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## **Taxes in the EU New Member States and the Location of Capital and Profit<sup>1</sup>**

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### **Introduction**

This paper concerns taxes on corporate profit levied in the new member states of the European Union. It is in two parts. Part A provides some background for analysing the current position of corporate taxes in the EU, paying particular attention to the position of the new member states. Part B addresses some policy issues facing new member states more directly, taking this background into account.

In discussing broad policy issues, three factors are relevant. The first represents the traditional aims of a tax on corporate income in a closed economy. This has been to design a tax system which raises revenue as efficiently as possible – that is, which minimises distortions to the scale of investment, to the sources and uses of finance, and to the choice of legal form. These distortions have been the subject of study for many years, and many proposals for reform have been made. One of the most popular and enduring ideas has been to tax only economic rent – that is, profit over and above that which is required for an investment to be undertaken: in a traditional framework such a tax would be expected to have no effect on investment or financing decisions. However, this is not

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<sup>1</sup> This paper was prepared for a conference organised by the IMF, the Joint Vienna Institute and the National Bank of Poland on “Labour and Capital Flows in Europe Following Enlargement”, held in Warsaw on January 30-31, 2006. Some parts of this paper draw on joint work with Peter Birch Sorensen - I am very grateful to him; he bears no responsibility for any errors.

necessarily true in open economies in which multinational companies can choose where to locate their activities. Then, even taxes on economic rent can be distortionary.

Governments in open economies face two other problems. First, they may seek to compete with each other to attract mobile economic activity. One way in which they may do so is to set lower effective tax rates on the returns to capital located within their jurisdiction. Indeed, the standard economic model suggests that a small open economy should not tax the return to capital located there at all. These considerations have led to concerns that effective tax rates on capital are on a downward spiral, or a race to the bottom, fuelled by ever-increasing globalisation.

Second, irrespective of where they locate their real economic activity, multinational corporations active in many countries may be able to shift profits between countries to take advantage of favourable tax treatment. It is possible – indeed likely – that profit is actually more mobile than capital. That would imply that differences in tax rates between countries may affect the shifting of profit between jurisdictions to an even greater extent than the shifting of real economic activity. The extent of profit shifting depends fundamentally on the statutory tax rate (even though profit shifting is of course constrained by rules governing the transactions within firms).

So a significant factor for any individual country in considering the structure of its corporation tax is to take into account the level of the statutory tax rate, irrespective of the definition of the tax base to which it is applied. This has two immediate implications. First, there may be a race to the bottom in statutory tax rates. And second, this conflicts with the notion of a tax on economic rent, since a revenue-neutral reform that introduced a tax on economic rent would typically require an increase in the tax rate.

There are no simple prescriptions for reform of corporation tax which can address all of these concerns. This paper aims to set out the main issues arising in the design of a corporation tax in a small open economy – and specifically in the new member states of the EU. To keep its length manageable, the paper focuses only on taxes on the return to capital, or profit. It does not discuss other taxes formally levied on companies (or other

enterprises) that are insensitive to profit, such as taxes on the value of assets, or on payroll.<sup>2</sup>

Part A has three sections. The first section summarises the influences that taxes on profit can have on economic decisions. It identifies different decisions, and very briefly summarises the empirical evidence on the impact of such taxes. The second section then analyses the development of corporation taxes in the EU over the last ten years, making a comparison between the 15 countries who were members prior to 2005, and the 10 new member states. The third section speculates on future developments, summarising evidence on whether there has been significant tax competition, and if so, where it is likely to lead. Part B draws out some policy implications in the light of this evidence and in the light of recent proposals from the European Commission for a common consolidated tax base in the EU. This is followed by a short conclusion.

## **PART A: DEVELOPMENTS IN CORPORATION TAXES**

### **A1. The effects of taxes on location of firms, capital and profit**

It is useful to begin with a description of the likely effects of taxes on corporate profit. Here we will discuss effects primarily in an international context. In particular, it is useful to consider a chain of three decisions which might be taken by multinational companies, and the role played by taxes on profit in each case.

- (a) Where to invest? Consider, for example, a multinational company choosing whether to set up a new production plant in Germany or Poland. This is a discrete choice between two options (although there could clearly be other options). We would expect the company to choose that location which generates the highest post-tax profit. The role of tax in this decision is to determine the proportion of pre-tax profit which is taken in tax and which hence determines the proportion remaining after tax.

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<sup>2</sup> There is very little research on the impact of non-profit taxes on capital flows. One recent paper, Desai et al (2004), finds a significant effect of “indirect” taxes, but the data used do not permit a precise analysis of which taxes are included in this group.

This is measured by an effective average tax rate (EATR). It depends on the definition of taxable profit, as well as the statutory tax rate; it may also depend on the tax treatment of profit remitted back to the parent company in another country.

- (b) How much to invest? This is the traditional question posed in analysis of investment decisions: given a particular location, how large should the scale of the investment be? Measuring the role of tax in this case is rather different. The traditional way in which this has been done is to consider the impact on the required pre-tax rate of return on an investment project. Suppose, for example, that the company requires a post-tax rate of return on its investment of 6%. The impact of tax is to increase the required pre-tax rate of return so that the post-tax rate of return remains at 6%. For example, suppose it is necessary to earn 8% pre-tax in order to achieve 6% post-tax. Then the tax increases the required rate of return by 2 percentage points. This can be expressed as a proportion of, say, the pre-tax rate of return to generate a measure of the effective marginal tax rate (EMTR); in this example the EMTR is 25%. As with the EATR, the EMTR depends on all aspects of the tax regime.

Note that the “location of capital” depends in principle on both of these decisions – that is, both where companies choose to locate their operations, and the scale of those operations conditional on the location.

- (c) Where to declare profit? Conditional on having undertaken an investment in a particular country, the multinational company may still be in a position to manipulate its taxable profit in order to reduce its overall tax liabilities. This can be done in many ways. For example, a subsidiary in a low tax country can lend to a subsidiary in a high tax country; since interest payments are usually deductible from tax while interest receipts are taxable, this is a simple way of transferring profit from the high tax country to the low tax country. Another possibility is to manipulate the prices at which goods are exchanged between subsidiaries; if the subsidiary in the high tax country produced an intermediate good used by the subsidiary in the low tax country, the price at which this intermediate good is transferred between the subsidiaries (the transfer price) could be set at a very low level – thereby increasing profit in the low tax country and reducing profit in the high tax country. Of course, tax authorities seek

to prevent abuse of such possibilities, but given that the “true” price is not observed, they face a difficult challenge.

What drives the choice of where to locate profit depends primarily on the statutory tax rate (although it also depends on detailed tax rules which might hamper the shifting of profit between countries). That is, it is reasonable to assume that companies will use up all allowances they can in each country – any income left is taxed at the full statutory tax rate. Hence it is differences in the statutory tax rate which ultimately generate the shifting of taxable profit between countries.

A substantial economics literature has investigated the impact of taxes on each of these decisions. There is little space here to summarise this literature in any detail.<sup>3</sup> A problem with literature is that a great many approaches have been used, not all of which are consistent with each other. For example, researchers have attempted to explain aggregate flows of foreign direct investment, the aggregate capital expenditure of US multinationals located in particular countries, and the discrete and continuous choices of individual companies. In analysing such data, they have made a number of different choices in measuring tax rates, some of them inconsistent with the basic framework set out above.

However, there is certainly a consensus in this empirical literature that taxes do affect company location decisions and capital flows, and have probably an even greater impact on profit shifting. The scale of the effects varies across individual studies. Ederveen and De Mooij (2003) present a meta-analysis of studies investigating the impact of taxes on capital flows. They find in a base case a semi-elasticity of -2.4%. That is, a 1 percentage point fall in the tax rate would increase capital flows to that country by 2.4%. However, this is a lower benchmark: the semi-elasticity is higher in studies which use a measure of an average tax rate, and also higher in studies which consider capital expenditure rather than aggregate flows of FDI. This is consistent with more direct evidence that the location choice decision is more responsive to taxes than the scale of investment decision (Devereux and Lockwood, 2005).

Most of the literature has investigated data on OECD countries. But it may be the case that the responsive of capital flows to taxes differs across countries. There have been

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<sup>3</sup> Surveys can be found in Hines (1999), Devereux and Griffith (2002) and Ederveen and de Mooij (2003).

some recent studies which have specifically investigated the responsiveness of flows to new member states of the EU.<sup>4</sup> These have followed differing methodologies and have produced mixed results. However, one recent paper which uses a better measure of effective tax rates, Bellak and Leibrecht (2005), finds effects which are comparable with those reported above. It is also worth noting, though, the important results found by Edmiston et al (2003) for transition economies, that complexity and uncertainty in corporate taxes, in the sense of multiple tax rates, indeterminate language in the tax law and inconsistent changes in the tax laws, also have a significant negative effect on inward FDI.

There is a smaller, yet still significant, literature which has investigated the impact of differences in tax rates on the degree to which profit is shifted between countries. Recent papers include Bartelsman and Beetsma (2003), Clausing (2003) and Mintz and Smart (2004). All of these, and an earlier literature,<sup>5</sup> indicate a substantial effect. For example, Bartelsman and Beetsma (2003) use OECD industry-level data to infer profit shifting by relating rates of value added to corporate tax rate differences between countries. Their baseline estimate is that more than 65% of the additional revenue resulting from a unilateral tax increase is likely to be lost because of profit shifting out of the country. This is a very substantial effect, which is highly relevant for tax policy, and which may help to explain some of the data on tax rates and revenues below.

## **A2. Developments in corporation tax rates and revenues**

The development of taxes on corporate profit in OECD countries and the EU-15 have been spelt out in detail elsewhere (see, for example, Devereux, Griffith and Klemm (2002) and Devereux and Sorensen, 2005). These details will not be repeated here. Instead, we will briefly summarise these developments, before going on to look in more detail at the new member states, and to see how they compare with the EU-15 countries.

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<sup>4</sup> See, for example, Edmiston, Muss and Valev (2003), Javorcik (2003), Carsten and Toubal (2004) and Bellak and Leibrecht (2005).

<sup>5</sup> Earlier papers include Hines and Hubbard (1990), Grubert and Mutti (1991), Harris (1993), Hines and Rice (1994), and Grubert and Slemrod (1998).

### **(a) Statutory tax rates**

The most basic measure of a corporate income tax is the statutory tax rate. This measure is widely used in comparing taxes across countries, although even defining this rate is less straightforward than might be expected. Corporate income taxes are often applied at more than one level of government. There may also be temporary or permanent supplementary taxes, and there may be special tax rules for small and medium-sized enterprises.

There has been a remarkable change in statutory rates in OECD countries since the early 1980s. Out of 21 countries analysed in Devereux and Sorensen (2005), the statutory tax rate fell in 19 of them. In many cases the fall has been substantial. In 1982, 15 out of the 19 countries had tax rates in excess of 40%; by 2004 there were none. Only Ireland and Spain increased their tax rate, each by around two percentage points (Ireland from the very low base of its 10% rate on manufacturing activities introduced in 1981). Although the pace of tax rate reductions has varied over time, it appears to be continuing.

This experience has also been the case in the new member states of the EU since the mid 1990s. Figure 1 shows the average statutory tax rate in the EU-15 and the 10 new member states for each year from 1995 to 2005. Two points stand out. First, the average tax rate in the new member states is much lower - on average 8 percentage points lower - than the existing EU-15 member states. Second, a sizable margin has been maintained as both groups have reduced their rates. The average of the EU-15 fell from 38% in 1995 to 30% in 2005, while the average of the new member states fell from 31% to 21%.

More light is shown on individual countries in Figure 2, which shows the distribution of statutory rates across all EU member states in 2005. Of the 11 countries with the lowest tax rates (of 26% and below), 9 are new member states. Only Ireland and Austria have rates comparable with these 9. And only Malta of the new member states has a higher tax rate, comparable with the longer-established EU members.

A high tax rate does not necessarily imply high tax payments, since payments depend also on the tax base. But, as outlined above, the tax rate may be important in its own right. In deciding where to declare income, it might be expected that multinational

companies seek to use all allowances and deductions available in any jurisdiction. Having done so, tax on any excess income is levied at the statutory rate; hence it is the statutory rate which is central in determining the location of profit, conditional on where the company's real activity takes place.

The Figures are consistent with the possibility view that competitive pressures have driven down statutory rates, as in setting their own rates, governments take account of the rates in other countries. It seems plausible that this represents competition for mobile profit, although the possibility that it reflects competition for the location of real activities cannot be discounted. However, Figure 1 does not provide conclusive evidence – this is discussed further below.

#### **(b) Effective tax rates**

As described above, investment decisions do not depend solely on the statutory tax rate, but also on the measurement of the tax base. The definition of the tax base can vary widely across countries, and so it is not necessarily the case that a low statutory tax rate implies that the tax regime is relatively conducive to new investment.

Broadly, over the last twenty years in OECD countries, tax bases have expanded as tax rates have fallen; that is, there has tended to be a gradual switch to broad-based taxes with low rates. However, the tendency to reduce the statutory definitions of taxable profit has been offset to some extent by lower inflation. This is seen most clearly in the impact of depreciation allowances for capital expenditure. Typically these are set in historic cost terms, so that in each year a fraction of the initial expenditure can be offset against tax, but without any consideration of the fact that the nominal value of the expenditure rises with prices. As inflation has generally fallen since the early 1980s, so the effects of expanding the tax base have been offset to some extent by increasing the real value of such allowances.

The two elements of the tax rate and base can be combined in computing measures of effective tax rates. Here we focus on the effective average tax rate (EATR), which the evidence suggests is most important for the location decisions of multinational firms and hence direct capital flows. We measure the EATR by considering the impact of tax on a

hypothetical investment project. The details of the approach – and its limitations - are set out in Devereux and Griffith (2003) and are not repeated here. Evidence presented elsewhere suggests that the EATR has fallen significantly in OECD countries over the last two decades, so that the combined effects of a lower tax rate and lower inflation have tended to outweigh the effect of an expanded tax base.

Figure 3 shows estimates of the EATR for all the EU countries in 2005.<sup>6</sup> The distribution is similar, though not identical, as the distribution of statutory rates shown in Figure 2. The ranking of countries changes a little from Figure 2, but it remains the case that the new member states dominate the lower positions in the rankings by EATR. In fact, the position is now even more extreme, as 9 out of the lowest 10 positions are filled by new member states.

Given the evidence above - that capital flows do respond significantly to differences in effective average tax rates – then Figure 3 indicates strongly that differences in corporation taxes within the EU are likely to be having a significant effect on current capital flows.

The estimates of the EATR in Figure 3 do not include various tax incentives available in the new member states. However, as pointed out by Finkzeller and Spengel (2004), these are extensive and can reduce the EATR considerably further for specific forms of investment. For example: the Czech Republic awards tax exemption for 10 years for newly-established entities; Hungary offers a tax credit equal to 35-50% of the investment value granted within the first five years; Latvia gives an 80% tax rebate for corporate income tax in special economic zones until 2017; Lithuania offers profits tax free for the first five years, followed by a tax rate at 50-% of the normal rate for the following ten years for companies resident in special economic zones; and Poland allows accelerated depreciation of 30% in the first year for certain newly acquired fixed asset.<sup>7</sup>

It should be noted that while these schemes can significantly reduce the EATR, they may not be consistent with European law; in particular, many are likely to contravene the

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<sup>6</sup> The information for 2005 was kindly provided by Professor Christoph Spengel of the University of Giessen. Finkzeller and Spengel (2004) provide a more detailed account of the distribution of EATRs for 2004, including the case of inward investment to new member states from Germany taking into account taxes on cross border flows.

<sup>7</sup> Other incentives are described by Finkzeller and Spengel (2004).

State Aids provision of the EU Treaty. As a result, some of the new member states have already abolished some tax incentives, and others may let them expire. Partly in order to compensate, there is a continuing trend to reduce tax rates in new member states, even beyond that shown above – for example, Estonia plans to reduce its tax rate to 20% by 2007.

### **(c) Tax revenues**

A number of studies have used data on tax revenues to measure the impact of corporate income tax on incentives for investment. Often, a form of average tax rate is calculated, expressing the tax payment as a proportion of a measure of profit. However, we do not present such measures here, mainly due to concerns about whether it is possible to find a suitable measure of profit to use as the denominator.<sup>8</sup>

Nevertheless, the size of revenues raised from corporate income taxes is clearly important to governments who face revenue constraints. We therefore present a description of the development of revenues from corporate income taxes, expressed as a proportion of GDP.<sup>9,10</sup>

Previous work<sup>11</sup> has analysed the development of corporate tax revenues in OECD countries since the mid-1960s. It might be thought that the significant reductions in statutory tax rates and also a reduction in EATRs would have led to significant falls in tax revenues from corporation taxes. In general, that does not appear to be the case. While there are significant differences amongst countries, an unweighted average across OECD countries of the ratio of corporation tax revenues to GDP has actually increased over the last 40 years. This masks differences across countries however. In some of the larger

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<sup>8</sup> Devereux (2004) provides a discussion of alternative measures, and Devereux and Klemm (2004) demonstrate that different approaches can generate very different impressions of the severity of a tax regime.

<sup>9</sup> Note that these differ in scope from the measures considered above. For example, in constructing effective tax rates, we considered only source-based corporate income taxes. However, tax revenues in any country may include both source-based taxes and residence-based taxes – typically, revenue collected from profits earned abroad and repatriated.

<sup>10</sup> These measures will vary for reasons other than the corporate tax system. For example, both depend on the size of the corporate sector (e.g. the degree to which business is incorporated) and on the relative size of corporate income in GDP, which varies considerably over the economic cycle.

<sup>11</sup> See Devereux, Griffith and Klemm (2002), Devereux and Sorensen (2005).

countries, notably the USA, this ratio has fallen over time. As a result, a weighted average, based on the size of the economy, shows no significant rise or fall over time.

The position for EU member states is shown in Figure 4, with unweighted averages of the ratio of corporation tax revenues to GDP shown for the EU-15 and for new member states. The Figure indicates that in 1995, new member states raised a slightly higher proportion of GDP from corporation tax than did the existing EU 15 members – 2.9% compared to 2.7%. Since then, the proportion raised by the EU-15 has risen, to a peak of 3.7% in 2000, before falling back again to 3.1%. Such variations in this ratio are fairly common: corporation tax revenues are very pro-cyclical. By contrast, the proportion raised by the new member states fell slightly to around 2.5%, but remained fairly constant before rising slightly in 2002 and 2003.

These patterns of corporation tax revenues are not easy to explain, especially in the light of the evidence of Figure 1 that statutory rates have fallen consistently in both groups of countries. The greater revenue raised by the EU-15 may reflect their higher statutory rates, but this does not explain the position in 1995, nor the significant changes in the difference in the two averages since. Clearly, there are other important factors at work in determining corporation tax revenues. It is not hard to identify possible explanations, although it is difficult to quantify the impact of any particular explanation.

Part of the explanation may be due to changes in profitability and investment. In some countries this may be partly due to the tax system itself. For example, Ireland has had a low 10% tax rate on manufacturing activity since the early 1980s. One consequence of this low rate has been a dramatic increase in inward investment – and independently almost certainly inward flows of profit: this in turn has boosted corporate income tax receipts as a share of GDP, despite the continuing low tax rate. Another possibility is that lower corporation tax rates have increased the incentive to incorporate and to shift income from the non-corporate sector into existing corporations, thereby increasing the relative size of the corporate sector. A third possibility has been that the lower tax rates in new member states have indeed encouraged additional investment in those countries, which have generated profit which in turn has generated additional taxable income offsetting the falls in tax rates.

Whatever the explanations, there is a striking difference between Figure 1 – demonstrating a reduction in statutory rates throughout the EU – and Figure 4 – demonstrating a relatively consistent receipts form corporation taxes. The former is consistent with increasing competition for mobile capital driving down tax rates; the latter suggests that this has been offset by an expansion of taxable income. How far this pattern can continue is an important question, but one which cannot easily be answered. We now turn to a brief review of what existing evidence can provide by way of answer.

### **A3. Tax competition between countries**

Translating an analysis of the history of developments in corporate taxation into predictions for the future is hazardous. To do so, it is necessary to understand the factors which have been driving reforms, and to predict how these factors will develop in the future. It is therefore useful also to review briefly the literature which has attempted to explain the determinants of various forms of corporate income tax rate.

The central issue examined in the literature which discusses the possibility of a ‘race to the bottom’ in tax rates is the influence of capital mobility: that is, has increased capital mobility been influential in driving down rates of tax? Note that capital mobility can include moving various types of asset across borders. Typically, the literature investigates flows of capital: however, less investigated, but probably more mobile, is profit.

The empirical literature on the influence of capital mobility on corporate tax rates has developed in two ways. First, a number of papers have undertaken regression analysis, attempting to explain tax rates by various factors specific to that country, including measures of capital mobility. Typically they estimate a reduced-form equation, with little theoretical backing. These studies differ in several ways, including the variables used and the econometric specification.<sup>12</sup> This line of research presents a mixed picture of the effect of capital mobility, partly reflecting the different approaches used. The most frequently-used measure of taxation is the statutory tax rate, although measures based on tax receipts are also common. None of these studies uses measures of effective tax rates

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<sup>12</sup> These papers include, for example, Garrett (1995), Quinn (1997), Garrett and Mitchell (2001), Bretschger and Hettich (2002), Swank and Steinmo (2002), Slemrod (2004) and Winner (2005).

similar to those presented above. Measures of capital mobility also vary. Some of these studies find a significant impact of capital mobility on tax rates, but the results are not robust across the papers or even within any paper.

The most recent analysis within this strand of the literature is the paper by Winner (2005) which is based on a panel data set for 23 OECD countries. This study calculates average effective tax rates on capital and labour from macroeconomic data and constructs a measure of capital mobility based on saving-investment correlations. Controlling for a number of other factors expected to influence the tax burden, the author finds that rising capital mobility has exerted a significant downward pressure on capital tax rates and has tended to increase the effective tax rate on labour income relative to that on capital income.

A second strand of the literature investigates the idea of tax competition more directly. The role which increased capital mobility must play in determining corporate tax rates is that governments compete more energetically the more mobile is capital. This implies that the tax rate in one country is partially determined by the tax rates set in other countries. There is certainly anecdotal evidence that governments respond in this way. Two papers – Altshuler and Goodspeed (2002) and Devereux, Lockwood and Redoano (2004) – both analyse this directly. Altshuler and Goodspeed consider whether the USA is a leader in setting tax rates – that is, whether other OECD countries respond primarily to the USA. They find some evidence to support this claim, although their approach is based on determining a measure of tax revenues, rather than specific tax rates.

Devereux et al. (2004) test a model in which governments compete both over flows of capital (influenced by the EMTR) and over shifting of taxable profit (influenced by the statutory rate). They find that the statutory rate in one country is influenced by the statutory rates in other countries, but that this relationship is much weaker for the EMTR. Further, they find that this relationship is much stronger (indeed, arguably it only exists) between countries which do not have formal capital controls in place.

Taking all these studies together, there is some evidence that increasing mobility has had some impact on corporate tax rates. Probably the most well-supported case is that there has been competition over statutory rates of tax. This may involve competition for mobile

capital through discrete location decisions (where the statutory rate is closely related to the EATR); it is also possible that co-movements in the statutory rate reflects competition for profit. The fact that statutory rates in many countries have fallen significantly over the last two decades is consistent with such competition.

What of the future? The existence of low tax-rate jurisdictions continues to place pressure on statutory rates, despite the successes of international co-ordination through the OECD to combat tax havens.<sup>13</sup> Their existence will continue to put downward pressure on tax rates. However, there may be less scope in the future to offset reductions in statutory rates by expanding tax bases. The most significant reforms in this dimension came in the late 1980s and early 1990s. Since then, governments have been increasingly tightening up rules for the taxation of international flows, aware of the possibility that profits flow to low tax-rate jurisdictions. This type of activity may be partly responsible for revenues holding up well. And the new member states have so far maintained significant incentives which could be removed to allow for the possibility of a rate reduction. But in general, the ability of governments to maintain effective tax rates while reducing statutory rates is likely to become weaker over time, since there is a limit to the possible expansion of tax bases.

## **PART B: POLICY ISSUES FOR NEW MEMBER STATES**

Policy makers in the new member states of the EU need to balance three important factors in assessing any potential reforms to corporation taxes. In particular, they need to aim to:

- maintain minimal distortion to economic decisions taking place in the economy, such as the scale of investment and the sources and uses of finance used by companies;
- maintain the economy as an attractive location for investment;
- prevent excessive shifting of taxable profit to alternative locations.

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<sup>13</sup> The EU's Code of Conduct also has the effect of inhibiting competition through the creation of special regimes with low tax rates.

One obvious way of achieving these aims would be simply to abolish corporation taxes. However, given revenue requirements, that is not likely to be feasible. The discussion here therefore assumes that some form of corporation tax will continue to exist; we will not attempt to discuss fundamental issues of whether such a tax should be levied or not. The discussion in policy issues is split into two sections. The first section discusses the general design of a corporation tax in a small open economy, such as a new member state. The second section briefly outlines current proposals for harmonization or co-ordination of corporation taxes within the EU, and discusses the appropriate response from the point of view of new member states.

### **B1. The general design of a corporation tax in a small open economy**

As noted in the Introduction, the first of the three aims set out here has led commentators to propose taxes based on economic rent. Since such a tax is levied only on profit over and above that required for an investment to go ahead, it does not affect decisions as to the scale of investment, nor does it affect financing decisions. On the whole, OECD countries have not generally reformed taxes in the direction of them being based on economic rent. However, the tax currently levied in Estonia is actually very close to one form of a classical tax on economic rent. This form of tax is outlined and discussed in Box 1.

Economic rent is smaller than the measure of “profit” typically used to measure taxable income for the purposes of levying corporation tax. Apart from Estonia, most of the other new member states have also reduced their measures of taxable income, but in contrast to Estonia they have done so by the use of special incentives, as detailed above. Although it seems clear that the aim of such special incentives is to encourage inflows of firms and of capital, they create two problems. First, they add to the distortions which typically exist in a corporation tax. For example, if one form of activity, or one location, is favoured over another, then capital will tend to flow towards the more favoured activity, and away from the less-favoured activity. This could be a welfare-enhancing policy if policy-makers were able not only to identify a failure in the allocation of resources created by

the market, but also to introduce a special measure which would alleviate such a failure. These are stringent conditions, which are difficult to meet.

But second, anything which reduces the size of the tax base – whether because it is targeted towards economic rent or because of any other special incentives – is likely to raise less revenue at a given tax rate. To maintain revenue from corporation tax, it is therefore likely that the tax rate needs to be higher than would otherwise be the case. Unfortunately, this tends to encourage profit shifting out of the economy, and into other economies with lower tax rates, and therefore conflicts with third point above. This would further depress revenue, which would require an even higher tax rate to maintain revenue. Indeed, there comes a point when raising the tax rate may well induce such an outflow of profit that tax revenue might even fall.

**Box 1. The Estonian business tax: a neutral cash flow tax?**

Since 2000 Estonia has undertaken a remarkable experiment in business taxation. From that year Estonia abolished her conventional corporate income tax, replacing it by a tax on corporate *distributions*. This distribution tax is levied on dividends and on certain other corporate expenses which could be seen as hidden dividends.<sup>14</sup> Corporations are not taxed on their capital gains unless these gains are distributed.

The distribution tax is levied on dividends paid to resident and non-resident shareholders. No further withholding tax is imposed. The tax rate on distributions is currently 24 per cent of the gross distribution, but this rate will be lowered to 22 per cent in 2006 and to 20 per cent from 2007.

The Estonian distribution tax comes close to a source-based cash flow tax, effectively levied on economic rent. In fact, if the Estonian distribution tax had allowed a deduction for the firm's revenue from new share issues, making it a tax on *net* distributions, it would be equivalent to the S-based cash flow tax, in the terminology of the Meade Committee (1978). Such a tax is neutral towards decisions over the scale of investment and financing. The reason is that under a tax on net distributions the government implicitly participates as a passive shareholder in all the firm's transactions with a share corresponding to the tax rate. Thus, via the deduction for new share issues, the government effectively contributes a share of the firm's equity base corresponding to the share of the dividends that it subsequently taxes away.

For mature corporations which can satisfy all of their need for equity through retained earnings, the tax is therefore neutral with respect to the scale of investment. But, as

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<sup>14</sup> These include fringe benefits not subject to personal income tax, loans to participators, non-business expenses and donations to charities above a given limit.

analysed by Kari and Ylä-Liedenpohja, 2005, for young firms that need injections of new equity – including those established by foreign investors - a dividend tax does discourage investment.

Estonia's system of business taxation may be seen as an attempt to eliminate tax distortions to entrepreneurial investment and saving decisions. In line with this, the Estonian personal income tax exempts dividends from tax at the shareholder level. It also exempts interest received from credit institutions in any EU Member State or from Estonian branches of credit institutions residing outside the EU. On the other hand, since realized capital gains on shares are subject to the flat 24 per cent tax rate on personal income.

In a recent paper, have taken issue with the popular view that Estonia's zero corporate tax rate on retained profits makes the country a tax haven. They argue that although that feature of Estonia's tax system reduces the cost of capital when investment is financed out of intramarginal retained profits, the distribution tax does increase the 'entry' cost of capital when foreign direct investors consider establishing themselves in Estonia. According to the authors' estimates, the marginal cost of capital for direct investment into Estonia is roughly at the same level as the cost of capital for domestic investment in Finland.

Because it exempts retained earnings, the base of the Estonian distribution tax is more narrow than that of a conventional corporate income tax, but it still raises a non-negligible amount of revenue. Due to very generous transition rules during the phase-in of the new tax regime, the revenue in 2000 and 2001 was quite low, but in 2003 the revenue from the distribution tax was 1.7 per cent of GDP. This is lower than the average for the EU-15 and for new member states, but three other EU countries (Latvia, Lithuania and Germany) raised lower revenue as a proportion of GDP in that year. Estonia's rate of investment is very high, averaging more than 30 per cent of GDP in 2001-2003, but on the basis of time series data it is still too early to judge the extent to which the corporate tax reform in 2000 has contributed to the strong investment performance.

The Estonian distribution tax has met with resistance from the European Union which considers it to be a withholding tax on dividends rather than a corporate income tax. According to the EU Parent-Subsidiary Directive, EU Member States are not allowed to impose withholding taxes on dividends paid from a subsidiary in one Member State to a parent company residing in another Member State. As part of the negotiated terms of accession to the EU, Estonia has therefore agreed to reform her corporate tax system from 2009 to conform to the Parent-Subsidiary Directive. At the moment, it is not clear what the content of such a reform will be. If Estonia decides to exempt profit distributions to companies in other EU countries from distribution tax, it would trigger an issue under the EU's Code of Conduct for business taxation by creating a ring-fenced advantage for these companies. Hence Estonia may be forced to reintroduce a traditional corporation tax, including profit determination rules, complicated merger provisions, transfer pricing provisions, etc.

In short, the ease with which profit can be shifted between countries creates a significant constraint on the design of corporation taxes. Of course, as we have seen, the new member states also tend to have low statutory rates as well as special incentives and hence smaller tax bases. Given this, it is perhaps surprising that the revenue collected is so high, and only a little below that collected in the EU-15, as a proportion of GDP. The most likely explanation of this comes back to profit shifting again: a low rate reduces the incentive to shift profits out of the economy – indeed, it may even create an incentive to shift profits into the country.

But there remains a tradeoff between special incentives and a lower tax rate. Special incentives may lower the effective rate of tax on particular activities, and hence may make the economy more attractive to some activities. But an alternative strategy would instead be to reduce the tax rate further, and to forgo special incentives. This would tend to equalise the incentives to locate in that country across different types of activity, and would make the country more attractive with respect to profit shifting.

## **B2. Co-ordination in the EU**

For a variety of reasons, there has for a long time been interest in the possibility of coordinating, or harmonising, taxes on corporate income in the EU. There are indeed sound economic reasons for some form of coordination. If effective tax rates were the same throughout the EU, then there would be no distortion to location decisions within the EU. If statutory tax rates were also equal then there would be no rationale for profit-shifting within the EU. Also, there may be gains from simplifying the structure of corporation taxes: currently a multinational company operating in every country in the EU has to split its EU-wide profit into 25 parts, one for each country, and each tax administration needs to deal with such an allocation.

However, the history of proposals for coordination does not provoke any optimism that agreement could be reached. There have been major reviews and proposals for coordination in 1962, 1975, 1991 and again in 2001. The proposals have been different on each occasion, and have ranged from a common imputation system, to a minimum tax rate and a consolidated tax base. None of these proposals has ever been implemented.

One reason is that EU tax directives have always required the unanimous agreement of all members. Yet it has always proved to be the case that one or more members does not agree with the proposal. Of course, with the enlargement of the EU to 25 members, such agreement has become even more difficult to achieve.

One set of measures which was recently agreed is unusual in that it is not legally binding, though it does seem that it is being complied with in most member states – the Code of Conduct. This is essentially targeted towards prohibiting special incentives designed to favour particular sectors or investors. It is generally seen as complementing the State Aids provisions which regulate member states in giving aid for specific types of investment.

But the most recent and ongoing major initiative of the European Commission is the proposal that there should be a single EU-wide consolidated tax base. The details of how this would operate are not yet determined, but essentially under this proposal, a multinational company would have to calculate only its EU-wide profit, on the basis of a common tax base; it would cease to have to calculate the profit generated in each member state. The profit would then be allocated to individual member states on the basis of a simple formula (again not yet determined); each member state would then tax its allocation of profit at a rate which it would determine for itself.

This proposal certainly has some attractions – the shifting of profit between member states would no longer be an issue, and the administrative and compliance costs involved in allocating profit between member states would be saved. However, there would of course still be the opportunity to shift profit out of the EU altogether. And any individual member state would have little control over the tax base applying to companies operating in that country; in effect special incentives would be irrelevant (they would either not apply, or they would apply throughout the EU). Also, since tax rates would still be set by member states, there could well be continued competition over tax rates, although the nature of this competition would depend on the formula used to allocate taxable profit to each member states.

It is hard to evaluate this proposal from the perspective of one of the new member states. On the one hand, the costs of administering the corporation tax would probably fall. It

would be more difficult to design incentives to attract inward investment, but such incentives may not be optimal and in any case may be ruled out by the EU Code of Conduct. Total taxable income could rise or fall, depending on how the formula for the allocation was constructed. Perhaps the best policy in the short run is to wait until more details are available, when a more detailed assessment can be made.

## **CONCLUSIONS**

There is considerable evidence that taxes on corporate income significantly affect cross-border flows of capital and profit. This is reflected in numerous studies analyzing the location of plants, capital flows and levels of profit. Further, there is direct and indirect evidence of increasing competition for inward flows of capital and profit between countries. One result of this competition, as capital and profit has become increasingly mobile, is downward pressure on corporation tax rates. The EU new member states already have low rates compared to the established members, although both groups have substantially lowered their rates over the last decade. Somewhat surprisingly, though, revenues from corporation taxes have not declined over the same period.

The corporation taxes in new member states are already attractive to multinational companies, and there is evidence that the low statutory and effective average tax rates are having a significant impact on capital flows into these countries. The single most important factor in maintaining that attractiveness is to keep a low statutory tax rate. This tends to imply a lower effective average tax rate, which makes the economy attractive for inward investment. A low statutory rate also prevents excessive shifting of profit out of the country.

Many of the new member states have significant special incentives which reduce the tax base. At least some of these may be inconsistent with the EU Code of Conduct. But in any case, special incentives are not typically an optimal way of creating attractive conditions for investment. An alternative policy would be to broaden the tax base further, thereby permitting a further reduction in the tax rate. The Estonian tax on dividends,

while displaying many attractive features, is also a tax on a relatively narrow tax base. Broadening the tax base could again give the opportunity of reducing the tax rate. In any case, this tax seems to be inconsistent with the EU Parent-Subsidiary directive.

Finally, there could be some advantage for new member states to agree to the European Commission's proposal for a common consolidated tax base. However, the details of this proposal are as yet unclear, so an informed judgment cannot yet be made.

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**Figure 1. Statutory corporation tax rates:  
EU15 and new member states, 1995-2005**

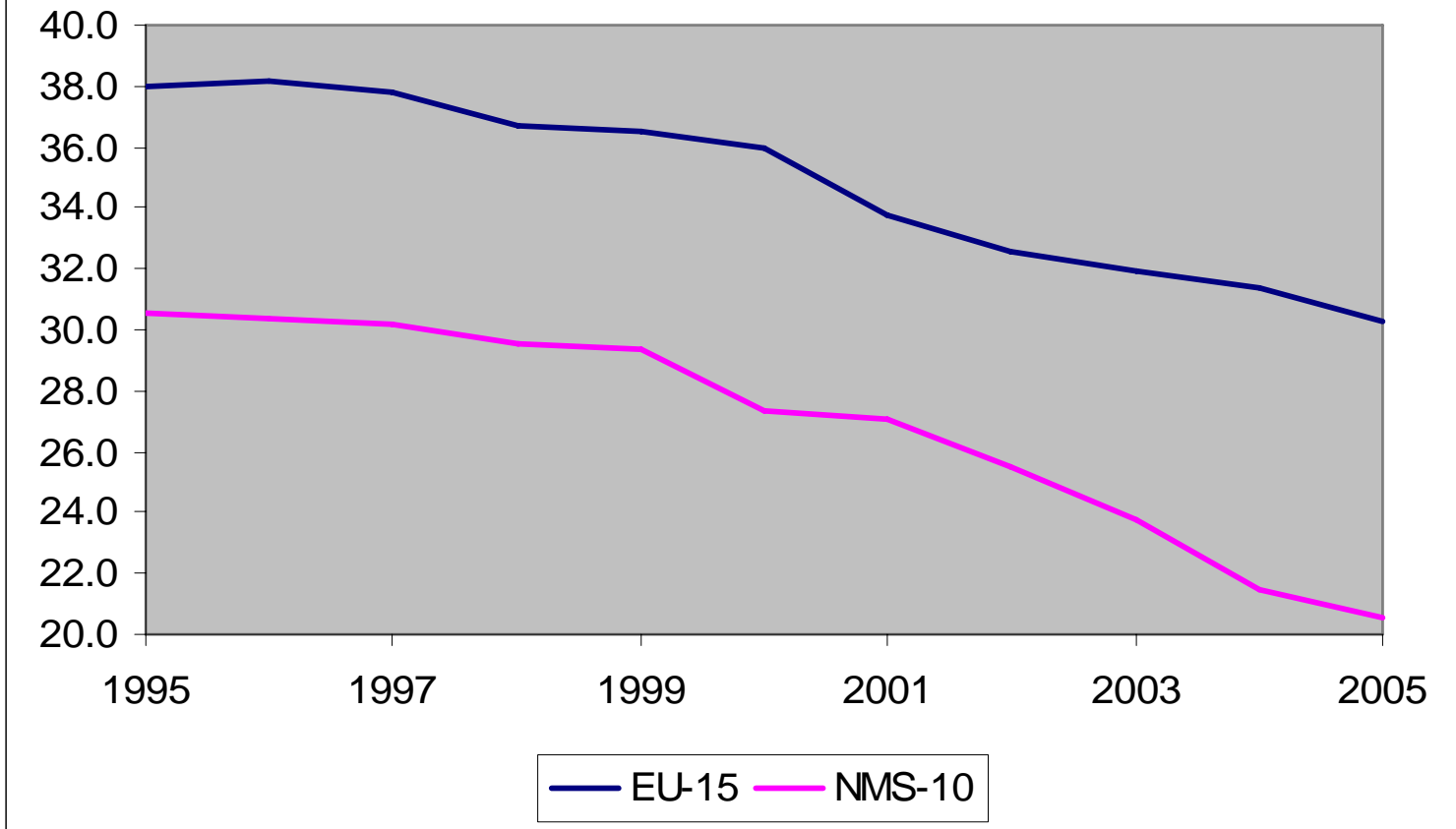
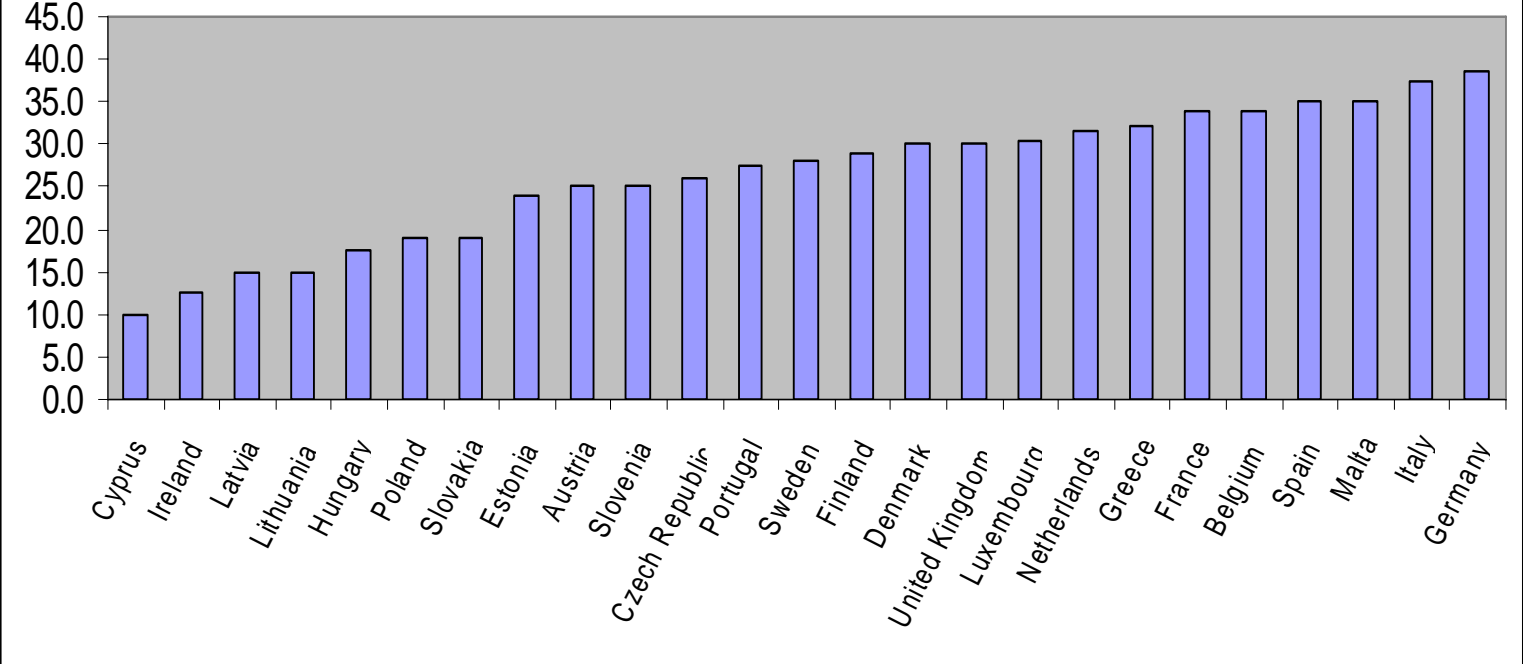
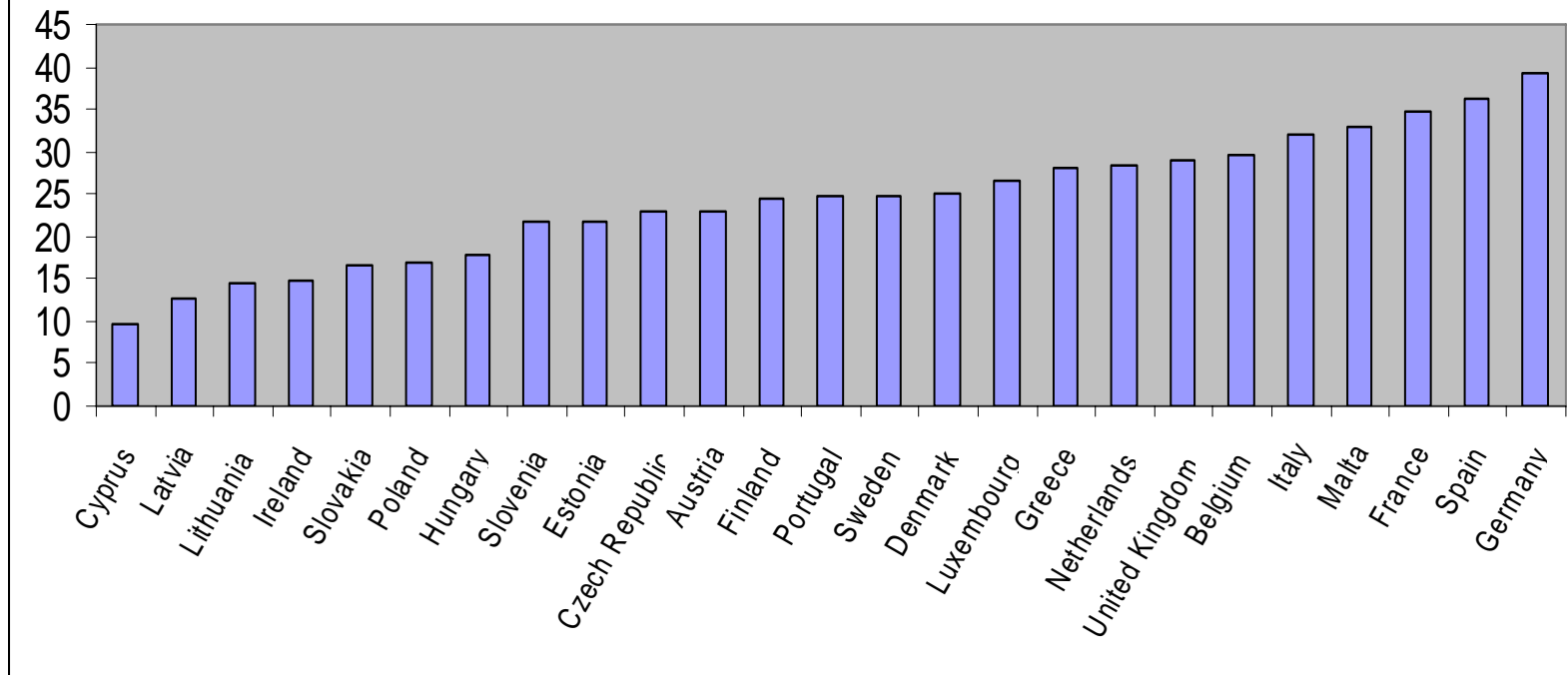


Figure 2. EU statutory corporation tax rates, 2005



**Figure 3. EU effective average tax rates, 2005**



**Figure 4.**  
**Corporation Tax Revenues as Percentage of GDP:**  
**Averages of EU15 and new member states**

