The Effective Tax Burden of Companies in Europe

Michael Overesch*

Company taxation is commonly accepted as a relevant location factor. In this context the measurement and the international comparison of the effective tax burden indicates differences in the attractiveness of locations. This study compares the effective tax burden of companies based on a measure which reflects the impact of company taxation on decisions and in particular on location choices. The calculations were carried out at the Centre for European Economic Research (ZEW) and are based on an approach which was introduced by Devereux and Griffith (1999). This approach is useful for analysing the impact of taxation on investment decisions. Moreover, profit-shifting strategies can also be integrated. A more detailed study based on the same approach covering regional differences and additional non-EU countries has been done for the IBC International Benchmark Club of BAK Basel Economics.[1]

Measuring the effective tax burden

Regarding the impact of company taxation on location decisions, a measure of the effective tax burden has to reflect the decision process on investment strategies. These so-called forward-looking approaches calculate the tax burden on a hypothetical investment project of a company taking into account the existing tax rules. In general, so-called backward-looking approaches cannot measure the impact of taxation on decisions (Sørensen 2004, 17–19). Well-known examples for backward-looking measures are the implicit tax rates provided by the EU Communities (2005). They are helpful in analysing distribution effects of taxation but not in the context of looking at company taxation as a location factor. A comparison only based on statutory income tax rates is also insufficient, because this would neglect differences in the determination of tax bases and non-income taxes. Hence, in the context of taxation as a location factor measures of an effective tax burden should be calculated as a share of an investor's financial target, e.g. the project's net present value. The approach of Devereux and Griffith (1999) used for calculating the effective tax burden of companies in this study fulfils all these requirements. This neoclassical model is based on a commonly accepted framework developed by King and Fullerton (1984). It provides a possibility for taking into account the most relevant provisions of tax regimes in a systematic way. Using this approach, cost of capital, an effective marginal tax rate (EMTR) and an effective average tax rate (EATR) can be computed. The cost of capital and the EMTR are measures for the effective tax burden attributable to marginal investments, whereas the EATR shows the effective tax burden on profitable investments.

Marginal investments display a net present value of zero, i.e. they yield a rate of return on the initially invested capital that is just sufficient in order to compete with the alternative investment. This minimum rate of return before taxes required by an investor is called cost of capital. Thus, in the absence of taxes, the cost of capital equals the real market interest rate. If taxation causes the cost of capital to fall below the real market interest rate, it favours the corporate investment over the alternative investment and vice versa. In this case, taxation exerts an influence on the optimal level of investment activity. Furthermore, the cost of capital can act as an indicator for the competitiveness of a company, since it determines the long-term lower limit of potential prices at which the company can offer its products. While the cost of capital measures the minimum rate of return, the EMTR reflects the percentage difference between the cost of capital, denoted by $\tilde{p}$ and the post-tax real rate of return, denoted by s:

$$EMTR = \frac{\tilde{p} - s}{\tilde{p}}$$

The EMTR determines the share of the return on a marginal investment which is cut by taxation. If we focus only on taxation at the corporate level, the real post-tax rate of return equals the real market interest rate r. In this case, the EMTR and cost of capital contain the same information.[2] Determining the effective tax burden on marginal investments in terms of EMTR facilitates the comparison with other concepts of tax rates like EATR or the statutory profit tax rate.

* Michael Overesch is researcher at the Centre for European Economic Research (ZEW) in Mannheim.

[1] See IBC Taxation Index 2005 (www.bakbasel.com).

[2] However, if personal taxes are considered, cost of capital and the EMTR provide different information.

The EATR reflects the percentage reduction of the net present value of a profitable, inframarginal investment that is caused by taxation. An inframarginal, profitable investment yields a rate of return p above the cost of capital $\tilde{p}$. Detailed technical descriptions of effective tax rates are provided by Devereux and Griffith (1999) or Schreiber, Spengel and Lammersen (2002). When choosing between two or more mutually exclusive profitable investments, a company will favour the alternative that yields the highest post-tax net present value. Location choices for subsidiaries of international corporations represent the most relevant example for this kind of decision. Consequently, the EATR is an important indicator for the attractiveness of a location, whereas the cost of capital indicates the optimal size of an investment.

The following equation describes a particular relationship between the cost of capital, the EMTR and the EATR:

$$EATR = \frac{\tilde{p}}{p} \cdot EMTR + \frac{p - \tilde{p}}{p} \cdot \tau$$

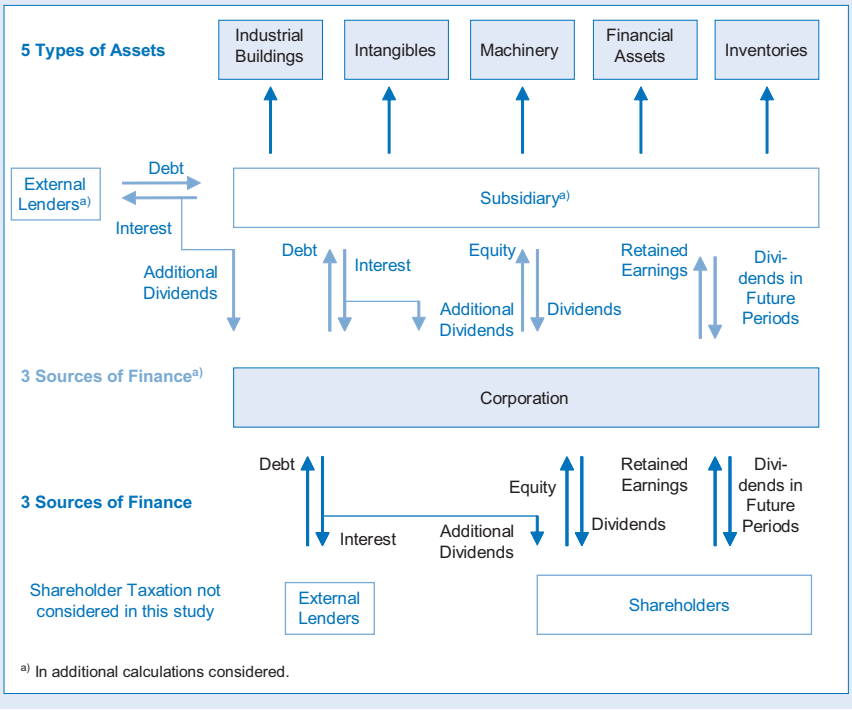
This relationship illustrates the properties of the EATR and helps to identify the impact of the different tax drivers on the effective tax burden. The EATR equals the weighted average of the EMTR and the combined effective statutory corporate income tax rate, denoted by τ. The weights are determined by the proportion of the pre-tax return p that is covered by the cost of capital $\tilde{p}$ (for the EMTR) and the fraction that is above the cost of capital (for the combined tax rate). Consequently, the EATR equals the EMTR if the assumed rate of return of an additional investment equals the cost of capital. The effective tax rate of an investment does not only depend on the statutory corporate income tax rate, but is also affected by the definition of the tax base – especially by tax depreciation allowances – and by non-income taxes. However, the more the rate of return exceeds the cost of capital the more the EATR converges against the combined effective statutory corporate income tax rate τ. Therefore, if the level of profitability is increased, the treatment of expenses for tax purposes will become less relevant for the determination of the effective tax burden. Since marginal and profitable investments display the same initial cost but different levels of return, non-income taxes cut a lower proportion of the return of a more profitable investment and become less relevant as well. In summary, the statutory income tax rate becomes the dominant factor in determining the effective tax burden of a highly profitable investment.

Assumptions of the model

The investment and financial structure of the model is illustrated in Figure 1. The model assumes a company in the manufacturing sector with the legal form of a corporation. This corporation invests in five different assets: industrial buildings, intangibles (patents) bought from third parties, machinery, financial assets, and inventories. The types of assets are weighted equally. The financing policies of the corporation take three different sources of finance into account: new equity capital, retained earnings and debt from external lenders. The sources of finance are also

Figure 1

STRUCTURE OF THE SUPPOSED INVESTMENT



weighted equally. The EATR is calculated by assuming a pre-tax real rate of return of about 20 percent. Note that this study considers taxes at the corporate level only. First, the structure presented in Figure 1 is assumed without a controlling company. Then, we include a chain of ownership as well as an alternative source of finance, debt borrowed by the affiliate from external lenders.

Table 1 summarises the most important model assumptions of our calculations. The model covers the most relevant tax provisions of the national tax systems. With respect to corporate taxation, it considers headline statutory corporate profit tax rates as well as surcharges and some other special rates for particular types of income and expenditures. It also takes into account the most important features of non-income taxes, and it generally assumes a level of corporate profits and capital at which the top-bracket statutory tax rates apply. With regard to the definition of the taxable base, it considers the relevant rules with respect to depreciation and amortisation allowances, valuation of inventories and interest deductibility in case of debt financing.

Table 1

Summary of the most important assumptions

Assumption with regard to …	Value
Legal Form	Corporation
Industry	Manufacturing sector
Assets (weight)	Industrial buildings, intangibles, machinery, financial assets, inventories (at equal weights)
Sources of finance (weight)	Retained earnings (1/3), new equity (1/3), debt (1/3)
True economic depreciation	Declining balance method Industrial buildings 3.1% Intangibles 15.35% Machinery 17.5%
Real interest rate	5%
Pre-tax real rate of return (for calculation of EATR)	20%
Inflation rate	2%

International comparison of the effective tax burden of companies

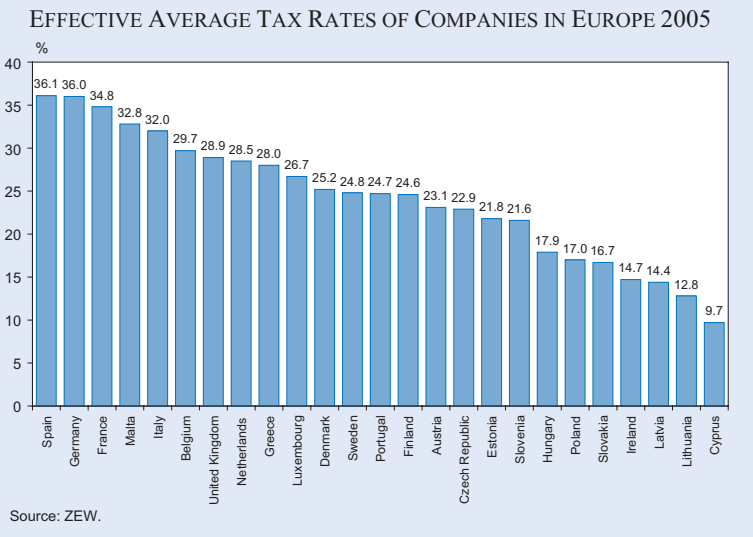
Basically, international differences in company taxation can influence decisions on the location of real investment (investment-shifting) and decisions on the location of profit declaration for tax purposes (profit-shifting). First, we focus on tax effects on investment decisions. For this purpose, the non-tax assumptions of the model are fixed at an equal level. The most relevant case of investment decisions of multinational groups are decisions on profitable investment projects. As described above, the EATR is the relevant measure to calculate the tax burden of a profitable project. The significance of the EATR as a relevant tax indicator has been tested empirically by Devereux and Griffith (1998), and Büttner and Ruf (2004). Therefore, we focus on an international comparison of the EATR as an indicator of the attractiveness of countries in case of location decisions. Figure 2 contains an international ranking of the EATRs companies located in the EU member states have to face. The set of results was calculated with the model presented above. A chain of ownership was not assumed. The calculations considered the tax law as of 2005. However, the effective tax burden varies significantly between each municipality, in particular in France and Germany. In Spain, a remarkable variation is also caused by a local business tax which depends on local and additionally on sectoral factors. Therefore, results were calculated by assuming an average tax level if tax levels vary due to local taxes.[3]

Obviously, there are substantial differences in terms of the EATR between European countries. In the EU, the highest EATRs on investments can be observed in Spain, Germany and France. In contrast, a lot of countries, especially in Eastern Europe, offer remarkably low levels of company tax rates. Moreover, small countries near the border of the European Union like Ireland, Cyprus, and the Baltic states have remarkably attractive company taxation. Nevertheless, a lot of Western European countries display a moderate effective tax burden. Countries like Spain, Germany, France and Italy, which levy significant additional local taxes, display high effective tax burdens. For example, the EATR of German companies would be at the comparatively moderate level of 23.8 percent if the local trade tax were not considered.

As a result of the comparison of the EATRs and the statutory tax rates presented in Table 2 it is obvious, that the ranking in terms of the EATR is mainly caused by the ranking of the statutory profit tax rates. This is due to the fact that the higher the expected profit rate the more the statutory tax rate influences the effective tax rate. This relationship be-

[3] See IBC Taxation Index 2005 (www.bakbasel.com) for regional results.

Figure 2



tween effective tax rates and the statutory profit tax rate can also be explained intuitively. If we consider a profitable investment with the same level of expenses as a marginal investment, but now accompanied by a higher level of income, the additional income is regularly taxed at the statutory tax rate without triggering additional allowances.

For a detailed discussion of tax drivers, additional results of a marginal investment expressed by EMTRs are presented in Table 2. The impact of the statutory profit tax rate becomes obvious by comparing different levels of profitability. Looking at Austria for example, the EMTR indicates, that the definition of the taxable income and non-income taxation are more favourable in other regions and do not primarily account for the low EATR in Austria. The comparatively moderate statutory profit tax rate constitutes the main reason for the good ranking of Austria compared to other Western European countries with similar or more favourable tax bases but higher statutory profit tax rates (e.g. Luxembourg, Belgium). Those European countries having the highest combined statutory tax rates on profits (Spain and Germany) also display the highest effective tax burden. Despite a lower statutory profit tax rate, the EATR for France is comparably high. This is due to the relatively high level of non-income taxes on industrial buildings and machinery, which also accounts for the highest EMTR.

Regarding the Eastern European countries, one can see that they exhibit low statutory profit tax rates and favourable rules concerning depreciation allowances. The Hungarian EATR is, in spite of a lower combined statutory profit tax rate, higher than effective tax rates in other countries. This is due to the fact that the rules determining the tax base are less favourable in Hungary, and depreciation allowances and interest expenses do not reduce the base of the Hungarian local business tax. The comparatively high Hungarian EMTR indicates that the impact of the local business tax on the effective tax burden increases if the assumed profitability of the investment declines. The EATRs of Latvia and Lithuania only differ slightly from each other, since these countries have the same combined statutory profit tax rates. Most notably, a variation can be found in the level of real estate taxes and the definition of taxable income, which is also reflected in a stronger divergence of the EMTRs. In Slovenia, the tax system provides favourable asset depreciation allowances so that the higher statutory profit tax rate does not become relevant. Even without the absence of any non-income taxes, these tax provisions result in a relatively low EMTR.

Table 2

Tax rates in percent, 2005

	Statutory profit tax rate	EMTR	EATR
Austria	25.0	18.9	23.1
Belgium	34.0	20.4	29.7
Cyprus	10.0	8.8	9.7
Czech Republic	26.0	15.6	22.9
Denmark	28.0	19.1	25.2
Estonia	24.0	16.8	21.8
Finland	26.0	21.7	24.6
France	34.9	34.7	34.8
Germany	39.4	30.0	36.0
Greece	32.0	19.0	28.0
Hungary	17.7	18.6	17.9
Ireland	12.5	14.4	14.7
Italy	37.3	22.7	32.0
Latvia	15.0	12.7	14.4
Lithuania	15.0	6.9	12.8
Luxembourg	30.4	18.3	26.7
Malta	35.0	28.8	32.8
Poland	19.0	11.9	17.0
Portugal	27.5	18.4	24.7
Slovakia	19.0	10.7	16.7
Slovenia	25.0	13.2	21.6
Spain	39.9	29.2	36.1
Sweden	28.0	19.1	24.8
Netherlands	31.5	22.2	28.5
United Kingdom	30.0	26.7	28.9

Source: ZEW.

With respect to the source of finance, we found a general pattern in the countries considered: Since interest payments are completely or at least partly deductible at the corporate level, debt is tax privileged compared to the other two sources of finance. Furthermore, the effective tax burden at the corporate level on investments financed with retained earnings does not differ from those on investments financed with new equity, since assessed tax systems treat retained earnings and new equity equally at the corporate level. The only exemption is Estonia where retained earnings are tax exempt. Taxation of the marginal shareholder of a company determines the value of the firm and should be taken into account in management decisions. Nevertheless, ignoring taxes at the shareholder level is an adequate method if managers do not know the tax position of their marginal shareholder. However, domestic shareholder taxation does not affect corporate investment decisions of multinationals when there is substantial international capital mobility. Therefore, shareholder taxation is not considered in this study.[4]

Since it is important to calculate the effective tax burden from the point of view of the relevant decision-level, the model can be extended by adding a controlling company. This extended structure is shown in Figure 1. The consideration of the tax burden at the level of the controlling company displays the relevant effective tax burden while choosing a foreign investment location. As an example, we present the effective tax burden in terms of the EATR relevant for an investment project of German controlled affiliates within Europe. We assumed equal weighted sources of finance (retained earnings, new equity, debt) which are granted by the German holding company.

A ranking of EATRs of German-controlled affiliates is presented in the first column of Table 3 in the last part of this study. These EATRs were calculated at the level of the German controlling company. The ranking equals the ranking of the EATRs calculated at the affiliate-level, since Germany applies a system of limited exemption to domestic and foreign inter-company dividends.

[4] For a discussion of these issues see European Commission (2002, 142–43) or Lammersen and Schwager (2005, 69–70).

The levels of tax burden are slightly higher due to the additional German tax of five percent on inter-company dividends received and due to the higher German taxes burdened on inter-company interests. Therefore, the results calculated at the affiliate-level provide a good ranking if the controlling company's country exempts foreign dividends.

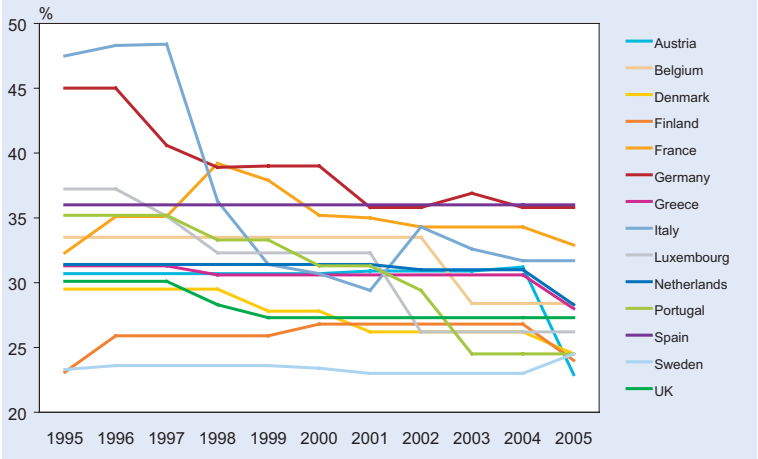
It is apparent that the differences in terms of the EATR are determined mainly by different statutory profit tax rates and that they are less determined by differences in determining tax bases. The decrease of the statutory tax rate can be named as a favourable tool to reduce the EATR and to attract highly profitable real investments. The impact of the statutory tax rate is also evident on the ranking in terms of the EMTR. Consequently, convergence of statutory tax rates would reduce differences in effective tax burden within Europe remarkably.

Time series of effective average tax rates

The international mobility of capital has led to competition between countries intent on attracting real investments and tax bases. Figure 2 presents the current picture of the tax competition within Europe. We have calculated time series of the EATR of EU countries to investigate changes in the European tax competition over time. A permanent trend of declining effective tax rates in Western European countries is displayed by Figure 3 for the period from 1995 to 2005. Even longer time series from 1984 on have been provided by Schreiber and Overesch (2005). During the late 1980s and the earlier 1990s, there were significant reductions in the effective tax

Figure 3

EFFECTIVE AVERAGE TAX RATES IN WESTERN EUROPEAN COUNTRIES



Source: ZEW.

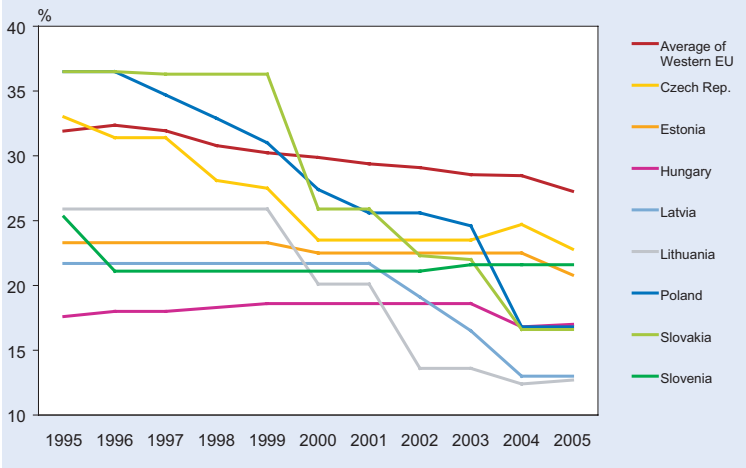
rates in Europe. In particular, the Scandinavian countries significantly lowered their effective tax burden by introducing dual income tax systems, which levied a lower tax burden on capital profits.

Apparently, since 1995, rate cutting activities have continued and the Western European countries have, in general, lowered effective tax rates. The average of the EATRs in the former 15 EU member states has declined from 32.1 percent in 1995 down to 27.8 percent in 2005. The highest decreases were observed in Germany and Italy. Most of the European countries have significantly decreased their statutory tax rate. Additionally, non-income taxes at the corporate level have been abolished. Furthermore, the new EU member states have joined the tax competition process. Figure 4 presents EATRs of companies located in the new EU member states from 1995 on. The effective tax rates of the new EU member states before joining the EU must be interpreted carefully, however, because they do not reflect the remarkable tax incentives like tax holidays granted by these states before EU enlargement. Therefore, the interpretation of the observed decreases in terms of the EATR of the new member states must take into account the broadening of their tax base. This was done by the abolishment of various tax holidays and investment tax credits.

During the last two years, a lot of European countries significantly lowered their effective tax rates, in particular by reducing their statutory tax rates. In 2004, Poland and Slovakia e.g., lowered their statutory tax rates from 27 percent and 25 percent, respectively, down to 19 percent. The process of tax rate reductions was continued by the Czech Republic and Estonia in 2005. Moreover, remarkable rate cuts were observed in the former 15 EU member states. In 2005 Austria, Denmark, France, Finland, Greece and The Netherlands cut their statutory company tax rates. Thus, further reductions of tax rates can be expected.

Figure 4

EFFECTIVE AVERAGE TAX RATES IN THE NEW MEMBER STATES



Source: ZEW.

Tax planning strategies

The presented indicators of the tax burden on investment projects point out the potential impact of taxation on decisions with respect to the location of real investments. However, in addition to the incentive to shift real investments towards a tax attractive location, a multinational company can react to international tax differences by cross-border tax planning strategies, i.e. shifting the declaration of profits for tax purposes. For example, a multinational corporation can shift profits between affiliates via transfer pricing or financial strategies. The incentive to shift profit declaration is a direct result of differences between the statutory tax rates. The first column in Table 2 shows the considerable variation of statutory tax rates within the EU.

It is even rather difficult to quantify precisely the effects generated by profit-shifting. However, the general effect of profit-shifting strategies on the effective tax burden can be analysed by the model applied in this study. Therefore, the model assumption on equally weighted sources of finance is given up in order to show effects of tax planning via finance. Basically, debt finance is tax efficient because of the tax shield generated by the interest deduction in tax accounting. Tax savings caused by interest deduction are a function of the avoided tax rate. We present results of a German parent corporation. Since interest deductions are limited to 50 percent for purposes of the trade tax, the tax rate avoided is 32.9 percent in Germany. Consequently, in view of the comparatively high German statutory tax rate, the tax efficient strategy of a German parent company is to borrow debt. Hence, we calculated tax burdens in terms of the EATR using a debt-financed German parent company with an equity-financed affiliate in Europe that carries out the real invest-

ment. In Table 3, the effects of such tax-efficient financial strategies can be seen. The differences between these EATRs and those which were calculated for the mixed financing of a German controlled affiliate show the significantly positive effect of this kind of tax arbitrage. The multinational group generates high tax savings in the high tax country Germany, since it has to pay comparatively low taxes in most of the analysed countries. This behaviour results in a higher tax base for the involved low tax country, while the involved high tax country is losing tax base because of the company's interest deduction from other taxable profits generated in that country.

Table 3

EATR in percent of a German controlled affiliate financed by …

	Equally weighted sources of finance both in Germany and the affiliate	External debt in Germany and by equity of the affiliate	External debt borrowed by the affiliate
Austria	26.4	15.6	18.5
Belgium	32.9	23.0	22.9
Cyprus	13.2	0.6	8.7
Czech Republic	26.2	15.5	18.0
Denmark	28.5	18.0	19.8
Estonia	25.1	8.7	20.1
Finland	27.9	17.1	19.7
France	37.9	28.1	27.6
Germany	36.0	28.4	28.4
Greece	31.2	21.1	21.6
Hungary	21.2	9.4	15.3
Ireland	18.2	6.2	12.5
Italy	35.1	25.2	25.3
Latvia	17.8	5.8	12.1
Lithuania	16.3	4.3	10.6
Luxembourg	29.9	19.7	20.7
Malta	35.9	26.2	25.7
Poland	20.4	8.8	13.8
Portugal	28.0	17.4	19.4
Slovakia	20.1	8.5	13.5
Slovenia	24.9	14.1	17.0
Spain	39.1	29.4	28.9
Sweden	28.0	17.5	19.6
Netherlands	31.7	21.6	22.3
United Kingdom	32.1	21.7	23.0

Source: ZEW.

As shown above, the effective tax burden of an investment project can be reduced remarkably by using debt. In general, a multinational group decides on assignment of debt. The last column of Table 3 presents EATRs if the project is financed by locally borrowed external debt instead of external debt borrowed by the German controlling company. Equal non-tax constraints in each country were assumed in order to focus on the tax effects of this financial strategy. A comparison of the resulting effective tax burden reveals that it is more favourable to finance an investment via German external debt instead of local external debt. Only in case of affiliates in Belgium, France, Malta or Spain, local borrowing seems to be more favourable from a tax perspective. This result is caused by the comparatively high German statutory tax rate, which can be avoided by interest deductions in Germany. From the point of view of the involved countries, there is a strong tax incentive for multinational groups to allocate external debt in affiliates located in high tax countries like Germany. Correspondingly, companies situated in high tax countries will usually have comparatively low taxable profits and therefore low effective tax payments.

In case of a controlling company in a low tax country, the effects on the location of the tax payments of the multinational group are similar. The affiliates located in high tax countries are leveraged by external or inter-company debt. The inter-company interest payments reduce the tax base in the high tax country and are taxed at the lower level of the lending company. Anti-abuse provisions of national tax law, e.g. thin-capitalization rules, are limited, since the European Court of Justice bans national regulations which can be qualified as restrictions of the freedom of establishment or the movement of capital. Moreover, the EU council directive on interest and royalties and the parent-subsidiary directive extensively prohibit withholding taxes on interest, royalties, and dividend payments to affiliated companies.[5] Basically, the differences in the EATRs as displayed in Figure 2 influence location decisions on real investments to a greater extent if limitations of profit-shifting exist. Thus, in particular, small and medium-sized enterprises without any foreign affiliates cannot evade the high effective tax burden of their location. It seems that multinational groups can decrease the effective tax burden of their affiliates in high tax countries via tax planning strategies.

Conclusion

The measurement of the effective tax burden on companies in this study relies on an approach introduced by Devereux and Griffith (1999) which fulfils all requirements to analyse company taxation as a location factor. The calculated tax burden in terms of the EATR is the relevant measure for the interna-

[5] See EU Directives 2003/49/EC and 2003/123/EC.

tional comparison of tax burden on profitable investment projects which are typical for international location decisions. The comparison of the EATRs indicates remarkable differences between the EU member states in 2005. Spain, Germany and France can be identified as high tax countries within the European Union, whereas Ireland, Cyprus and the new member states in Eastern Europe can be described as low tax areas. Time series of EATRs indicate a general trend towards cutting the effective tax rates in Europe. In 2005, this trend was continued and six of the former 15 EU member states lowered the tax burden of companies.

In addition to the analysis of company taxation as a location factor, the model can show the incentive to shift profits into low tax countries. Multinational groups can reduce the effective tax burden via tax planning strategies. On the contrary, small and medium-sized enterprises without foreign affiliates cannot evade the high effective tax burden of their location. Basically, differences in the effective tax rates calculated without considering special tax planning strategies influence decisions on real investments to a greater extent if constraints of profit-shifting exist.

From the point of view of each country, cutting the statutory profit tax rate seems to be a favourable strategy, because that strategy improves the position in the international tax competition on both real investments and mobile taxable profits. A reduction of statutory tax rates in high tax countries significantly lowers differences in the EATR between European countries. The impact of differences in the determination of tax bases seems to be less relevant for location decisions. Furthermore, the incentive to shift profits into another jurisdiction is directly decreased by reducing the statutory tax rate.

References

Büttner, T. and M. Ruf (2004), "Tax Incentives and the Location of FDI: Evidence from a Panel of German Multinationals", *ZEW Discussion Paper* 04–76.

Devereux, M. P. and R. Griffith (1998), "Taxes and the Location of Production: Evidence from a Panel of US Multinationals", *Journal of Public Economics* 68, 335–67.

Devereux, M. P. and R. Griffith (1999), "The Taxation of Discrete Investment Choices", *IFS Working Paper* W98/16, revision 2.

European Commission (2002), "Company Taxation in the Internal Market", *Commission Staff Working Paper* COM (2001) 582 final.

European Communities (2005), *Structures of the Taxation Systems in the European Union – Data 1995–2003*, http://europa.eu.int/comm/taxation_customs/taxation/gen_info/eco-nomic_analysis/tax_structures/index_en.htm (accessed 28 October 2005).

King, M. A. and D. Fullerton (1984), *The Taxation of Income from Capital*, University of Chicago Press, Chicago.

Lammersen, L. and R. Schwager (2005), *The Effective Tax Burden of Companies in European Regions*, ZEW Economic Studies, Physica, Heidelberg/New York.

Schreiber, U., C. Spengel and L. Lammersen (2002), "Measuring the Impact of Taxation on Investment and Financing Decisions", *Schmalenbach Business Review* 54, 2–23.

Schreiber U. and M. Overesch (2005), "Effektive Steuerbelastung der Unternehmen und Steuerpolitik", *Wirtschaftsdienst* 85, 220–25.

Sørensen P. B. (2004), "Measuring Taxes on Capital and Labor: An Overview of Methods and Issues", in P. B. Sørensen, ed., *Measuring the Tax Burden on Capital and Labor*, CESifo Series, MIT Press Cambridge, Mass.