EQUITY FOR COMPANIES:

A CORPORATION TAX FOR THE 1990S

A Report of the IFS Capital Taxes Group

Chaired by Malcolm Gammie

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Preface

This IFS Commentary is the fourth report of the Capital Taxes Group formed by the Institute for Fiscal Studies in September 1987. The aim of the group is to bring together tax practitioners and economists in a search for worthwhile tax reform proposals in the general area of capital taxation. The members of the group are:

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The Group is chaired by Malcolm Gammie; Harold Freeman acted as Secretary. It is supported financially by the firms listed. The members are grateful to Katie Annetts for her work on Appendix B and to Chantal Crevel-Robinson and Judith Payne for preparing the manuscript.

The views expressed in this Commentary are those of the individual members of the Group. They are not those of IFS (which has no corporate views) nor necessarily those of the firms listed.

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The relationship of savings to corporate taxation

One way or another most savings ultimately flow into companies which, through the profits they earn, provide the return that the saver seeks. In our previous report, *Neutrality in the Taxation of Savings*,[1] we looked at the ways in which that return should be taxed. However, the relationship with the corporation tax system ensures that no study of the taxation of capital would be complete without some consideration of the taxation of companies. A brief acquaintance with the present UK corporation tax system illustrates the various deficiencies that may arise with such a tax:

- it favours certain forms of investment and activity over others;
- it drives a wedge between the pre-tax and the post-tax return on the amount invested in the company and thus renders uneconomic those projects that cannot fund the tax and provide the saver with the market rate of return;
- it favours certain ways of financing the company over others;
- it increases the overall complexity of the tax system, both in terms of the computation and taxation of its profits and in its relationship with the personal system;
- it is unindexed so that its burden is increased and its deficiencies are rendered more severe in the presence of inflation.

The question we have accordingly addressed in this, our fourth, report is what impact do such distortions have on the taxation of capital and are any of these the unavoidable consequence of governments' desire to tax companies?

The inevitability of taxing companies would appear to derive not least from the fact that they are a useful (if not overwhelmingly large) source of money for most governments. Nevertheless, we should recognise that, in the final resort, any tax on a company is borne, not by the company, but by individuals - its customers, employees or ultimate investors.

Notwithstanding that, we have concluded that it is appropriate to retain a separate tax on corporate profits. Too often in the past, however, the structure of such a tax has been dictated not by the requirements of raising money for

[1] Capital Taxes Group (1989).

government from the corporate sector in as efficient a manner as possible, but by the need to compensate for the deficiencies of the personal tax system, in particular for the difficulties of taxing capital gains correctly.

We explicitly reject that approach. If we advocate taxing company profits it is because we believe that we can do so with minimal loss of economic efficiency and without altering the level of investment or the allocation of funds between different types of investment. Any distortions that arise can then be seen for what they are - deficiencies of the personal sector which can be addressed in the proper manner, namely the reform of the taxation of personal sector saving (as addressed in our previous reports), rather than by distorting the company tax system.

An allowance for corporate equity

Our proposal for the reform of the existing corporation tax is, we believe, easy to state and entirely comprehensible in the context of the current system: in calculating its taxable profits a company would be entitled to deduct an allowance calculated on its shareholders' funds. This allowance for corporate equity or, as we have called it, the "ACE" system is based on the equity invested in the company including the retained profit and past equity allowances, less tax and dividends paid and less net investment in other companies. The amount of the allowance in any period will be calculated by reference to a normal commercial rate of interest, fixed by the government and based on the current rate for medium-dated gilts.

The effect of such an allowance is to put equity finance in a company on a similar basis to that of debt finance, but without the inevitable cash outflow associated with the payment of interest. Indeed, to the extent that the company retains its profits rather than pays them out by way of dividends, it is as if the debtor had rolled up or reinvested the interest in the company.

The obvious result of such a reform, so far as the company is concerned, is that it is largely unconcerned as to whether it finances itself by raising debt or equity or through retained profits. In any case, the normal rate of return on such capital (as represented by the rate fixed by the government for equity capital or retained profits and by the actual interest rate paid on its debt) is effectively exempt from corporate tax and is taxable only at the personal level.

The company accordingly remains liable to tax on the return that it earns over and above the normal commercial rate. As such, a marginal investment will always be worth undertaking as the system should ensure that it will bear no

tax. Not only, therefore, is the system neutral as to the sources of finance but it is neutral as to whether an investment is made, and to the type of investment made.

The advantages of the ACE system

Nevertheless, the ACE system may offer advantages beyond these two neutralities. The essential element of the system is that only profits that have borne tax can be added to shareholders' funds. Thus, a company should be far less concerned as to whether it minimises declared taxable profits now and receives less by way of allowances in the future or realises profits and pays tax now and receives more allowances in the future. In the first case it pays less tax now but more in the future and in the second it pays more now but less in the future. But in present value terms the two are precisely the same.

In principle, therefore, a company can be indifferent as to the way in which its profits are calculated: whether, for example, it realises a capital gain immediately or defers its realisation, or whether it receives depreciation at ordinary commercial rates or obtains accelerated allowances. Given an equal amount of profits earned over time from the company's activities, the timing of the cash flows from the company to the government may be different but are nevertheless precisely the same in present value terms. Furthermore, the fact that the allowance is framed in nominal terms means that the system contains automatic indexation provisions, without the need for complex calculation. Naturally, this means that the indexation allowances which significantly complicate the capital gains tax regime can be abolished for companies in respect of all assets.

The relationship with the personal tax system

Exemption of the normal commercial return on equity capital through the ACE system removes the need for imputation of corporation tax to the owners of that capital. Alternatively, the existing imputation system can be modified to limit the imputation to dividends paid up to the normal commercial return and to reduce the ACE deduction *pro tanto* for the amount of tax so imputed to the shareholders.

In our proposal we have preferred to dispense with the imputation system. Either way, however, the corporation tax that is borne by the company on any profits it earns in excess of the normal commercial rate on its debt or equity capital is not imputed to the shareholders. Dividends are then paid under deduction of basic rate income tax which will be accounted for to the Inland Revenue and which will be reclaimable by non-taxpayers and exempt shareholders, as under a classical corporation tax system.

In our previous report we advocated the universal adoption over time of extended personal equity plans or "EXPEPs" to deal with the taxation of personal savings. The effect of the EXPEP system is to extend expenditure tax treatment to savings by exempting the return from saving where the saving is made out of taxed income. The ACE system is a natural complement on the corporate side to the EXPEP. At the same time, the neutrality characteristics of the ACE system ensure that it can work equally well with other forms of personal tax system, as for example a comprehensive income tax or a pure expenditure tax, and that it works acceptably well with the current hybrid system.

Further implications of the ACE system

The adoption of the ACE system offers the prospect of a number of further reforms to the existing corporation tax system which should operate as a substantial simplification of the system. First, companies will cease to be chargeable in respect of capital gains arising on shares held in other companies.

Secondly, as the importance of the tax base is considerably reduced, there is the prospect of moving closer to the adoption of the ordinary accounts profits as a measure of taxation. Thirdly, the neutrality of the corporate tax system between different forms of finance should make possible a substantial simplification of the taxation of corporate securities.

The prospects for European harmonisation

Finally, however, the ACE system should offer a real prospect for the harmonisation of corporate taxation in Europe. As the system removes the real significance of the tax base and can be implemented either as a classical system or as a modified imputation system, it side-steps the two aspects that have blocked efforts to harmonisation in Europe for many years.

At the same time, with the abolition of withholding tax on parent-subsidiary dividends within the Community, there is the prospect of establishing a system in which there is a considerable degree of neutrality on cross-border investment with the normal rate of return on both debt and equity capital being taxed in the country of residence of the investor and the true economic profits earned by the company being taxed in the country in which it conducts its activities.

The system works equally well whether an exemption or credit method operates in relation to foreign-source income. In addition as the system works on either a classical basis or with a modified imputation system, it should be capable of introduction in each member state. Indeed, this flexibility is unsurprising, given that all member states permit interest to be deducted against business profits in calculating taxable income, and that the ACE system treats equity invested in the same way as corporate debt. From a UK perspective it also solves the problem of surplus ACT.

Conclusion

It is easy to suggest in any summary that the ACE system we propose solves every problem and can be implemented without any significant complication at all. Such claims would be manifestly misleading. Nevertheless, we believe that the ACE system offers sufficient prospects of a more rational way for taxing companies as to deserve the most serious attention, both in the United Kingdom and more generally in Europe. On that basis we commend the following chapters of this report to the attention of the reader.

1 Introduction

1.1 Savings and business taxation

1.1.1 In our previous report, *Neutrality in the Taxation of Savings*,[1] we explored the possibility of practical reforms to the taxation of savings in the United Kingdom that would significantly diminish the distortions of the current tax system. We recommended in that report the introduction of an extended scheme for personal equity plans - EXPEPs. The essential idea behind the EXPEP is to exempt the return on savings. In this respect the EXPEP achieves a similar result to an expenditure tax (or ET) but by different means.

1.1.2 Under an expenditure tax, new savings are deductible from taxable income, so that individuals are effectively able to save out of pre-tax income. The cumulated savings are then taxed when the investment is realised, when they are withdrawn and spent. Under an EXPEP, new savings are not tax-deductible: individuals save out of post-tax income, but once the savings are placed in an EXPEP, no further tax is ever due. The essential feature of an EXPEP is that only taxed funds are allowed into it. The tax paid on the income or gains entering the plan is effectively a toll charge discharging all future liability.

1.1.3 In advocating the EXPEP system, we recognised that it necessitated a review of the way in which companies are taxed. There were two principal reasons for doing so:

(a) To the extent that a separate tax is imposed on companies, as under the current corporation tax, that tax is in the end borne by individuals. Thus savings behaviour is affected by the combined effect of income tax, capital gains tax and corporation tax, none of which can be considered in isolation. The story starts with personal savings, which flow into companies (usually via financial intermediaries such as pension funds, life assurance companies, banks and building societies) in the form of new equity and loans. The companies use those savings to undertake economic activities which produce a profit, out of which they pay a return to the providers of saving. How the individual is taxed on the return to his savings - whether with the benefit of

[1] Capital Taxes Group (1989).

exemption under an EXPEP or through income and capital gains tax outside of an EXPEP - is only half of the story of the taxation of savings.

(b) The EXPEP requires a clear distinction to be drawn between "earned" and "unearned" income. Without such a distinction, it would be difficult to extend the EXPEP scheme to proprietors of unincorporated business and of close companies who effectively have a choice as to whether they take the profits of the business in earned (and taxable) form as salary or unearned (and exempt) form as interest, dividends, capital gains and rents.

1.1.4 Accordingly we have approached our fourth report with a view to solving these problems and integrating the taxation of business with our preferred method of taxing savings. In doing so we have had to have regard to the fact that an EXPEP system would only be introduced over time and accordingly that for a considerable transitional period the return on savings through companies and in unincorporated business may continue to be subject to both income tax and capital gains tax.

1.1.5 The reader should note, however, that the adoption of the EXPEP is not a necessary part of our proposals on company taxation. These proposals, while complementary to the EXPEP, can be argued for quite separately, and deserve attention on their own account. They are quite consistent, with suitable adjustment, with other kinds of personal tax system.

1.2 Why do we tax companies?

1.2.1 The assumption thus far has been that we ought to have a tax on business profits. But it is not immediately apparent why we would do so. After all, personal taxes are due both from the providers of labour to the company, who take money out in the form of their wages, and from the providers of capital, who take money out in the form of interest, dividends and capital gains.

1.2.2 Is any further taxation at the corporate level really necessary? Even if corporate profits are an appropriate subject of taxation, the company cannot itself bear the tax; taxes can only be borne by people. The true incidence of the tax must therefore be on one or more of:

- the company's customers, in the price the company charges for its products or services;
- the company's employees, through a reduction in their wages;
- the suppliers of capital to the business, in a reduction in the rate of return on their investment.[2]

1.2.3 One option that would avoid any adverse effects of a corporate tax would simply be to abolish it. A variety of reasons have been advanced to justify levying tax on companies. We do not believe that the legal nicety that a company is a separate legal entity conferring limited liability on its proprietors represents a privilege that is a proper subject for taxation. The fact that the existing corporation tax currently raises a substantial amount of revenue may be a more pragmatic argument for continuing to tax companies, especially if windfall gains would arise from its abolition in cases where shares have previously changed hands at prices which reflect the continued expectation of a corporation tax on the company's profits.

1.2.4 Nor is it necessarily the case that a tax on companies is required to ensure the proper taxation of investment income. In principle, personal taxes on income from capital could be designed to achieve any degree of progressivity or horizontal equity.

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[2]The "proprietor" of a company, the owner-employee, is sometimes thought of as a separate case. Strictly the "proprietor" is simply a combination of an employee and a supplier of capital. However, the practical and conceptual confusion between these two roles often means that the position of the owner-employee requires separate analysis.

1.2.5 Of course, it may be convenient to use companies as a tax *collector*. In reality most "personal" taxes are not paid directly by people but are paid by companies on behalf of their employees or investors. Collecting tax from a few companies rather than a multiplicity of shareholders and other providers of capital to the company has the same logic as collecting employees' tax under PAYE from employers. We can think of corporation tax as a way of deducting at source the personal tax on the benefit of business profits. However, if that is all that the corporation tax is designed to achieve it is in no real sense a separate tax on companies.

1.2.6 Perhaps the most persuasive reason for retaining a separate tax on profits, is not only that we *do*, but that we *can*. That is, if appropriately designed, a corporation tax can raise revenue with minimal loss of economic efficiency: without altering the level of investment or the allocation of funds between different types of investment. It is widely accepted that economic distortions are an unfortunate but inevitable drawback to the levying of tax. If it is possible to raise revenue without significantly changing investment decisions then this is an opportunity that should not be missed.

1.2.7 This report argues that there are good reasons for keeping some form of tax on company profits, in particular if an EXPEP system is adopted in the personal sector, but that there are ways of restructuring the tax to reduce its impact on investment and its distortionary effect on financing decisions.

1.3 Criteria for shaping an alternative tax system

1.3.1 In our third report, we examined some of the fundamental issues in designing the direct tax system.[3] Broadly there are three main issues:

- economic efficiency, as evidenced by neutrality in the allocation, timing and amount of savings and investment;
- fairness, as evidenced by horizontal and vertical equity;
- administrative simplicity.

The assessment of a particular tax reform, as opposed to the system ushered in by that reform, must include consideration of the costs of transition, and the damage done if the tax system in general comes to be seen as unstable and liable to sudden or arbitrary change.

Neutrality

1.3.2 In considering business taxation, we must take account of the effects of the tax on three basic types of decision:

(a) Decisions on the *level* and timing of investment. A neutral tax system would not encourage any uneconomic investments nor discourage investments which are economically viable. In practice this means that *marginal* investments - ones just worth undertaking in the absence of tax - should remain just worth doing in the presence of tax. This requires that all the costs associated with the project, including opportunity costs, should be tax-deductible.

(b) Decisions on the *type* of asset in which the company invests. A neutral tax system would not encourage companies to invest in one particular asset rather than another, nor would it discriminate against companies which invest in a particular asset by the nature of their business.

(c) Decisions on the *source of finance* through which the company raises investment capital. A neutral tax system would not encourage companies to finance investment through one means

[3] Capital Taxes Group (1989, Chapter 1) and Leape (1990).

rather than another, nor would it discriminate against companies which choose a particular method of finance for sound economic reasons.

1.3.3 In addition we have to consider the effect of the tax system on international investment. There are two important criteria in this respect - capital export neutrality (the degree to which domestic and foreign investments by a UK company are taxed at the same rate) and capital import neutrality (the degree to which companies from different countries operating in the same market face the same tax rate). Although these issues deserve consideration, it is far from clear that either type of neutrality can be achieved by unilateral action, nor is it clear whether either will necessarily be unilaterally desirable.[4]

Equity

1.3.4 The relevance of equity considerations to corporate taxation is somewhat unclear. Vertical equity - the principle that a greater share of the tax burden should be borne by those with a greater ability to pay - is largely the concern of the personal tax system. Although company taxes will certainly affect the distribution of income, if they are levied without reference to the income of the beneficiary of the company's profits, we cannot estimate a priori the effect on vertical equity.[5]

1.3.5 The degree of horizontal equity - the principle that people with an equal ability to pay should pay an equal amount of tax - will also depend heavily on the personal tax system. However, for any given personal

[4] See Devereux and Pearson (1990) for a discussion of corporate tax harmonisation.

[5] That is, if tax is levied at a single rate, the "progressivity" of the system depends on the level of income of the eventual beneficiaries. Vertical equity only becomes directly relevant where the corporate tax rate is related to shareholders' ability to pay. We should note that the eventual beneficiary may well be the holder of a pension plan or a life assurance policy, and is not necessarily a direct shareholder.

tax system, the structure of the corporation tax may affect both the relative tax treatment of people who invest in different assets,[6] and the relative treatment of labour and investment income.

Administrative simplicity

1.3.6 Few subjects arouse such heated debate among both businessmen and their advisers as the *complexity* of taxing companies. The necessities of administration impose a serious constraint on any reform, both in terms of administrative and compliance costs and in terms of the ease with which taxes may be avoided and revenues lost.

1.3.7 There are three principal characteristics of a complex tax:

- the taxable amount is determined by reference to net receipts or valuation;
- the taxable amount has to be estimated by reference to a particular state or period;
- the taxable amount has to be calculated by reference to particular taxable units - in this case the corporate legal entity - which may differ from the real economic unit, as in the case of a group of companies.

It can be seen immediately that all these features are likely to apply to a tax based on corporate profits.

1.3.8 By way of contrast, the characteristics of a simple tax tend to be that

- the tax liability arises by reference to a transaction in which cash passes;
- the taxpayer is liable to tax on that cash at a single rate (or derives the cash from a single source, such as an employer under PAYE, enabling a multi-rate deduction system to be operated).

These features are associated with cash-flow taxes, such as an expenditure tax or a flow of funds corporation tax. Accordingly, if by advocating the adoption of the EXPEP system in the personal sector

[6] in particular the relative treatment of profits from incorporated business and other investment income.

(as an easier and more practical solution to the taxation of savings), we are led to the conclusion that a corporate profits tax is appropriate in the corporate sector, a legitimate question which we must seek to answer is whether, *overall*, that is the best solution as compared with others, such as the adoption of a pure ET in the personal sector (the Spent Income Tax or SIT discussed in our third report) together with its corporate complement of an S-base flow of funds tax (see Chapter 4).

Transition and stability

1.3.9 All reforms create transitional problems. In considering a package of reforms we must answer the question "Is it worth the upheaval?", and ensure that the transition is designed so as to minimise that upheaval. The benefits inherent in having a *stable* tax system, no matter how poorly designed, should not be ignored, but the key to long-term stability lies in moving to a system which does not require change, and therefore does not generate the expectation of change.

1.4 The problems of the current system of corporation tax

1.4.1 The development of the taxation of companies in the UK and the current shape of corporation tax are summarised in Appendix B to this report. The principal problems of the current tax system are addressed in more detail in Chapter 2 in which we examine our proposals to modify the system.

1.4.2 The existing corporation tax, formally at least, is a tax on profits. The tax base is company income and gains less the legitimate costs of doing business. The odd feature of the tax is that although wages and raw materials are fully deductible, the other major cost of doing business - the cost of capital - is only partially allowable. If the capital is borrowed, the interest payments are fully deductible. If it is raised on the equity market or from earnings retained within the company, then dividend payments attract some relief through the imputation system, while earnings subsequently retained are taxed at the full rate.

1.4.3 This omission has two effects. First, it drives a "wedge" between the pre-tax and post-tax returns on an equity investment. The effect is to make uneconomic those investment projects that do not offer a sufficient surplus to pay the corporate tax bill and still offer the saver the market rate of return.[7] Most companies of course rely substantially on equity finance, so the net effect of the current system is to reduce the incentive to invest.

1.4.4 Second, in general, the system has a substantial bias against the use of equity finance rather than debt finance. Depending upon the way in which the divide between the corporate tax system and the personal tax system is bridged, the owners of the company may have incentives to finance investment in a particular way - for example through borrowing rather than through equity or retained profits - rather than choosing the finance method which delivers their preferred mixture of control and risk.

1.4.5 Since the current system intends to tax "income", it naturally also has the practical problems which beset the personal income tax: namely that it is difficult to tax capital gains on accrual and to give appropriate

[7] since the saver always has the option of earning the market rate of return elsewhere, perhaps by placing the money in government securities, or even outside the UK.

allowances for the depreciation of capital, and that tiresome adjustments are required to ensure that all and only real returns are taxed in the presence of inflation.

1.4.6 In practice little effort has been made to address either of these problems. The system as it has existed since 1984 has made little allowance for the impact of inflation on the tax base. Profits are determined largely by reference to conventional historic cost accounts. The effect of inflation on such accounts is to boost reported profits out of proportion to the rise in prices, largely because the full increase in the nominal value of stocks held is included as a profit, even where there has been no increase in their real value. The burden of taxation is further increased by inflation as the real value of capital allowances is eroded.

1.4.7 Finally, there are serious problems with the taxation of companies earning profits in more than one country. In particular, the reliefs available for equity-financed investment under the imputation system are only available to companies which have paid a sufficient level of UK tax on their profits.[8] The effect of this is to raise substantially the cost of investing abroad rather than in the UK, and penalise those companies which hold substantial overseas assets in the nature of their business.

1.4.8 In summary, the current system acts as a disincentive to invest, and a disincentive that rises with the inflation rate. It is not neutral with respect to the source of finance, and is unlikely to be neutral with respect to the choice of asset.

[8] the "surplus ACT" problem.

1.5 The interaction of personal and corporate taxes

1.5.1 The interaction between the personal and corporate tax systems requires careful consideration, particularly if some effort is going to be made to fully integrate the two systems. In general we argue that full integration is neither easy nor necessary.

1.5.2 A company is no more than an intermediary through which several different taxpayers may pool their savings. Under a fully integrated system, severe complexities then arise from trying to tax profits at the right rate and at the right time where they are ultimately attributable to different investors liable to tax at different rates.

1.5.3 However, if we do intend to have a separate system, it may be difficult to decide how best to tax company profits (if at all) until decisions have been taken as to the shape and nature of tax in the personal sector. This does not mean that nothing can be done about the corporate tax system until the personal tax system has already been dealt with (or vice versa). It simply means that the *direction* of reform to the corporate tax system needs to be consistent with the *direction* of reform to the personal tax system.

Neutrality in the personal tax system

1.5.4 The two bench-mark systems of direct taxation in the personal sector are a comprehensive income tax (or CIT) and an expenditure tax (or ET). As explained in our third report, both a CIT and an ET achieve neutrality in the allocation of saving but the administrative problems of a CIT in dealing with inflation and in taxing capital gains as they accrue are considerable. Neither the CIT nor the ET distinguishes between earned and unearned income (as does the EXPEP). However, the CIT is generally regarded as conferring a greater degree of vertical equity as compared with the ET.

1.5.5 The EXPEP achieves the same results with respect to the allocation of savings as the expenditure tax by exempting the return on savings from tax. However, under the expenditure tax the government in effect becomes a co-investor with the individual. If the individual gets a high rate of return on its savings, the government shares in that good fortune in the form of higher tax revenues (and if the saver does badly the government equally so). This does not hold with the EXPEP where the

government receives its tax up front. As the government has less opportunity for investing its tax in projects that will realise a rate of return over the normal rate of return, it loses its opportunity to share in these high levels of profits or windfall gains, but also avoids exposure to losses.

1.5.6 Against such criteria, however, the practical constraints - political, economic and international - that are imposed by the existing system have to be taken into account in any tax reform. It was these constraints that led us to prefer the EXPEP as providing the practical way forward towards a more rational system of taxing savings.

1.6 Summary

We consider the adoption of an allowance for corporate equity in the next chapter, and assess the desirability of such a scheme in the light of the criteria set up in this introduction. Our conclusion is that the ACE system represents an attractive alternative, both to the current system and to the suggestions of other commentators, and is a natural complement to any rational reform of the personal tax system.

2 An allowance for corporate equity[1]

2.1 Introduction

2.1.1 A tax based on profits is a tax on all company income less the costs of generating that income. The current system, although it purports to be a tax on profit, in fact ignores or undertaxes some sources of business income, taxes some wholly illusory income, and ignores or only approximates many of the costs of generating that income.

2.1.2 The conventional excuse for these shortcomings is that it is difficult to measure the missing costs and revenues as they accrue, particularly in the presence of inflation. In this chapter we show that a tax system based on companies' true economic profits can be set up with minimal, but crucial, changes to the present system. The system described has many of the desirable properties of the flow of funds base, whilst retaining a more conventional conception of taxable capacity.

2.1.3 The essence of the proposal is that the system should give an *equity allowance* for the costs of equity finance in the same way that relief is given for the costs of debt finance. This means that the system will tax all profits in excess of a given "normal" rate of return, while the costs of raising finance will not be taxed at the company level.

2.1.4 The first section of this chapter discusses measures of "true economic profits", and discusses the possibility of using this as the basis of a tax on companies. The second section outlines a system which is equivalent to a "true economic profits" tax in its effect on incentives, framed entirely in nominal terms and based on current conventions of taxable profits. The practical application of this option, and its relationship to the rest of the tax system, are then discussed. A more detailed discussion of the practical issues is contained in Appendix A.

[1] The theoretical justification behind this approach comes from Boadway and Bruce (1984) on which we rely substantially.

2.2 True economic profits

2.2.1 The two traditional ways to achieve a neutral business tax are the flow of funds base, which taxes all inflows of funds and allows all costs to be immediately expensed, and the true economic profits (or "imputed income") base, which taxes changes in the value of the company's assets as they accrue, whether or not it corresponds to an actual flow of money. The current system is a very rough approximation of a true economic profits base; it has all the key features, but is somewhat less than ideal in its construction.

2.2.2 If we were to tax the "true economic profits" of the firm, how would these be measured? The guiding principle is that all real gains should be taxed and all real costs should be deductible. In practice this means that gains and losses must be assessed and taxed or relieved as they accrue, and that real costs of finance must be deductible.

2.2.3 The details of measuring profits in real terms have been covered by many commentators (for example Edwards, Kay and Mayer (1987) and Whittington (1983)). The measure that is discussed in this section is intended to be the EKM measure of profits in "real terms", with an additional adjustment for financing costs.

2.2.4 A measure of true economic profits differs from conventional historic cost measures of profits in three key ways. First, the true economic profits includes capital gains on assets as they accrue. Second, it includes a provision for the opportunity cost of equity capital. Finally, all gains and costs are measured in real terms, i.e. are adjusted for changes in prices.

Measuring real capital gains

2.2.5 If profits are made in the form of capital gains then these should be included in taxable profits. Under the present system, gains are taxed on realisation rather than on accrual, so that the company can reduce the effective tax rate on the gain by deferring the tax payable.[2] This

[2] This is seen most clearly when an asset is revalued and the tax payable entered in the accounts as deferred tax; the company effectively gains the interest payable on the deferred tax account. In practice the advantage is a long-term one as gains on most major business assets, but not shares in subsidiaries, can be rolled over indefinitely.

can bias companies towards projects which give returns in the form of capital gains, and can create "lock-in" effects, where tax considerations make it more worthwhile to keep an asset than to realise it and pay tax, even where more profitable investments, tax considerations aside, are available.

2.2.6 The scale of this problem often goes unrecognised; it applies not only to unrealised tangible assets, but also to unrealised intangible assets. For example if a company invests in a brand by advertising heavily, it can immediately write off the cost of the campaign from tax, but does not pay tax on the accrual of its intangible, but possibly very valuable, asset.

Capital gains in the presence of inflation

2.2.7 In the presence of inflation, the difference between the realisation value of any asset and its tax-written-down value will include both a real gain and a purely nominal gain. Nominal gains should not be included, since they do not correspond to any increase in the spending power of the company or its owners. In practice this means that the historic cost of all assets should be indexed in line with general inflation, before considering any specific gains and losses.

2.2.8 Conventional FIFO accounting procedures for stocks and work in progress treat the rise in the nominal value of stocks held as a profit, with no allowance given for the purely inflationary element of this rise. Under present tax arrangements, companies are discouraged from holding stocks at any positive rate of inflation, the disincentive rising with the inflation rate, and companies which hold high stock levels in the nature of their business are seriously penalised. Just as with other assets, the true economic profits measure would include only real rises in the value of stocks.

Depreciation costs

2.2.9 Depreciation is essentially a capital loss made on an asset. If assets are individually revalued every year then any losses will be reflected in the revaluation. In practice losses can be approximated by allowing

for the capital loss as it accrues, by giving depreciation allowances. However, it is difficult to assess the true costs of depreciation, and it becomes more difficult in the presence of inflation.

2.2.10 Under the present system assets which depreciate less quickly than the capital allowance that they attract will be subject to a balancing charge, but this will only be payable on realisation.[3] The real level of capital allowances will therefore affect the company's decisions. An allowance which overestimates an asset's rate of depreciation, lowers the tax burden on companies which use that asset, and may bias them towards its use. Similarly, an underestimate of an asset's true rate of depreciation will penalise companies which use that asset, thereby discouraging its use.

Assessing depreciation in the presence of inflation

2.2.11 As with all capital gains and losses, the cost of depreciation of capital assets should be assessed with reference to their current value, rather than their historic value. If the value of an asset simply rises in line with inflation, the relevant depreciation rate should be applied to the depreciated book value of the asset, indexed for inflation. If the asset is going up in value, more rapidly than general prices, the additional gain should be taxed, and the depreciation rate applied to the new higher value.[4]

Deductibility for the real costs of finance

2.2.12 Under current measures of taxable profit, net interest payments are deductible as the costs of capital services. Part of this payment, however, is a compensation to the lender for the fall in the real value of the debt, i.e. it is effectively a prepayment of the principal. The true economic profits measure treats as a cost only the real interest

[3] In the case of machinery and plant, the balancing charge may be written off immediately against reinvestment in similar equipment.

[4] or the depreciation rate used reduced in that year to take account of the appreciation of the asset over and above its expected depreciation rate.

payment, calculated as the full interest payment less the rate of inflation over the period of the debt. Alternatively, it includes the fall in the real value of the company's net financial liabilities as a profit.[5]

2.2.13 If a company raises finance by issuing equity or retaining some of its profits, rather than borrowing it, then the same logic should apply. Companies should be able to deduct the opportunity cost to the shareholders of the capital invested in the company just as if the money had been lent.

2.2.14 In practice this means that allowance should be given for "notional" interest payments made at the real interest rate on the current replacement value of shareholders' funds in the company (i.e. the current value of the equity that has been invested in the company). It is important to distinguish here between the amount invested in the company and its current market valuation. The equity invested in a company is the current value of all past equity issues and retained profits, while the stock market value may well include capitalised future expected profits and losses, and will be subject to the day-to-day vagaries of the market.

2.2.15 In terms of the tax base, giving an allowance for the opportunity cost of capital requires that some part of the equity return be considered as a cost and an appropriate allowance given. The 1982 Green Paper correctly describes the conditions for a true economic profits base (in Section 5.15), but later suggests that this requires some part of the dividend to be exempt from corporation tax (in Section 8.11), and finally that the whole dividend should be exempt (in Section 8.14), concluding unsurprisingly that this gives companies an opportunity to avoid paying corporation tax altogether.

[5] Another way of looking at this is that the company has made a capital gain on the fall in the real value of its debt, on which it should be taxed. The restriction of interest deductibility to the real rate and the taxation of real gains made on the fall in the value of net debts are identical. Note, however, that this also applies to net "debts" on which no interest is actually paid, for example trade credit. In this case the company should either include the fall in the real value of this debt as a profit and pay tax on it, or else include a real interest receipt as a profit and pay tax on this.

2.2.16 As we have noted, the appropriate deduction depends on the funds invested in the company; the level of dividends paid out is irrelevant. Shareholders are paying exactly the same opportunity cost whether the profits are all retained at the end of the year or whether they are all paid out.

2.2.17 The company will pay no tax only if it is making insufficient equity profits to cover the cost of capital. This is precisely what we would expect from a neutral tax. The government will then raise revenue, over and above any personal tax liability to the extent that profits exceed all costs.

Could we use true economic profits as a tax base?

2.2.18 Although the "true economic profit" measure correctly reflects the company's position, it seems unlikely that it could ever be used as a basis for taxation. The main difficulties involved in taxing true economic profits are well known, as the problems associated with a comprehensive income tax in the personal sector; namely the difficulties of taxing capital gains on accrual, and the administrative complexity of indexation.

2.2.19 As argued above, the correct measurement of capital gains requires not just indexation, but also careful valuation of each asset every year. This process will inevitably be highly "subjective" for many assets, and for others there will be no clear market value at all. Although revaluing can give us a rough estimate of the company's financial position, the opportunities for manipulation are too great for this to be used as a tax base. Furthermore, if companies are making large capital gains, requiring them to pay on accrual could create serious liquidity problems.

2.2.20 Even if we could deal with the problems of taxation on accrual, constant indexation imposes serious compliance costs, and would certainly not be simple to administer. The importance of these costs should not be underestimated.

2.2.21 One further problem that has been raised is that true economic profits, and therefore government revenues, can be very volatile, both in aggregate and for particular companies. As a matter of practical politics, there may be a case for a "smoothing" of tax

payments over years where business conditions are changing rapidly. However, this is a poor argument in principle; if it turns out that companies are simply not making any money when their profits are correctly measured then why should they pay tax?

2.3 A practical proposal: the ACE system

2.3.1 The problems associated with measuring true economic profits have led most commentators to abandon all hope of using them as a practical tax base. In this section we present a practical proposal for a tax base which should be equivalent in its effects on incentives to the true economic profits base but does not require constant revaluation, nor impose the administrative costs of indexation.

2.3.2 The intuition behind the scheme is quite simple; the details are discussed below and in Appendix A. Under the ACE system tax is levied on all profits conventionally measured but an allowance is given based on the equity invested in the company.

2.3.3 Capital gains are not directly taxed on accrual, nor do capital allowances correspond perfectly to economic depreciation. Instead the system has a series of built-in and simple offsetting reliefs, so that if a company pays too much tax in any one year it is compensated in the form of higher allowances in future years, and if it pays too little tax its future allowances will be correspondingly reduced. The result, in present value terms but not necessarily in terms of tax paid in each year, should be the same as for a true economic profits base, but without the informational problems and administrative costs.

2.3.4 Nor does the scheme require indexation. The equity allowance is based on the accumulated value of retained profits and equity issues, all measured at their historic values, and a nominal rate of return. Profits, including capital gains, changes in the value of stocks and work in progress and interest payments, are also measured without adjustment for inflation.

2.3.5 The system need not be indexed because the symmetry of the balance sheet ensures that an entirely unindexed system is equivalent to an entirely indexed system. If we allow the deduction of the full nominal costs of finance then we are ignoring the capital gain made on the fall in the real value of the company's liability to its suppliers of capital. On the other hand, if we include as a profit the full nominal

value of capital gains made on all assets, including stocks, this will apparently overestimate true profits. Since assets match liabilities, these two effects must exactly offset each other.[6]

The Proposal

* An allowance for corporate equity to replace the imputation system.
* No change to most of the system.
* Withholding income tax on dividends to be deducted at source.

The system in practice[7]

2.3.6 The new allowance would depend on the level of *shareholders' funds for tax purposes,* which reflects the accumulated equity put into the firm by the shareholders at its historic value. Once the system was up and running, shareholders' funds for the end of the year would be calculated by adding funds reinvested in the company to the opening value. These reinvested funds consist of taxed profits, net of tax paid, plus dividends from UK companies, plus new equity issues, less outflows of funds in the form of dividends and net purchases of shares in other UK companies, at their money cost.

2.3.7 The *equity allowance* is then calculated by multiplying the opening value of shareholders' funds by an appropriate nominal interest rate. We consider the most suitable rate to be a medium-term gilt, reflecting the medium-term outlook of equity investment.

2.3.8 The new allowance would affect very little of the current tax calculation and should impose minimal compliance costs once the system is set up. This means that the practical aspects of accounting for tax remain almost unchanged, an important point in this scheme's favour. As with any tax reform there are many problems which require further discussion, but we believe that solutions can be found.

[6] although the offset may not be precise in any one year.

[7] The practical workings of the system, and administrative problems, are described in more detail in Appendix A to this report.

2.4 Properties of the ACE system

2.4.1 The criteria for judging a tax system as set up in the introduction were economic efficiency, equity and administrative simplicity. In the context of corporate taxation, economic efficiency requires that the tax should not distort the level or timing of the company's investment, its choice of asset, or its method of financing. Administrative simplicity requires that this should hold in the presence of inflation without burdensome adjustments, and that the system should not have high compliance costs or encourage complex avoidance schemes. Equity, we shall argue, is largely the concern of the personal tax system although there are some issues of horizontal equity which require discussion.

Neutrality

2.4.2 Ignoring inflation for the moment, the system should be neutral with respect to the level of investment because a full allowance is given for the costs of finance, whether debt or equity is used to buy an asset. This also means that the financial neutrality of the corporate tax system is ensured, i.e. both debt and equity finance get equal relief, regardless of the level of dividends paid.

2.4.3 The neutrality of both the true economic profits base and the ACE system is illustrated in Table 2.1. A tax system is neutral to the level of investment if the pre-tax and post-tax rates of return on a marginal project are the same. A company buys an asset for £1000 at the end of year 0, using equity finance. The asset delivers a cash income of 20% during the year, true economic depreciation is 10%, and the cost of capital is 10%. In the left-hand column there is no tax and the project makes just enough to cover the cost of capital. In the middle column the true economic profit base gives an allowance for true economic depreciation, and there is no tax charge. On the right-hand side, the ACE system gives a capital allowance of 25%, but the additional allowance is recouped when the asset is sold, again leaving the company with no tax bill.

Table 2.1
The ACE system
Marginal investment project

		No tax	True economic profit	ACE system
Year 0	Company invests	1000	1000	1000
Year 1	Trading profit @ 20%	200	200	200
	Capital allowance	100	100	250
	Balancing charge	-	0	-150
	Equity allowance	-	100	100
	Taxable profit	-	0	0
	Tax due @ 35%	-	0	0
	Net return	100	100	100
	Rate of return	**10%**	**10%**	**10%**

Capital gains

2.4.4 Neutrality with respect to the choice of asset will only hold if the accruals rate on capital gains is the same as the rate on trading income, and if depreciation allowances reflect the true economic costs of holding the asset.

2.4.5 As under the current system, capital gains will only be taxed on realisation, so that one might expect a disincentive to realising the asset and paying tax. However, the gain from deferring the tax and failing to realise an asset is offset by the loss of future tax allowances, and companies should be indifferent in the long term between realising a capital gain and not realising it.

2.4.6 In the simple example in Table 2.2, the company has a choice between realising a gain of £1000 this year, or deferring the sale until the next year. If the company chooses not to sell the asset, it gains from the deferral of tax, but loses the benefit of a higher equity allowance the next year. The equity allowance is calculated on the basis of a 10% interest rate. We assume for simplicity that the asset makes a normal rate of return (i.e. 10% in the second year), and that the realised cash

is retained within the company and also earns a rate of return of 10%. The effect of the allowance is to give a mark-up at the nominal interest rate on tax paid and retained in year 1. This mark-up offsets the gain from deferring realisation.

Table 2.2
Capital gains (no inflation)

		Current system		ACE	
		realise	don't realise	realise	don't realise
Year 1	Gain accrued	1000	1000	1000	1000
	Taxable profit	1000	0	1000	0
	Tax payable @ 35%	350	0	350	0
	Shareholders' funds	-	-	+650	0
Year 2	Cash/asset value	650	1100	650	1100
	Cash income	65	0	65	0
	Taxable profit	65	1100	65	1100
	Equity allowance	-	-	65	0
	Tax payable @ 35%	22.75	385	0	385
	Return	**692.25**	**715**	**715**	**715**

Depreciation allowances

2.4.7 Similar considerations apply to capital allowances, because they are really only an allowance for capital losses. In Table 2.1, the ACE system gives the correct capital allowance because we assume that the asset is sold at the end of year 1 and a balancing charge or credit paid. If the asset is not sold then we are in the position of Table 2.2; the company has an undeclared "capital gain" relative to the asset's tax-written-down value. The company gains by deferring the balancing charge, but loses out on the extra allowances it would get if it did sell the asset and pay the charge.

2.4.8 Under the ACE system, depreciation allowances can be given at a fixed percentage of the book value of the asset. In practice there is likely to be an administrative gain in setting the allowances to relatively close to true economic depreciation. The present scale of allowances seems perfectly acceptable.

Dealing with inflation

2.4.9 As argued above there is no need for indexation allowances, because the system has built in stabilisers. This is illustrated in Tables 2.3 and 2.4. In Table 2.3, a company buys an asset for £5000 at the end of year 0, using either new equity or retained earnings. The real interest rate is 5%, so that the nominal interest rate at zero inflation is 5%, and at 10% inflation it is 15.5%.[8] By the end of year 1, the asset has appreciated by 20% in real terms and is sold. The tax levied (at constant prices) is identical at zero inflation and at 10% inflation without the need for cumbersome indexation allowances.

Table 2.3
Automatic indexation

		Zero inflation	10% inflation
Year 0	Asset value	5000	5000
Year 1	Asset value	6000	6600
	Gain	1000	1600
	Shareholders' funds	5000	5000
	Equity allowance	250	775
	Tax due @ 35%	262.5	288.75
	Tax due (year 0 prices)	262.5	262.5

2.4.10 This argument also applies to stocks. The system gives an automatic indexation allowance, so that only real rises in the value of stocks

[8] We assume a constant real interest rate for simplicity. This assumption is certainly not an integral part of the system.

enter into tax in any one year. In 1984, on the abolition of stock relief, the Chancellor argued that "stocks financed by debt do not need relief: the tax system already allows for deduction of nominal interest and hence allows adequately for inflation". The ACE simply extends this principle to stocks, and other assets, financed by equity.

Expected tax rates

2.4.11 If tax rates are expected to change over time this induces companies to alter their investment plans so as to gain allowances under the highest possible tax rate, and reap profits under the lowest. This is the case under all tax systems other than a perfectly functioning true economic profits base. Under the ACE base, an expected change in the tax rate will alter the expected value of future allowances, and the scheme will no longer necessarily be equivalent in present value terms to a true economic profits base. However, in practice, corporation tax rates have been remarkably stable. With the exception of the changes in the 1991 Budget, the rate has usually only altered when the structure of the system has been radically changed.[9] It seems unlikely therefore that companies will generally expect substantial changes in the tax rate; it should still be the case that future allowances will largely offset present overpayments or underpayments of tax.

Interaction with the personal tax system

2.4.12 The taxation of savings at the personal level is mainly important in assessing the neutrality of the system with respect to financing and payout policy. In a closed economy, if the personal tax system is non-neutral with respect to the savings decision, this may reduce the flow of domestic savings to the corporate sector and thereby reduce investment.[10] In this case we can assess the neutrality of the corporate tax system in terms of whether it adds to the reduction in investment already caused by the personal tax system. In an open economy, the

[9] in 1973 with the introduction of the imputation system, and in the 1984 corporation tax reforms.

[10] A tax on capital will not necessarily reduce the supply of savings. The theoretical and empirical evidence on this matter is ambiguous.

personal tax system should matter less; shortfalls in the supply of domestic savings do not necessarily raise the interest rate and choke off investment demand, but may be met by funds from abroad.

2.4.13 The ACE system is designed to have a classical relationship with the personal tax system; that is, it is neutral in the absence of personal taxes, and raises revenue as a separate matter. However, corporation tax is essentially a tax on savings invested in companies. Investors also pay personal tax on the return to their savings and it is arguable that we should consider both personal and corporate systems a whole.

2.4.14 Clearly, if the personal tax system is non-neutral and the corporate tax system is neutral then the system as a whole will be non-neutral. It follows that a corporate tax system which has deliberate distortions designed to offset any distortions at the personal level may in principle perform better than an internally neutral system.

2.4.15 The personal tax system faced by some investors is indeed highly distorted. In particular, the effective personal tax rate on capital gains is often much lower than the tax rate on dividends due to the high CGT exemption and because of the benefits of deferral of CGT liability. If this is the case then shareholders will be taxed more lightly if the company retains profits than if it distributes profits. Should the government therefore charge an additional tax on retained profits in lieu of personal tax?

2.4.16 There are several good reasons why we reject this course of action. First, an additional tax on all retained profits will not tax the true benefit to the shareholder because profits are incorrectly measured in the first place. The only way to tax the increase in the shareholder's wealth properly is to tax the capital gain properly by moving towards an effective capital gains tax system.

2.4.17 Second, the current treatment of savings is a hybrid system, not an income tax system. The "typical" shareholder is a pension fund, subject to no tax on its income. Unless the corporate tax system is neutral the system as a whole cannot be neutral.[11]

2.4.18 Third, a retained profit will not generally escape personal tax altogether. Profits are basically only of value when they are paid out as dividends, at which point they will attract income tax.[12]

2.4.19 Finally, and perhaps most importantly, a distorted corporate tax system blocks effective reform to the personal tax system, whether this involves moving towards an EXPEP or expenditure tax treatment of savings, or moving in the opposite direction and tightening up the capital gains regime. The only really acceptable outcome, and one which we support strongly, is to have a system which is neutral to different sources of finance at both corporate and personal levels.

[11] Under the current system, for example, pension funds have a strong tax incentive to receive dividends rather than allow companies to retain and reinvest their profits.

[12] See Auerbach (1979) among others for this type of "trapped equity" argument.

2.5 The ACE in the international context

2.5.1 There are two criteria by which we can judge a system's performance in the international context: efficiency - the degree of discrimination between domestic and foreign investment and investors - and administrative simplicity. The two are obviously closely linked. As with so many aspects of the ACE system, the various options and the problems associated with each are very similar to those in the current system. The various issues are described in more detail in Appendix A, but are reported briefly here.

Outward investment: credit and exemption systems

2.5.2 Investment overseas by UK companies can be treated under either an exemption or a credit system. Under an exemption system, purchases of shares in an overseas company or subsidiary would be deducted from shareholders' funds. Dividends received would then be free of UK corporation tax. This is an identical treatment as for investment in other companies operating in the UK.

2.5.3 Under a credit system, purchases of shares in overseas companies would not reduce shareholders' funds. Taxable profits would be assessed on the same basis as at present, with an additional charge payable where the UK tax liability exceeds the level of double tax relief.

2.5.4 The degree of neutrality between foreign and domestic investment that this would bring depends on whether credit or exemption method is chosen.[13] The credit method is more likely to give capital export neutrality (CEN), while the exemption method should deliver capital import neutrality. In general we would expect the ACE to act as a bias towards domestic investment because the UK system will be neutral and the system of other countries non-neutral.[14]

[13] and indeed on exactly how the credit method is set up. See Appendix A, Section A.

[14] However, the degree of CEN depends as much on the average tax rate as on the minimum required rate of return (see Devereux and Pearson (1989, pp. 51-55)).

2.5.5 The biggest change from the present system is that there can obviously no longer be a surplus ACT problem, because there is no ACT and no imputation system. Under the current rules, the foreign tax credit on overseas income limits the amount of mainstream corporation tax against which companies can offset ACT. Companies which earn a large proportion of their profits abroad, but pay dividends in the UK, therefore find themselves severely disadvantaged compared with companies operating only in the UK.

Inward investment

2.5.6 The UK subsidiaries of foreign companies would be treated, as at present, just as any other UK company. A withholding tax at the basic rate of income tax will be levied on all dividends, subject to reduction in accordance with the terms of double tax treaties. In general we would expect the ACE system to bias foreign companies towards investment in the UK because we have a neutral system, but this will obviously depend on the tax treatment of profits arising in the UK in the investor's home country. Since the profits on which corporation tax is paid continue to be calculated in the same way subject only to the additional deduction of the equity allowance, we do not anticipate any difficulties for overseas companies obtaining credit for UK corporation tax borne.

2.6 Empirical issues

What is the revenue-neutral tax rate?

2.6.1 Although the proposal narrows the tax base in the sense of introducing an additional relief, the abolition of the imputation system also widens the tax base.[15] In principle the revenue-neutral tax rate might be either higher or lower than the current headline 35% rate, depending on both the rate of return over the period considered and the dividend payout ratio.

2.6.2 Devereux and Freeman (1991) use the IFS corporation tax model to simulate the effects of the proposed system. The model uses the actual company accounts of around 700 industrial and commercial companies for the 20-year period 1971-90 to derive estimates of tax liabilities under alternative systems.[16]

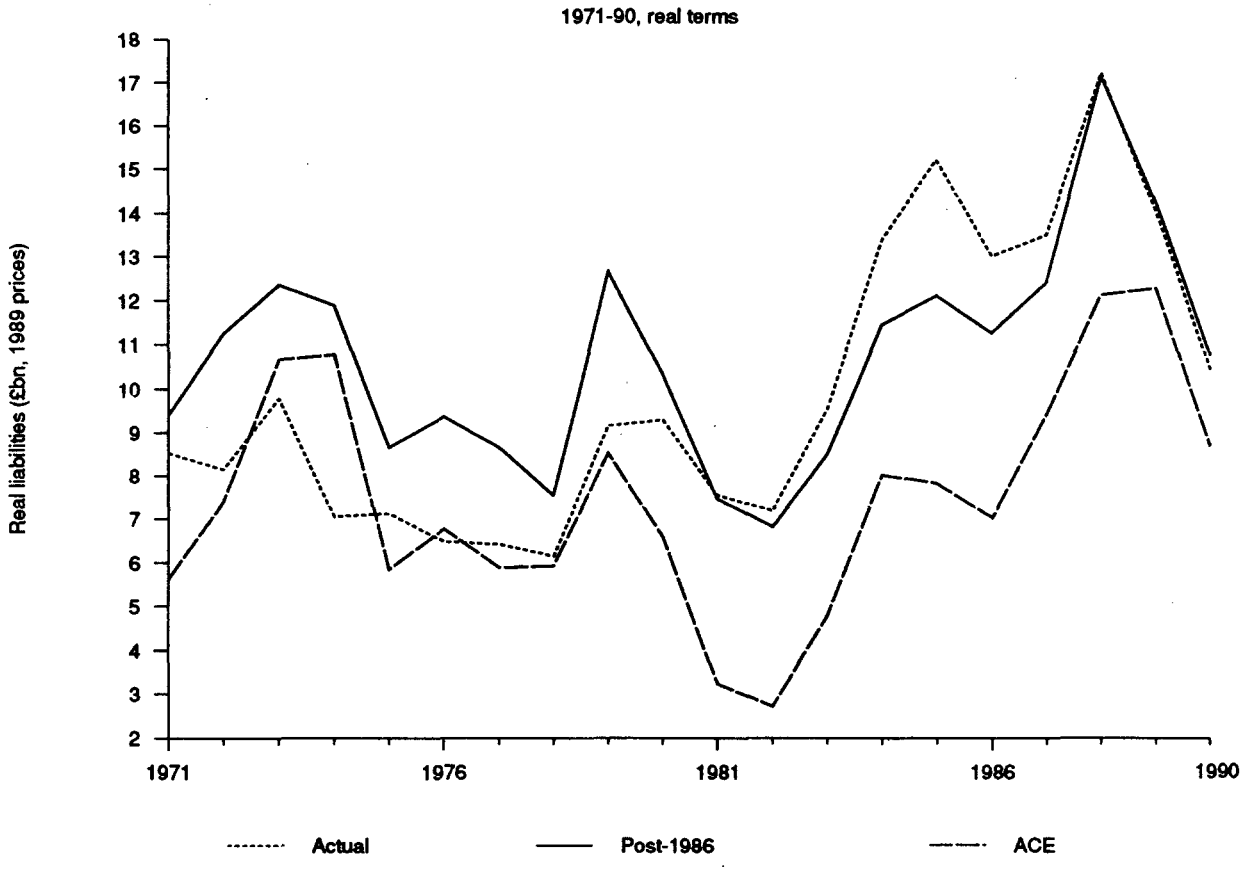
2.6.3 The model was used to compare tax revenues, on the assumption of no behavioural change, under the ACE system with those under the current system, each on the basis of introduction in 1971. Revenues under the ACE did not fall far below those of the post-1986 system. Taking an average of real revenues over the 20-year period, the revenue-neutral rate was calculated at around 45%.

2.6.4 Is this too high? There are several reasons why it is not. First, the average tax rate - the total burden of corporation tax on business - is the same as at present; this is precisely what "revenue-neutral" means. Second, the reason that we normally try to avoid high tax rates on business is that we are worried about discouraging investment. This base is explicitly designed not to reduce investment because the costs of investment are all deductible. Finally, there are good practical reasons for employing a rate close to the top rate of personal tax.

[15] The current imputation system allows the corporation tax on *all* profits to be imputed to shareholders, subject to the present overall limitations. The effect of the ACE system is to limit imputation to the tax paid on the normal rate of return on shareholders' funds.

[16] See Devereux (1986) for a description of the IFS corporation tax model.

Figure 2.1 Corporation tax liabilities



Short-term revenue costs

2.6.5 Furthermore, the past few years of very high dividend payouts mean that the imputation system is very costly. The government could, if it so desired, keep the headline rate fixed at 35%[17] with minimal or zero short-term revenue loss. The precise short-term cost depends on exactly which assets are included in the initial value of shareholders' funds. On the basis of available data, two figures were calculated, an upper figure which involves a moderate revenue loss

[17] In the 1991 Budget, the statutory rate of corporation tax was reduced to 34% and 33% for fiscal years 1990/91 and 1991/92 respectively. Estimates were based on the pre-Budget system.

and a lower figure which could even provide a revenue gain. Estimates of the revenue cost of introduction in fiscal year 1991/92 are shown in Table 2.4. The precise cost depends heavily on forecasts of future profitability and dividend payouts.[18] Most commentators expect the dividend payout ratio to remain relatively high in the near future.

Table 2.4
Revenue gains and losses (£bn)

	Scheme 1	Scheme 2
1991/92	-	-
1992/93	1.0	-1.9
1993/94	1.6	-1.4
1994/95	1.9	-1.3
1995/96	2.0	-1.2

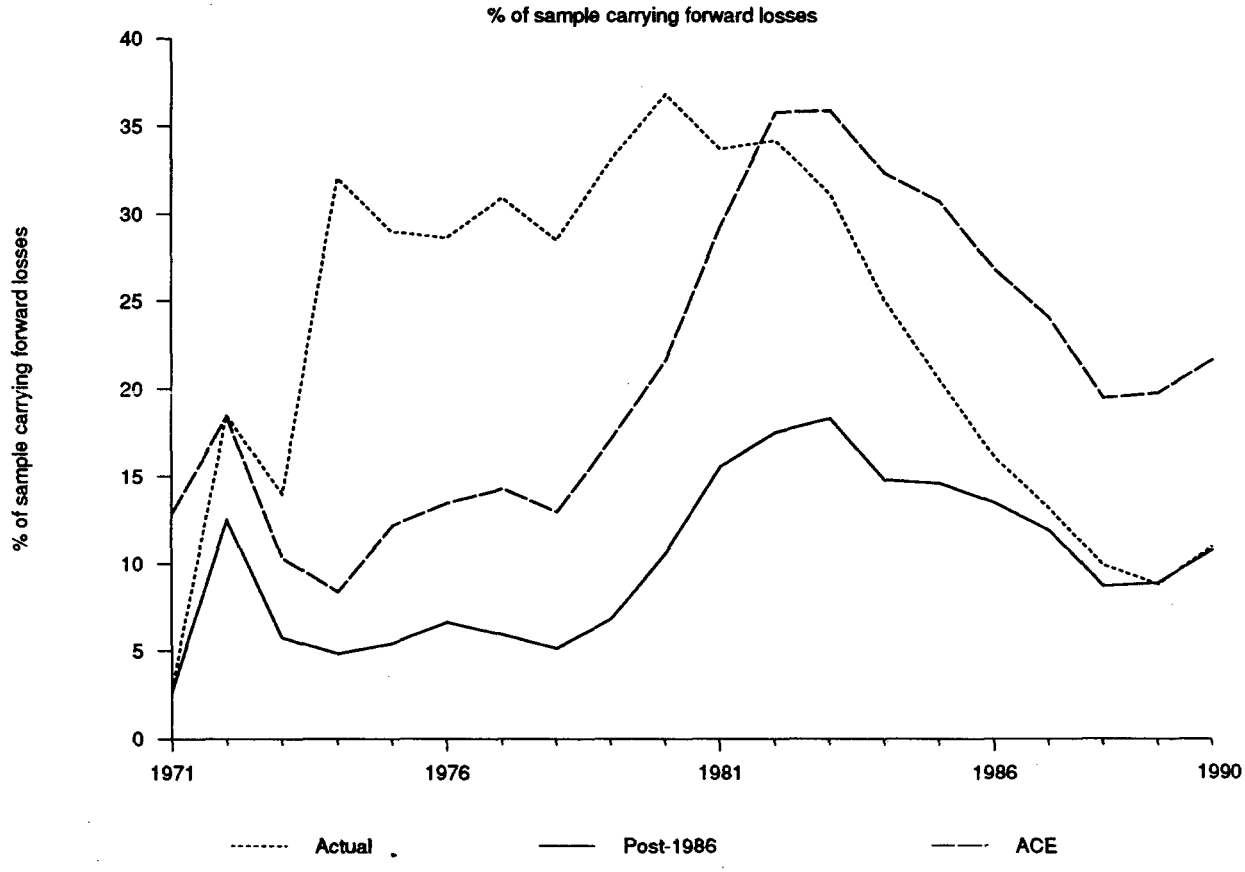
Losses and the variance of tax revenues

2.6.6 True company profits are in general far more volatile than current historic cost measures suggest. However, the treatment of losses under both the current and proposed system means that cyclical movements in profits will not be fully reflected in tax revenues.[19] The additional relief given under the ACE means that companies are more likely to be carrying forward losses at any one moment. Simulations suggest that the increase in the number of companies which are "tax-exhausted" may be substantially higher than under the 1986 system, but not as high as those actually seen in the late 1970s. Figure 2.2 shows the percentage of the sample carrying forward losses against mainstream liability, under simulations of the ACE, the 1986 system and the actual tax system.

[18] The corporation tax model uses aggregate forecasts from the January 1991 LBS forecast as the basis for future company behaviour.

[19] In periods of low profits, the revenue from each company cannot fall substantially below zero. If the company survives, losses carried forward from slumps then reduce tax payments during more prosperous years. The effect is a smoothing of the cycle.

Figure 2.2 Tax exhaustion



"Winners and losers"

2.6.7 At a revenue-neutral tax rate, companies which make relatively high rates of return may pay more tax than at present. However, this does not seem unreasonable. Shareholders in these companies will lose out to the extent that the high rates of return have been capitalised into the share price. If the rate is set to be revenue-neutral, the overall effect on the stock market should not be significant, with any gainers balanced by other losers. More importantly, any changes should be "one-off"; once the new system has been announced there may be changes in share prices, but the instability obviously cannot persist.

2.7 Future developments

Using accounting profits as a tax base

2.7.1 The definition of taxable profits in the UK differs from accounting conventions, particularly in those areas where more subjective assessments are required, for example the appropriate level of depreciation and the value of appreciating assets. In the interests of conservatism, our proposal has been framed entirely in terms of the current basis of computation for tax purposes. However, the flexibility of the ACE base, particularly with regard to depreciation allowances, would allow a move towards the use of conventional accounting definitions of profit without loss of long-term revenue. This requires further thought, rather than being an integral part of our proposal.

2.7.2 Theoretically, the company could be given the option to include real rises in the value of the company's assets, but only if they are revalued and the capital gains tax paid on the real gain. In this case the tax charge will be offset by higher future allowances.[20] It seems unlikely that many companies will actually wish to take advantage of the option, for liquidity reasons, but if it suits their cash-flow profile to "invest" in future tax allowances, there seems no reason to prevent this.

Close companies

2.7.3 Owner-employees are able to pay themselves in the form of income which pays the lowest tax rate. At present, there is a bias towards receiving dividends, which benefit from imputation and avoid National Insurance, rather than salary. In general if the tax rate on dividends or salary is high, there will be an incentive to retain profits

[20] Revaluing downwards would be more problematic. In principle we can allow the company to choose its own pattern of tax payments within the constraints of the system. In practice there are good reasons to limit the amount of possible tax deferral. In the case of downward revaluation, although the present value of future tax allowances to the firm would be reduced to a level equivalent to the tax credit given, it seems unlikely that the government would see it that way, and with some justification. This process is essentially an equal exchange of present tax payments or credits for future ones. The government will exist in the future to give credits against tax paid now, but companies may not be there in the future to pay taxes against the credits they receive now.

within the company rather than pay them out in the way of salary. Under the ACE system this will simply be recorded as an extra profit and taxed at the full corporation tax rate.

Extending the ACE to unincorporated business

2.7.4 The artificial division between profits arising in the incorporated and unincorporated sectors is somewhat unsatisfactory, both for practical reasons and in terms of economic efficiency. Appendix A outlines ways in which the ACE system could be extended to unincorporated business to avoid any heightening of these barriers.

2.8 Summary

This chapter described how to set up a neutral corporation tax system based on true economic profits. It then assessed the practical problems involved and suggested that a simpler version, the ACE, would give the advantages of a neutral base, with the additional attraction of being relatively simple, close to the present system and involving a smooth pattern of tax payments and credits. This involves simply removing the (rather half-hearted) indexation provisions of the present system, and replacing the imputation system with another kind of relief for equity investments.

3 The flow of funds base

3.1 Introduction

3.1.1 Many commentators, notably the Meade Committee (1978) and Edwards (1982a), have advocated the adoption of a *flow of funds* base, sometimes called a *cash-flow* base. This type of system can provide a tax at the corporate level that is largely neutral to domestic investment decisions, and that is based on identifiable flows of funds, rather than giving arbitrary or notional allowances.

3.1.2 It can be seen either as a way to increase the tax revenues raised from company profits over and above personal tax liabilities without creating further economic distortions, or as a flat rate expenditure tax on investment income, in the absence of personal taxation.

3.1.3 The first part of this chapter describes the general structure of the flow of funds base, and distinguishes its various formats. The second part evaluates the base in the light of the criteria set up in the introduction, and discusses its relationship to taxes on profits. The final part discusses administrative issues, and the operation of the flow of funds base in the international context.

3.2 The structure of the flow of funds base

3.2.1 In general the flow of funds base taxes all inflows of funds to the company and gives relief for all outflows, whether these correspond to current or capital expenditure. Within this general framework there are two basic formats, the "Real" or R-base and the "Real and Financial" or R+F-base.

The R-base

3.2.2 Under an R-base, companies are taxed on all inflows of cash from their *real* activities, i.e. their trading profits including the proceeds of any asset sales. Investment attracts a 100% initial allowance, so that profits retained and reinvested are not taxed at all. Capital expenditure has effectively been written off immediately for tax purposes and therefore there are no further capital allowances, nor are there any allowances for financial costs.

3.2.3 Although the R-base works well for straightforward trading companies, it is less satisfactory for financial companies of any kind. The problem is that payments for "real" services may be expressed as financial costs; banks for example charge for their services in the form of reduced or zero interest rates paid on accounts held with them. In principle we can distinguish between the "real" and "financial" elements of the charges, but in practice this is clearly impossible and separate arrangements would have to be made for companies dealing in these areas.

The R+F-base

3.2.4 Under an R+F-base, firms are taxed on the difference between all cash inflows and all cash outflows, including financial transactions, except dealings in shares and issues of new equity and dividends. In practice this means that 100% initial allowances would be given, with no further capital allowances, just as under the R-base, but this would apply to financial as well as real assets. Relief would be given for net nominal interest payments as at present, but net receipts of loan capital would also be taxable as a cash inflow.[1]

The S-base

3.2.5 The S-base is really simply another way of looking at the R+F-base. The symmetry of the balance sheet means that changes in net outflows on the real and financial accounts must be matched by changes in the share account. That is, any excess of inflows over outflows must be used to pay a dividend or to buy shares in another company. The S-base taxes dividends and net purchases of shares in other companies, and gives relief for new equity issued. Although the flow of funds taxed under the S-base is the same as under the R+F-base, the S-base is simpler to administer because so few transactions need to be monitored.

[1] Receipts of interest would attract a tax charge, and repayments of loans would attract relief.

3.3 Properties of the flow of funds base

3.3.1 The flow of funds base should be neutral with respect to all investment and financing decisions. The reasoning behind this argument can be illustrated with a few simple numerical examples. For simplicity the examples are framed in terms of the R+F-base, but the general results are applicable to all the formats.

3.3.2 Turning first to the investment decision, a tax system is neutral if marginal projects - investments which are just worthwhile undertaking in the absence of tax - attract no tax charge. Under the flow of funds base, all investments attract an immediate tax relief, but are taxed as they bear fruit. The granting of the tax relief means that the government has effectively taken a share, as a "sleeping partner", in the project. Although the eventual return is taxed, the rate of return which the company gets is exactly the same as in the absence of tax. If the company achieves a high rate of return, the government will share in this good fortune in the form of higher tax revenues.

3.3.3 This effect is shown in Table 3.1. We assume that the tax rate is 35%, that the inflation rate is zero and that the interest rate is 10%. A company wishes to invest £1000, using new equity or taxable retained earnings. On the left-hand side of the table, we consider a "marginal project", which makes a return just high enough, in the absence of tax, to cover both depreciation costs and the opportunity cost of capital. The company can pay out a net dividend of £1100, a 10% rate of return on its investment.

3.3.4 In the middle column we introduce an R+F-base tax system. An asset is bought for £1538, the company contributing £1000 and the government adding a tax credit of £538. The next year, the company receives its return, and sells the asset. It is taxed on both its trading profits before depreciation and the total sale proceeds. It can then pay out a net dividend of £1100, representing a 10% return on the original contribution, the same rate of return as in the absence of tax. The government gets tax revenue of £592, representing a 10% "return" on the initial tax credit of £538.

3.3.5 In the right-hand column, the assets would deliver a 20% return in the absence of tax. When we add the tax system the company still makes a 20% return on its investment. The government now gets tax revenue of £646, representing a 20% "return" on the initial tax credit.

Table 3.1
The flow of funds base

		No tax 10% return	Marginal project 10% return	High return project 20% return
Year 0	Company invests	1000	1000	1000
Year 1	Tax credit	-	538	538
	Asset bought for	1000	1538	1538
	Trading profit	200	308	462
	Depreciation	100	154	154
	Asset sold for	900	1384	1384
	Taxable profit	-	1692	1846
	Tax due	-	592	646
	Net dividend	1100	1100	1200
	Rate of return	**10%**	**10%**	**20%**

Interest rate=10%. Depreciation rate=10%.
Inflation rate=0%. We assume that the rate of return does not alter with the project size.

3.3.6 The system is neutral with respect to investment decisions because the rate of return on marginal projects is unchanged by the introduction of the tax; in the example the company gets a 10% return, whether or not there is a tax system. It is neutral to the type of investment because all assets are treated identically for tax purposes; there are no separate depreciation allowances.

Debt-financed investment

3.3.7 Under an R+F-base, inflows of debt finance are taxed, but this charge is immediately returned as long as the money is invested. Looking at a marginal project, which gives a return equal to the interest rate

in the absence of tax, we see that the imposition of a tax leads to no net tax charge or credit. Again the system is neutral to investment decisions.

Table 3.2
Debt-financed investment

		Marginal project 10% return
Year 0	Company borrows	1000
Year 1	Tax charge	350
	Company contributes	650
	Tax credit	350
	Asset bought for	1000
	Trading profit	200
	Depreciation	100
	Asset sold for	900
	Principal+interest	1100
	Taxable profit	0
	Tax due	0

3.3.8 If the rate of return is the same before and after tax, then how does the government raise any revenue? Clearly, the government makes the same "rate of return" on its tax credits as the company makes on its investments. If the company makes a high rate of return, the government also does well, and if the company performs poorly, the government also loses out.

Dealing with inflation

3.3.9 The flow of funds base requires no indexation for inflation; after all there are no allowances to index. Table 3.3 repeats one of the examples in Table 3.1, for a project with a 20% return, but adds inflation at 10%. In the left-hand column all values are entered at current prices. The effect is to raise the money value of tax payments, but the real level remains constant.

Table 3.3
Dealing with inflation
High return project
20% return

		Zero inflation	10% inflation
Year 0	Company invests	1000	1000
Year 1	Tax credit	538	538
	Asset bought for	1538	1538
	Trading profit	462	508
	Depreciation	154	169
	Asset sold for	1384	1522
	Taxable profit	1846	2031
	Tax due @ 35%	646	711
	Net profit	1200	1320
	In year 0 prices	1200	1200
	Real rate of return	**20%**	**20%**

Financial neutrality

3.3.10 The flow of funds base is neutral with respect to the source of finance, because the post-tax rate of return gained by the company is not altered by the financing method chosen, as Tables 3.1 and 3.2 show. The only difference between debt and equity finance is that the tax system gives a positive credit for equity-financed investment, allowing the company to invest in a more expensive asset.[2]

3.3.11 Even though the system appears to discriminate against distributions, it is still neutral between finance through new equity issues and retained earnings. There is no tax charge due if profits are retained, but there is also no net tax charge due if profits are distributed and then reinvested in the same or another UK company,

[2] This may make a difference if investment opportunities are limited, or if the company faces borrowing constraints based on the pre-tax value of its assets. See Boadway, Bruce and Mintz (1983) for a discussion of some of these effects.

because a tax credit is given for new equity issues. That is, the apparent bias against dividends is in fact a bias against dividends being extracted and spent rather than being reinvested.

Relationship to a profits base

3.3.12 In the long term a flow of funds base should tax exactly the same flows as a tax on true economic profits or an ACE system. The difference is that under a flow of funds base the government gives a tax credit for the whole of any investment the company makes, effectively taking a share in the asset, whereas under a profits base the government pays a credit for funds invested each year at the level of the interest rate.

3.3.13 One apparent problem is that by giving a tax credit for the equity put in, it appears that the shareholders are getting an asset for nothing. However, although the tax credit increases the value of the assets held within the company, the shareholders cannot actually get at the extra assets without paying tax.[3] The situation is identical to an expenditure tax (or a pension fund): the government gives a tax credit initially, but recovers it as soon as the saver tries to spend any of the money. That is, this problem only exists if we make the conceptual error of treating the company as if it were a person itself.

3.3.14 One counter-argument is that this destroys the principle that the assets shown in the company balance sheet should reflect the value of the company to its owners. However, historic cost accounts do not attempt to reflect the current value of the assets to the company's owners in the presence of inflation, and adjusting them to do so is difficult if not impossible. In addition such accounts often exclude assets such as brands, market position and staff skills, which may be much more valuable than the company's fixed assets, i.e. the stock market valuation represents the value of the company's assets, and this is rarely the same as the balance sheet value. Finally, the accounts only ever show the pre-tax position, and this is as much the case under a flow of funds base as under a profits base.

[3] i.e. the additional asset is balanced by an additional future tax liability, and the value to the shareholder remains the same.

3.4 Interaction with the personal tax system

3.4.1 It has been argued[4] that a flow of funds tax at the corporate level is inconsistent with an income tax at the personal level. This is strictly untrue, although there are some problems in the personal tax system which are made more severe than under the present system. The flow of funds base is internally neutral and is therefore designed to work in a classical relationship with a personal tax system which is also internally neutral. This is shown in Table 3.4 illustrating the interaction between the flow of funds base and a comprehensive income tax or an expenditure tax.

3.4.2 The rate of return that the company is able to pay is the same as in the absence of tax, in this example 10%. In the case of an expenditure tax, or an EXPEP, the saver also enjoys this rate of return. In the case of the income tax, the saver gets a lower rate of return, but this is a feature of the personal tax system, not of the flow of funds corporation tax.

Table 3.4
Interaction with the personal tax system

Flow of funds plus:	CIT	Expenditure tax
Saver puts in	65	48.75
Personal tax credit	-	16.25
Equity issued	65	65
Tax credit @ 35%	35	35
Asset bought for	100	100
Project return 10%	10	10
Company pays out	6.50	6.50
Share value[a]	65	65
less Income tax @ 25%	4.87	4.87
Rate of return	**7.5%**	**10%**

[a] The share is now worth £65, and can be sold with no capital gains tax payable.

[4] for example in the 1982 Green Paper, Sections 7.38 to 7.42.

3.4.3 One possible argument is that the corporation tax system could be used to offset some of the ill effects of a non-neutral personal tax system. The current corporate tax system attempts to deal with two problems of the present personal tax system.

3.4.4 First, the deferral of tax on capital gains until realisation and the high personal allowances mean that the effective accruals rate is close to zero. Profits retained within the company are therefore not taxed at all at the personal level. The imputation system apparently redresses some of this imbalance by reducing the tax rate on distributed profits.

3.4.5 However, this offset is somewhat imperfect. Many shareholders, in particular pension funds, do face a neutral personal tax system. Furthermore, the effective tax rate on retained profits depends not only on the capital gains tax rate, but also on any future tax or benefit which may be claimed.[5] Under these circumstances the preferable course of action is clearly to have a neutral corporation tax, and move the personal tax system towards neutrality.

3.4.6 Secondly, if the personal tax system taxes the purely nominal element of interest income, then this may be partly balanced by making purely nominal payments deductible at the company level. However, the conditions under which the two exactly balance vary according to the personal tax rate of the lender, who may not be subject to UK personal tax at all.[6]

[5] If the shareholder sells the share its value will depend on, among other things, whether the profit will be paid out in a subsequent year, and the tax rate of possible buyers.

[6] and in any case this will not apply to lending to the non-corporate sector.

3.5 Practical issues

3.5.1 The practical problems associated with the flow of funds base spring from two sources: first the fact that the government gives an up-front relief from tax on all investment, and the worry that this may be too generous in either the long or the short term, and secondly the unfamiliarity of the system.

3.5.2 There is always a danger that we might compare the current, functioning system, with all its defects, to an idealised flow of funds base. The current profits base, after all, functions not only on its basic structure but also relies on a wealth of practice and experience built up over many years, not just from the UK but also from other countries. If we move to a very different kind of system this set of conventions will no longer apply, and a new set will have to be constructed.

3.5.3 A counter-argument, which has much in its favour, is that the complexity of current practice reflects the weaknesses of the current system. The flow of funds base, since it does not distinguish between asset types and neither in general between different financing instruments, simply does not require so many rules and conventions.

The incentive to retain earnings

3.5.4 Under a flow of funds, and most noticeably under an S-base, only distributed earnings are taxed, and this appears to be an incentive to retain all earnings, thereby paying no tax. As argued above, for a taxpaying shareholder under an income tax, this incentive already exists. However, a large proportion of shareholders are zero-rated (i.e. pension funds). For these shareholders we might expect some behavioural change in that the present system penalises investment through retained earnings quite heavily; however, this is a recognition of the neutrality of the ACE system and is not a disadvantage.

3.5.5 In some situations it might be argued that the managers, or more seriously the owner-managers, of a company will have increased possibilities to finance their own consumption with a government

subsidy.[7] The use of a company's funds for the personal consumption of its managers without them paying income tax on these benefits is an avoidance problem under any corporate tax system, but it is not clear that it is worse under a flow of funds base than under a profits base. In the case of current expenses, the two bases have identical problems. In the case of capital assets, the S-base does not tax funds reinvested, but the profits base gives depreciation allowances, and interest relief for the cost of buying the asset; clearly, the two bases face the same problem, but with a different pattern of credits.[8]

Tax rates

3.5.6 The overwhelming objection cited in the Green Paper against a "company expenditure tax" was that it would involve ridiculously high tax rates to raise the same amount of money as a profits tax. Edwards (1982b) suggests that this result was produced by misunderstanding the relationship between the corporate and personal tax systems as discussed above.

3.5.7 The rate would almost certainly be higher than at present, but the point is precisely that there are some elements of the current tax base that should not be included. The present base is quite wide partly because it raises money on purely nominal gains due to non-indexation, and partly because it is a tax on capital as well as a tax on economic rents; a neutral real profits tax would also have to have a higher tax rate for a given yield. A neutral profits tax and an R+F-base with the same tax rate should raise the same amount of revenue in present value terms.

[7] If the company buys a house, the government effectively owns 35% of it. If the house is used as personal consumption by the managers then the government has subsidised their consumption.

[8] The problem of running off with the government's money has also to be considered. In the case of an expenditure tax, the argument was that the tax credit was held by a licensed fund manager, making it impossible for the saver to simply run off with the cash (although possibly profitable for the fund manager). In this case the "saver" is the shareholder but the set-up is similar; i.e. the managers may be able to steal the shareholders' money and the tax due to the government, but it is more difficult to see the shareholders being able to do so (unless of course shareholders and managers are the same people).

3.5.8 In any event, having a neutral system defuses many of the arguments against high tax rates. That is, high rates are no longer a disincentive to invest; the tax is levied only on gains which will be made anyway. Secondly, the total tax burden on business need not increase; it will simply be redistributed from businesses earning low (but economically viable) returns to those earning very high returns, whose decisions will not be affected by the higher burden. The only remaining argument is that a very high rate on particular transactions increases the incentive to avoid tax by not reporting the particular transaction; this depends on the relative level of the tax rates.

Expected tax rates and the level of dividends

3.5.9 One problem might be that if the tax rate is expected to fall, it will always be economically viable to retain cash within the company, by reinvesting it, rather than pay it out. That is, if the real capital gain in the value of the shares represents future post-tax dividends, shareholders can effectively "choose" the lowest future tax rate.[9] This problem also exists with an expenditure tax, where savers may be tempted to alter their consumption decisions to get maximum advantage from tax changes. One counter-argument is that it is also possible to time profits (or income) so as to face lower tax rates, although probably to a lesser degree. However, this problem is more serious than for an expenditure tax; the saver can only trade post-tax returns against preferences to consume in different fiscal years. The investor in this case may be able to "consume" at any time by selling on his shares to people with other preferences, and effectively face the low future expected tax rate.

Which flow of funds base?

3.5.10 The particular choice of flow of funds base is mainly a matter of practical differences. The R-base cannot deal effectively with financial companies, and therefore seems the weakest of the

[9] Taking this argument to its extreme, if in the very long run, but in the lifetime of the company, we expected tax rates to fall to zero, the real capital gain would represent current profits free of all tax. This is the case as long as someone is willing to buy the shares, and they can be passed on until the tax rate falls.

formats.[10] The R+F and S bases are really just different ways of achieving an identical result, although the S-base requires fewer transactions to be monitored. The Meade Committee (1978), in a more extensive discussion, suggests that the R+F-base, which is somewhat closer in structure to a conventional profits base, could be used as a convenient transitional scheme, moving the system eventually towards an S-base.

Credits and government cash flow

3.5.11 No system of allowances can work effectively if companies are unable to claim credits when they are due. The problems of the current system in this respect are well known. In practice, however, the government has proved reluctant to give either cash credit or interest mark-ups for unclaimed tax losses. Flow of funds bases appear more problematic in this respect in that allowances can be very large, and will often precede revenues.[11]

3.5.12 The government's cash flow position is also a practical concern. However, the unevenness of payments from each individual company does not mean that revenues will be uneven in aggregate.

Transition

3.5.13 Moving to a flow of funds system will clearly have some transitional problems. Under an S-base, companies are taxed on the total value of sales of assets, if and when the proceeds are paid out. This is only neutral if a tax credit was given on the initial equity investment, and clearly this will not be the case for past investments. Furthermore, under the present system, there is a bias against equity investment. The Meade Report considers two companies, A with high gearing, B with low gearing. After a switch to an S-base, A can issue new

[10] although Boadway, Bruce and Mintz (1983) argued that an R-base with a separate tax on financial transactions might be preferable to an S-base or R+F-base.

[11] This is most easily seen under the S-base formulation. Net repayments by the government will only be required when equity issues exceed dividend payments, i.e. in practice when a company is first quoted or when it issues substantial new share capital. In practice, equity issues are often large due to the high fixed costs of issuing, and may take place precisely at a time of high investment and low taxable profits.

equity and pay off its debts, with a corresponding tax credit, leaving it in the same financing situation as B. That is, those companies most penalised by the present system will gain least from the switch-over.

3.5.14 One answer would be that future investment is the key issue, and taxing past investment more heavily than expected will not alter future behaviour, however unfair it might seem. If companies choose to bring the entire stock of investment onto the flow of funds basis they can do this by liquidating and issuing new equity, but they will obviously be liable to tax on the proceeds.

3.5.15 An alternative would be to divide assets into pre-reform and post-reform assets, continue to give depreciation allowances on the old assets, and tax only the difference between the sale price and the tax-written-down value on disposal. However, this would drive a wedge between the "new" and "old" assets, which could persist indefinitely.[12]

[12] A compromise would be to allow the company to revalue its assets during a transition period, be taxed on the proceeds on the conventional basis, and then receive a tax credit on the "new" asset under the new system. At the end of this period, all tax would be levied on a flow of funds basis, and any company which has not revalued its assets loses out. However, this depends on reasonable agreements on valuation, and the implications for the government's cash flow could be rather severe.

3.6 The international context

3.6.1 It has been argued that the adoption of a flow of funds base for corporation tax in the UK would create serious problems in considering international investment, because other countries would still have profit taxes and because conventional double tax agreements would not necessarily be appropriate for a flow of funds base. Edwards (1982b) has argued that any problems are far less serious than they initially seem, but some difficulties do arise.

Investment through subsidiaries

3.6.2 For outwards investment under a flow of funds base, investment in overseas assets would not attract a tax credit, to prevent companies from claiming an initial tax relief but never repatriating the eventual profits. Double tax relief on repatriated profits could then be claimed as at present.[13] This might well result in a bias towards domestic investment, but this is only to be expected if the UK has a neutral tax system and other countries employ non-neutral systems.

3.6.3 For inward investment, the UK subsidiary of a foreign company would be taxed on the same basis as any other company operating in the UK. One standard objection to moving in the direction of any of the flow of funds options is that foreign governments will consider the credits (or allowances under an R-base or R+F-base) as an unfair incentive for their own firms to invest in the UK rather than domestically, and will therefore refuse to give credit for UK tax paid. In this respect they are quite correct; if they continue to give credit, there will be an added incentive to invest in the UK. However, if they refuse to give credit there will be neither an incentive nor a disincentive to invest in the UK via a subsidiary rather than abroad, and we should be no worse off than under the present system.

3.6.4 Furthermore, the S-base requires the imposition of a withholding tax to restore the basis of negotiation on the return of imputation credits to UK companies investing, and being taxed, abroad.

[13] An alternative would be to allow the initial relief, but to deny double tax relief; see Meade Committee (1978, Appendices 21.2 and 21.3) for a more detailed discussion.

3.6.5 This initially seems impossible; if the taxation of the return alone is considered, then it appears that a refusal to give credit will bias foreign companies from investing in the UK because they will be taxed twice on the proceeds. However, if we look at the whole picture, from the initial investment through to the paying and taxing of the return, then we see that this problem is illusory. That is, the tax credit given for UK investment means that the post-tax rate of return is the same as the pre-tax rate of return (as shown above).

3.6.6 Considering a very simple example, a foreign company has £65 to invest, either in its country of residence or in the UK via a subsidiary. The rate of return for either project is the same, say 10%. Depreciation and inflation are assumed zero. The investment is done through a UK subsidiary. It faces a domestic tax rate of 40% and a UK S-base system with a 35% rate. There is no double tax relief.

Table 3.5
Inward investment

	UK project	Domestic project
Foreign company raises cash	65	65
Buys equity in UK subsidiary	65	
Equity issued	65	
Tax credit @ 35%	35	
Asset bought for	100	65
Project return 10%	10	6.50
CT on dividends @ 35%	3.50	
Subsidiary pays to parent	6.50	
Share value	65	
Foreign tax @ 40%	2.60	2.60
Parent receives	3.90	3.90
Rate of return	**6%**	**6%**

3.6.7 So, with no credit given, each option yields a 6% after-tax return, and there can be no distortions of the investment decision other than those introduced by foreign tax systems.[14] That is, if the US tax system is neutral then it will be neutral for a UK investment, and if it constitutes a tax on capital (by failing to give relief for the cost of equity finance) then this will also hold for the UK project.

3.6.8 This basic analysis still holds if we make the example more realistic by including depreciation, inflation and depreciation allowances, so long as foreign tax systems do not give extra incentives for domestic investments only. That is, if the foreign government gives overgenerous depreciation allowances, then we should not be surprised if this gives an incentive for foreign companies to invest domestically; they will face an advantageous system for investing in their own countries, and a neutral system for investing in the UK.[15] However, this is also the case under non-neutral profits taxes in each country, even with full double tax relief.

Investment through branches

3.6.9 The set-up is far less satisfactory for investment through branches. For outwards investment, it may be difficult to restrict the tax credit on assets bought abroad. It should be possible in principle under an R-base or R+F-base in that any tax credit is made on the basis of a particular investment. There is a danger that such distinctions would compromise the essential simplicity of the S-base.

[14] We should note, however, that this assumes that the project can be any size (£100 in the UK or £65 abroad) or that there is another investment opportunity with the same rate of return. If there are limited opportunities to invest in high-yielding projects then it may be worth "cutting out" the UK government and investing in the domestic project.

[15] With perfect capital markets, this should not make any difference to the level of investment in the UK; the only effect should be to encourage some uneconomic investments abroad. However, if firms face liquidity constraints, and are unable to undertake all economically viable projects, then such a distortion will move US projects further up the "pecking order of profitability" in place of UK projects with higher underlying returns, thereby reducing UK investment.

3.6.10 For inward investment through a branch, there is a possibility that foreign governments will not give credit for UK tax and will tax the whole of the branch profits. Under the flow of funds base, as explained above, the UK government effectively takes a share in every investment project. If the foreign government takes no account of this, the company will end up paying tax not only on its "share" of the profits, but also on the government's share, creating a disincentive to invest in the UK. Even if account is taken of the UK tax due, the very different timing of reliefs under a flow of funds and a profit base may mean that the branch is overtaxed in some years.

3.7 Summary

The flow of funds base provides a simple and neutral method of levying a corporation tax. The case for its adoption has been forcefully and persuasively argued by many commentators. Its weaknesses lie in two key areas. The first is that it requires that the government give *up-front relief* for all investment. Governments are notoriously unwilling to give this type of relief, partly out of fear for the cash flow consequences, and partly because companies are effectively given control over one of the government's assets. The second weakness is the *unfamiliarity* of the system, and the fact that all of our competitor countries levy a corporation tax on profits. Finally, the treatment of international investment through branches is unsatisfactory, and the treatment of investment through subsidiaries somewhat confusing.[16] All of these objections, as the reader will recognise, are susceptible to further persuasive argument or practical solution, but they do give us good cause to search for alternatives.

[16] although no less confusing perhaps than current arrangements.

4 A flat rate tax on corporate income

4.1 Introduction

4.1.1 One of the major difficulties involved in taxing companies arises from the interaction between the corporate and personal tax systems, in particular from the different treatment of income according to the manner in which it is received, and from the different rates of personal tax that investors face. In this chapter we consider an option which radically simplifies this interaction. A flat rate tax is simply a tax levied at a single rate on corporate income, regardless of the form in which it is taken, with no further tax due or refundable.

4.1.2 The flat rate option is not strictly a base for corporation tax; the definition of corporate income can be argued for quite separately. But it is a cogent direction for reform, and this is why it deserves consideration here. Of course this means that there is no particular "flat rate tax"; certain commentators (notably King (1987)) have simply argued its merits at various times.

4.1.3 The first part of this chapter briefly describes the relationship of the flat rate tax to the current system, and suggests a model package along these lines. The second part looks at the strengths of this type of scheme. The final part examines its limitations and the relationship between the tax treatment of capital in the corporate sector and other sectors.

4.2 Structure of the flat rate tax

4.2.1 The flat rate tax imposes an equal total corporate and personal tax rate on profits however they arise and however they are paid out. Starting from the present system this can be achieved by setting equal the corporate tax rate and the personal tax rate on interest arising in the corporate sector and giving a full imputation credit. In practice all income tax on dividends and interest would be deducted at source leaving no further tax liability nor refund for the shareholder.

4.2.2 There is no necessity for corporate income to be taxed at any particular rate; a higher tax rate could be imposed on profits arising within companies than on other types of investment, although it is slightly difficult to see why this should be considered desirable. For simplicity we assume for the moment that the tax would be levied at 25%.

4.2.3 A simple package of reforms along these lines (similar to that proposed by King (1987)) would be:

(a) Set a single rate of tax on investment income.
(b) Set the corporate tax rate to the basic rate of income tax.
(c) Deduct all taxes on dividends and interest at source.
(d) Phase out the tax privileges of pension funds, PEPs etc.
(e) Abolish capital gains on UK company shares or introduce a capital disposals tax[1] (or roll-over relief).

In addition the system could be partly protected against inflation by introducing some indexation measures, although strictly this is a separate issue.

(f) Index depreciation allowances.
(g) Introduce stock relief.

[1] Under a capital disposals tax, tax is levied on net disposals of shares within the scheme; see Capital Taxes Group (1987).

4.3 Properties of the system

4.3.1 The criteria by which we assess the system, as set up in Chapter 1, are economic efficiency, equity and administrative simplicity. Economic efficiency is concerned with the neutrality of the system with respect to the level and type of investment, and with respect to the source of finance and payout policy.

Investment incentives

4.3.2 This system is designed to impose an equal tax on all capital income. Whether the system discourages investment depends on the behaviour of savers. As with any income tax, if companies find that they have to pay out higher rates of return to attract investment funds the result will be a disincentive to invest.

Financial neutrality

4.3.3 In the absence of inflation it is obvious that all corporate income is taxed at the same rate at source regardless of the way in which it is distributed. Neutrality with respect to the source of finance is easily and simply achieved.

4.3.4 In the presence of inflation this will not necessarily be the case. The cost of debt finance to companies is subsidised because they can deduct the purely nominal element of interest payments, but the interest rate they have to pay rises because lenders have to pay tax on the purely nominal element of interest received. Since lenders and borrowers pay the same tax rate, the rise in the interest rate should, in theory, help to offset the subsidy given to the borrower, thereby coming closer to neutrality.

Neutrality with respect to the choice of asset

4.3.5 Neutrality with respect to the type of asset depends on the successful approximation of true economic depreciation rates. In practice this method can only ever be an average over broad groups of assets. Even if depreciation allowances are close to economic depreciation at zero inflation, the value of the allowances will be eroded at any

positive rate of inflation. This problem can be reduced by indexing capital allowances.[2] The introduction of stock relief would end the present discrimination against investment in stocks caused by the taxation of purely nominal gains.

Capital gains, goodwill and unrealised assets

4.3.6 One well-known problem inherent in any CIT-based system is that it is difficult, if not impossible, to tax capital gains as they accrue. This means that the tax system encourages companies to invest in assets that generate a return in the form of a capital gain, rather than in the assets that give the highest underlying return.

4.3.7 There are various possible solutions to this problem, but none are very satisfactory in practice, particularly because it is often difficult to fix the value of an unrealised asset, and because there is a general reluctance to tax income which is not in a liquid form.

4.3.8 The group of assets which can give this tax advantage includes not only fixed assets but also various intangible assets. A company can spend money on the creation of a brand or a market position, and deduct this from its taxable profits as a current cost, but will not pay tax on the capital gain thereby generated until, or unless, the asset is actually sold. This means that there is a bias towards investment in goodwill, and companies which invest heavily in goodwill by the nature of their business gain an unfair tax advantage.

Administration

4.3.9 This option scores relatively highly on simplicity and ease of administration. All deductions can be made at source with no further tax due, nor rebates payable, thus drastically simplifying contacts between the Revenue and individual taxpayers. Furthermore, many

[2] The system can be indexed by increasing the tax-written-down values of depreciable assets in line with the rise in prices. Strictly, allowances should be indexed by the specific price index. However, if investment goods prices rise faster than the general price index, the company will also be accruing a capital gain, relative to the tax-depreciated value of the asset. Since the company has not paid tax on this gain it could be argued that using a general price is more appropriate.

of the avoidance problems associated with the introduction of independent taxation would disappear. The most serious drawback is the divide between investment and earned income, although this is only a problem to the extent that the tax rate on each differs significantly.

Treatment of capital gains on shares

4.3.10 The system helps to eliminate "clientele effects", where taxpayers can eliminate some of their personal liability on dividend payments by selling the share to an exempt institution or a PEP-holder just before payout. If current capital gains only reflect future profits which will be taxed as they arise, they need not be taxed further at the personal level. Speculative gains due to alterations in these expectations can be taxed by retaining a capital disposals tax, which ensures that the government shares in any very large gains while not penalising ordinary shareholders.[3]

Distributional and revenue effects

4.3.11 These obviously depend very heavily on the tax rate chosen,[4] and on whether the flat rate scheme extends beyond investment income in the form of company profits. With a flat rate of 25%, the profits of large companies will be taxed at a lower rate, a loss of about £4bn in corporation tax revenue,[5] and higher rate taxpayers will no longer pay a "top-up" charge on dividends received net of ACT.

4.3.12 The distributional consequences are unclear. There is good evidence (Saunders and Webb (1988)) that top rate taxpayers hold a large proportion of their assets in tax-privileged forms such as pensions

[3] Setting up a CDT for shares effectively extends an expenditure tax treatment to capital gains on shares.

[4] The Labour Party proposals to consolidate employees' National Insurance contributions into the basic rate of tax would raise the rate on earned income to 35%. It seems unlikely that a lower rate of tax on investment income than earned income would be politically acceptable. In this case the revenue gains from moving to a flat rate would be quite considerable (see Hills (1988, pp. 38-39) for a general discussion of the effects).

[5] Figure based on the 1990 Autumn Statement ready reckoner.

and PEPs. If these privileges are phased out the system will become more equitable. Hills (1988) suggested that 30% of families would lose from a similar proposal, due mostly to the rise from the composite rate. Since basic rate taxpayers are now to be taxed at the basic rate in any case, the equity effects would mostly fall on those savers who would no longer be able to set their personal tax allowances against investment income. Hills also notes that a flat rate tax levied on all investment income at a rate of 35% would be far more progressive, because of the concentration of investment income at the top end of the income distribution.

International issues

4.3.13 The flat rate tax involves no major conceptual changes from the current system. It neither creates new problems in this area, nor solves existing ones. The proposal to deduct income tax at source would presumably not apply where double tax arrangements already exist, but this seems perfectly acceptable.

4.4 Relationships with other forms of investment income

Non-business saving

4.4.1 King (1987) envisages a flat rate of tax covering all investment income. In theory there is no particular reason to tax capital that happens to end up invested in a company more heavily than money lent for other purposes. In practice lending for non-business purposes would be penalised under this scheme. This is because the nominal element of interest payments would still be heavily taxed, but this will be offset where the money is eventually invested in the corporate sector. The effect of this is to raise the cost of personal borrowing during periods of inflation.

4.4.2 Furthermore most personal lending is in the form of a mortgage. Housing would remain a privileged asset in the sense that there is no tax on the imputed income from owner-occupation, and interest payments still attract partial relief. Although this is obviously not a perfect arrangement, we could view the heavy taxation of interest receipts as partly offsetting the privileged treatment of housing.

4.4.3 The problems involved with taxing capital gains other than on corporate securities under a CIT would remain, although it has been argued that the reduction of the present CGT annual exemption limits would in practice reduce the advantages of saving to generate a capital gain for many savers.

Unincorporated business and close companies

4.4.4 There could be an incentive for owner-employees now paying higher rate tax to take their returns as profit rather than as salary. However, in the case of close companies they are already able to do this where the return is retained within the company. This will be a minor problem as long as the flat rate and higher rates of tax on salary income do not differ significantly.[6]

[6] Under a 35% flat rate tax, the rate charged on investment income would be very close to the current 40% higher rate income tax.

Effects on exempt institutions

4.4.5 The proposal involves the phasing out of PEPs and the taxation of pension fund income from companies at the very least. In the short term this is a rather ambitious programme in political terms. In the long term assaults on fiscal privileges are certainly possible as shown by the erosion of mortgage interest relief, the recent limitation of relief to the basic rate and the "capping" of pension exemptions. King (1987) suggests that the tax-free lump sum should be phased out and income tax introduced in steps over a 10-year period. Nevertheless, the political resistance to removing such well-established privileges should not be underestimated.

4.5 Summary

The flat rate system is a simple way of achieving a fairly neutral system within the general context of a comprehensive income tax. Although it has considerable appeal, it still leaves us with the problems of identifying and measuring a suitable base, in particular the problems associated with the comprehensive income tax approach, the treatment of inflation and the taxation of capital gains on accrual. Furthermore, in contrast to the reforms considered in Chapters 2 and 3, it is essentially a way of collecting income tax effectively rather than a way of raising an additional tax on company profits.

Appendix A Administrative issues

This Appendix covers some of the administrative issues in more detail. The first part discusses the assessment of shareholders' funds when there is investment in other companies, and when shareholders' funds change during the year. The second part deals with transitional issues. The third part discusses the effect of the system on small and close companies, and the prospects for extending the allowance to include unincorporated businesses. Finally the operation of the ACE system in the international context is examined.

A.1 Assessing shareholders' funds

A.1.1 Once the system is up and running, the equity allowance is based on the value of shareholders' funds as calculated for the period in question.[1] On incorporation of a company, the opening value will be the amount subscribed for the initial share capital. Thereafter the opening value of shareholders' funds is calculated as follows:

The value of shareholders' funds in the previous period
plus
+ The equity allowance given in the previous period
+ Total taxable profits (net of the equity allowance) in the previous period
+ Dividends received from UK companies
+ Net new equity issues
less
- Tax payable on taxable profits
- Dividends paid
- Net new acquisitions of shares in other companies

[1] The opening value on the introduction of the system is dealt with as part of the transitional issues.

The two guiding principles determining which items enter shareholders' funds are that the company should actually have the money to reinvest, and that, if the income is liable for tax in principle, tax should actually be paid on it. The relevant taxable profit to enter is therefore the assessment of profit in that year, with subsequent adjustments, together with any additional tax due or repayable, entered in the year in which the adjustment is made. Under certain circumstances the value of shareholders' funds may need to be adjusted during the year. These occasions are considered further below.

A.1.2 There are two major problems which compromise the essential simplicity of the equity allowance scheme. The first set of problems arises from investment in other companies. The second set arises from the annual assessment of tax liabilities, because there is no actual flow of funds associated with the opportunity cost of equity capital.

Investment in other companies

A.1.3 To avoid "double counting", subscriptions of capital in other UK companies must be excluded from shareholders' funds; the whole of the purchase price of equity investments should be deducted from shareholders' funds for the purposes of calculating the relief.

A.1.4 A number of problems arise in the taxation of the returns on investment in other companies. These problems already exist under the current system and this proposal can only improve matters. The issues are somewhat complex, and clearly require some detailed thought, but the basic questions involved are set out below.

The "transparency principle"

A.1.5 If one company holds shares in another UK company then, ideally, the parent should have no tax liability whatsoever on account of either dividends received or capital gains on the shares in the subsidiary. If profits are properly taxed at the subsidiary level, then clearly there is no need for further taxation. Furthermore, even if the return is not taxed properly at the subsidiary level, if an

intermediated investment is to be taxed at the same level as a direct investment there must still be no tax at the parent level. This idea we will call the "transparency principle".

A.1.6 Under the current system dividends are treated in precisely this manner; they simply pass untaxed through any parent company.[2] The treatment of capital gains is far more complex. The basic problem is that capital gains on assets owned by companies are not properly taxed, i.e. they are taxed on a realisation rather than an accruals basis. For example, imagine that the system were "transparent", with no tax liability at the parent level. A company could set up a subsidiary to buy an office block, accrue a huge capital gain on it, effective by selling its shares in the subsidiary, and pay no capital gains tax at all. In practice the Inland Revenue can recoup some of the lost tax on the gain by taxing the parent on the rise in the subsidiary's share value.

A.1.7 Nevertheless, in doing so there is potentially an element of double taxation because the Inland Revenue retains its right to tax the gain on the building should the subsidiary ever dispose of it. The ideal solution is clearly to tax the subsidiary properly and then invoke the transparency principle[3] to exempt the parent company altogether. The ACE at least moves closer to this arrangement; there is far less of a problem with unrealised capital gains. Although the subsidiary does not pay tax on the unrealised gains made on the office block, the taxman recoups some of this loss in the form of lower future tax allowances. Since the current value of the office block will not be reflected in shareholders' funds, the tax payable on the company's other profits will be correspondingly higher.

A.1.8 If we now believe that the office block investment is being taxed close to correctly at the subsidiary level, then, by the transparency principle, the authorities can safely exempt all capital gains at the parent level. This will not necessarily result in a windfall gain to the parent company as the price a purchaser will be prepared to pay for

[2] in the case of dividends from a UK company. Dividends from overseas companies may still be taxed.

[3] If tax was paid on an accruals basis, then in the example of the office block, the subsidiary would have paid tax on the rise in value of the building as it arose, and there would be no need for further taxation.

the subsidiary will take account of the eventual tax liability on the sale of the building and the lower tax allowances he will receive in the mean time. This may not be seen as a perfect solution, but it can only be an improvement on the current arrangements.

Holding companies

A.1.9 It may well be the case that a holding company will have financed its investment in subsidiary companies through a mixture of debt and equity. In such cases the amount invested in subsidiaries will produce negative shareholders' funds. If full interest relief were given to the holding company on its borrowings, it would have an incentive to finance its investments through borrowings rather than through equity, which would attract no allowance.

A.1.10 To adjust the position, instead of an allowance on shareholders' funds reducing taxable profits, the allowance calculated on the negative shareholders' funds would produce an amount which would be offset against the interest payable on the borrowings. Only the net interest would then be available as a deduction against the holding company's profits (if any) or surrenderable by way of group relief to its subsidiaries.

Mergers and acquisitions

A.1.11 Mergers and acquisitions require an adjustment to the calculation of the equity invested in the enlarged company. A straightforward adjustment can be achieved by one of two methods according to the manner of the acquisition.

A.1.12 Under the first method the shareholders' funds are simply added together. Under the second method, the shares of the acquired company are subtracted from the acquiring company's shareholders' funds at their purchase price. The principle behind these two approaches can best be seen by a simple example.

A.1.13 There are two companies, A and B. A has shareholders' funds of £2000 and B of £500. The capitalised equity value of B is £1000. Under the merger method, where A acquires B through the issue of shares and no funds leave the two companies, the joint share capital is now

£2500. If A issues equity for acquisition, this will increase A's shareholders' funds by £1000, leaving joint funds of £2000 + £1000 new equity, less £1000 subscription to UK shares plus £500 from the acquired B. Under the acquisition method, if A buys B for cash, the joint share capital will be £1500, the fall of £1000 being the cash paid to the former owners of B which can then be invested elsewhere.

Annual assessment

A.1.14 The equity capital invested in a company at any one time includes all accrued profits retained within the company, net of tax. Under an annual assessment basis, we can simply take the beginning-of-year value, but it is arguable that adjustments are necessary if the equity invested in the company changes during the year. The current tax system actually ignores most of the gains and losses that arise due to the timing of tax payments. However, under the ACE some adjustments are necessary to prevent avoidance.

Changes in share capital during the year

A.1.15 The equity invested in a company will change during the year as profits accrue, as dividends are paid out, as investments in other companies are made (or disposed of), as debt is converted into equity and as equity is issued or redeemed.

Profits accrued during the year

A.1.16 If profits are made during the year and then reinvested, these will not be included in shareholders' funds for the purposes of equity relief, apparently increasing tax liabilities. However, neither will they be taxed as they accrue; tax assessment is not even made until the end of the year. Under these circumstances it seems unnecessary to give further relief.

Dividends and redemptions

A.1.17 If dividends are paid out during the year or shares are redeemed, the equity used within the company decreases.[4] Conversely, new equity issued may increase shareholders' funds during the year. If no adjustments were made there would be an incentive to issue new equity only on the last day of the tax year and pay out dividends only on the first day of the tax year. One solution would be to adjust the relief payable when either of these events take place, i.e. if dividends are paid out during the year, the level of equity allowance would be reduced accordingly,[5] with similar but opposite arrangements for new equity issues. This is a very straightforward calculation, no more complex than adding up the interest due on any loan, and should be necessary on very few occasions in any one year.

Investments made in other companies during the year

A.1.18 In general the cost of investment in shares in other companies should not be included in shareholders' funds for ACE purposes. This causes a number of problems. If shareholders' funds are calculated at the beginning of the accounting period, a company could sell a block of shares at the end of a period and buy them back immediately after the beginning of the next period, thereby receiving too high a level of relief. This may not be a serious problem from the revenue point of view. If one UK company buys shares from another UK company, any extra relief claimed by the buying company will be offset by a loss of relief by the selling company (because the value of the shares will still be deducted from the selling company's shareholders' funds).

A.1.19 However, if no adjustments are made, then one company could invest in the equity of another company with a later accounting date, and both would claim equity relief on the same capital investment.

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[4] In principle the money could then be reinvested in another company with a different accounting date and receive a second lot of relief.

[5] For the current tax year the relief available would be $rS-(r(365-n)D)$ where r is the rate of relief, S is the beginning-of-year shareholders' funds, n is the day on which the dividend is paid, and D is the size of the dividend. Next year's shareholders' funds would then exclude all dividends paid out during the current year.

This leads to the possibility of a "cascade" of companies each with a slightly later accounting date, each investing in the next, and each claiming relief for the same original investment.[6] This problem could be particularly severe within a group unless all companies in the group have a common accounting date. However, the problem will be mitigated if adjustments are made for new equity issued.

Tax losses and credits

A.1.20 In principle only taxable profits should be added to shareholders' funds. Where a company carries back a loss and receives a tax credit, this loss should be treated as "negative profits" and deducted from shareholders' funds. Any repayment of tax should be treated as "negative tax paid" and added to shareholders' funds. However, if a company carries a loss forwards to set against future profits, the simplest way to deal with this is to treat it as "untaxed" and not to deduct it from shareholders' funds. Although this is not the only way to deal with losses, it removes the theoretical need to give an interest or inflation mark-up for unrelieved losses, and is identical to the treatment of a debt-financed project, as Table A.1 shows.

A.1.21 The equity allowance is added to shareholders' funds whatever the level of taxable profits. Unused equity allowances should be carried forward to set against future profits. In principle unused equity allowances should be treated as any other unused allowance for the purpose of group relief. It could be argued that there should be restrictions on the use of equity allowances for group relief. However, it is unclear why they should be treated any different from other reliefs.

A.1.22 The ACE system works in exactly the same way as a debt-financed investment when the interest payment is reinvested in the business each year. In Table A.1, we assume an interest rate and equity allowance rate of 10%. The company makes a loss of £20 in the first year, and carries forward the loss to be set against profits in year 2.

[6] An analogous problem also exists for the flow of funds base.

Table A.1
Losses carried forwards

Year 0	Shareholders' funds	100	Debt invested	100
Year 1	Profit	-20	Profit	-20
	ACE	10	*less* Interest paid	10
	Taxable profit	0	Taxable profit	0
	Loss carried forwards	30	Loss carried forwards	30
	Shareholders' funds	110	Debt	110
Year 2	Profit	50	Profit	50
	less ACE	-11	*less* Interest	-11
	less Loss	-30	*less* Loss	-30
	Taxable profit	9	Taxable profit	9
	Tax due @ 35%	3.15	Tax due @ 35%	3.15
	Shareholders' funds	130		

A.2 Transition

Initial shareholders' funds

A.2.1 There are two basic approaches to any tax reform; a gradual approach and an "overnight" approach (although there are obviously degrees of gradualism), each of which has its share of problems. In this context, we could apply the system to new investment only, starting shareholders' funds from zero, or we could apply the new system to existing shareholders' funds (appropriately calculated) from the first day.

A.2.2 The gradual approach offers the advantages that it is unnecessary to calculate an opening value for shareholders' funds and, if the imputation system were to be abolished immediately, the revenue cost at the current headline corporation tax rate would be negative. However, this would drive a wedge between the treatment of the new and old capital stock which would have both economic and practical consequences. From the point of view of economic efficiency, companies using new investment would have a tax advantage over those using old capital assets; "old" assets would be taxed at a rather higher level than at present.[7]

A.2.3 The practical arguments are stronger; companies would have a considerable incentive to turn "old" assets into "new" assets. In extreme cases, a company could simply liquidate, and set up again with an issue of new equity. To the extent that such action precipitated tax liabilities, the new system would be operating as intended: namely, to include in shareholders' funds those amounts that had borne tax. Nevertheless, a well-designed transitional package should obviously not encourage this kind of disruption. The gradual approach would clearly involve significant administrative difficulties in distinguishing between old and new capital so as to decide to what extent dividends or investment in other companies should reduce the growing shareholders' funds. It would add to such difficulties if it were decided to retain a modified system which allowed tax to be imputed on dividends attributable to "old" capital

[7] although the revenue earned from the abolition of the imputation system could be used to provide some sort of relief.

but not on dividends attributable to "new" capital. While such difficulties are not insuperable, they are sufficient to encourage the adoption of an alternative transitional system.

A.2.4 The alternative is to start the system overnight with some fixed initial value of shareholders' funds, and apply the new system universally. The problem here is how to estimate shareholders' funds on a reasonable basis. There are several ways to provide such an estimate. We focus on two of the more obvious methods.

A.2.5 One starting-point would be the book value of assets[8] less liabilities, as they appear in the accounts, less any untaxed revaluations if these can be identified. This value would obviously depend on past practice, but a company could not manipulate that past practice. The problem with this approach is that it may give rise to double counting in the future. If the book cost of an asset exceeded its tax-written-down value or capital gains tax base cost, then this method would include taxed amounts in shareholders' funds immediately. On a subsequent disposal of those assets an adjustment would be required to ensure that the profits arising on disposal (net of tax paid) were not added to shareholders' funds a second time.

A.2.6 Accordingly, a slight variation would be to use the capital gains tax base cost or tax-written-down value of all assets, less outstanding debts.[9] This value would not be dependent on the individual company's depreciation policy and would not include untaxed capital gains or overgenerous past depreciation allowances.

A.2.7 This would have the advantage of reducing the initial cost of the equity allowance, so that there would be no substantial revenue loss to the retention of the current statutory tax rate, as described in para. 2.6.5 and Table 2.4.

[8] including stocks and current assets but excluding shares held in other companies.

[9] Strictly some relief should also be given for indexation allowances up to the beginning of the new system, for example by adding unclaimed indexation allowances at this date to the tax-written-down values.

A.3 Close companies and unincorporated business

A.3.1 One of the major problems with extending the EXPEP proposal to companies owned by a small number of persons who also worked for the company was the ability of those persons to dictate whether the profits were taken in the form of salary, dividends or interest. The ACE system avoids this problem by ensuring that any return over the normal return earned by the company on its shareholders' funds will be subject to tax at the corporate tax rate. Unless there is a significant differential between the rate of tax on salaries and the rate of corporation tax, there will be little incentive to leave the profits in the company rather than extract them as salary.

A.3.2 Indeed, if there were to be a positive rate of tax on dividends, interest and capital gains, the rate of tax on salary could afford to be higher than the rate of corporation tax without necessarily introducing a particular bias in favour of retention against salary. In that instance, the retained profits would bear both non-imputable corporation tax and income/capital gains tax when realised by the shareholder.

A.3.3 The ACE system would itself provide a slight advantage to ensuring that the salary paid did not reduce the company's profits below the level of the equity allowance. That apart, however, if the interest in the company is held within an EXPEP, the rate of tax on dividends, interest and capital gains will be zero. Accordingly, a significant differential between the corporate tax rate and the personal rate on salaries would provide a bias towards retention. Such biases have existed in the past and ultimately can only be met by some form of apportionment of profits (in this case by way of an increase in the salary for those working for the company and owning shares in it) or by charging the company's profits at personal rather than corporate tax rates.

Small companies relief

A.3.4 It would be possible to retain a small companies rate. However, the original justification for a lower rate of tax on small companies was that they were more reliant on retained profits, and therefore benefit little from the imputation system. With the abolition of the imputation system and the adoption of relief which applies equally

to retention and debt finance this rationale disappears. We see no further reason for the continuation of the small companies rate and reliefs.

Unincorporated business

A.3.5 In our first report (*Reforming Capital Gains Tax*)[10] we drew attention to the rather messy state of unincorporated businesses. At present there are a number of significant differences in the way in which unincorporated businesses and companies are taxed. While the profits of both are calculated in the same way, at that point the similarities end. While companies are liable to corporation tax and their shareholders are taxed separately in respect of dividends and interest flows from the company, the profits of an unincorporated business proprietor are liable to income and capital gains tax in his hands and are thereafter freely withdrawable from the business without further tax consequences.

A.3.6 If the ACE scheme were to benefit companies but not unincorporated businesses, a further distinction would have been created between the two ways of carrying on business activity. On the one hand investors in companies would benefit from exemption from tax at the corporate level of the normal return on shareholders' funds. On the other hand profits over and above the normal rate of return would suffer tax at the corporate rate and, in the transition to a full EXPEP system, also in the investors' hands when distributed or realised.

A.3.7 The distinction between this and the way in which unincorporated businesses would continue to be taxed naturally reflects the fact that a business carried on in unincorporated form is fully integrated with the personal tax system. Ideally, we would wish to avoid such distinctions in the way businesses are taxed. However, in the light of the distinctions that already exist we do not consider it necessary to extend the ACE scheme to unincorporated businesses in the absence of a more fundamental review of the way in which such businesses are taxed.

[10] Capital Taxes Group (1987).

A.3.8 To the extent that the personal tax system continues to tax dividends, interest and capital gains on share disposals, the introduction of the ACE system will not discriminate against the unincorporated business. The problem arises to the extent that the EXPEP system is extended to exempt dividends, interest and capital gains on shares, in particular for the small family company. We have accordingly considered how the ACE scheme would work in the context of unincorporated businesses. The key issue is how one identifies "proprietors'" funds for an unincorporated business where there is a limited requirement to produce accounts and there is no ring fence around the business. In addition, the distinction between personal and business expenditure and use of assets may be less easy to discern in the context of an unincorporated business.

A.3.9 In our first report, we noted that it is estimated that up to 90% of all unincorporated business owners pay only basic rate income tax on their business profits. It seems likely that the majority of such businesses do not have significant capital requirements and, to the extent that they do, they will largely be met from bank borrowing, the interest on which will count as a deductible expense. In the context of a partnership, interest paid by a partner on borrowings designed to finance his partnership capital is also tax-deductible. Such capital is accordingly identified under the existing tax system. If the ACE scheme were extended to partnership businesses one of two options could be adopted:

(a) the existing interest relief system would remain but partnership capital funded by such loans would not qualify for ACE; or

(b) the existing system of interest relief would be withdrawn and the partner's capital would qualify for ACE.

A.3.10 The former appears the more attractive option because it involves no change in an existing system (Option (b) might require transitional provisions which would inevitably complicate the position and discriminate between existing partners and new partners). It also seems correct that a distinction not be drawn between partnership borrowings and borrowings by a partner to invest in the partnership business.

A.3.11 To the extent that a proprietor makes assets available to the business, an allowance can be given in computing the profits of the business based on the capital gains tax base cost of the asset. The allowance would be calculated on the base cost as reduced by any borrowings to fund the acquisition of the asset and subject to the condition (in the case of a partnership) that no deductible consideration is paid by the business for the use of the asset. The allowance would be subject to adjustment if the asset was not available to the business throughout the relevant accounting period and to the extent that it was put to private rather than business use. Such concepts are already familiar ones under the existing tax system.

A.3.12 This then leaves the rump of any capital provided to the business generally in the form of taxed profits retained in the business. In respect of such capital we would propose that to obtain the benefit of the ACE system on such funds the business would be entitled to elect to be taxed on a "company" basis. That is, a ring fence would be drawn around the business and the business would be required to draw up full accounts enabling the proprietor's funds and his drawings from the business to be identified properly.

A.4 International issues

The structure of the system

A.4.1 The proposed system taxes profits but gives relief for the equity which provided those profits. In the international context, this basically requires a distinction between equity invested in the UK and that invested outside the UK. If international investment is undertaken through an overseas subsidiary, this can be achieved fairly simply.

Exemption system

A.4.2 Under an exemption system, any investments in overseas companies would be excluded from shareholders' funds for tax purposes, by deducting the historic cost of the shareholdings, and dividends derived from the company and capital gains arising on a disposal of its shares would be exempted from UK corporation tax. This is an identical treatment to investment in a UK company. In this case, the UK system would obviously add no non-neutralities over and above those produced by the foreign tax system, because no UK tax is charged.

Credit system

A.4.3 A credit system would work very much as at present. The UK tax liability on foreign source income would be calculated as at present, with an equity allowance based on the historic value of the shareholding in the overseas company. Where the UK tax liability exceeds the foreign tax paid, an additional tranche of UK tax will be payable. In this case, the tax system as a whole must be neutral because the total tax charge is that given under the UK tax system.

A.4.4 The existence of the equity allowance will reduce the UK tax charge on the foreign income so making it less likely that the UK tax will exceed that already paid abroad. Where the double tax relief exceeds the UK tax liability no UK tax is payable, but any unused relief cannot be set against domestic operations, nor can it be carried forwards. In this case the treatment is the same as under an exemption system.

A.4.5 Table A.2 gives two versions of the credit system. In the first version, double tax relief is given only on that part of the dividend which is taxable in the UK, in this case only £50. This is essentially dividing the dividend into two parts, one of which represents the normal return on capital and is untaxed in the UK but is taxed abroad. The other part represents an actual profit and is taxable in the UK with credit given for foreign tax paid *on that part of the return*. Under the second version, all of the foreign tax can be offset against UK tax liability, clearly a more generous arrangement.

A.4.6 The issues which affect the choice between a credit and exemption method are broadly the same as under the present system, but obviously there is no surplus ACT problem. In Table A.2, the overseas tax exceeds the UK tax liability, and the credit and exemption methods deliver the same result. In Table A.3, with a low overseas tax rate, the exemption method is more generous, while the credit method delivers the same return as on an identical UK investment.

A.4.7 Consider an investment of £500 made out of either new equity or retained earnings. For simplicity, we assume that a pension fund gets the return and ignore personal taxes. The company invests £500 in the UK or buys, or subscribes for, £500 of shares in a foreign company. The interest rate is 10%, and we assume the investment makes a return of 20%.

A.4.8 What happens if profits are rolled up without becoming liable to UK tax? Although the cash actually invested in the overseas company may increase, the equity allowance is based only on the initial investment, and will not increase. That is, shareholders' funds will increase more rapidly the higher the level of repatriated profits, generating higher future tax allowances.

Table A.2
International ACE
Overseas tax 25%

	UK	Overseas credit (1)	Overseas credit (2)	Overseas exemption
Capital invested	500	500	500	500
Shareholders' funds	500	500	500	0
Profit	100	100	100	100
Foreign tax paid		25	25	25
Repatriated		75	75	75
UK taxable profits	100	100	100	0
Equity allowance	50	50	50	0
UK CT liability @ 35%	17.5	17.5	17.5	0
Double tax relief		12.5	25	
UK tax paid	17.5	5	0	0
Pension fund return	**82.5**	**70**	**75**	**75**

Table A.3
International ACE
Overseas tax 10%

	UK	Overseas credit (1)	Overseas credit (2)	Overseas exemption
Capital invested	500	500	500	500
Shareholders' funds	500	500	500	0
Profit	100	100	100	100
Foreign tax paid		10	10	10
Repatriated		90	90	90
UK taxable profits	100	100	100	0
Equity allowance	50	50	50	0
UK CT liability @ 35%	17.5	17.5	17.5	0
Double tax relief		5	10	0
UK tax paid	17.5	12.5	7.5	0
Pension fund return	**82.5**	**77.5**	**82.5**	**90**

Surplus ACT

A.4.9 Under the current system, the offset of ACT against mainstream corporate tax liabilities is limited by the level of UK taxable profits. Where the company cannot offset the ACT paid it can carry it forward to offset against future mainstream liabilities. However, companies earning a large proportion of profits overseas, but paying out substantial dividends in the UK, may never have sufficient mainstream liabilities to use up their surplus ACT. The result is a bias against investment abroad compared with identical operations in the UK.

A.4.10 The ACE system strictly solves the surplus ACT problem, by setting up a classical relationship between the personal and corporate tax systems. This can be seen most clearly where the equity allowance is negligible, as in Table A.4. Nevertheless, because the first part of UK profits is exempt from tax, whereas the first part of foreign profits is not, there can still be a substantial bias against overseas investment, where the size of this bias depends on the level of the tax rates, and the proportion of total profits which are exempt in the UK.

A.4.11 In Table A.4, we assume that the equity allowance is negligible and that the project makes a very high return. In this case, the post-tax returns on a foreign and domestic project are the same. Where the equity allowance is substantial, then obviously there will be a bias towards the UK project.

Table A.4
Surplus ACT

	Current system		ACE system	
	UK	overseas	UK	overseas
Profit	100	100	100	100
Foreign tax paid		35		35
Repatriated		65		65
UK taxable profits	100	100	100	100
Equity allowance	-	-	0	0
CT liability @ 35%	35	35	35	35
Double tax relief	0	35	0	35
Net dividend	65	48.75	65	65
ACT due	21.66	16.25	-	-
CT due	13.33	0	35	0
Surplus ACT		16.25	-	-
Pension fund return	**86.66**	**65**	**65**	**65**

Inward investment

A.4.12 Inward investment through a subsidiary would be relatively straightforward. The UK subsidiaries of foreign companies would be dealt with just as any other UK company, as at present.

Outward investment through branches

A.4.13 The treatment of branches is more problematic, but the problems do not seem insoluble. At present, where a UK company establishes a branch overseas it remains taxable in the UK on its total profits, including those earned through the foreign branch. Tax is also likely to be due on the profits attributable to the branch in the host country and that tax can be credited against the company's UK tax liability or deducted if it has no UK tax liability.

A.4.14 There seems to be no reason to depart from this basic treatment under the ACE system. As the company remains chargeable to UK tax on its branch profits, it should remain entitled to a full allowance for the

capital it effectively invests in the branch. However, as noted above, in giving credit for the foreign tax paid, a decision is required as to whether the credit is limited to the foreign tax paid on that part of the profits that are charged to UK tax, after allowing for the equity allowance on the capital invested in the branch. This would require the company to identify the amount of the free capital attributable to the branch.

Inward investment through branches

A.4.15 Equal treatment of inward investment through branches would involve an assessment of the shareholders' funds (or "branch capital") for tax purposes held within the branch. The issues here are similar to those for unincorporated businesses but with the added complication that the proprietor of the business is outside the UK. The ACE system could (as with unincorporated businesses) provide an allowance based on the cost of chargeable branch assets, not of the amount of that investment funded by debt for which an interest deduction is claimed and subject to restriction if the assets were not used for the purposes of the branch throughout the period. However, a branch, as opposed to a subsidiary but as with a partnership, can remit profits abroad and inject new funds entirely informally, without the declaration of any dividend or the procedures for issuing or redeeming shares.

A.4.16 This freedom creates two problems. First, it might be possible for the foreign company to build up the branch capital on a temporary basis over the year and to ensure a higher equity allowance against the branch profits. This would not arise in respect of branch capital invested in branch assets which could be shown to be in use for the purposes of the branch throughout the period. Secondly, if a withholding tax is applied to dividends paid by subsidiaries of foreign parent companies, there would be a bias in favour of branch operations over a subsidiary as without any withholding on branch remittances the normal return on branch capital would escape a UK tax charge altogether.

A.4.17 While these problems may have to be addressed if the ACE system is to be extended to branch operating, they do not appear to be insuperable. One option for dealing with branches would be to make the availability of the ACE allowance conditional upon the branch

being "ring-fenced" so that, in effect, it is treated in the same way as a company. Strictly this might necessitate imposing a withholding tax on branch remittances. However, an alternative way of achieving a similar result would be to restrict the equity allowance in each period as if the profits of the branch had been fully distributed and then reinvested in the UK net of the withholding tax.

Withholding taxes and imputation systems

A.4.18 The ACE package suggested in Chapter 2 includes a withholding tax levied on dividend payments which would be set against a UK income tax liability or repaid. The rate of withholding tax would be reduced in accordance with current double tax treaties, and could be reduced to nil in exchange for reciprocal withholding tax exemption and/or an imputation credit to be given in respect of dividends to UK shareholders.

A European ACE?

A.4.19 The flexibility of the ACE system draws us to speculate on two issues. First, is the proposal outlined consistent with plans for European harmonisation? As the discussion above shows, the base performs fairly well when instituted unilaterally. Secondly, could the ACE provide a basis for more general harmonisation without offending the sensibilities of EEC member states? As argued in Chapter 2, the base used for the calculation of profits is far less important once an equity allowance is given. Moreover, the use of the classical system provides a clear divide between corporate taxation and personal taxation of the shareholder, and, if handled properly, should considerably simplify the issues of international taxation in general.

The ACE and imputation systems

A.4.20 One possible objection to the ACE in terms of international harmonisation is that most countries in the EEC currently operate imputation systems. It appears to follow that the upheaval of a move to the classical system required by the ACE would be too great. However, it is possible, as a convenient method of transition, to frame the ACE system as an imputation system. This is achieved through a "limited imputation" system; imputation is limited to the level of

the opportunity cost of capital, i.e. the equity allowance. Where this allowance is not covered by the level of distributions, it can still be used to reduce tax due on retained profits.

A.4.21 In practice this means that the reduction of tax is fixed by the equity allowance regardless of the level of dividend payments. The structure of the system, however, is close to that of an imputation system. Table A.5 illustrates this point. Note that full imputation is required. In the context of the current partial imputation system in the UK, the same effect can be achieved by allowing the level of ACT paid to be grossed up by the ratio of the corporate to the personal tax rate.

A.4.22 Ignoring timing differences, we consider a simple example where shareholders' funds are £1000, the interest rate is 10%, and total profits are £200. In each case the return to a taxpayer and pension fund is identical.

Table A.5
A "limited imputation" system

Classical		"Imputation"	
Profit	200	Profit	200
Equity allowance	100	Equity allowance	100
CT payable @ 35%	35	MCT liability @ 35%	70
Gross dividend	165	Gross dividend	165
Withholding tax	41.25	ACT payable	41.25
		Limit to ACT offset[a]	35
		MCT paid	35
Net return	123.75	Net return	123.75
Pension fund gets	165	Pension fund gets	165

[a] The limit to ACT offset is given by the value of the equity allowance, 35% of £100.

A.4.23 Although perhaps convenient as a cosmetic measure, the "limited imputation" system works for all practical purposes as a classical system. While recognising the possible benefits of framing the ACE system in such a scheme, we prefer the straightforward adoption of the classical system.

A.5 Summary

- The equity allowance is based on the opening value of shareholders' funds. Adjustments are made for issues of new equity and payments of dividends.
- Purchases of shares in other companies during the year may also require adjustments, which will be complex for financial companies. This requires further thought, but should be possible in principle.
- The enforcement of a single accounting date in the long term would simplify the system considerably.
- Consideration should be given to exempting CGT payable on rises in the value of shares owned by companies.
- Unincorporated businesses would be given the option to join the ACE scheme, and be taxed at the partners' or owners' personal tax rates.
- In the international context the classical relationship between personal and corporate tax systems removes many of the problems of the current system.
- The ACE could be made to work acceptably under any of the standard methods of dealing with international investment.
- In principle the ACE could provide a solid foundation for a European tax system.

Appendix B The UK corporation tax

This Appendix outlines the taxation of companies prior to the introduction of corporation tax in 1965, the 1965 corporation tax system, and the major changes to corporation tax in 1973 and 1984. It explains the effects of the different systems of taxation and analyses the current corporation tax with particular regard to the computation of profits, the treatment of dividends and the effect of corporation tax on corporate finance.

B.1 Development of the UK corporation tax

Taxation of companies prior to 1965

B.1.1 Originally the tax system did not distinguish between companies and other taxpayers. Income tax was imposed on income, including profits, at a standard rate and liability was calculated by reference to the applicable rules under the relevant income tax schedule. Although liable to income tax, companies were not allowed the benefit of any personal reliefs or allowances. Capital gains were not taxed at all.

B.1.2 Where the profits of a company exceeded a certain limit, the company would in addition to income tax also be liable to profits tax. Profits tax was first introduced in 1915 as "excess profits duty" and was imposed on companies alone. In 1920 a corporation profits tax was introduced and was justified on the basis of the advantages conferred on businesses by incorporation and on the grounds that companies were not normally liable to surtax (see para. B.1.5 below).

B.1.3 Between 1924, when corporation profits tax was repealed, and 1937 companies paid tax at the standard income tax rate alone. However, in 1937 the National Defence Contribution was introduced, to be replaced in 1939 by excess profits tax. Companies continued to suffer a revised version of excess profits tax from 1947 in the form of a "profits tax", brought in as the permanent equivalent of excess profits tax.

B.1.4 During this period, profits tax was charged at a higher rate on distributed profits than on undistributed profits. The differential rates were abolished in 1958 and profits tax was imposed at a uniform

rate on all profits until corporation tax was introduced in 1965. Immediately prior to its abolition on 5 April 1966, profits tax was levied at 15% on total profits with provision for abatement of profits of less than £12,000 per annum.

B.1.5 Until 1952, profits tax was deductible in calculating profits for income tax purposes. Thereafter no deduction was allowed. Companies were not liable to surtax which as a general rule was applicable only to individuals. However, in the case of a "close corporation", legislation dating from 1922 had the effect in certain circumstances of requiring the whole income of a company to be assessed to surtax as though it had been distributed to the members. Failing payment by the members, the surtax could be recovered from the company itself. Any profits which were subject to surtax were exempted from profits tax.

B.1.6 Interest was effectively fully deductible for both income and profits tax purposes. When a company paid dividends to its shareholders out of taxable profits, it would deduct income tax at the standard rate and retain that against its own liability. The shareholder would in turn include the gross dividend as part of his income but with credit for the tax deducted by the company - in effect, a full imputation system. There was no similar system for passing on a company's profits tax payments.

B.1.7 Dividends paid out of capital profits were paid without deduction of tax and were not taxed in the hands of the recipient. Where dividends were paid out of profits that had borne foreign but not UK tax, special arrangements known as the "net UK rate" applied to ensure that shareholders could not effectively have repaid to them foreign rather than the UK tax borne on the profits out of which dividends had been paid.

B.1.8 From the company's standpoint, therefore, the ultimate burden of the income tax was therefore felt as a charge at the standard rate upon retained profits. The profits tax charge, on the other hand, depended very much upon the amount of the company's distributions.

1965 to 1973 - the classical system

B.1.9 In 1965 a classical system of corporation tax was introduced at a uniform rate on all profits, whether or not these profits were distributed. In addition to the tax on companies, shareholders paid income tax on dividends received and capital gains tax on the gains arising from their retention. Distributed profits were therefore liable to both corporation tax in the hands of a company and income tax in the hands of a shareholder.

B.1.10 Although companies suffered a lower rate of taxation by the introduction of corporation tax, compared with the previous rates of income tax and profits tax, shareholders suffered a greater tax liability than before. An incentive was accordingly given to the retention of profit subject to the fact that capital gains tax was payable on gains arising from retentions. Any capital gains tax could, however, be deferred until the eventual disposal of the shareholding and the rate of capital gains tax then charged was lower than the rate of income tax.

B.1.11 A further disparity arose because interest was deductible in computing profits. Thus the classical system favoured debt finance to equity finance and retentions to distributions.

1973 to date - the imputation system

B.1.12 It was to alleviate the effect of the "double taxation of dividends" that the classical system was replaced by the "imputation system" in 1973. This followed a report from a Parliamentary Select Committee which came down in favour of imputation as a replacement for the 1965 system rather than a two-rate system under which corporation tax was charged at a lower rate on distributed profits.

B.1.13 Under the imputation system, when a company declares a dividend it must account for advance corporation tax (ACT) to the Inland Revenue. Subject to certain limitations, ACT then offsets the company's eventual liability to mainstream corporation tax (MCT) for the period.

B.1.14 From the shareholder's perspective, he is treated as receiving income equal to the dividend plus a tax credit representing the ACT paid by the company. That income is regarded as having suffered tax at the basic rate of income tax and the tax credit can be reclaimed by individuals not subject to income tax and by tax-exempt shareholders. Individuals liable to tax at the higher rates are liable to tax on the dividend received and tax credit equal to the difference between the basic rate and the higher rates of income tax.

B.1.15 Under the imputation system, the maximum offset against MCT that is allowed in any period is limited to the ACT that would be payable on a dividend which, with that ACT, equals the taxable profits of the company for the period. Thus if the taxable profits for the period are £100, the maximum offset permitted is £25 of ACT. In addition, the imputation system as originally introduced provided that this limitation operated by reference to income profits and ACT could only be offset against the MCT liability in respect of those profits. Since 1987, however, offset has been possible against both income and capital profits.

B.1.16 Companies chargeable to corporation tax at the full MCT rate or marginal rate for small companies are accordingly subject to a partial imputation system. However, those companies only liable to corporation tax at the small companies rate benefit from a full imputation system, since the basic rate of income tax, the ACT rate and the small companies rate of corporation tax are equivalent. The effect of this is that a small company that fully distributed its profits is not subject to corporation tax at all, tax effectively only being charged at the shareholder level. The rationale for the small companies rate when first introduced was that the imputation system resulted in a higher rate than the classical system and "small companies" financed themselves to a greater extent out of retained profits. The retained profits of those companies accordingly bear tax at present at 25% only.

B.1.17 A company is required to account for ACT whether or not it has any or a sufficient liability to MCT for the period. Thus, when the imputation system was first introduced, the tax base for corporation tax was severely reduced by accelerated depreciation allowances and subsequently stock relief available to companies. In such a case a company would suffer a certain amount of unrelieved ACT. While

the provisions entitling the company to carry back or forward surplus ACT alleviated this position, many companies were forced to write off the surplus ACT against earnings on the basis that it was still not possible to relieve all the ACT payments made in the foreseeable future.

B.1.18 Where a UK-resident company receives a dividend from another such company, the recipient company is not taxed on that dividend. However, the corporate shareholder can use the tax credit attaching to the dividend received to offset the ACT payable on its own dividends. By this mechanism a corporate shareholder is effectively transparent and dividends pass through it to the ultimate shareholders without further tax charge.

B.1.19 Under the imputation system interest paid by a company remains fully deductible in arriving at taxable profits. Thus, in terms of the effect of the imputation system on methods of corporate finance, retained earnings continued to be a relatively expensive source of finance unless the shareholder intended not to dispose of his shareholding for a long period since both corporation tax and capital gains tax were suffered by the company and the shareholder respectively. There was still, therefore, the "double taxation of retentions" under the imputation system, although the "double taxation of dividends" had in part been relieved. The balance between equity and debt was redressed to a limited extent. The relative position of equity improved from a tax viewpoint but for a company liable to tax at the marginal rate or full MCT rate, there remains an advantage in paying interest rather than dividends.

B.2 The computation of taxable profits

Historic cost accounts

B.2.1 It has always been the case that the starting-point for computing business profits has been the accounts of the business. The profits or losses shown by the accounts must be adjusted for tax purposes, broadly by excluding any income taxable otherwise than as business income (as for example income from letting land) and any capital gains, adding back any expenditure that is not deductible for tax purposes and deducting any allowances or reliefs expressly permitted by the legislation. The major exclusion from deduction is capital expenditure in general and depreciation in particular.

B.2.2 Given that taxable profits are based on accounts, that depreciation is disallowed and that stocks are identified on a FIFO basis, the basic system gives no relief for inflation other than relevant indexation allowances against capital gains.

Stock relief

B.2.3 Between 1974 and 1984, the corporation tax regime attempted to address the effect on profits of inflationary increases in stock values through the stock appreciation relief scheme. The original scheme was introduced in 1975 for periods ending in the financial year 1973 and the relief was based on the increase in the value of a business's stocks over its period of account. The relief was calculated by reference to the excess of closing stock over opening stock, less a percentage deduction of relevant earnings (trading profit less capital allowances). Relief was available both for an increase caused by the inflationary increase in the price of stock and for one caused by the increase in the volume of stocks themselves. The relief remained subject to clawback if the value of stocks fell over the period but after 1979 the relief became permanent after six years.

B.2.4 Temporary relief was required in 1980 to prevent companies being adversely affected by the clawback of the relief at the onset of the recession. This relief enabled companies to defer any clawback attributable to a temporary dip. However, from November 1980 the original scheme was replaced by a new form of relief based on the opening value of stocks multiplied by the rise in a specially constructed "all stocks" price index. This meant that companies were

taxed on all volume increases in stocks held and also to the extent that the price of the particular stocks that they held increased more rapidly than the average price of stocks in the economy. At the same time the carry forward of unused relief was limited to a six-year period. This new system of stock relief was abolished in 1984 as part of the corporation tax reforms of that year.

Capital allowances

B.2.5 As depreciation is not a deductible expense in calculating business profits, the tax system has provided its own form of depreciation allowance. Since 1945 this has taken the form of capital allowances. There are two main features of the capital allowance. First, allowances are only available for particular classes of asset - notably machinery and plant and industrial buildings, but not commercial buildings other than hotels and buildings in enterprise zones. Secondly, the rates of capital allowances have generally been designed not merely to compensate for depreciation in the assets concerned but to provide an incentive for investment in such assets.

B.2.6 Prior to 1984 there were very generous initial and first year allowances, equivalent in the case of machinery and plant to a 100% write-off, in the first year. Any balance of expenditure not relieved in this way qualified for annual writing-down allowances.

The 1984 reforms

B.2.7 The MCT rate of corporation tax up to the 1984 reforms was 52%. However, companies actually paid MCT at a much lower effective rate or at a nil rate as a result of the build-up of unused losses attributable primarily to stock relief and capital allowances. Under the 1984 reforms which became fully operational by 1986, stock relief was abolished and the initial and first year allowances were phased out, leaving only the annual writing-down allowances which approximate more closely to ordinary rates of depreciation on the

qualifying assets.[1] At the same time the MCT rate was brought down in stages from 52% to 35%. The broadening of the base and the elimination of the reliefs and allowances, however, have meant that many companies which previously paid no tax are now subject to tax at the full or small companies rates of corporation tax.

B.2.8 The effect of the changes in 1984 may well have been to reduce the distortions in the system. However, it is still the position that debt finance is more attractive than equity since companies are able to offset interest payments against taxable profits. Moreover, in the presence of inflation an additional attraction to debt finance is that companies not charged on the capital gain made on the fall in the real value of the debt liability. The regime since 1984 has also failed to redress the balance between the tax treatment of retentions compared with distributions; equity finance is still more favourably treated than retained earnings since the tax on distributed profits can be partly offset against personal tax liabilities whereas retained earnings are taxed at the full corporation tax rate, currently 35%, with no offset against any capital gains tax liability that arises on a sale of the company's shares to the extent attributable to the retained profits.

[1] although no account is taken of the effect of inflation in eroding the value of these allowances. See Bond, Dvereux and Freeman (1990) for a discussion of the effect of inflation on corporate tax liabilities.

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