate because it requires a too radical departure from established taxation principles.

solution. Experience shows that such cross-border relief only works if an element of reciprocity is involved. However, in the overall EC context no such reciprocity of investments and dividend flows exists.

Therefore, our attention focused on an imputation system (first proposal) and on an EC system with shareholder relief (second proposal). Both proposals deal with the basic situation where a shareholder resident in one Member State owns shares in a corporation resident in another Member State, and also the situation still more common today that the stock in the foreign corporation is held via a domestic company or another financial intermediary, such as an investment fund. During the preparation of this paper, we became increasingly convinced that the shareholder relief proposal is more suited to the needs of the EC than the imputation proposal.

Prerequisites for the implementation of the proposals developed below (measures to be taken immediately)

While both proposals aim at the integration of individual and corporate income tax, they presume a certain degree of harmonization in the intercompany field.

In our view, the following measures should be taken immediately; they might be regarded as prerequisites for the introduction of both proposals:

- (1) Introduction of full holding relief: dividends received by an EC company from another EC company and income from permanent establishments should be fully exempt (without a prescribed minimum holding period or percentage share ownership); i.e. the parent/subsidiary Directive should be extended to all intercompany dividends.
- (2) EC companies should be exempt from withholding tax when the shareholder has documented that he is an EC resident and the beneficial owner of the shares by submission of a taxpayer identification certificate. Otherwise, dividend payments are subject to a 30% withholding tax. If the withholding tax applies and the taxpayer subsequently submits his taxpayer identification certificate, a refund of withholding tax may be claimed within 10 years.
- (3) There should be only one single tax on corporate income. Provincial or local taxes should be included in the total tax rate.

III — First proposal: phased plan for an EC imputation system

This proposal tries to gradually transform the existing corporation tax systems into an imputation system. The proposal comprises up to three steps, of which the first is to be implemented immediately. Technically, this phased plan can lead to the complete integration of corporate and personal income tax (full imputation system).

Step 1: extension of domestic relief schemes to individual shareholders resident in the other Member States

1. *The concept of reciprocal minimum relief*

In a first step, existing national measures aimed at avoiding double taxation of dividends received by individuals should be extended to shareholders resident in other Member States on a bilateral basis. This step provides that Member States agree on a reciprocal basis to grant a so-called 'minimum relief' on dividends paid by one of its companies to a shareholder of another Member State.¹ The amount of reciprocal minimum relief will be set at the lower of the two levels of relief granted domestically (i.e. to resident individuals) by the two Member States in question.

Example: France, which operates a system of partial imputation, grants resident shareholders a tax credit of 50% of the dividend paid, which as of 1992 is equivalent to 33% of pre-tax company profits.² Germany operates a full imputation system and grants resident shareholders a corporation tax credit of 36% of the company's pre-tax profit. The reciprocal minimum relief applicable in the relationship between France and Germany is therefore 33% of the corporation's pre-tax profit.

This system also works with other forms of relief from double taxation of dividends (e.g. by a reduced rate on distributed profits). However, this bilateral minimum relief is not available if one of the two States operates a classical corporation tax system. Then no bilateral minimum relief is granted. The system also implies that a Member State must accept different bilateral commitments. The application for and granting of the relief should also be rather cumbersome.

2. *Operation of the system in case of a financial intermediary*

Noting that today, indirect shareholding is still of great practical importance, a way has to be found that grants shareholders of companies investing in other Member States a tax credit (or other form of relief) for profits distributed out of the company's income from EC sources. This covers situations where the investor holds shares in a company which operates in another Member State in the form of a subsidiary or permanent establishment. It also covers investment through investment funds.

Since the dividends received by the parent company are exempt from tax (see above), the problem is to pass on the tax relief granted by the source country (e.g. an imputation tax credit) to the ultimate (individual) shareholder in the residence country.

As a parent company may receive income from a number of countries, it is necessary to establish rules on:

- the sourcing of the income (to determine the imputation tax credit to be granted for dividends originating from other Member States),

¹ The term 'relief', as used in this text, means relief from double taxation of company profits.

² As of January 1992 the French rate of corporation tax on distributed profits is 34%, which means that the dividend amounts to 66% of the company's pre-tax profit; France then grants a tax credit (*avoir fiscal*) of one half of the dividend, i.e. of 33%.

- the amounts received, and
- the order in which income is deemed to be distributed.

3. *Implications of Step 1*

The proposed first step will be made on the base of the existing corporate tax systems; neither a reform of Member States' existing corporate tax systems nor a harmonization of tax rates is required. There will still be differing tax burdens for dividend income from different Member States in the Community after this initial step has been completed. However, the obligation to conclude bilateral agreements on the basis of the lower of the two tax credits (reciprocal minimum relief) deprives the Member States of their freedom to decide whether they wish to enter into a bilateral relief agreement with another Member State. The underlying concept is most-favoured-nation treatment within the Community.

This step should promote portfolio capital investment between the Member States involved. This might also give an incentive to countries with a classical system to introduce measures to reduce the economic double taxation of dividends. Furthermore, this first step has the major advantage that it might be applied without restrictions to tax relations with third countries as well.

Step 2: transition into a partial imputation system

While the first stage of harmonization of European company taxes is based on the existing corporation tax systems, the second step would lay the foundation for a Community-wide partial imputation system which could ultimately be transformed into a full imputation system.

For this purpose, Member States should adopt a partial imputation system which also applies to dividend income received by individual shareholders from other Member States. Member states would continue to be free to grant a higher (although not a lower) imputation tax credit for domestic dividend income.

This Community partial imputation system would work as follows:

- (i) Company profits would be subject to domestic corporation tax in the source country.
- (ii) The double taxation of dividend income from other Member States would be alleviated in the shareholder's country of residence by allowing a proportional offset of the foreign corporation tax against the shareholder's domestic income tax liability.

The minimum level of imputation has to be agreed by the Community. In each Member State the individual shareholder would receive the same percentage amount of imputation tax credit on dividends received from the various Member States. This credit would be offset against the shareholder's personal income tax, with the tax base first being increased by the amount of imputation tax credit (so-called 'gross-up').

Member States that have bilaterally agreed to grant a higher imputation tax credit should be encouraged to continue to do so. The existing bilateral relief arrangement should not be reduced when only a less far-reaching Community consensus could be found. Of course, granting more favourable bilateral tax credits would have to operate on a most-favoured-nation basis. Thus, the EC credit to be agreed under the partial imputation system is to be seen as a minimum.

As with Step 1, it must be safeguarded that the individual shareholder in an intermediate company will also benefit from a corresponding imputation tax credit for the corporation tax paid in other Member States.

Step 3: increase of common imputation tax credit

By steadily increasing the common EC minimum imputation tax credit, the relief from double taxation on dividends would be improved.

In order to achieve a full EC imputation system, corporate tax rates in the different Member States need to be harmonized. In our view the introduction of an EC minimum tax rate is an important step in this direction. However, to what degree harmonization of tax rates is really necessary should be decided according to the results of the first two steps.

IV — Second proposal: EC corporation tax system with shareholder relief

Because of the technical and economic problems associated with the (partial) imputation system,¹ which were also a major cause of the failure of the proposal submitted by the Commission in 1975, an alternative corporation tax system is developed in this section. The main features of this system are the general elimination of double taxation on dividends, its simple structure and its administrative simplicity; in addition, the system should interfere as little as possible in the internal laws of the Member States.

Below, a description is first given of how the system works, followed by a discussion of its advantages and disadvantages.

Operation of the system of Community shareholder relief

1. Structure of the system

In the source country, at the company level the proposed system corresponds in principle to the so-called 'classical system' of corporate income tax; however, the disadvantage of the classical system — i.e. the economic double imposition of tax on corporate profits — is eliminated or at least largely avoided by reduced taxation of dividends in the hands of the shareholder. In the individual shareholder's country of residence

¹ In particular, the relatively complicated rules on imputation tax credits, differing treatment of dividends originating from different Member States and the heavy administrative burden.

income taxation on dividends from within the Community is substantially reduced. The details of the system are as follows:

- (i) Member States take measures to fix their national corporate income tax rates both on retained and distributed profits within a specified range (between 30 and 45%, see below).¹ Within this range, Member States are free to apply a reduced tax rate to distributed profits.
- (ii) Corporate income tax is definite and its revenue will stay in the source country (source-country entitlement).
- (iii) Member States also take measures to tax dividend income from Community sources separately from the individual shareholder's other income. There are three policy alternatives as to how a reduced taxation of dividend income at the shareholder level could be achieved (an option might be left to Member States):
 - by applying a reduced (maximum) personal income tax rate on dividends. This reduced rate for dividends shall not exceed a specified percentage of the dividend received, for example 30%; a floor for this tax rate is conceivable (Alternative 1); or
 - by granting a specified imputation tax credit, for instance in the amount of $\frac{30}{70}$ of the dividends received, based on the minimum tax rate of 30% (Alternative 2); or
 - by exempting a specified minimum percentage of dividend income from tax, for example 50% of the dividends (Alternative 3).
- (iv) In order to achieve neutrality between incorporated and unincorporated businesses and between distributed and retained company profits, special rules for the relationship between the corporate income tax rate and the top personal income tax rates (on dividend income as well as on income other than dividends) may apply.
- (v) Capital gains on the disposition of shares are be taxed in the country of residence of the individual shareholder and subject to a corresponding preferred tax treatment.

Apart from some tax rate differentials, the personal income tax treatment would be the same for all dividends from within the Community; for example, dividends paid by a German corporation to a French individual shareholder will thus be taxed in the same way as dividends received by such a shareholder from a French corporation.

2. *Maximum and minimum tax charges on distributed profits*

In this part the three different options mentioned above to tax dividends in the hands of the individual shareholder are compared. The top income tax rate is assumed to be 55%. For non-resident individual shareholders the tax burden would be always the same (see (d) below).

¹ The authors are in no way dogmatic about these rates. While the minimum rate might be fixed at a lower level, the upper limitation might as well be entirely waived.

(a) Alternative 1 (maximum personal income tax rate of 30%)

| | Maximum charge | Minimum charge |
|--|----------------|----------------|
| <i>Taxation in the source country</i> | | |
| Profit before corporate tax | 100.00 | 100.00 |
| Less corporate tax | -45.00 | -30.00 |
| Dividend paid | 55.00 | 70.00 |
| <i>Taxation in the country of residence</i> | | |
| Dividend received | 55.00 | 70.00 |
| Less personal income tax (maximum 30% of 55) | -16.50 | -0.00 |
| After-tax dividend | 38.50 | 70.00 |
| <i>Total tax burden</i> | 61.50 | 30.00 |

Consequently, the total tax charge within the Community will vary between 30 and 61.5%.

(b) Alternative 2 (imputation tax credit of $\frac{30}{70}$ of dividend received)

Taxation in the source country would be the same as under Alternative 1. Taxation in the country of residence would be as follows:

| | Maximum charge | Minimum charge |
|---|----------------|----------------|
| <i>Taxation in the country of residence</i> | | |
| Dividend received | 55.00 | 70.00 |
| Gross-up $\frac{30}{70}$ of dividend received) | +23.57 | +30.00 |
| Gross dividend | 78.57 | 100.00 |
| Personal income tax on dividend income assuming a tax rate of 55% | 43.21 | 55.00 |
| Less imputation tax credit | -23.57 | -30.00 |
| Remaining income tax on dividends | 19.64 | 25.00 |
| After-tax dividend | 35.36 | 45.00 |
| <i>Total tax burden</i> | 64.64 | 55.00 |

(c) Alternative 3 (50% exemption on dividends received)

Taxation in the source country will be the same as under Alternative 1. In the residence country taxation will be as follows:

| | Maximum charge | Minimum charge |
|--|----------------|----------------|
| <i>Taxation in the country of residence</i> | | |
| Dividend received | 55.00 | 70.00 |
| Exemption (50% of dividend received) | - 27.50 | - 35.00 |
| Taxable dividend income | 27.50 | 35.00 |
| Personal income tax on dividend income assuming: | | |
| a tax rate of 55 % (maximum charge) | - 15.13 | - 0.00 |
| a tax rate of 0% (minimum charge) | 39.87 | 70.00 |
| After-tax dividend | | |
| <i>Total tax</i> | 60.13 | 30.00 |

However, because of its regressive element, this alternative does not seem to offer a suitable solution (the lower the corporate tax rate in the source country the higher the exemption amount in the country of residence and vice versa).

(d) Source taxation of dividends paid to non-EC residents (30% withholding tax)

In a non-treaty situation the tax burden within the Community will be as follows:

| | Maximum charge | Minimum charge |
|--|----------------|----------------|
| <i>Taxation in the source country</i> | | |
| Profits before corporate tax | 100.000 | 100.000 |
| Less corporate tax | - 45.000 | - 30.000 |
| Distributed profits | 55.00 | 70.00 |
| 30% withholding tax on distributed profits | - 16.50 | - 21.00 |
| Net dividend | 38.50 | 49.00 |
| <i>Total tax burden within the Community</i> | 61.50 | 51.00 |

Vis-à-vis non-EC treaty countries the reduction of withholding tax given by Member States has to be uniform in order to avoid major distortions.

(e) Allocation of tax revenue between Member States

The allocation of tax revenue to the country of source and the country of residence will be an important factor for the political acceptance of the proposed system. The allocation of tax revenue between two Member States for Alternatives 1 and 2 are discussed below.

In the case of the calculation prepared for Alternative 1 (maximum personal income tax rate of 30%) the allocation of tax revenue between two Member States is as follows:

| | Source country using maximum tax rate | | | | Source country using minimum tax rate | | | |
|---|---------------------------------------|--------|------|--------|---------------------------------------|--------|------|--------|
| <i>In the source country</i> | | | | | | | | |
| Corporate income tax | 45.0 | 73.2% | 45.0 | 100.0% | 30.0 | 58.8% | 30.0 | 100.0% |
| <i>In the country of residence</i> | | | | | | | | |
| Personal income tax at maximum rate (30%) | 16.5 | 26.8% | | | 21.0 | 41.2% | | |
| Personal income tax at minimum rate (0%) | | | 0.0 | | | | 0.0 | |
| Total tax | 61.5 | 100.0% | 45.0 | 100.0% | 51.0 | 100.0% | 30.0 | 100.0% |

For Alternative 2 (imputation tax credit of $\frac{30}{70}$ of dividend received), the allocation of tax revenue is slightly different because the imputation tax credit provides that dividends are subject to tax of at least the personal income tax rate of the individual shareholder in the country of residence.¹

| | Source country using maximum tax rate | | | | Source country using minimum tax rate | | | |
|---|---------------------------------------|--------|------|--------|---------------------------------------|--------|------|--------|
| <i>In the source country</i> | | | | | | | | |
| Corporate income tax | 45.0 | 69.6% | 45.0 | 81.8% | 30.0 | 54.5% | 30.0 | 54.5% |
| <i>In the country of residence</i> | | | | | | | | |
| Personal income tax at minimum credit $\frac{30}{70}$ | 19.6 | 30.4% | | | 25.0 | 45.5% | | |
| Personal income tax at maximum credit (full credit) | | | 10.0 | 18.2% | | | 25.0 | 45.5% |
| Total tax | 64.6 | 100.0% | 55.0 | 100.0% | 55.0 | 100.0% | 55.0 | 100.0% |

Accordingly, the source country will receive tax revenue of at least 30% and of at most 45% of the corporation's profits before tax.

The tax revenue for the country of residence is lower and of a more residual nature. The country of residence receives a maximum of 21% (25)² of the corporation's pre-tax profit if the source country levies corporate income tax at the minimum rate of 30%. If the source country charges the maximum corporate tax rate of 45% the tax revenue of the country of residence comes to a maximum of 16.5% (19.6%) of the corporation's pre-tax profits. The residence country may, however, waive its right of dividend taxation entirely.

The maximum total charge is 61.5% (64.6%) of the corporation's pre-tax profit. This leaves the shareholder with at least 38.5 (35.4) of a pre-tax profit of 100. Given today's levels of taxation and the fact that local income taxes have been included in this calculation, the result seems reasonable. In the most favourable situation for the

¹ Assuming a top personal income tax rate on dividends of 55%. However, if the top personal income tax rate is lower, tax revenue for the country of residence would be reduced accordingly.

² Numbers in parentheses refer to Alternative 2.

shareholder, he will receive a net profit of 70 (for Alternative 1), after corporation and income tax, from a pre-tax profit of 100. This is a very low level of taxation which is rather unlikely to happen.

Discussion of the system of shareholder relief

First, the advantages and disadvantages of the proposed corporate tax system are discussed. Then, the problems arising from the system are examined according to whether the dividends received by the shareholder are dividends from his own country, from other Member States or from non-member States.

1. *The system of shareholder relief in general*

(a) Special treatment of dividend income

The special treatment of dividends for personal income tax purposes should not raise any problems at the present stage of the international tax discussion (as a matter of fact, it seems that a truly comprehensive global income tax has never existed in any Member State). Also under the imputation system the country of residence forgoes part of the tax on dividends. Moreover, in view of the growing geographical mobility of most sources of income, the insight seems to be growing that the concept of a uniform application of income tax to all categories of income is a matter of the past.

(b) Minimum interference in Member States' tax autonomy

Although, at first glance, it may look like the Member States have to make substantial changes in their tax laws, in fact they retain a great deal of national flexibility. The objective of a common capital market can be reached while the Member States will retain to a large extent their tax sovereignty since they may set their own tax rates. The necessary changes seem to be reasonable limitations to the tax sovereignty of Member States. In view of the distortions created in the capital markets by the tax diversity among Member States today, the disadvantages of the changes required by this minimum harmonization do not seem to be substantial. The proposed system, neutral both inside and outside of the Community, would give the industries of Europe a great advantage in competing with the other major trading blocs.

The table showing the total tax charge for the maximum and the minimum tax charge illustrates the wide latitude for adjustments left to Member States within the proposed limits. In fact, an upper limit of the corporate income tax rate does not seem to be necessary and might be superfluous.¹

The desire to retain Member States' sovereignty as much as possible is also reflected in the possibility for Member States to introduce a reduced rate on distributed profits as compared with the tax rate on retained profits. This lower rate on distributed profits must, however, exceed 30%.

¹ However, some Member States might regard an upper limit as desirable or even necessary.

(c) Fiscal objections

The proposal is likely to face the objection that it will lead to revenue losses in some Member States. This concern might induce discussions about the upper limit of the personal income tax rate on dividends. To some extent the revenue loss will be compensated by increased distributions.

(d) Inclusion of other income taxes

We think there is a strong argument that a Member State should integrate any other income tax levied on the corporation into its main tax, such as the *Gewerbeertragsteuer* in Germany and Luxembourg or the municipal tax in Italy. This would enhance the transparency of taxes levied by the various Member States. Of course, the total tax rate may include certain percentages which will be allocated to provinces or communities. The integration may cause some difficulties but it must be seen that in this area double taxation has not been fully eliminated, even at national level.

(e) Tax avoidance/tax evasion

A withholding tax of 30% is levied on dividends distributed to shareholders who do not submit proof of their EC residence (taxpayer identification number). If the taxpayer submits his tax number either directly to the company, or to the financial intermediary or agency, the withholding tax is waived. Since the 30% withholding tax corresponds with the top income tax rate on dividends, the withholding system should provide an effective protection against tax evasion.

2. Impact of taxation on domestic dividend income

(a) Neutrality between corporate and non-corporate investment

While an excessively high rate of corporate income tax might discourage the decision to carry on business in corporate form (although this might be preferable from a non-tax perspective) or provide a strong incentive to increase debt finance, a corporate income tax rate (on retained profits) that is too low compared with the top rate of personal income tax will promote retention: controlling individual shareholders might retain profits at the corporate level in order to protect them from higher personal income tax. Indefinitely retaining income at the corporate level may result in a lower total tax than under non-incorporation. Thus, two different aspects have to be considered:

- (i) The relation between the corporate tax rate on retained profits and the top marginal income tax rate: to avoid measures against unreasonable profit retention by family-controlled corporations (for example, by introducing a special tax on unreasonable accumulation of profits), it would make sense to link the rate of corporate income tax on retained profits to the top personal income tax rate (on income other than dividends). Although such a link is logical it may be difficult to have it accepted since it departs from the existing tax rates and the prevailing tax policies in Member States. Therefore, our recommendation for a compromise would be that the top

personal income tax rate (on income other than dividends) should not exceed 125% of the corporate tax rate on retained profits.

- (ii) The relation between the corporate tax rate on distributed profits and the top marginal income tax rate: taking into account that dividend income might still be taxed at the shareholder level, although at a reduced rate, the personal income tax rate (on income other than dividends) should exceed 125% of the corporate tax rate on distributed profits.

It follows that Member States should ideally operate **different corporate tax rates** on distributed and retained profits. However, if a **single rate is applied, it should represent a compromise between the two principles mentioned above.**

(b) Neutrality between distributed and retained profits

Another potential problem under the proposed system might be the different tax burden on distributed *vis-à-vis* retained profits. A corporate income tax rate on retained profits that is too low compared with the total tax burden on distributed profits (i.e. corporate income tax on distributed profits plus personal income tax on dividends) will encourage retention. This problem can be solved relatively easily by applying a higher corporate income tax rate on retained profits than on distributed profits.

The following example illustrates how neutrality between distributed and retained profits can be achieved technically in the national context:

- (i) the personal income tax rate on dividends (i.e. the rate applied on the cash dividend received) amounts to at least 50% of the corporate income tax rate on distributed profits; and
- (ii) the top marginal rate of personal income tax on dividends does not exceed 80% of the corporate income tax rate on retained profits, or the other way round, the top marginal income tax rate must not be higher than 125% of the corporate income tax rate on retained profits.

Assuming corporate tax rates are fixed as follows:

- corporate tax rate on distributed profits: 30%;
- corporate tax rate on retained profits: 45%;

then in this situation, the minimum and maximum tax burden on distributed profits, on the one hand, and the tax burden on retained profits, on the other hand, would be as follows:

| | Taxation of distributed profits: minimum tax | Taxation of distributed profits: maximum tax | Taxation of retained profits |
|---|--|--|------------------------------|
| <i>Taxation on corporate level</i> | | | |
| Profit before corporate tax | 100.00 | 100.00 | 100.00 |
| Less corporate tax | - 30.00 | - 30.00 | - 45.00 |
| Profit after corporate tax | 70.00 | 70.00 | 55.00 |
| <i>Taxation on shareholder level</i> | | | |
| Dividend received | 70.00 | 70.00 | — |
| Less personal income tax: | | | |
| minimum 50% of corporate tax (15.0%) | - 10.50 | | |
| maximum 80% of corporate tax (30.0%) ¹ | | - 21.00 | |
| After-tax dividend | 59.50 | 49.00 | — |
| <i>Total tax</i> | 40.50 | 51.00 | 45.00 |

Under this example, the total tax upon distribution would amount to at least 40.5% and not more than 51% of the corporation's pre-tax profit. Retained profits would be taxed at 45%.

In the domestic context such an arrangement goes quite far towards ensuring neutrality between distributed and retained corporate profits. At Community level and the international level, however, this cannot be achieved, at least initially, because of the continuing wide variation between tax rates.

(c) Movement towards the classical system ?

The proposed transformation of the domestic corporate tax systems into a two-tier Community-wide system raises the question of whether this two-tier system does not mean a step backwards towards double taxation of dividends, especially in those Member States which avoid or reduce such double taxation through their present system.

This is not necessarily the case. Since Member States are free (within the limits described above) to determine dividend taxation autonomously and to include a mechanism that takes account of income tax progression, those Member States which at present have fully or partially eliminated double taxation of dividends in the hand of domestic shareholders (such as Italy, Germany, Greece and, since recently, also France) can

¹ 80% of 45% = 36%, limited by maximum income tax rate on dividend income of 30%.

ensure that the introduction of the new system does not leave the different groups of individual resident shareholders worse off. The effective total tax burden would be higher, however, in the case of shareholders with very low total income who receive a full refund of corporation tax in countries with a full imputation system and, depending on the country, non-profit organizations may also be worse off. For the first group, compensating benefits such as a saving cash bonus might be introduced.

(d) Giving up the principle of personal taxation according to economic capacity?

Domestic taxation of dividend income at a reduced rate compared with the taxation of salaries, wages, partnership income, etc. should not justify criticism that this violates the principle of taxation according to economic capacity. The reduced rate should be viewed rather as avoiding double taxation on dividends on a lump-sum basis. By introducing a method of calculating taxable dividend income that considers individual tax progression, Member States could still take due account of the shareholder's individual income tax situation, as is the case under the present German full imputation system. In fact, the proposed system may be seen as an imputation system with a deemed tax credit averaging 25 to 35%.

(e) The problem of windfall gains

Changing corporate tax systems, especially by going away from the classical system, might give rise to windfall gains to existing shares, because the more favourable new system will apply to distributions of profits that have been earned under the old system. Windfall gains on shares may particularly arise because it may be assumed that stock market prices will go up because of the more neutral tax treatment.

These risks could be reduced or avoided through transitional rules, for example by taxing the distribution of profits that were retained under the old system at a higher personal income tax rate for a number of years.

3. *Taxation of dividend income from other Member States*

(a) Elimination of double taxation of dividends

The great advantage of the proposed system is that it makes it technically quite easy to:

- (i) eliminate double taxation of dividends by limiting the taxation of the individual shareholder; and
- (ii) eliminate differences in taxation of dividends from domestic companies and from other EC companies and even from third countries.

(b) Simplicity of the proposed system

Compared with a perfect Community-wide imputation system, the proposed system has the advantage that only the relationship between the corporation and the individual shareholders needs to be regulated. For intercompany dividends, unlimited group relief

applies (i.e. exemption method without a prescribed minimum holding period or percentage of share ownership; see the above prerequisites). If the distributing corporation has permanent establishments in other Member States, the corporate tax paid on the income of the permanent establishment will stay in those countries (as long as there is no system of European-wide group taxation).

The problem of excessive profit retention by family corporations might be avoided by the introduction of an accumulated earnings tax; for example, by disallowing the preferential income tax rate on dividends when profits retained for more than five years are distributed.

The system of shareholder relief also eliminates the need for budgetary compensation between Member States. The definite corporation tax is normally due to the company's country of residence; this country has to provide the necessary infrastructure, face the associated environmental cost, etc. and therefore should be entitled to the bulk of the tax revenue from the underlying corporate income (so-called 'source entitlement').

(c) Taxation of domestic dividend income and of dividend income from other Member States

Leaving aside a possible transitional period, the Member State in which the shareholder is a resident must grant the same tax treatment for dividends from companies of other Member States as from domestic companies; domestic dividend income must not be taxed more favourably than dividend income from elsewhere in the Community. A more favourable treatment for domestic dividends is certainly contrary to the basic concept of the Community and might be in violation of the provisions of the Treaty of Rome; it certainly violates the principle of competitive neutrality. Uniform taxation of domestic and foreign dividend income by the Member States has the merit of improving tax neutrality. Uniform taxation of domestic and Community dividend income within the Member States will help to overcome the fragmentation of equity markets caused by different taxation systems in the Community.

(d) Implications for tax treaties between Member States

The transformation of national systems of corporation tax requires only minor amendments to the tax treaties between Member States. The issue of more advanced harmonization or coordination of tax treaties is discussed in Annex 6.

4. *Taxation of dividend income from non-member countries*

(a) Outline of principles

When dividend income from outside the Community is received by EC residents (corporations and individuals) it has to be decided whether the Community rules should be applied without restriction to foreign dividend income or whether a somewhat less-favourable regime should be established. The withholding taxes levied in non-member countries might also play a role here.

In view of the desire to integrate the worldwide capital markets we believe that, as a matter of principle, the Community arrangements should also apply to those non-member countries where corporate profits are subject to an acceptable level of taxation.

For example, to avoid tax-haven activities the corporate minimum tax rate of 30% should be required. In addition, all Member States should introduce similar anti-avoidance rules. To combat excessive profit retention in low tax countries (e.g. countries that do not have a corporate tax rate of at least 30%), similar rules for controlled foreign corporations (CFCs) should apply in all Member States. The same taxation principles should apply in all Community States.

(b) Dividends received by an EC corporate shareholder

(i) 30% minimum corporate tax requirement is fulfilled

If corporate profits are subject to an acceptable level of taxation in the non-member State (i.e. the 30% corporate tax rate and other requirements are fulfilled), an exemption is granted in all Member States for dividends received by EC-resident corporate shareholders from non-EC corporations. Redistribution of such income would be treated in the same way as distributions of EC-source income.

(ii) 30% minimum corporate tax requirement is not fulfilled

Dividends distributed by a corporation resident in a non-member State that does not fulfil the requirements are taxable in the Community; however, a foreign tax credit is given for direct foreign tax and an indirect foreign tax credit for underlying tax if the participation exceeds 5%.

(c) Dividends received by an EC individual shareholder (direct holding in non-member State corporation)

(i) 30% minimum corporate tax requirement is fulfilled

If the 30% minimum corporate tax requirement is fulfilled, dividend income is taxed at the same reduced rate (as EC dividends) at the shareholder level. In case of a foreign withholding tax, the general rules on foreign tax credit apply. This is illustrated by the following example:

| | Income from | | | |
|--|------------------|---------|--------------|---------|
| | Non-member State | | Member State | |
| <i>Taxation in the source country</i> | | | | |
| Profit before corporate tax | 100.0 | | 100.0 | |
| Less corporate tax (e.g. 34%) | - 34.0 | | - 34.0 | |
| Dividend before withholding tax | 66.0 | | 66.0 | |
| Withholding tax (e.g. 10%) | - 6.6 | | - 0.0 | |
| Dividend after withholding tax | 59.4 | | 66.0 | |
| | Maximum | Minimum | Maximum | Minimum |
| <i>Taxation in the country of residence (Member State)</i> | | | | |
| Dividend received | 59.4 | 59.4 | 66.0 | 66.0 |
| Gross-up | + 6.6 | + 6.6 | — | — |
| Taxable dividend income | 66.0 | 66.0 | 66.0 | 66.0 |
| Personal income tax (maximum of 30%) | - 19.8 | - 0.0 | - 19.8 | - 0.0 |
| Foreign tax credit | + 6.6 | — | — | — |
| Personal income tax after foreign tax credit | 13.2 | 0.0 | 19.8 | 0.0 |
| After-tax dividend | 46.2 | 59.4 | 46.2 | 66.0 |
| <i>Total tax burden</i> | 53.8 | 40.6 | 53.8 | 34.0 |

(ii) 30% minimum corporate tax requirement is not fulfilled

If the 30% minimum tax requirement is not fulfilled, the general taxation rules should apply (i.e. no reduced income tax rate on such dividends, foreign tax credit should be granted for withholding taxes only).

(d) Indirect holding in non-member State corporation

In the case of an indirect holding in a non-member State corporation (dividend income from intercompany investment or financial intermediaries), the situation is more complicated. As above, a distinction needs to be made whether the 30% minimum corporate tax requirement is fulfilled or not.

(i) 30% minimum corporate tax requirement is fulfilled

In case the 30% minimum corporate tax requirement is fulfilled, intercompany dividends and income from permanent establishments should be fully exempt at the level of the recipient EC corporation (i.e. unlimited group relief is granted). At the shareholder level the redistribution of the dividends will be treated under the general rules. However, in this case the individual shareholder does not receive a foreign tax credit. This is illustrated by the following example:

| | Income from | | | |
|--|------------------|---------|--------------|---------|
| | Non-member State | | Member State | |
| <i>Taxation in the source country</i> | | | | |
| Profit before corporate tax | 100.0 | | 100.0 | |
| Less corporate tax (e.g. 34%) | -34.0 | | -34.0 | |
| Dividend before withholding tax | 66.0 | | 66.0 | |
| Withholding tax (e.g. 10%) | -6.6 | | — | |
| Dividend after withholding tax | 59.4 | | 66.0 | |
| <i>Taxation in the country of residence (Member State)</i> | | | | |
| Taxation on corporate level (exemption method) | None | | None | |
| | Maximum | Minimum | Maximum | Minimum |
| Taxation on shareholder level (upon redistribution) | | | | |
| Dividend | 59.4 | 59.4 | 66.0 | 66.0 |
| Personal income tax (maximum of 30%) | -17.8 | -0.0 | -19.8 | -0.0 |
| After-tax dividend | 41.6 | 59.4 | 46.2 | 66.0 |
| <i>Total tax burden</i> | 58.4 | 40.6 | 53.8 | 34.0 |

The maximum total tax burden is slightly higher than in the case of direct ownership (58.4% versus 53.8%; see (c) above).

(ii) 30% minimum corporate tax requirement is not fulfilled

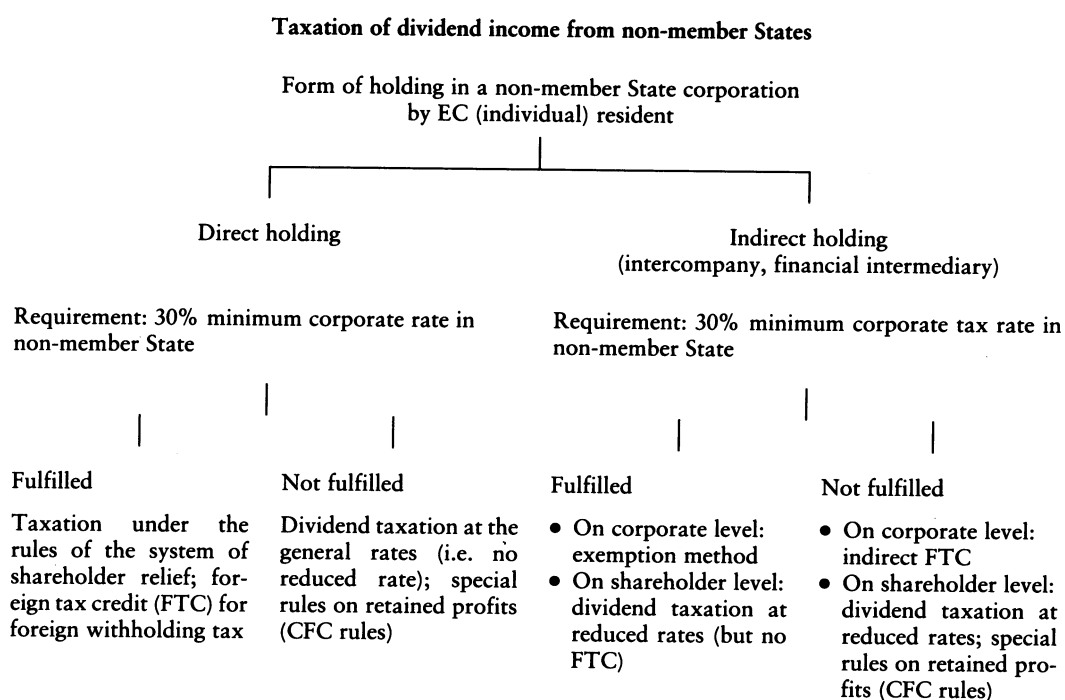
If the 30% minimum tax requirement is not fulfilled the corporate exemption of dividends does not apply. Instead, an indirect foreign tax credit is provided on the level of the recipient EC corporation provided the participation exceeds 5%. Upon redistribution, the taxation rules under the principle of shareholder relief apply. This is illustrated by the following example:

| | Income from non-member State | |
|--|------------------------------|------|
| <i>Taxation in the source country (non-member State)</i> | | |
| Profit before corporate tax | 100.0 | |
| Less corporate tax (e.g. 20%) | -20.0 | |
| Dividend | 80.0 | |
| <i>Taxation in the country of residence</i> | | |
| Taxation on corporate level | | |
| Dividend received | 80.0 | |
| Gross-up | +20.0 | |
| Taxable dividend income | 100.0 | |
| Corporate tax (e.g. 40%) | -40.0 | |
| Less indirect foreign tax credit | +20.0 | |
| Corporate income tax after foreign tax credit | 20.0 | |
| Dividend upon redistribution | 60.0 | |
| Taxation on shareholder level (upon redistribution) | | |
| Dividend received | 60.0 | 60.0 |
| Personal income tax (maximum of 30%) | -18.0 | -0.0 |
| After-tax dividend | 42.0 | 60.0 |
| <i>Total tax burden</i> | 58.0 | 40.0 |

Again, the maximum total tax burden is slightly higher than in the case of direct ownership.

(e) Comparison

The following survey provides a summary of how dividend income from non-member State corporations is treated within the EC:



Annex 10B

Dissenting view on the EC corporation tax system as proposed in Annex 10A

by

K. Messere

1. Whilst Professor Rädler's proposals are most ingenious and I can agree with some of them, I think it would be premature for the Ruding Committee to endorse them, given that the Committee first saw them only in October 1991 since which time they have been substantially modified. So whatever their objective merits, I would prefer to recommend most of them for further consideration rather than for adoption.

2. These proposals can be divided into three parts:

- (a) A 25 or 30% withholding tax on cross-frontier dividend income in the absence of identification of the recipient: I would have no difficulty in supporting this proposal (provided that similar treatment was accorded to cross-frontier interest income) and this is, in fact, one of the main recommendations of the Ruding Committee Report.
- (b) The system of reciprocal minimum relief to reduce tax discrimination against cross-frontier investment looks attractive and deserves further investigation (among others by experts in the negotiation of double-tax conventions) but I believe also that it would be premature to be certain of its viability.
- (c) The idea of a Step 1 imputation system of shareholder relief, a Step 2 partial imputation system, and Step 3 total imputation system strikes me as totally misguided, for I believe that any form of relief for personal income tax and dividend income, through imputation systems or otherwise, is the most unsuitable of all possible standardized systems for a single European market (see below).

The rest of this dissenting opinion focuses on item (c)

3. Before discussing the relative merits of different systems, I should mention that many expert groups have spent many years examining the question of the optimal corporation tax system, usually for their particular country, but sometimes in the context of a standardized European Community system. In view of the little time the Ruding Committee has had to discuss this issue, I believe it would be premature to propose any system, even though we may legitimately take the line which I think we do, so that long-term standardization should be aimed at.

4. My own personal view is that probably the best standardized system for the EC would be a straightforward unmodified classical system on the lines proposed by Professor Van den Tempel in 1970, and as practised in Luxembourg and the Netherlands as well as in the United States. Nobody denies it is the simplest and least discriminatory

system to be applied to cross-frontier investment generally and especially in the context of a single European market.

5. I am aware that the classical system has its defects in accentuating tax non-neutralities between the treatment of debt and equity financing and between financing from retained earnings and new share issues, and I am by no means dogmatic in my initial preference for the classical system. If the defects of the classical system seem to be too great to allow its adoption as a standardized European system, there are a number of other possibilities worth examining. We briefly considered a cash-flow corporation tax in our early discussions, and whilst observing a number of theoretical attractions, were aware of some practical difficulties, not least the creditability of such taxes abroad. This might be examined further and we also envisage at least four other possibilities worth examining in greater detail:

- (i) a split-rate or dividend deduction system, i.e. some relief for tax on distributed profits at company level (Germany and Spain);
- (ii) non-taxation at the corporate level of distributed profits as practised in Greece;
- (iii) the ACE system as developed in the United Kingdom Institute of Fiscal Studies;
- (iv) a comprehensive business income tax; another possible solution proposed this year in the United States.

6. My objections to relief from dividend income in the hands of the shareholder as the ideal EC system apply to both the main methods at present in force:

- (i) imputation systems where the amount of relief is linked to corporation tax paid on dividends whether the relief is total (German and Italy) or partial (France, Ireland and the UK);
- (ii) shareholder relief provisions where preferential treatment is given in some way or another to dividend income in relation to other sources of income such as wage and salary income irrespective of the amount of corporation tax, if any, that has been paid on the distributions (Belgium, Denmark, and Portugal).

My two basic objections are:

- (a) It is extremely difficult in practice to eliminate the tax non-neutralities of dividend relief which discriminate against inward and outward investment, whilst at the same time reaching a fair share of the revenue proceeds of international investment between governments in a situation where some countries are predominantly capital-importing, others capital-exporting and the amount of dividend relief given is very variable between countries. Professor Rädler has made a valiant attempt at a solution which might, none the less, not be accepted by Member States.
- (b) The right to choose personal income tax policy should remain under the subsidiarity principle, with individual Member States, accordingly, not being obliged to follow the Belgian and Danish practice of treating dividend income more favourably than labour income.

There are many subsidiary objections. For example, both imputation systems and shareholder relief provisions take many forms in different countries and the amount of relief also varies considerably between countries: these divergences accentuate the problems referred to under (a) and the more a European system would require the reduction of these divergencies, the more this would offend against objection (b). Other

objections to shareholder relief provisions and imputation systems are their probable regressivity and doubts as to whether they achieve their objectives but they raise more complicated considerations and are not central to my objections.

7. In agreement with the rest of the Committee, I do think it would be desirable in the longer run (say as from the end of the year 2000) to have a single tax system within the EC and to that end I believe that the Commission should set up a group comprising both policy-makers and technicians to investigate the in-depth advantages and disadvantages of various possible candidates, not only from a theoretical point of view (economic efficiency, neutrality, equity in their various senses) but also from a practical point of view (administrative simplicity, flexibility, suitability for double tax treaties including those with non-EC countries, etc.). Such candidates for examination should include those mentioned in paragraphs 5 and 6 above and any others that I may be unaware of.

8. Above all I consider that the Ruding Committee should not make instant recommendations for any particular ideal system at this point in time.

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