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## *Capital Taxation after EU Enlargement*

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# (Why) Do We Need Corporate Taxation?

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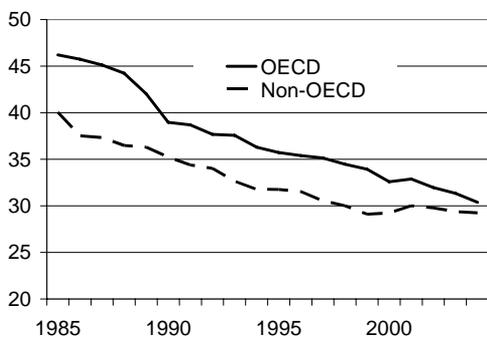
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## 1. The Corporate Income Tax: An Endangered Species?

The question of why we need a tax on corporations would receive much less attention if it were not that many economists and politicians believe that this tax is on the endangered species list. If it is relevant to tax competition and a race to the bottom, we should expect to see results in the area of corporate taxation.

*Chart 1: Average Corporate Tax Rates (1985–2004)*



*Note: The dashed line represents the mean corporate income tax rate in up to 45 non-OECD countries, the normal line represents the average for up to 29 OECD countries. The rates include average local taxes plus federal rates on retained earnings.*

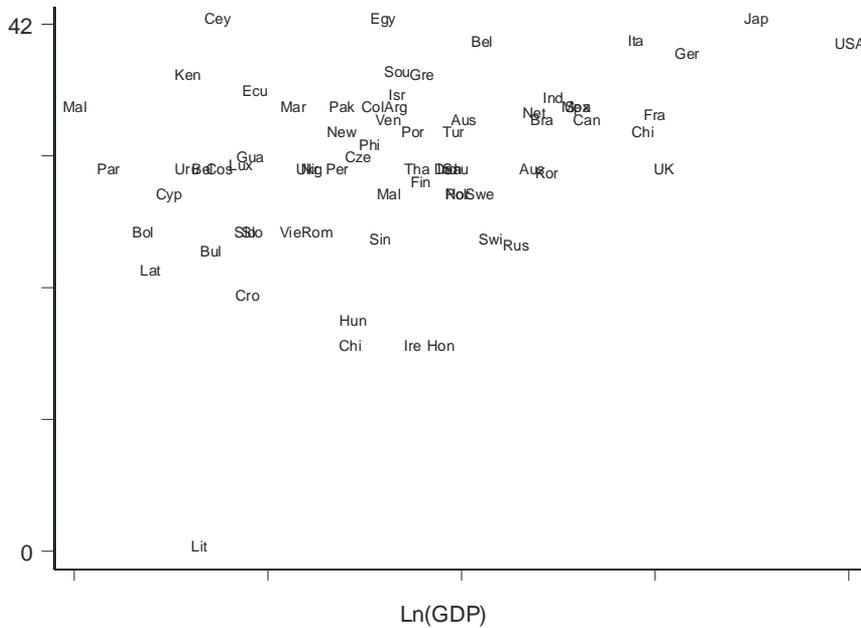
*Source: PricewaterhouseCoopers, KPMG, Office of Tax Policy Research (University of Michigan).*

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<sup>1</sup> I am grateful to Sijbren Cnossen, Gaëtan Nicodeme and other participants of the OeNB Workshop on “Capital Taxation after EU Enlargement” for helpful discussions and to Tina Klautke for careful research assistance. I thank the Deutsche Forschungsgemeinschaft (DFG) for support.

This largely represents a source based taxation of mobile capital, the type of taxation that is bound to vanish completely in standard theoretical models of tax competition among small jurisdictions. Looking at the rates of corporate taxes around the world, a downward trend is clearly visible for both OECD countries and other countries. For OECD countries, the average rate in the mid 1980s was around 45%, while in 2004 it came down to some 30%. Extrapolating this linear trend implies that tax rates will come down to zero by the middle of the century.

Chart 2: Corporate Tax Rates and Country Size (2002)



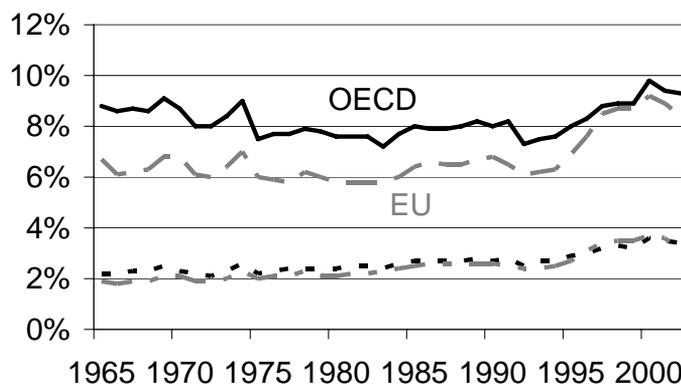
Source: PricewaterhouseCoopers, KPMG, Office of Tax Policy Research (University of Michigan), Worldbank Economic Indicators.

It is not only that empirically rates have declined in the process of globalization. The empirical evidence also supports tax competition models in their prediction that smaller countries should have lower rates than larger countries.<sup>2</sup> The reason for this prediction is that small countries have much more elastic tax bases. In these countries, tax reductions can attract a huge amount of new capital but they cost little in terms of less tax revenue from the small existing stock of capital. Conversely, large countries have a large stock of capital and, to compensate for the

<sup>2</sup> See Bucovetsky (1991), Wilson (1991), Wellisch (2000), Haufler (2004) or, for the case of sales taxes, Kanbur and Keen (1993).

revenue loss from old capital, reducing rates must attract much more new capital. This is an economic explanation for the well-known fact that in general tax havens are small. Chart 2 illustrates the correlation between statutory tax rates and the logarithm of GDP for the year 2002 on a broader basis of 70 countries. The positive correlation turns out to be highly statistically significant.

*Chart 3: Corporate Tax Revenues in OECD Countries*



*Note: The upper two lines measure the unweighted average of tax revenues as a fraction of total tax revenues. The two lower lines show the ratio of corporate taxes to GDP in OECD and EU countries.*

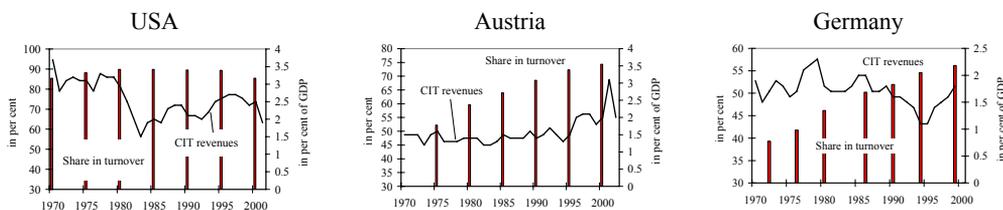
*Source: OECD Revenue Statistics.*

However, the picture given by the observed tax rates across time and across countries may not give the whole story. A possible counter argument against the vanishing corporate tax hypothesis is that, while rates have decreased empirically, tax revenues derived from corporate taxes on average have become quite stable in the OECD countries.<sup>3</sup> This fact is illustrated by chart 3. The upper two lines reflect the average ratio of corporate tax revenues to total tax revenues in OECD and EU countries. For the OECD as a whole, the long run average figure is 8% of total tax revenues. The lower lines give the average ratios when GDP is the denominator. From this overall picture there is little evidence that tax competition has eroded corporate taxes. A possible explanation is that the efforts to broaden the tax base by cutting exemptions and depreciation have more than compensated the cuts in tax rates. The empirical development may simply be a reflection of a levelling of the playing field rather than evidence of tax competition.

<sup>3</sup> For a similar observation see Devereux, Griffith and Klemm (2002).

On the other hand, base broadening may not have occurred only because of active policy measures. It may also be a side effect of an underlying time trend. Such a time trend could reflect the fact that more and more enterprises have to incorporate if they are to carry out their business more efficiently. Unfortunately, only a few countries have official statistics that make it possible to evaluate the existence of such an empirical trend. Chart 4 depicts three exceptions: Germany, Austria and the U.S.A. In each of the charts, the line represents the corporate income tax revenues as a fraction of GDP, measured on the right hand scale. The columns depict the share of turnover of incorporated businesses, which is plotted against the left hand scale. Since the early 1970s, corporate tax revenues as a fraction of GDP have come down in the U.S.A., have increased in Austria and have stayed roughly constant in Germany. The development in Austria and Germany that illustrates a sharply increasing role for corporations makes it particularly clear that, by looking at the development of revenues, the role of corporations relative to non-incorporated businesses should be kept in mind. The observation of a nearly constant revenue-to-GDP ratio is not sufficient to dismiss a race to the bottom. The increased role of corporations in Germany and Austria (and presumably in other countries) seems to blur the footprints of tax competition on the revenue side.<sup>4</sup>

*Chart 4: The Relative Importance of Incorporated Businesses*



*Note: In each of the charts, the line represents the corporate income tax revenues as a fraction of GDP, measured on the right hand scale. The columns depict the share of turnover of incorporated businesses measured on the left hand scale.*

*Source: OECD Revenue Statistics, U.S. Census Bureau, Bundesanstalt Statistik Österreich, Statistisches Bundesamt.*

Additional evidence that the picture given by tax revenues is distorted comes from forward looking measures of effective taxation as calculated by Devereux, Griffith and Klemm (2002). The authors clearly show that the effective average taxation of corporate profits, as implied by the tax codes, has decreased since the 1980s in

<sup>4</sup> A similar argument was made recently by Peter Birch Sørensen at the 2001 meeting of the German Economic Association, but without supporting evidence.

most countries. These forward looking measures of the tax burden are in line with empirical evidence for U.S. multinationals: over the years the average tax on a dollar of income earned by subsidiaries around the world has declined (Altshuler, Grubert and Newlon 2001).

So yes, from the evidence presented above, corporate income tax does look like an endangered species. This brings up the natural next question: what would be the costs if we were to lose this tax instrument in the process of tax competition? To address this question in the next sections we will review the various arguments that have been put forward to justify a corporate income tax.

## **2. The Arguments for a Corporate Income Tax**

### **2.1 The Corporate Income Tax as a Benefit Tax?**

Like individuals, corporations certainly profit from the legal system, the public infrastructure and public security. So why they should not pay taxes just like individuals? One answer is that corporations are owned by individuals who already are subject to taxation. Therefore, taxing corporations separately implies a double burden. Another counter argument against using the corporate income tax as a benefit tax is that there are usually other, more targeted, instruments available for internalizing the cost of providing public inputs (Mintz, 1995). If corporations eject dirty water and air, then it is better, and normally possible, to tax these unwanted activities directly. If corporations congest roads by using trucks, then a toll or a gasoline tax is the adequate answer.

Even if we came to the conclusion that those more direct instruments are unavailable, several problems with a corporate income tax as a benefit tax remain. Why should it be a sensible application of the benefit principle that a highly leveraged corporation, which, because of the tax deductibility of interest payments, has lower profits than an equity-financed corporation, should pay fewer benefit taxes? The crowding caused by a company truck is hardly dependent on the way it is financed. Even worse, it is not even related to the profits before interest and tax.

An argument proposed by legal scholars, but sometimes also considered by economists (Meade, 1978, p. 145), is that limited liability, which is a result of incorporation, is a benefit that justifies special benefit taxation. This argument overlooks the fact that it is only in some settings that limited liability is an advantage. When a business partner is contracting with a limited liability corporation the partner will be well aware of the potential loss from a non-performing corporation. The partner could therefore offer better conditions to an individual entrepreneur who offers unlimited liability and therefore a lower chance of default. An entrepreneur therefore bears a cost of incorporating that will internalize a sizeable fraction of possible external costs. External cost of

incorporation may prevail if there is a non-market relationship. For example, a corporation may take higher environmental risks if it is isolated from the possible cost by limited liability. But again, the adequate reaction to this problem would be a regulation against excessive risk taking, e.g. compulsory insurance for environmental hazards, rather than a general corporate income tax.

## 2.2 The Corporate Income Tax as a Tax on Foreigners?

When Bill Clinton ran for his first U.S. presidency in the early 1990s, a mocking phrase that was used to describe his tax agenda was: “Don't tax you, don't tax me, tax the guy from overseas.” In fact, a tax that falls on voters outside the own constituency is politically tempting and the corporate tax may be used as an instrument for “tax exporting”. Expressing it less negatively, it can be argued that a corporate tax is necessary to make sure that foreign owners of domestic corporations pay taxes in the host country of a foreign-owned corporation.

In some cases the cost of the tax on foreigners is minimal. This applies where the home country of a multinational allows a tax credit for taxes paid abroad. Some part, or even all, of the taxes levied in the host country may be refunded in the home country of a multinational. For this reason, a tax increase may not turn away foreign investors: the tax is like a free lunch. The argument for a corporate tax may also be strong in cases where foreigners are able to earn a pure economic rent. Insofar as the corporate tax is a tax on those pure rents, adverse investment reactions will also be absent.

Empirical studies, however, have made it clear that the free lunch hypothesis is only a faint approximation of reality. In reality, higher taxes do turn away foreign investors (see the survey by Ederveen and de Mooij, 2001), although tax elasticities may be even larger if home countries exempt foreign income instead of using a tax credit to alleviate double taxation (Desai, Foley and Hines, 2003).

The tax exporting motive is not completely absent when countries make their corporate tax decisions. A recent study by Huizinga and Nicodeme (2003) shows that countries with a large fraction of foreign-owned corporations tend to have a higher corporate tax than other countries. Nevertheless, if tax exporting was the main driving force in international tax competition, it would be hard to reconcile it with the observed downward trend in corporate taxation. Moreover, tax exporting measures that discriminate against foreigners may come under the scrutiny of the EU Court of Justice and this may limit their applicability.

## 2.3 The Corporate Income Tax as a Prepayment of Income Taxes

Once we dismiss the idea of a corporate tax as a benefit tax, the rationale for a separate corporate tax largely vanishes. But we may still want to keep the corporate

tax as a withholding device for the personal income tax. Ideally, the corporate tax should then reflect the personal tax rates of the owners of a corporation. This idea has been argued strongly by Engels and Stütze (1968) who suggested a system in which retained and distributed earnings of a corporation are effectively taxed at the personal tax rates of its shareholders. Corporate tax schemes that have been implemented in practice have been somewhat less ambitious. A real world corporate tax system that comes closest to the withholding idea is a full imputation system that aligns the corporate tax rate with the (top) personal income tax rate. When a dividend is paid by the corporation, the underlying corporate taxes are credited against the personal taxes of the shareholder. If the credit exceeds the personal tax that is due on the dividend income, there is a tax refund. If the corporation retains part of its earnings, then the effective tax on this part of its earnings reflects at least the personal income tax rate for those investors that are in the highest personal income tax bracket.

Globalization has brought up several problems for such a scheme. A first issue is that cross border ownership of shares makes it difficult to align the corporate tax rate with the investors' top personal tax rates. When investors come from different countries, there are different top personal rates. Even worse, countries may refuse to grant a tax credit for cross-border dividends. If the credit is given by the host country of the corporation, this implies that fewer or no taxes are collected on corporate profits when there is foreign ownership. Conversely, if the credit is given by the home country of the investor, then this country has to give a credit for taxes that another country has levied. In a recent ruling, the European Court of Justice (ECJ) has condemned exactly this latter reluctance and found that the corresponding asymmetry in the Finnish rules is in contradiction with the right of free capital movements.<sup>5</sup> Under the Finnish imputation system, a tax credit for underlying corporate taxes is granted to a Finnish personal tax payer if the dividend is paid by a Finnish corporation but is refused if the dividend is paid by a corporation from another EU Member State.

If a government is reluctant to refund corporate taxes that have been charged by other governments, the easiest way to react to the ECJ decision is to abolish imputation. Therefore, the ECJ decision seems to be the formal death sentence for imputation systems within Europe. The abolition of the imputation system in Germany for fiscal years after 2000 already anticipated this ruling. An “appeal” against this death sentence required multilateral coordination to implement a system of mutually extended tax credits.

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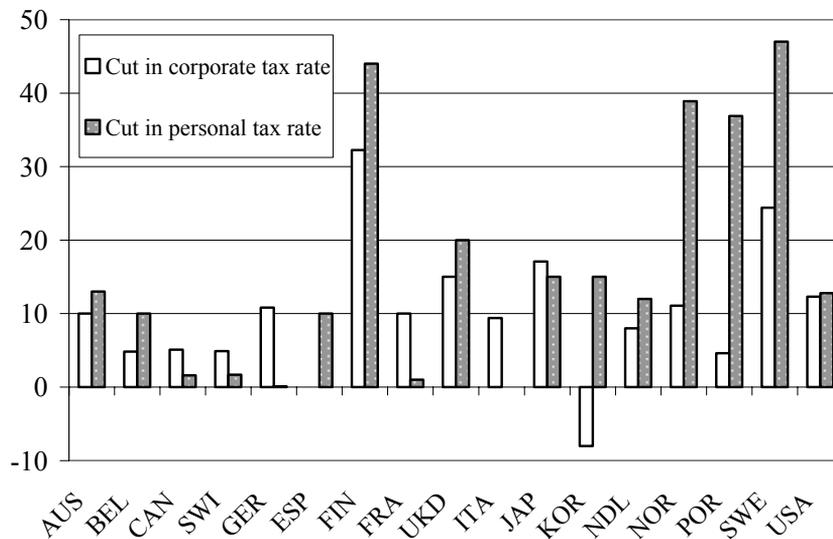
<sup>5</sup> ECJ decision of September 7, 2004 (C 319/02).

## 2.4 A Safeguard against Erosion of Personal Capital Taxation

Although globalization and European integration have made integration of corporate and personal tax systems more difficult, other reasons to stick to corporate taxation prevail. As long as countries continue to tax personal capital income there will be a demand for instruments that prevent evasion and avoidance. The European Directive on Interest Income (2003/48/EEC) can be seen as such an instrument: capital income should not be exempt simply because it derives from a foreign, rather than a domestic bank account. Leaving corporate income untaxed, while taxing personal capital income would generate another loophole.

Indeed there is empirical evidence that this loophole is important. Several studies on U.S. time series data (see MacKie-Mason and Gordon, 1997, Gordon and MacKie-Mason, 1994a, Goolsbee, 1998) show that the decision to incorporate is significantly related to the difference between the income tax rates on personal and corporate income, and a recent study using cross section tax differentials among U.S. states points in the same direction (Goolsbee, 2004).

*Chart 5: Cuts in Top Personal Tax Rates and Corporate Tax Rates (1985–1999)*



*Note: The cuts in personal tax rates between 1985 and 1999 refer to the top personal tax rate that is applicable to interest income. The rates for Switzerland (SWI) refer to Zurich, the rates for the U.S. refer to the state New York.*

*Source: Fuest and Weichenrieder (2002), Institut der deutschen Wirtschaft, several national ministries.*

Empirical evidence is also presented in Fuest and Weichenrieder (2002). The paper uses panel data on 13 countries and looks at the fraction of total savings that occurs in the corporate sector. The study finds that a 1 percentage point increase in the difference between the top personal income tax rate and the corporate tax rate increases the fraction of savings that occur in the corporate sector by some 2%.

*Table 1: The Vanishing of the Comprehensive Personal Income Tax*

Country	1985	2002
Austria		I/D
Belgium	I/D	I/D
Canada		D
Denmark		D
Finland		I/D/P
France	I	I
Germany		HK
Greece		I/D
Ireland		
Italy	I	I
Japan	I/D	I/D
Luxembourg		HK
Netherlands		I/D/P
Norway		I/D/P
Portugal		I/D
Spain		
Sweden		I/D/P
Switzerland		
U.K.		
U.S.A.		

*Source: IBFD, European Tax Handbook, several issues.*

The empirical evidence suggests that the decline in corporate tax rates may bring up problems in the taxation of personal capital income. For tax reasons, savers may prefer corporations rather than bank accounts if the corporate rates fall well below the personal rates. It is unclear, however, whether such a gap between personal and corporate tax rates is developing. As illustrated by chart 5, in many OECD countries, cuts in top personal tax rates on interest income have been even more pronounced than cuts in corporate tax rates. To some part this reflects a shift in income tax systems. While in 1985 a large majority of OECD countries used a comprehensive income tax under which all incomes were taxed at the same rate, many countries have changed to separate taxation of various income types with

lower rates on interest income. Table 1 gives a picture of the vanishing comprehensive income tax that is associated with this development by comparing the years 1985 and 2002. Countries marked with an *I* have a system that uses a scheduled tax on personal interest income. In the case of a *D* or a *P*, dividends/profits fall under a flat rate that is lower than the top income tax rate on labor income. The remaining shaded fields indicate countries that used a comprehensive system in the respective year. In some countries in this latter group only half of a received dividend is included in the personal tax base. This is denoted by *HK*.

The fact that in many countries tax rates on personal capital income have decreased by more than the rates on corporate income may hint at tax competition effects that are even more pronounced for the personal income tax than for the corporate income tax. Slemrod (2002, p. 1182) finds that, depending on the details of his exploratory regressions, the decline in personal tax rates can explain a large fraction of the decline in international corporate tax rates.

## 2.5 A Safeguard against Erosion of Personal Labor Taxation

Although the corporate income tax is a tax on capital and not on labor, it may act as an important instrument for protecting labor taxation from erosion. If tax policy implements different rates on different income baskets, tax payers are tempted to relabel income that falls in the high tax basket in order to shift it into the low tax one. Empirically, these incentives may be important. Gordon and Slemrod (2000) find that, for the U.S.A., a 1 percentage point increase in the difference between the corporate and personal taxes increases reported labor income by some 3%. In a similar vein, evidence from Norway provided by Fjaerli and Lund (2001) shows that the reduced rate on capital income significantly increased dividends and reduced wages of manager owners. Since the study by Fjaerli and Lund looks at a time period before Norway adapted a formal income splitting rule to avoid income shifting between baskets, it is difficult to say whether this result of huge income shifting is generally valid for dual income tax systems.<sup>6</sup>

It should be noted that a corporate income tax is just one way to curb income shifting. Alternatively, a cash flow tax on pure economic rents could be used to do the same job. The reason is that the instrument for curbing income shifting does not necessarily have to raise income on intra marginal units of capital invested. It is sufficient that a marginal euro shifted from the labor income basket to the corporate income basket is taxed the same in the two baskets and therefore that

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<sup>6</sup> A dual income tax system combines progressive taxation of labor income with a low flat rate on capital income.

shifting brings no tax savings.<sup>7</sup> In addition, more analysis on the Nordic models of income splitting would be welcome to see whether income shifting can be effectively curbed in the face of differing tax rates on labor and capital income.

### 3. Conclusion

Corporate income taxes in OECD countries account for some 8% of total tax revenues. From the point of view of a treasury department, this may suffice to conclude that the corporate tax is needed. In this paper I have discussed some more subtle reasons that may justify a corporate tax. Several studies have pointed out that the corporate income tax may have an important backstop function that helps preserve the tax base of other taxes and the erosion of the corporate tax in the process of tax competition may therefore have severe additional effects.

The importance of the backstop function for capital taxation in general largely depends on whether capital taxation continues to be demanded in the first place. If the answer is yes, then reduced corporate taxes, keeping other taxes on capital constant, seem to lead to sizable income shifting towards the corporate sector and away from the higher taxed sectors. The importance of the corporate tax as a backstop for labor taxation largely depends on the functioning of alternative measures to avoid income shifting. More empirical analysis in this area would be very welcome.

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<sup>7</sup> Given that the tax on corporations is expected to raise revenues, a pure cash flow tax may be more vulnerable to international income shifting by multinational firms via transfer pricing than a corporate income tax. See Gordon and MacKie-Mason (1994b) and Haufler and Schjelderup (2000).

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