Schäfer, Anne; Spengel, Christoph

Working Paper

International Tax Planning in the Age of ICT

ZEW Discussion Papers, No. 04-27

Provided in cooperation with:
Zentrum für Europäische Wirtschaftsforschung (ZEW)

Suggested citation: Schäfer, Anne; Spengel, Christoph (2004) : International Tax Planning in the Age of ICT, ZEW Discussion Papers, No. 04-27, http://hdl.handle.net/10419/24034

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Anne Schäfer and Christoph Spengel

ZEW
Zentrum für Europäische Wirtschaftsforschung GmbH
Centre for European Economic Research

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Dank gilt der Landesstiftung Baden-Württemberg für die finanzielle Unterstützung der Forschungsarbeit.

Financial support by the Landesstiftung Baden-Württemberg foundation is gratefully acknowledged.

Non-Technical Summary

The increased use of *information and communication technologies* (ICT) leads to new ways of doing business internationally. Nowadays, firm-specific intangible assets and services constitute the most important factors for the creation of value. Besides, geographic distances between different parts of a company as well as between the companies and their customers tend to be less relevant. Consequently, many functions of a company are becoming more mobile and independent of physical location factors.

The main objective of *international tax planning* consists of minimising the overall effective tax rate of the whole company or group. One suitable means to reduce the effective tax rate is to take advantage of international differences in tax rates.

The *objective* of this paper is to show the impact of the increased use of ICT on the possibilities of international tax planning of multinational companies. For several tax planning instruments it is analysed whether new *chances of minimising the effective tax rate* emerge and to what extent new *risks* occur with the use of ICT. The analysis comprises the (re)location of a company's residence, the (re)allocation of functions and risks, the implementation of a transfer pricing system, the choice of form and location of investments abroad as well as hybrid forms of co-operation. For each instrument, current as well as non-current tax issues are considered.

We conclude that, first, the tax optimal choice of a *company's residence* becomes more flexible. However, the effectiveness of this instrument is impaired in case a relocation of residence entails a taxation of hidden reserves. Second, the tax-optimal *allocation of functions and risks* is nowadays easier possible and, therefore, constitutes a tax planning instrument of increasing importance. The issue of a realisation of profits in case of a relocation of functions and risks may occur less frequently or may be reduced by certain tax planning strategies. Third, it is nowadays easier to make use of the international tax differential by the choice of an *investment location* as well as the optimal *form of investment*. In this context, the application of anti-tax-haven rules comes into question more frequently. Since companies may reach their tax planning objectives to a greater extent, investments in lower-taxing source countries might further increase. Fourth, with the emergence of *hybrid forms of co-operation*, the potential for international tax planning is enlarged, whereas at the same time the risk of qualification conflicts emerges.

To summarise, due to ICT, it is nowadays easier to make use of the international tax differential by choosing the optimal location of doing business and by allocating functions and risks in an optimal way. Thus, companies can pay more attention to the tax-optimal choice between international locations. The importance of this instrument to reduce the effective tax rate is further strengthened by the use of ICT.

International Tax Planning in the Age of ICT

ANNE SCHÄFER[1] and CHRISTOPH SPENGEL[2]

March 2004

Abstract

The increased use of information and communication technologies (ICT) leads to new ways of doing business internationally. Nowadays, firm-specific intangible assets as well as services often constitute the most important factors for the creation of value. Besides, geographic distances tend to be less relevant.

The main objective of international tax planning consists of minimising the effective tax rate of the whole company or group. In this paper, it is examined for several instruments of international tax planning whether new chances of minimising the effective tax rate emerge with the use of ICT and to what extent new risks occur. The analysis comprises the (re)location of a company's residence, the (re)allocation of functions and risks, the implementation of a transfer pricing system, the choice of the form and location of investments abroad as well as hybrid forms of co-operation. For each instrument, both current and non-current tax issues are considered.

We conclude that, due to ICT, it is easier to make use of the international tax differential by choosing the optimal location and form of investment and by allocating functions and risks. Thus, companies can pay more attention to the tax-optimal choice between international locations and the importance of this instrument to reduce the effective tax rate is further strengthened by the use of ICT.

JEL-Classification: H 25

Keywords: International Company Taxation, Tax Planning, Information and Communication Technologies, Electronic Commerce

Acknowledgement: Financial support by the Landesstiftung Baden-Württemberg foundation is gratefully acknowledged.

Address: ZEW (Centre for European Economic Research)
Research Group for Information and Communication Technologies
P.O. Box 10 34 43
D – 68034 Mannheim
Phone: +49/621/1235-352
Fax: +49/621/1235-333
E-Mail: schaefer@zew.de, spengel@zew.de

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[1] ZEW (Centre for European Economic Research).

[2] ZEW (Centre for European Economic Research) and University of Gießen.

Structure

1. Introduction

The increased use of *information and communication technologies* (ICT) leads to new ways of doing business. Firstly, instead of physical value added factors, rather firm-specific intangible assets as well as services rendered are nowadays important factors in creating value within a company. Thus, many activities and functions of a company are mobile and independent of any physical location factors. As a consequence, the locations of business activities as well as of the company's residence are becoming more independent. Secondly, by means of ICT, geographic distances between different parts of a company as well as between the companies and their customers tend to be irrelevant. Consequently, doing business internationally is now easily possible, since a company's different business activities can be spread out all over the world. In addition, a company does not need to install any business premises in a certain country in order to reach the customers and to do business there. The same holds true for reaching possible business partners for the purpose of co-operation. Furthermore, employees can as well choose their country of residence more independently from the domicile of the company, as the link can be effected via means of ICT.

Generally, the main goal of a company is to maximise its profits, which implies that taxes should be minimised. An increasingly important benchmark for measuring a company's tax burden is the *effective tax rate* of a company or a group of companies. In order to reduce the effective tax rate, a very important means is to make use of the international differences in tax rates. For this purpose, lawful instruments of international tax planning consist of the choice of a company's location of residence, an optimal allocation of functions and risks as well as the choice of a target jurisdiction and the legal form of investments abroad.

The *objective of this paper* is to show the impact of the increased use of ICT on the possibilities of international tax planning of multinational companies. Several tax planning instruments of minimising the effective tax rate will be analysed to see whether or not changes result from the altered business environment, for example to what extent profits can be shifted more easily or whether the tax attributes in the residence and the source country are more disposable. Besides those chances of international tax planning, possible fiscal risks are also examined. The analysis covers both current and non-current tax aspects, since non-periodic tax planning issues have implications on the suitability of the current tax planning instruments. In addition, it is examined whether the importance of the different fields of international tax planning has changed. The analysis comprises both multinational groups (MNGs) using ICT in some way and international virtual organisations.

2. Economic Changes due to the Use of ICT

2.1. The Impact of ICT on Organisational Structures of Markets and Firms

Generally, the reason for a company to invest in a certain country consists of realising *economic rents*. They can be attributed either to location-specific factors or to firm-specific inputs.[1] *Location specific rents* can only be achieved at a certain place of production, since the activities are realisable only in one place.[2] Possible location specific factors are the location of other business partners, customers, suppliers or even rival businesses. Besides, favourable investment conditions and the availability of necessary factors of production, such as well-trained employees, a favourable environment for R&D, a fully developed infrastructure, a low administrative burden or the potential for realising cost advantages, e.g. lower labour costs, rank among the factors specific to a certain location.[3] Besides, a company can realise *firm-specific rents*. They are attributed to company-specific advantages, such as intangibles in form of special know-how, patents or trademarks. The firm-specific rents can be realised independently of where the respective activities take place, since they are rather dependent on the company itself than on any physical location.[4]

The use of ICT entails two main consequences for doing business: Firstly, *firm-specific intangible assets* and *services* are becoming increasingly important for the value added and often constitute crucial factors for creating value. On the one hand, intangible assets may be legally protected, such as patents or trademarks. On the other hand, they may also exist in tangible objects, such as in the form of engineering drawings, plans or other media. Thirdly, intangibles may not be legally protected, but instead consist of unprotected technical or business knowledge, such as know-how and customer or supplier data bases.[5] Since these firm-specific inputs are rather independent of any physical location and, therefore, mobile, they can in principle be located anywhere in the world.

Secondly, due to the increased use of ICT, the location of a company's activities is more independent of certain *location-specific aspects*. This is due to the fact that *geographic distances* can be bridged more easily by the use of ICT. Since from all over the world

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1 This distinction is based on the *eclectic theory of international production*, consisting of three determinants for the way and extent to which multinational firms are doing business abroad: the existence of firm-specific or ownership advantages, location advantages and internalisation advantages. See for more details Brunsbach, 2003: 10-12; Göpffarth, 2001: 35-38; Oestreicher, 2000: 101-103; Dunning, 1995: 76-88.

2 A typical example is the one of bridge building. See also Devereux and Pearson, 1989: 20.

3 See also OECD, 2003: 34 and empirical results regarding reasons for investing abroad in Oppenländer, 1997: 215-228.

4 See analogously Devereux and Pearson, 1989: 20-21, using the notion of resident specific rents.

5 A hint to the existence of unprotected intangibles may be an above-average profitability of a product. See for further details Baumhoff and Bodenmüller, 2003: 366.

companies and customers have access to the Internet or other means of ICT, the physical location becomes less relevant and a physical contact is not always necessary. For example, the location of external entities, such as customers or suppliers, as well as the location of other parts of a company becomes less relevant, as the link can more often be effected by ICT. However, other location-specific factors may become more important in the age of ICT, such as the existence of human capital, favourable conditions for R&D or a well developed ICT-based infrastructure.

There are several economic changes resulting from these two developments which have an impact on both *multinational groups or companies* with a pre-existing physical business structure using the Internet more or less extensively and on *multinational virtual organisations* which are set up by some business partners and are organised mainly virtually.[6]

First, the use of ICT and the resulting consequences have an impact on the *internal organisation* of companies. In regard to the organisational and geographical structure, different parts of the company do no longer have to be centralised in one country but can be located away from each other and connected via means of ICT. Consequently, the organisational structure of a company is much more flexible and an organisational as well as a regional decentralisation can take place. Thus, a greater dispersion and fragmentation of a business's internal activities between different locations is possible[7] and advantages of certain locations can be better exploited. A common form of organisational decentralisation is a structure based on integrated processes and different business modules. For example, certain business activities are centralised in so-called shared service centres in order to streamline operations and achieve economies of scale.[8] These centres may perform functions such as R&D, financial services, management services or the administration of intangible assets. Since these functions and activities are largely based on firm-specific intangible assets and services, they are mobile and can be relocated easily.[9] Thus, a coexistence of a centralisation of certain competencies and a decentralisation of the business structure can be noticed.[10]

Furthermore, the *management structure* tends to be non-hierarchical but may consist of several management centres with equal rights and linked with each other although they are

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6 See for more details Müller, 2002: 507-508.
7 See Owens, 1997: 1836; Spence, 1997: 145.
8 See Li, 2003: 13.
9 See Schäfer and Spengel, 2003: 3 with further quotations; Westberg, 2002: 22. It has to be noticed that besides these mobile activities, there are still activities which are dependent on a certain physical location and cannot be relocated. See for more details Devereux and Pearson, 1989: 18-20.
10 See Kessler, 2002: 443-444.

located in several different jurisdictions instead of one fixed place.[11] By means of ICT, such as video-conferencing or e-mail, decisions of relevance for the company can be taken either alternating in different locations or at the same time in different places. Another form of a new working structure is *telecommuting*. The most widespread type of remote work is home-based telecommuting. Besides, other forms are centre-based telecommuting, meaning that the employees work in so-called telecommuting-centres, or mobile telecommuting, meaning that the employees work for a certain minimum time away from home and their main place of work.[12] Thus, on the one hand, employees are more independent of their employer's location, whereas, on the other hand, the spatial structure of the company's organisation becomes more flexible. The increasing relevance of telecommuting is reinforced by the high importance of firm-specific human capital. All these developments lead to a strong increase in intra-group cross-border trade, especially in services.[13]

Second, the consequences resulting from the increased use of ICT have several effects on the *relationship between a company and its customers*.[14] For example, the geographical distance between a company and its customers becomes less relevant. Foreign markets can in certain cases be opened up and worked without the necessity of establishing a physical presence there, as the possibility of direct sales via the Internet renders physical presence in the target country partly unnecessary. Thus, distance selling is possible without any negative effects regarding the product sold, such as the quality of information.[15] Especially services which used to be provided face to face can now be provided electronically, such as travel, banking or professional services, e.g. accounting and consulting.[16] Thereby, the costs for a company to supply the foreign markets decrease significantly, since the costly establishment of branches or subsidiaries is not necessary.[17] These developments again lead to a strong increase in cross-border transactions.[18] Further consequences resulting from the increased use of intangible assets for market transactions consist of new possibilities of making profits and the emergence of new business models. Possible new forms of communicating information or providing services are the licensing of software or digital information, Application Service

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11 See Breuninger and Krüger, 1999: 80-83; Avi-Yonah, 1997: 528.
12 See for more details empirica, 2000: 8-11.
13 See also Owens, 1997: 1836. The OECD estimates that at least two thirds of Internet transactions are carried out within MNGs.
14 The relationship between businesses and private consumers is called B2C (business-to-consumer), whereas the relationship with other businesses is called B2B (business-to-business).
15 See also Satzger, 1999: 40; Spence, 1997: 145.
16 See Li, 2003: 5.
17 See also Eicker, 2000: 123.
18 See also Satzger, 1999: 40. Especially cross-border services is a fast-growing sector in world trade.

Providing (ASP) or data warehousing.

A *third* impact of the increased use of ICT is the emergence of new forms of *enterprise co-operation*. As the linkage between different companies can be effected via ICT, it is possible to co-operate internationally without the necessity of centralising all activities relevant for the co-operation in one location. Besides, it is no longer necessary to bundle the legal resources in a new separate legal entity.[19] Instead, hybrid forms of co-operation emerge, meaning that the business partners engage in contractual obligations only.[20] Consequently, the partners are legally independent and – except for the co-operation – in general also economically independent. Often, a pooling of profits and losses between the business partners is stipulated. In case the link between the different network partners solely consists of the use of ICT, this form of a contractual joint venture is called a virtual joint venture.[21] These co-operations are often based on firm-specific intangible assets, such as know-how. For example, international co-operations can often be found for R&D projects.[22]

The extent to which the different economic changes as outlined above are relevant for companies depends on the intensity with which ICT are used for the business activities. For example, companies may use ICT only in certain fields, for instance as a channel of distribution or in order to support the internal organisation. Beyond, ICT may serve as a platform for the business activities of a company, for example in case the supply of information and services constitute the main business activities. Moreover, companies may market ICT and the Internet itself, i.e. in case they provide memory capacity or websites, as an Internet Service Provider (ISP).[23] Whilst the first form of business activities is expected to be exerted more often by MNGs with a pre-existing physical business structure using the Internet in some way additionally, virtual organisations can probably be found more often in case of using ICT as a platform and marketing ICT.

2.2. Typical Patterns of Doing Business in the Era of ICT

The different economic changes resulting from the increased use of ICT are illustrated in the following two examples. These rather extreme forms of a MNG and a virtual organisation are chosen in order to show the changes quite obviously.

The *C company* (see figure 1 below) is a virtual organisation incorporated in the United

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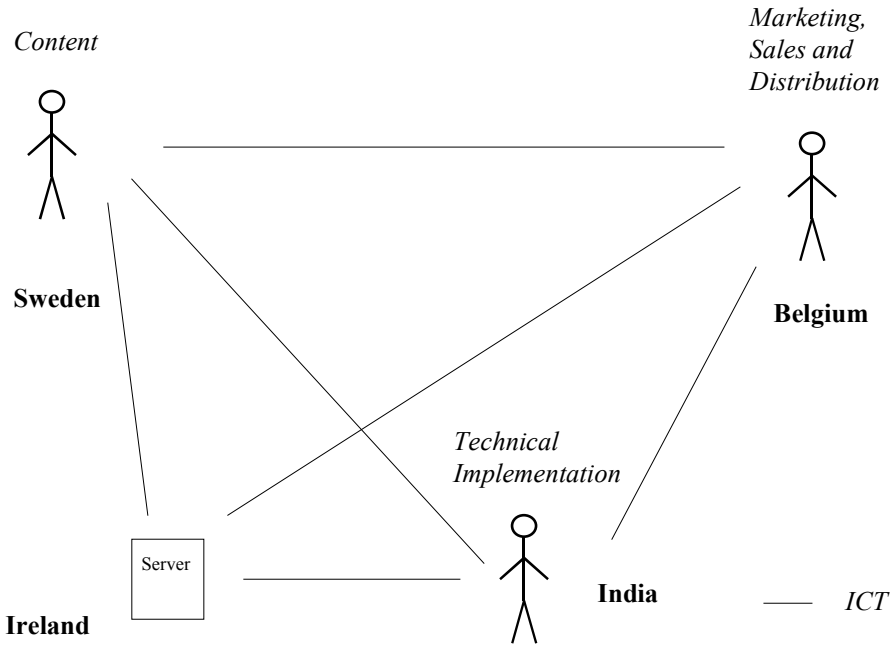
19 See Endres, 2003: 197.
20 See also Jacobs (Ed.), 2002: 1201-1202.
21 See for further details Schäfer and Spengel, 2003: 5-6.
22 See the example in Brunsbach, 2003: 60-61.
23 See Müller, 2002: 507-508.

States as a limited liability corporation with different partners working as software engineers.[24] One partner is resident in Sweden, another one in India and the third software engineer resides in Belgium. Together, they develop an e-learning software for natural science supplemented by a database containing relevant background information. Every researcher works in a different field: One is responsible for the content, another one for the technical implementation and the third for the marketing, sales and distribution of the software. As the necessary data can be provided via ICT, they communicate solely via means of ICT in order to perform the current work. All three researchers are responsible for the management and administration of the business, with the chair alternating between the three partners on a rotational basis. For management purposes, the partners of the C company either communicate via e-mail and video-conferencing or meet on a rotational basis in the different residence jurisdictions. The e-learning tools are sold over an automated server installed in Ireland where customers can directly download these tools.

Figure 1: Economic Structure of the C Company

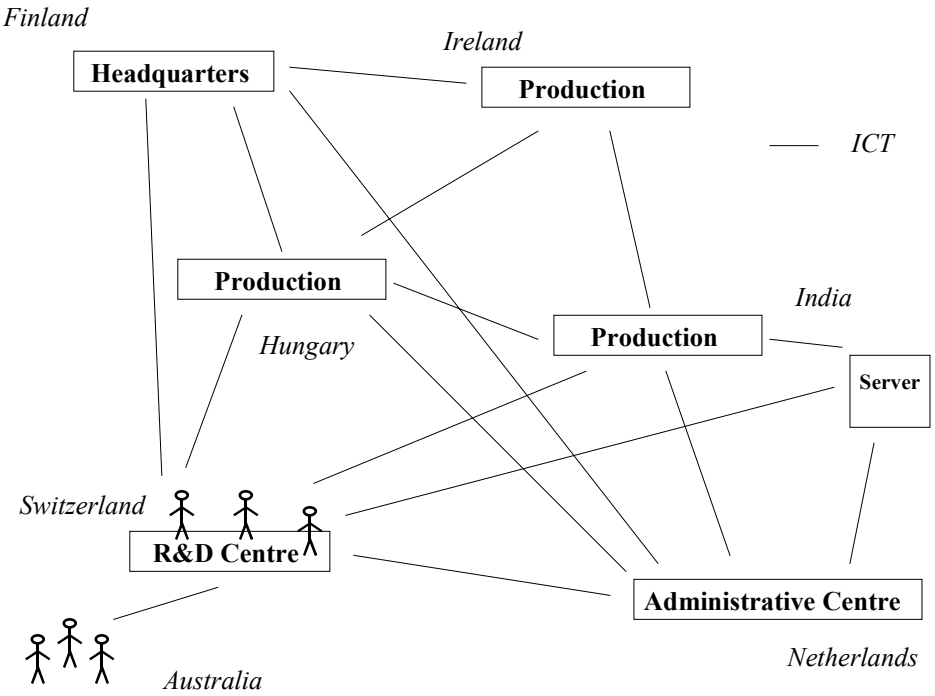


The *M group* (see figure 2 below) is a MNG which produces several kinds of innovative sports equipment for the purpose of rehabilitation as well as software and videos containing the corresponding instructions and several exercises. The parent company is incorporated in Ireland. The MNG uses ICT as a supporting tool for the purpose of communication between different entities of the international group, streamlining the organisational processes, as well

[24] See the example of such a virtual corporation in Peter, 2002: 301-302.

as for the business divisions of customer relationship management, marketing and sales. The production of the sports equipment mainly takes place in Ireland, Hungary and India. Other parts of the group are special service centres providing functions such as R&D, management or administration services. They are located in Switzerland, Finland and the Netherlands. The distribution of products is in part effected by means of a server located in India where customers can order the sports equipment. Besides, the download of online software and videos is possible. In order to expand the product range of the M group to special sports food, the researchers working at the research centre in Switzerland co-operate in form of a virtual contractual joint venture with researchers of a company resident in Australia. The researchers do not have to meet physically, but the necessary data can be transferred via ICT. The parties have stipulated a pooling of profits and losses.

Figure 2: Economic Structure of the M Group



3. Theory of International Tax Planning of Companies

3.1. Definition of International Tax Planning

Since the tax expenses of a company generally reduce the profits, it is in a company's interest to minimise the tax due in order to maximise its after-tax profits. Otherwise, an unnecessarily increased tax burden represents a business waste which may make the company uncompetitive.[25] However, the minimisation of the total tax burden has no end in itself and is

[25] See Spitz, 1983: 1.

generally subordinated to the main objectives of a company which serve to optimise the overall economic position, such as profit maximisation, the continuity of a company's operations or the expansion of the business activities.[26] Thus, tax planning has its limits when it comes into conflict with other higher-ranking entrepreneurial objectives. It has to be noticed that a precondition for tax planning is the disposability of the underlying economic circumstances, i.e. that they can be arranged in a way that tax expenditures are legally minimised.[27]

The basis for tax planning on the *international level* are the existing differences in the tax systems of several countries and the ways in which the tax systems are linked.[28] In case a company is doing business internationally, these differences can be exploited in order to reach the company's fiscal objectives.[29] Besides, especially in case of an internationally operating company, the costs related to the taxation shall be minimised, such as costs of information or compliance costs.[30] In addition to these quantitative objectives of international tax planning, a company has also *qualitative objectives*. Here, it has to be borne in mind that international tax planning does not only consider the chances related to certain transactions or investments, but also the respective *risks* have to be taken into account. Possible examples of qualitative aims are the temporary flexibility regarding the deferral and cancellation of certain measures, the quantitative adaptability or the minimisation of risks.[31]

Boundaries of international tax planning exist in the area of inadequate misuse of the tax law and illegality. Thus, a distinction has to be drawn between legal tax planning and the misuse of tax law and illegal tax fraud or tax evasion. On the one hand, legal avoidance of tax expenditures without any fraud is a managerial duty. It is, thus, within the discretion of the taxpayer and lawful to arrange business affairs for the purpose of attracting the lowest possible incidence of tax.[32] The taxpayer is not obliged to arrange a certain issue in such a way that a tax liability emerges.[33] However, on the other hand, an abuse of legal rights, colourable transactions or even illegal tax evasion or tax fraud are no means of international

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26 See also Grotherr, 2003: 10; Jacobs (Ed.), 2002: 711; Gassner, 2001: 614; Schänzle, 2000: 42; Rödder, 1988: 356 with further quotations; Kratz, 1986: 35-36; Wagner and Dirrigl, 1980: 3; Klöne, 1980: 4.

27 See also Grotherr, 2003: 6; Wagner and Dirrigl, 1980: 3.

28 See Jacobs (Ed.), 2002: 708.

29 Often, an international tax situation is more flexible than a purely national tax situation, but there are also far more tax and non-tax factors to be taken into account. See Spitz, 1983: 2, 83.

30 See also Grotherr, 2003: 12; Steimel, 2002: 491.

31 See also Grotherr, 2003: 12-13; Jacobs (Ed.), 2002: 711; Steimel, 2002: 491; Rödder, 1988: 357; Paulus, 1978: 97-98.

32 See also Endres, 2003a: 730; Jacobs (Ed.), 2002: 712; Gassner, 2001: 609, 620, 624; Spitz, 1983: 1.

33 See Jacobs (Ed.), 2002: 712.

tax planning.[34] A misuse exists if the design of a certain issue is inadequate in order to reach the economic objective and if economic and other non-fiscal purposes are missing.[35]

To conclude, international tax planning is *defined* as the systematic inclusion of tax effects in the overall corporate planning and decision making process with the objective of planning the company's activities in a way that the effective tax rate is minimised without impairing the economic development of a company or underachieving possible chances of success.[36]

3.2. Minimisation of the Effective Tax Rate

A common benchmark to measure the tax burden of a company or a group of companies is the *overall effective tax rate*.[37] With the companies' orientation towards the capital markets, the *importance* of this benchmark has increased a lot recently. Since the effective tax rate directly influences the earnings per share, this measure is of special importance for analysts and shareholders.[38] Besides, also the obligation to show the effective tax rate according to international accounting standards increases the importance of this figure.[39] Consequently, the main *functions* of the effective tax rate consist of providing interested external parties, i.e. financial analysts and shareholders, with information regarding a company's tax policy. Besides, by use of the company's effective tax rate, the performance of the tax department can be assessed by comparing it to former tax rates or to other companies doing business in the same line.[40] The effective tax rate is a measure for the tax burden which is based on data in the past. It indicates the tax burden of a special company or group and, therefore, does not measure the tax burden prevailing in a certain jurisdiction.[41]

Since the importance of the effective tax rate for analysts, shareholders, the management of a company as well as the tax department has increased recently, the *fiscal objective* of a company doing business internationally is more and more focused on minimising the overall effective tax rate of the whole company or group. A firm's effective tax rate is *computed* by dividing the sum of the total income tax expense, including both current and deferred income

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34 See Grotherr, 2003: 7-10; Jacobs (Ed.), 2002: 713; Davis, 1995: 14.

35 See Grotherr, 2003: 8; Rödder, 1988: 358-359 and also the discussion in Grapperhaus, 1977: 533-534.

36 See also Schänzle, 2000: 42; Bogenschütz, 1998: 4-5.

37 The effective tax rate is sometimes also called actual income tax rate.

38 It has been shown for the United States that a sustainable reduction in a company's effective tax rate can have a significant impact on market capitalisation and shareholder value. See for more details and with further quotations Baumann and Schadewald, 2001: 178.

39 See IAS 12 and Spengel, 2004: 1; Herzig and Dempfle, 2002: 1. From 2005 (or at the latest 2007) on, EU parent companies have to draw up their consolidated financial statements according to IAS.

40 See Spengel, 2004: 1; Herzig and Dempfle, 2002: 1.

41 See regarding the limited information provided by the effective tax rate Spengel, 2004: 6-7; Herzig and Dempfle, 2002: 8.

tax costs, by the company's pre-tax earnings.[42]

$$\text{Effective Tax Rate} = \frac{\text{Actual Tax Expenses + Deferred Taxes}}{\text{Earnings Before Tax}} \times 100$$

The effective tax rate is influenced by different fiscal *determinants*. First of all, the *tax rates* of the *taxes on income* are considered for the calculation of the actual tax expenses. Second, the *corporate tax system* of a jurisdiction is insofar relevant as the corporate tax burden varies with the distribution policy of the company. Among the currently valid corporate tax systems, this is only the case for corporate imputation systems as implemented in Finland and in France.[43] Third, the relevance of the *tax base* depends on the compensatory effect of the deferred taxes. Generally, the deferred income tax expense equals the taxes associated with temporary differences between pre-tax earnings and taxable income.[44] Thus, since the deferred taxes have a compensatory effect for temporary differences between the earnings before tax and the taxable income, these differences do not have an impact on the effective tax rate.[45] Possible *temporary differences* are differences regarding the current depreciation, the inventory valuation or the setting up of accruals. In contrast, non-temporary differences are not marked off. Consequently, these differences have an impact on the effective tax rate. Possible examples for *permanent differences* are tax exempt income, such as non-taxable dividends or capital gains, as well as non-deductible operating expenses, such as the depreciation of the goodwill as far as a fiscal depreciation is not allowed.[46]

In order to demonstrate the formation and composition of the effective tax rate, a *tax reconciliation* is obligatory under international accounting standards.[47] According to the so-called home-based approach, the *statutory tax rate* prevailing in the home country of the parent company applied to all earnings serves as a starting point and as a benchmark.[48] Then, the reasons for the effective tax rate diverging from this benchmark are indicated. The tax reconciliation shows the main drivers of the effective tax rate which constitute at the same time the starting point for tax planning strategies.

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42 See IAS 12.86. It is worth mentioning that the deferred taxes are not discounted.

43 In case of a distribution of profits taxed at a reduced rate, these corporate tax systems provide an establishment of the corporate tax burden regarding distributed profits. See in more detail Spengel, 2004: 3. In France, the imputation system is only applied until the end of 2004.

44 See Bauman and Schadewald, 2001: 179-180.

45 See Spengel, 2004: 3-5; Herzig and Dempfle, 2002: 3-4.

46 See Spengel, 2004: 5-6 with further examples.

47 See IAS 12.81 (c).

48 Thus, the total sum of earnings is deemed to be realised in the home country of the parent company.

Table 1: Tax Reconciliation for the Purpose of Determining the Effective Tax Rate[49]

	Starting point: statutory tax rate in the home country of the parent company applied to the total earnings of the company or group (percentage)
+ / -	Modifications due to structural factors inherent to the company Regular modifications due to - Tax-exempt national income - Differences in national tax rates - *Differences in international tax rates* - Non-deductible operating expenses - *Foreign withholding taxes that cannot be credited* Irregular modifications due to - Tax-exempt income from the sale of participations - Fiscally non-deductible goodwill-depreciation
+ / -	Other modifications due to external factors, e.g. tax reforms
=	Effective tax rate

The company's *fiscal objective* is to cause the effective tax rate to diverge from the statutory tax rate in the home country, i.e. to permanently lower the effective tax rate. Since the effective tax rate is mainly determined by the international tax rates as well as the permanent differences between book income and taxable income, the company's tax planning is targeted at producing a lower combined tax rate or permanent differences. Consequently, the most effective and, therefore, most important international tax planning strategies for the purpose of lowering the effective tax rate which are considered here consist of the use of the international tax differential, tax exempt income and qualification conflicts through an international optimisation of the allocation of the tax base and the group structure.[50]

In contrast, the *traditional strategy of international tax planning* rather focuses on minimising the cash value of the tax expenses.[51] Due to the resulting interest effect, the objective is to reach a deferral of tax payments. It is, therefore, preferable to realise expenses and losses as soon as possible by means of loss utilisation and tax accounting policy. However, due to the compensatory effect of the deferred taxes regarding temporary differences, these instruments minimising the current worth of the tax expenses do not have an impact on the effective tax rate.[52]

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[49] See Spengel, 2004: 9-10. The instruments considered in this paper are put in italics. See regarding several other instruments Haarmann, 2002: 372-378.

[50] See also Herzig, 2003: S 85-S 86; Herzig and Dempfle, 2002: 6-8. In this paper, the focus is on the regular international structural factors of lowering the effective tax rate.

[51] See Bogen, 1994: 119; Marettek, 1982: 176-178; Paulus, 1978: 45-46; Eisenach, 1974: 260.

[52] See also examples and further remarks in Spengel, 2004: 4; Herzig, 2003: S 84-S 85; Haarmann, 2002: 372.

In the following, the instruments of optimising the allocation of the tax base as well as the group structure are illustrated in more detail. The *starting point* for international tax planning consists of the choice of the (parent) company's country of residence. The tax level in the home country of the (parent) company determines the effective tax rate regarding the income generated there. Besides, it indicates the potential for tax planning by use of the international tax differential.[53] In addition to the *economic aspects* for choosing a location, such as political stability, a fully developed infrastructure or low administrative requirements,[54] the *tax objectives* related to the foundation of a company consist of the following: The tax rate of the currently assessed income taxes shall be relatively low, there shall be a large network of double tax treaties in order to guarantee a sufficient level of treaty protection – such as to avoid or reduce withholding taxes or to guarantee a favourable permanent establishment (PE) definition – and possibilities for deducting expenses for refinancement and losses of PEs shall be provided.[55] In regard to non-current tax aspects, in case of a relocation of residence, the tax burden resulting from a realisation and taxation of hidden reserves shall be minimised.

In addition, the *international allocation of the taxable base* is optimised by means of lawful income shifting in order to make use of the international differences in tax rates. This can be achieved by instruments such as the optimal allocation of functions, risks and assets between different parts of the company as well as the legal planning of transfer prices for the inter-company supply of goods and provision of services. In case of a transfer of assets due to a reallocation of functions and risks, a realisation of hidden reserves and a resulting taxation of the respective profits shall be minimised in order to lower the effective tax rate.

Based on the allocation of the tax base, the legal group structure is optimised on an international level by *creating tax attributes in lower-taxing countries*. Here, the decision on the location of the investment, the legal form, the financing as well as the legal structure and the shareholding relationship within the whole company or group have to be considered in order to benefit from international differences in the tax rates, to make use of qualification conflicts as well as to avoid a double taxation and excess foreign tax credits.[56] Generally, an investment can take place in form of a subsidiary, a PE or in form of doing direct business.[57] The tax consequences of these investment alternatives are outlined in the following.

In case a company does *direct business* abroad, the realised income is – except for a

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53 See Spengel, 2004: 11.
54 See section 2.1. and also Jacobs (Ed.), 2002: 841.
55 See also Jacobs (Ed.), 2002: 841; Eicker, 2001: 151; Baumgartner and Storck, 1997: 8-9.
56 See also Jacobs (Ed.), 2002: 709-710.
57 A partnership is not considered as a separate form of investment here.

possible withholding tax – taxed in the residence country. Thus, a lower tax rate in the source country does not have an impact. In case a *PE* or a *subsidiary* is established abroad, the method to avoid double taxation applicable in the residence country is crucial for the extent to which lower tax rates abroad can be used.[58] Generally, the income of the PE and the subsidiary is taxed in the source country. If the income of the subsidiary is retained, the lower tax burden is definite and can be used for tax planning. In case of distribution of dividends to the parent company, the dividends may be liable to a withholding tax.[59] On the one hand, either according to the *tax exemption method* stipulated in a double tax treaty or according to a national participation privilege, the income generated by the PE in the source country and the dividends distributed by the subsidiary might be exempted from taxation in the residence country of the parent company. Apart from repatriation costs or withholding taxes on dividends that cannot be credited, the tax rate of the source country is then applied.[60] Thus, the lower tax burden in the source country can be used in order to reduce the effective tax rate.[61] On the other hand, in case the *tax credit method* is applied in the residence jurisdiction of the parent company, the taxes paid in the source country on the profits of the PE or the withholding taxes on the dividends distributed are credited against the tax due in the residence country. Consequently, the income is taxed at least at the tax rate of the residence country and the advantage of the lower foreign tax burden is compensated. However, given an overall limitation and averaging of foreign tax credits, the lower tax rate in the source country may enable the crediting of other excess tax credits.[62]

Besides these tax planning aspects regarding the internal organisation of a company, also possible forms of *external co-operation* constitute a part of planning the legal structure of a company. Here, possible qualification conflicts may be used in order to lower the effective tax rate.

4. The Impact of ICT on International Tax Planning

The *link* between ICT and the international tax planning of companies consists of the following: Generally, the increased use of ICT has an influence on the economic

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58 Regarding PEs and subsidiaries, the OECD Model Tax Treaty does not stipulate which of the two methods to avoid double taxation has to be applied. See Articles 23 A and 23 B of the OECD Model Tax Treaty.

59 In case of a dividend distribution to the parent company taking place within the EU, the dividends are not subject to any withholding tax. This regulation is based on the so-called Parent-Subsidiary Directive. In addition, also the profits of a PE abroad may be subject to a branch profit tax.

60 In Germany, for example, 5% of the dividends received by a corporation from abroad are liable to taxation.

61 Otherwise, in case the tax rate in the source country is higher than in the residence country, the tax exemption method is not advantageous, as it provides for a final taxation according to the higher tax level in the source country. Then, an investment in form of doing direct business might be advantageous.

62 See also Spengel, 2004: 13-14 and the example in Spengel, 2003: 51-52; Jacobs (Ed.), 2002: 834-838. In case the tax burden in the source country is higher, a possible excess tax credit may respectively be

circumstances. This economic environment of companies constitutes the basis for the overall corporate planning. Since international tax planning forms a part of the overall corporate planning, the ICT-induced economic changes also have an impact on the applicability of the instruments of international tax planning.[63] *Possible effects* of the use of ICT on different instruments consist of an increasing or decreasing relative importance of certain fields, of an increase or decrease in possibilities for tax optimising strategies or of a rise or fall of potential risks. Based on the analysis of these effects, possible strategies for better achieving the tax objectives can be outlined. The analysis focuses on the two business models of MNGs as well as virtual organisations as shown in the two examples above.

4.1. Choice of Location and Relocation of Residence

At present, a company's residence is generally determined either by legal criteria, such as the statutory seat or the place of incorporation, or by the economic criterion of the place of effective management.[64] In case the *legal criteria* are applicable, the incorporation may be a completely administrative act requiring no corporate presence. Thus, if such legal criteria are the sole conditions for a company being resident in a certain country, the location of residence can be chosen freely. As in this case a determination of a company's residence is independent of any economic aspects, this option is not especially related to the use of ICT but is generally valid for every corporation. Therefore, the increased use of ICT does not influence the determination of a company's residence according to legal criteria.

However, a company's residence is often in addition defined by an *economic criterion*, since the determination of residence according to legal criteria does not always lead to a place of residence that is in accordance with the economic reality. With the use of ICT, companies – and here especially virtual organisations as shown in the example of the C company – are generally more independent of any physical location and of the location of the customers or suppliers and other business partners. Therefore, a company's residence may be chosen more independently of any external factors. Thus, the choice of residence tends to be more flexible and, potentially, more importance might be attached to fiscal considerations.

The currently prevalent economic criterion is the *place of effective management*. Besides several national laws, paragraph 3 of Article 4 of the OECD Model Tax Treaty also stipulates the place of effective management as a tie-breaker rule in case a company is resident in two

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compensated by an averaging of foreign tax credits.

63 See also section 3.1., illustrating the disposability of economic circumstances as a precondition for international tax planning.

64 See Jacobs (Ed.), 2002: 525-526 and for the example of German tax law see section 1 of the Corporate

countries according to the respective national laws. The place of effective management is generally located where the key management works and where decisions necessary for conducting a business are made.[65] This is normally the place where the most senior persons, such as the board of directors, meet to make decisions concerning the management of the company. For the determination of the place of effective management, all relevant facts and circumstances have to be examined.[66] The relevant *ICT-induced changes* regarding the internal organisation of a company are the decentralised and international activities which may result in a management structure consisting of a poly-centric network that is spread across several countries.[67] Consequently, as in the example of the C company, the place of effective management may be mobile or there may be several places of effective management in different countries, which is a new phenomenon in the age of ICT.[68] Such a decentralised management structure implies that a company can influence the place of effective management and, thus, its residence by arranging to make the relevant decisions in the location where the company shall be resident and by shifting other crucial functions in order to establish the most important organisational and economic centre there. Consequently, the mobility of the place of effective management serves as a suitable means for choosing a company's location for tax purposes. Thus, for certain cases, it has become easier to choose a residence country with a lower tax rate and, thereby, to reduce the effective tax rate.

Besides those new chances for the international tax planning of a company, a further effect resulting from the decentralised management structure consists of an increase in the *fiscal risk* for the taxpayer. As the cases in which the residence of a company cannot clearly be defined by the criterion of the place of effective management occur more frequently due to ICT,[69] the fiscal risk increases. Due to this uncertainty, the risks related to the definition of the place of effective management may be higher than the chances resulting thereof.

In addition, it has to be noticed that the benefits of minimising the effective tax rate by choosing a company's residence especially show to advantage in case of the formation of a company. In contrast, in case of a *relocation of a company's residence* for purposes of achieving a lower current tax rate, a realisation of hidden reserves may take place at the time

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Income Tax Act, including both criteria of a company's residence.

65 See paragraph 24 of the Commentary on Article 4 of the OECD Model Tax Treaty; Doernberg et al., 2001: 301-302. The place where the decisions are carried out is irrelevant. See Schlossmacher, 2002: 97-98; OECD, 2001: 7 and also section 10 of the German General Tax Act.

66 See paragraph 24 of the Commentary on Article 4 of the OECD Model Tax Treaty.

67 See for more details Schäfer and Spengel, 2002: 21.

68 See also OECD, 2001: 8-9.

69 See also the example of the C company and the examples of determining the place of effective management of a virtual company in Peter, 2002: 301-305; Angelkorte, 2003: 544; Schäfer and Spengel, 2002: 21.

of relocation and may thereby reduce the advantage of the lower current tax rate. Possible changes in the location of residence are either a complete relocation of residence or the implementation of a dual-resident company.

In order to analyse the tax consequences of a relocation of residence, the underlying *company law* is relevant, as it determines which legal system should serve as a basis for evaluating company law aspects and to what extent criteria established under other legal systems, such as the legal capacity of the company, can be adopted.[70] Internationally, two doctrines are applied: the statutory seat doctrine and the place of incorporation doctrine.[71] The applicability of the statutory seat doctrine is limited, since it is deemed to be incompatible in certain areas with the freedom of establishment as set forth in Articles 43 and 48 of the EC Treaty according to two recent decisions of the European Court of Justice (ECJ).[72] The *tax consequences* are discussed in the following based on the example of the German tax and company law which is based on the statutory seat doctrine.[73]

The transfer of both, the statutory seat and the place of effective management of a company, generally entails a realisation and taxation of a company's hidden reserves and, thus, a strong increase in the effective tax rate.[74] Consequently, even if after a complete transfer of a company's residence the company's income would be taxed at a lower tax rate, the effectiveness of this instrument of international tax planning in the light of minimising the effective tax rate is very restricted and, in the end, depends on the tax rules regarding the realisation of hidden reserves.[75]

An alternative consists of transferring only one of the two tax attributes for determining a company's residence. As the place of effective management is the criterion that has become more flexible due to ICT, the two examples of a transfer of the place of effective management from an EU Member State into Germany and vice versa are considered. In case a German company transfers its place of effective management *abroad* but the statutory seat remains in Germany, liquidation tax under section 11 of the Corporate Income Tax Act is not triggered

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70 See Schlossmacher, 2002: 96.

71 See for further details Meilicke, 2003: 794-804; Haase, 2003: 533-540; Breuninger and Krüger, 1999: 85-93; Lehner, 1988: 207-209.

72 See the Überseering-Decision in 2002, the Centros-Decision in 1999 and further discussions in Birk, 2003: 472-473; Haase, 2003: 542-546; Thömmes, 2002: 631-632 and Prinz, 2000: 542-543.

73 Since tax rules comparable to those of the German tax practice can be found in several other tax codes, the results according to German tax law are then applicable respectively. However, differences can exist regarding the criteria for a company's residence stipulated in the tax code and regarding company law.

74 See paragraph 11 of the German Corporate Income Tax Act. However, it is controversial whether the realisation of hidden reserves also takes place for those parts of the company which remain within the jurisdiction. See for a more detailed discussion Jacobs (Ed.), 2002: 1142-1144.

75 See also Herzig, 2003: S 89.

according to the prevailing opinion, as no liquidation takes place.[76] Also, a realisation of hidden reserves does not take place under section 12 of the Corporate Income Tax Act, as the company is still liable to unlimited taxation in Germany.[77] However, this view is controversial, especially in case a double tax treaty exists. Since paragraph 3 of Article 4 of the OECD Model Tax Treaty stipulates that the company is resident in the country where the place of effective management is situated, it is presumed that this rule leads to a final taxation in the country where the statutory seat is located, i.e. in this case Germany.[78]

Conversely, a European company may transfer its place of effective management *to Germany* with the statutory seat remaining abroad. Generally, according to the statutory seat doctrine, the company would not be deemed to have legal capacity in Germany.[79] However, since this proceeding would violate the freedom of establishment,[80] the company has its full legal capacity in Germany and is, thus, liable to taxation in Germany under section 1 of the German Corporate Income Tax Act. A realisation and taxation of hidden reserves does not take place.[81]

To summarise, in order to avoid a realisation of hidden profits and, thus, an increase in the effective tax rate, a relocation of only the place of effective management may constitute an alternative. Then, in general, a *dual resident company* results, meaning that the company is liable to tax on a world-wide basis in both jurisdictions.[82] In order to assess whether this strategy is really advantageous for the purpose of lowering the effective tax rate, the current taxation has to be considered. The current tax burden of a dual resident company differs dependent on whether a double tax treaty exists and which method to avoid double taxation is applied by the two residence countries. The OECD Model Tax Treaty stipulates that the place of effective management is the prevailing criterion for a company's residence. Consequently,

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76 The argument that the statutory seat doctrine leads to a liquidation of the company and, thus, to a realisation of hidden reserves cannot be supported. This is also due to the fact that the impact of the statutory seat doctrine on tax law is weakened due to the above-mentioned decisions of the ECJ. See also Birk, 2003: 471; Jacobs (Ed.), 2002: 1142; Schlossmacher, 2002: 97.

77 This holds true because section 12 of the German Corporate Income Tax Code is deemed to constitute a tax rule that is independent of company law and, thus, superior to it. See also Angelkorte, 2003: 544-545 and Jacobs (Ed.), 2002: 1142-1143 with further quotations.

78 See Knobbe-Keuk, 1991: 300; Debatin, 1991: 169. Besides, in case of a realisation of hidden reserves, it is doubtful whether a realisation of all reserves is necessary or only of those which are no longer subject to German taxation. See the discussion in Angelkorte, 2003: 545 and Jacobs (Ed.), 2002: 1143-1144.

79 See also Birk, 2003: 470.

80 See the Überseering-Decision of the ECJ and also Birk, 2003: 473; Thömmes, 2002: 632. Thus, the impact of the statutory seat doctrine on German tax law is weakened especially in these cases.

81 Here, the same arguments as above are valid. See also Jacobs (Ed.), 2002: 1127-1128, discussing the case that a PE already exists in Germany. In addition, it is questionable how the assets transferred are valued.

82 A dual resident company would also result in the example of the C company, since the incorporation in the United States entails a liability to tax on a world-wide basis and since the place of effective management providing a second liability to tax on a world-wide basis is located in another country.

the country where the place of effective management is located constitutes the residence country, whereas the other country where the statutory seat is located represents the source country. Then, the respective residence and source rules are applied.[83] In case no double tax treaty exists, a double taxation resulting from the double liability to tax on a world-wide basis is mitigated or avoided by the applicable method to avoid double taxation according to the respective national laws.[84] Further tax planning advantages of a dual resident company consist of making use of potential tax benefits related to the unlimited tax liability. For example, a dual resident company may have certain advantages regarding the fact that it is subject to all double tax treaties and directives implemented by the respective country (so-called treaty or directive shopping). Besides, a possible group relief, an avoidance of anti-tax-haven rules or a double loss deduction (so-called double dipping) may be possible.[85] However, *tax risks* related to dual resident companies often occur. Especially if no double tax treaty exists, a double taxation raising the effective tax rate of profits may result.[86] Furthermore, the uncertainties related to the implementation of a dual resident company constitute a potential tax risk, particularly in case a dual resident company was unintended. With the use of ICT, the risk of a realisation of profits due to an unintentional relocation of a company's residence has increased.

In the end, the overall effective tax burden of the dual resident company mainly depends on the existence of a double tax treaty and on the applicable method to avoid double taxation in the two jurisdictions. It depends, thus, on each individual case whether a dual resident company constitutes an appropriate means to reduce the effective tax rate and, consequently, a suitable alternative compared to a relocation of both the statutory seat and the place of effective management combined with a low current tax rate. Generally, in case a company is already set up, the potential of international tax planning is restricted for both alternatives. In case of a new formation of a company, the increased mobility of the place of effective management enlarges the potential for reducing the effective tax rate by making use of the international tax differential.

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83 Regarding income form third countries, Article 21 of the OECD Model Tax Treaty is applicable, assigning the taxing right generally to the residence country, except in case the income is attributable to a PE in the country where the statutory seat is located.

84 See for further details regarding the effects of the two methods section 3.2. If the countries both apply the tax credit method, in an extreme case, a double non-taxation reducing the effective tax rate may result. Besides, it depends on the respective national law whether profits realised in third countries are creditable.

85 See Angelkorte, 2003: 546-547; Lehner, 1988: 201. See also Prinz, 2000: 542-543, showing different tax consequences for dual resident companies resulting from the Centros-Decision of the ECJ.

86 See also Angelkorte, 2003: 544; Lehner, 1988: 201.

4.2. The Allocation of the Tax Base

4.2.1. Optimising the Allocation of Functions and Risks

The functions performed by the different entities of a company or a group, for example purchasing, sales and distribution, production or R&D, as well as the risks undertaken, such as currency risks, sales risks or product risks, are determined in a functional analysis. Based on this functional analysis, the contribution to the creation of value can be approximated for each entity and the profits as well as the assets are allocated respectively.[87]

The general *tax planning strategy* in order to make use of the international tax differential consists of allocating only a few functions in high-tax countries and in attributing many functions in countries with a relatively low tax rate. The potential for lowering the effective tax rate increases significantly by use of this strategy, since profits can be realised to a great extent in lower-taxing countries.[88] Generally, this holds true for both the profit allocation between different related companies belonging to a group and between a PE and its parent company.[89] Whilst this tax planning strategy is not new, the extent to which it can be realised has changed due to the increased use of ICT. *In the past*, only few functions, if at all, could be located in countries with a lower tax rate. Often, the business activities had to be centralised in one place and could not be displaced, as there was no effective means for bridging the geographic distances. Besides, since most of the activities were dependent on physical factors of production, fixed installations on the company site or certain location-specific factors, they were not mobile and a relocation caused high costs and a lot of effort. *Nowadays*, however, the use of ICT provides a much larger mobility of the companies' business activities. The possibilities range from locating only certain activities, e.g. in case of cost manufacturing, to a location of the complete function, such as the whole production, in lower-taxing countries. These new possibilities are, on the one hand, due to the fact that geographic distances can be bridged by ICT and that, consequently, the activities of a company can be displaced to a greater extent. On the other hand, the functions themselves tend to be more mobile, as they are often based on firm-specific factors which are rather independent of physical location factors.[90] Thus, the investment location decision is less dependent on business management considerations and more emphasis can be put on tax aspects.[91]

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87 See also Jacobs (Ed.), 2002: 966.

88 Regarding the final tax rate applied to profits attributed to lower-taxing countries, see section 4.3.1.

89 Apart from this, the principles of profit allocation to a PE or a subsidiary differ due to the fact that a subsidiary is a distinct legal entity. See for further details Jacobs (Ed.), 2002: 621-648 and 664-691.

90 See also Burkert, 2003: 360. A legal relocation instead of a physical relocation might be sufficient.

91 See also Jacobs (Ed.), 2002: 1030.

Typical examples for optimising the division of functions and risks consist of locating purchasing, production as well as marketing and sales operations in countries with favourable conditions. Different models are possible, dependent on the extent to which the activities and functions shall be located abroad. In case of *purchasing or sales activities*, the foreign entity can either function as a contract dealer, a commercial agent or a commission agent.[92] In regard to the *production activities*, the entity abroad can either perform in-house production, contract manufacturing or manufacturing based on a license agreement.[93] Further examples are the centralisation of functions in so-called *special service centres*, for example special financing[94] or treasury centres or also captive insurance companies and co-ordination centres. Besides, also the *R&D activities* can be centralised in a R&D centre abroad, provided that the necessary personnel is available. In addition, the administration and licensing of *intangible assets* is a function with a high flexibility regarding its location.[95] As these forms of providing services are not that dependent on physical location factors, they can easily be located abroad.

A further approach of international tax planning for MNGs is the so-called *tax effective supply chain management*. The underlying notion is to co-ordinate the organisational supply chain management and the international tax planning in order to raise the after-tax profit by minimising the effective tax rate.[96] One example of such a tax planning strategy for a MNG is the central entrepreneur concept.[97] According to this concept, decisive functions of a group, such as production, R&D and sales, are co-ordinated via a group company disposing of the main intangible assets and business risks in a low tax country. The other companies resident all over the world function as service companies exerting rather standard or auxiliary

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92 Possible examples of attributable assets are the customer data base, design patents or, where necessary, the ownership of the products sold. The scope depends on the extent of activities of the foreign entity. See also Endres and Oestreicher, 2003: 12*; Baumhoff and Bodenmüller, 2003: 367; Kessler, 2002: 446. Regarding the valuation of a customer base, see in more detail Hollenbach, 2003: 605-612.

93 See also Baumhoff and Bodenmüller, 2003: 355-358; Burkert, 2003: 356-358; Jacobs (Ed.), 2002: 975-980, 1037-1039, 1059-1060; Herzig, 1998: 293-294; de Hosson, 1996: 87-92; Müller, 1996: 454. Typical attributable assets are patents, licences, know-how, special software or, possibly, business opportunities and a goodwill of a company. See Baumhoff and Bodenmüller, 2003: 367, 378-382; Kilby and Wilbi, 2000: 27.

94 The finance-planning constitutes a further important means to optimise the allocation of the tax base, since capital is a highly mobile input factor. See also Herzig, 2003: S 88. This tax planning strategy is not considered separately here, as it is not generally new in the age of ICT and as the relevant ICT-induced changes are shown in the context of the other instruments. See also the remarks in section 4.3.1. regarding subsidiaries.

95 See also the example of the M group and for more details Endres, 2003a: 732; Endres and Oestreicher, 2003: 11*; Jacobs (Ed.), 2002: 989-1012, 1031, 1039-1056, 1060-1067; Herzig, 1998: 291-292; Müller, 1996: 455.

96 Thus, the planning of the value creating processes and of centralising certain functions in profit centres is simultaneous regarding both business and tax aspects, whereby the tax model is in general based on the business model. See also OECD, 2003: 28.

97 See for more details Burkert, 2003: 258-359, calling the central entrepreneur a principal trading company;

activities and providing services to the principal trading company.

In principle, a company can decide whether to establish an own legal entity for the performance of the respective functions or not.[98] The functions attributed to a PE generally tend to be lower than those allocated to a subsidiary. With the increased use of ICT, especially the issue of attributing profits to a *server* constituting a PE has been raised frequently.[99] In case the taxpayer's objective is to install a PE in the source country, a certain amount of functions shall be allocated to the PE in order to demonstrate that the activities carried out exceed mere preparatory and auxiliary activities.[100] Thus, the more functions are attributed to the PE, the lower is the risk regarding the existence of a PE. Otherwise, installing a sole server abroad does not serve as an effective means of shifting profits, as only a relatively low amount of profits would be attributable to it.[101]

Dependent on the amount of functions and risks located in low-tax countries, the tax-optimal allocation of functions and risks generally constitutes a *very effective means* to provide potential for lowering the effective tax rate. This particularly holds true for an additional investment or a new foundation of a tax attribute. However, if the building up of an entity abroad comes along with a reduction of functions at home, the issue of a realisation and taxation of hidden reserves at the time of transfer of assets will emerge.[102]

In case of a transfer of assets, the transferring party has the right to be remunerated with the market price, i.e. the arm's length price that would have been negotiated between third parties. Thus, hidden reserves amounting to the difference between the book value and the market price are realised and taxed. Generally, a profit is only realised in case of transactions with other legal entities. Therefore, the issue of a realisation of hidden reserves immanent to the assets transferred is particularly relevant in case of a transfer of assets to a *subsidiary*.[103] Otherwise, in case of a transfer to or from a *PE*, the assets remain in the same economic entity. It depends on the respective national regulations whether the transfer of an asset out of

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Möller and Bartl, 2003: 271-283; Endres, 2003a: 732; Endres and Oestreicher, 2003: 11*.

98 See regarding the tax planning implications of this decision section 4.3.1.

99 See OECD, 2001b, with a detailed analysis of four different variations as well as the comments in Ditz, 2002: 210-216; Strunk, 2001: 1527-1536. See also the examples of the C company and the M group in section 2.2.

100 This is especially valid in case the profits of the PE are realised in a lower-taxing country and the tax exemption method is applied.

101 See also Kilby and Wildi, 2000: 27.

102 See also Endres, 2003a: 733; Herzig, 2003: S 88. See also the results of a business survey conducted for Germany in DIHK, 2003: 6, showing that 38% of relocation activities are based on tax considerations. According to another survey, tax aspects were crucial in 21% of displacement activities. See ISI, 2002: 6.

103 The European Directive on mergers provides – under certain restrictions – for exceptions from this rule, but not in case the assets are transferred physically. See also Thömmes, 2003: 552-553.

the jurisdiction is recognised for tax purposes.[104] Generally, a realisation of hidden reserves can be avoided by transferring the asset on the basis of an arm's length price, but offsetting the difference between the market price and the book value by use of a correcting item.[105] Thus, regarding the transfer or assets, a PE may be advantageous compared to investing in the form of a subsidiary. However, for both a PE and a subsidiary, it is questionable whether the rules regarding the taxation of a transfer of assets are consistent with the freedom of establishment in the European Union. This is due to the fact that they are generally only applicable in case the asset is transferred abroad.[106]

Generally, the more activities are reallocated, the more potential for tax planning results, but normally, also the more assets are transferred.[107] Thus, the company is faced with a *trade-off* regarding the minimisation of the effective tax rate: In case functions and risks are transferred to a large extent to lower-taxing countries, the effective tax rate can be reduced to a great extent on a current basis. As, however, it is in this case generally necessary to relocate a rather high amount of tangible and intangible assets, the tax due in case of a realisation of hidden reserves tends to be high. Consequently, an optimal solution has to be found taking into account both aspects, the current as well as the non-periodic tax payments.

Due to the increased use of ICT, particularly firm-specific *intangible assets and services* are relevant for the creation of value and, thus, are transferred more often. This fact contains on the one hand a special *risk*, since difficulties may arise, for example regarding the question whether and to what extent an intangible asset is really transferred. Besides, especially in case of legally unprotected intangible assets, such as technical know-how or a customer data base, an assignment to either of the parties taking part in the transaction tends to be difficult. In addition, issues regarding the valuation of assets emerge more often. On the other hand, the increased importance of intangible assets for the creation of value might also have *advantages*. Possibly, in certain cases, less assets have to be transferred in order to perform the respective functions, since only very few tangible assets are necessary and since the required amount of intangible assets may be limited. For example, in case of certain shared

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104 The OECD leaves the decision on the date of taxation to the national jurisdictions. See also OECD, 2001c: 25 and the comments in Endres and Oestreicher, 2003: 14*-15* and Konrad, 2003: 787-788.

105 See for a more detailed discussion of the German practice Jacobs (Ed.), 2002: 632-639; Scheffler, 2002: 353-357; Müller, 2002: 513-514; Haiß, 2000: 169-201.

106 See for more details Thömmes, 2003: 552-553. The ECJ recently stated that a French rule regarding the expatriation taxation of individuals infringes upon the freedom of establishment. See ECJ, 2004; Kessler and Spengel, 2003: 363. However, a correspondent application to corporations cannot be expected, since the ECJ rather maintains the view already expressed in the merger directive, providing for the expatriation country's right to tax the hidden reserves accrued within its jurisdiction. See Thömmes, 2003a: 656-658.

107 See also Burkert, 2003: 323-324.

service centres such as an administration centre, an extensive transfer of assets might not be necessary and the costs related to the transfer can be lowered. Otherwise, in case an intangible developed at home is necessary for conducting business abroad, it is conceivable to minimise the realisation of hidden reserves by *tax planning strategies* such as phase-out or phase-in models. For example, the transfer of the necessary technology to a R&D centre may be performed by-and-by. First, the domestic technology may be licensed to the R&D company abroad. The licence fees would phase out while the technology becomes obsolete. New research projects can then be done abroad in the form of contract R&D.[108]

To conclude, the potential of lowering the effective tax rate by use of the very effective means of an optimal allocation of functions and risks is enlarged to a great extent due to the use of ICT. Thus, this instrument is of increasing importance.[109] In case a transfer of assets is necessary in order to do business abroad, the issue of a realisation and taxation of hidden reserves comes into question. However, this issue might not be that high in certain cases or may be reduced by the respective tax planning strategies.

4.2.2. Implementation of an Optimal Transfer Pricing System

Based on the assignment of functions and risks to different parts of a company, an optimal transfer pricing system is developed. This planning strategy is applicable between different legal parts belonging to a group of companies. Generally, in order to allocate profits between related entities, all transactions are taken into account and have to be evaluated for tax purposes. On the basis of a functional analysis, comparable transactions are identified in order to determine an adequate transfer price.[110] According to the currently valid arm's length principle, the price that would have been negotiated between independent third parties in a comparable transaction constitutes a benchmark indicating the range of adequate transfer prices for the controlled transaction. The arm's length principle which is codified in paragraph 1 of Article 9 of the OECD Model Tax Treaty is applied in three different methods, the so-called traditional transaction methods, which are the comparable uncontrolled price method, the resale price method and the cost plus method.[111]

For the purpose of *international tax planning*, the effective tax rate can be reduced by use of transfer pricing strategies within the legal bandwidth in order to shift profits to lower-

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108 See for more details and further examples Burkert, 2003: 359.

109 See also Endres, 2003a: 731; Herzig, 1998: 289. See also Wellisch, 2004, showing the consequences of a relocation of functions in case of profit allocation according to formula apportionment.

110 See also Baumhoff and Bodenmüller, 2003: 353. Thus, the functional analysis indicates the range of possible transfer pricing methods for each individual case. See also Baumhoff and Bodenmüller, 2003: 361.

111 See also Schäfer and Spengel, 2003: 8-9 with further quotations and Jacobs (Ed.), 2002: 926-934.

taxing countries.[112] This tax planning strategy does not involve an extensive change of the business processes and its realisation is therefore much more easier than a complete reallocation of functions.[113] Due to ICT, the scope of tax planning by use of transfer pricing might be extended in certain cases, since the underlying business models tend to be more flexible.[114] However, the potential *risks* related to transfer pricing already existing before show up more obviously and are of increasing importance in the era of ICT. Nowadays, it is more difficult to find and identify comparable transactions in order to determine an adequate transfer price.[115] These problems show up more frequently, since the decentralised organisational structure provides for a strong increase in controlled cross-border transactions. Especially the issues of finding comparables and determining an adequate transfer price for firm-specific intangible assets and services are raised to a greater extent with the advent of ICT.[116] Consequently, the search for adequate transfer prices is very cost-intensive in practice. In addition, a double taxation of profits and, thus, an increase in the effective tax rate may arise, as the transfer prices determined by the jurisdictions involved in a cross-border transaction often differ.[117]

To conclude, in the era of ICT, possible risks related to the implementation of an optimal transfer pricing system are deemed to show up more frequently. Compared to the division of functions and risks, optimising the transfer pricing system is a less effective means to reduce the effective tax rate, but the necessary effort is also less extensive.

4.3. Planning of the Legal Structure of the Organisation

4.3.1. Internal Organisation: Optimising the Legal Structure of a Company

As outlined above, the activities of a company can nowadays be more dispersed and, thus, be located more easily in lower-taxing countries. However, it depends on the legal organisation of a company and the resulting tax effects whether these lower tax rates can be hold up or if they are compensated due to certain tax rules. In this context, the existence of a tax attribute abroad, the legal form of the investment, the applicable method to avoid double taxation as well as a potential application of anti-tax-haven rules determine the final tax rate.

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112 For example the choice between the resale price method and the cost plus method or between licensing and cost pooling can be optimised. See Jacobs (Ed.), 2002: 967.

113 See also Herzig, 2003: S 88.

114 See also the possibilities of implementing different business models outlined in section 4.2.1.

115 See for more details Schäfer and Spengel, 2003: 11-15 and also Wellisch, 2004: 16; Eicker, 2000: 129.

116 See also Steimel, 2002: 485, 494, 503; Kessler, 2002: 445-446. These issues originate from the same circumstances as those in case of a transfer of assets, see section 4.2.1.

117 Here, the European Tax Arbitration Convention or Mutual Agreement Procedures can produce relief. See also Schäfer and Spengel, 2003: 15 with further quotations.

Thus, the tax planning instrument of optimising the legal structure of the company or group is decisive for the level of the effective tax rate. It does not entail a change in the operational business of a corporation and can therefore be realised without too much effort.[118] Generally, a company can choose between doing direct business or making a direct investment, i.e. establishing a PE or a subsidiary abroad.[119] In the following, the influence of the use of ICT is examined for every form of investment and it is analysed whether new chances of reducing the effective tax rate or new risks emerge.

Direct Business

Doing direct business means that the company works the market in the source country without setting up a fixed establishment there. The main business models which are typical for the changed business structures and which are supposed to increase are the provision of services, such as data warehousing, ASP or web site hosting, and the licensing or sale of digital products or other intangible assets. Due to ICT, these forms of doing business can be carried out more easily from a distance without the necessity of a physical contact to the customer.[120]

Under tax aspects, the different forms of doing direct business have to be classified in different categories of income. The income categories relevant in this context are business profits and royalties according to Articles 7 and 12 of the OECD Model Tax Treaty. The *tax consequences* of doing direct business consist of the following: Generally, only the residence country has the right to tax. However, in case of licence payments, many double tax treaties deviate from this rule but provide for source taxation from about 5 to 20 percent.[121] This withholding tax imposed by the source country on royalties realised within its borders can in general be credited against the tax due in the residence country. Consequently, the income from direct business is generally taxed at the tax rate in the residence country, except in case of an excess tax credit.[122]

In order to qualify these new forms of doing business as either royalties or business profits, they have to be assigned to either the provision of know-how or the provision of services. For

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118 See also Herzig, 2003: S 88.

119 Investing in form of a partnership is not considered separately here. Under economic aspects, according to the *eclectic theory of international production*, the form of investment abroad depends on whether it is advantageous for the company to internalise its competitive edge or not. See for further details Brunsbach, 2003: 11-12; Göpffarth, 2001: 36-37; Oestreicher, 2000: 102-103 with further quotations.

120 As the provision of know-how is supposed to increase, it has been stated that the incidence of licence payments might augment. See Brunsbach, 2003: 111 and also Steimel, 2002: 483-484.

121 See also Eicker, 2001: 152.

122 See also the general remarks in section 3.2.

this purpose, the following criteria have been proposed by the OECD.[123] On the one hand, contracts for the supply of know-how concern information that already exists or involve the supply of information after its creation and include provisions regarding the confidentiality of that information. On the other hand, in case of contracts for the provision of services, the supplier commits to perform services which may require the use of special knowledge, skill and expertise by that supplier but not the transfer thereof to the other party. For typical business models, the OECD has developed a classification to the different income categories.[124] For example, the provision of proprietary technical information regarding a certain product or electronic ordering and downloading of digital products for the purpose of commercial exploitation of the copyright is categorised as a royalty, whereas ASP, data warehousing or the electronic access to professional advice is qualified as business profits. This categorisation is deemed to be a suitable clarification. However, there may still be some uncertainties and income qualification conflicts[125] which often constitute a *tax risk* in terms of double taxation but may also be used for *avoiding potential tax risks*. Thus, on the one hand, a possible risk inherent to income qualification conflicts consists of the fact that the respective countries may qualify one and the same transaction differently. For example, the source country may qualify the payment as a royalty and impose a withholding tax on it, whereas the residence country may qualify the income as business profits and, therefore, may not accept the withholding tax. Besides, even in case the withholding tax is accepted, an excess tax credit may result which leads to an increase in the effective tax rate.[126] Furthermore, uncertainties may result due to the fact that even in case of a uniform qualification as a royalty, the source of the licence fee may be unclear.[127] Besides, due to ICT, the taxpayer can more easily arrange the transactions in a way to avoid these tax risks, for example to avoid an excess tax credit in order not to increase the effective tax rate. To conclude, the use of ICT increases the tax risk regarding income qualification conflicts, but also provides a rise in possibilities for international tax planning, e.g. to avoid these risks.

Permanent Establishment

According to current tax rules, a PE is defined as a fixed place of business through which

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123 See OECD, 2001a: 11.3 and also the analysis in Brunsbach, 2003: 95-113.
124 See OECD, 2001a: Annex 2.
125 This especially holds for the national tax system. See Steimel, 2002: 484 and 494.
126 See also Jacobs (Ed.), 2002: 1240 and the example in Eicker, 2001a: 26, 35-39; Doernberg et al., 2001: 376-377.
127 See the example of a customer resident in one country and paying a licence fee for the remote use of a software installed on a server in another country in Doernberg et al., 2001: 378-379.

the business of an enterprise is wholly or partly carried on.[128] The company has to have the PE at its demand and the overall activity of the PE has to exceed mere preparatory or auxiliary activities.[129] Due to the fact that the physical distance is less important with the advent of ICT, there are, on the one hand, less business reasons for establishing a PE in a certain country in order to be close to the customer. However, on the other hand, as other location factors may become more important for the location decision of a company, they can nowadays easily be used by creating a PE in a certain country.

In terms of taxation, a PE indicates the threshold that has to be met by business activities in the source country in order to entitle that country to tax the pertinent business income. Under tax planning aspects, in order to make use of the international tax differential, the PE shall generally be installed in a low-tax country. Especially in case the tax exemption method is applied in the home country of the parent company, the effective tax rate can be lowered. Otherwise, the application of the tax credit method leads to a taxation at least according to the tax level in the residence country, but potential for a crediting of excess tax credits from other countries may be provided.[130]

Due to the ICT-induced economic changes, i.e. the increased mobility and the separability of functions and parts of a company, it is much easier for a company to make use of the international tax differential by means of the choice of location of a PE. Thus, the effective tax rate can be lowered to a great extent without too much effort. Typical e*xamples* of PEs in the age of ICT are Internet servers and employees telecommuting from abroad.[131]

The OECD has stipulated the conditions under which a *server* is deemed to represent a PE.[132] According to the OECD, a server constitutes a fixed place of business if it is located at a certain place for a certain period of time. The enterprise has the server at its disposal if, for example, the server is owned or leased and operated by the company. It has to be examined on a case-by-case basis whether the operations carried out by a server are deemed to be auxiliary or preparatory activities. The presence of personnel is not necessary for the condition that an enterprise carries out its business by a server. Consequently, as the server might constitute a PE and as the location of the server is rather independent of other location-specific factors, companies can install a server in a low-tax country. Thus, one can make use of the international differences in tax rates, particularly in case the income is exempted from

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128 See Article 5 section 1 of the OECD Model Tax Treaty.
129 See Article 5 section 4 f of the OECD Model Tax Treaty.
130 See also the general remarks in section 3.2.
131 See also the examples of the C company and the M group and also Wellisch, 2004: 3-4, 14.
132 See sections 42.2-42.10 of the Commentary on Article 5 of the OECD Model Tax Treaty.

taxation in the residence country of the parent company. As a consequence, the possibilities of reducing the effective tax rate by creating or avoiding a PE in a certain country have increased due to the use of ICT.[133] However, it has to be noticed that the potential of a server as a tax planning instrument depends to a great extent on the amount of profits attributable to it.[134] Besides, due to possible uncertainties regarding the degree of nexus required for the existence of a PE in practice, the tax risk is increased.[135]

In addition, the emergence of different forms of *telecommuting* raises the issue of the existence of a PE. This question mainly depends on the fact whether the company has the authority to dispose of the employees' workplace. This might often be the case for telecommuting centres, e.g. shared service centres, but not in case the employees work from their home or have a mobile workplace.[136] Since employees are not that mobile, telecommuting centres do not constitute a means for international tax planning that is as flexible as the use of a server. However, it is a more effective means, as probably more income is attributable to such a kind of PE. Besides, again a potential tax risk emerges due to the uncertainty regarding the existence of a PE.

A further issue of international tax planning related to a PE occurs in case the PE installed abroad does not realise active income. Then, the range of international tax planning is limited by anti-tax-haven rules. The consequences of these rules are outlined below. To conclude, the use of ICT provides for an increased potential to reduce the effective tax rate in case of a PE, particularly if the tax exemption method is applied and provided that a certain amount of profits is attributable to the PE. However, also the tax risk increases, since the uncertainties of whether a PE exists or not occur more often.

Subsidiary

Since the subsidiary constitutes a distinct legal entity, the profits can be retained and reinvested in the source country without a taxation taking place in the residence country.[137] Thus, the differences in international tax rates can be used to a great extent. In regard to the effects in case of a distribution of profits, generally, the tax exemption method provides for an

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133 See also Satzger, 1999: 43.
134 See regarding this question section 4.2.1.
135 See Eicker, 2001b: 60.
136 See for more details Schäfer and Spengel, 2002: 15-16; Utescher, 1999: 159-185.
137 This difference compared to the PE particularly shows to advantage in case the tax credit method would be applied to the profits of the PE. Regarding *non-fiscal reasons,* compared to a PE, a subsidiary will generally be preferred in case an investment is planned for longer periods or due to legal or image reasons. Also, a PE may be transformed into a subsidiary after a certain time period, for example after the investment in the source country has turned out to be worthwhile and shall be expanded.

optimal use of the lower tax rate in the source country.[138]

Besides using a subsidiary as a form of direct investment in the source country, a further strategy in order to reduce the effective tax rate consists of repatriating profits from abroad to the parent company via an *intermediary subsidiary* in a third country. Under certain circumstances, regardless of whether the level in the source or in the residence country is lower, it is possible to reduce the tax level even below. In case the profits are exempted from taxation in the jurisdiction of the parent company, the optimal tax planning strategy consists of realising profits in lower-taxing countries. Otherwise, if the jurisdiction of the parent company has stipulated the tax credit method, the tax planning strategy shall consist of optimising the crediting by reducing the amount of excess tax credits.[139] These strategies of minimising the effective tax rate are particularly possible for those functions which are rather independent of any physical location and highly mobile, such as holding functions or financing.[140] Since in the era of ICT, the value-added process tends to be more decentralised and fragmented and since the use of ICT can ensure an effective implementation of such a triangular constellation, this kind of planning strategy can be used more easily and constitutes a tax planning instrument of increasing importance.

The main *issues* resulting from the use of *ICT* on tax planning with subsidiaries consist of changes in the applicability of anti-tax-haven rules which are discussed in the following.

Limitations of Investing Abroad

Direct investments abroad in form of a PE or a subsidiary are not accepted under tax law if the investment is deemed to constitute a mere passive activity. Regarding a *subsidiary* abroad, a deferral of income may be repealed by national provisions if an add back taxation rule is applicable in case of a *controlled foreign company* (CFC). According to the anti-tax-haven legislation, the undistributed income of a CFC is not deferred, but taxed to its domestic shareholders on a current basis. The application of the add back taxation particularly comes into question in case the subsidiary serves as an intermediary in a triangular constellation.[141] Accordingly, anti-tax-haven rules are applied to a *PE*. For example, according to German tax law, in case a PE realises passive income, the tax credit method is applied instead of the tax

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138 See for more details the general remarks in section 3.2.

139 See also the general remarks in section 3.2. and for more details Spengel, 2003: 45-52.

140 See also the remarks regarding the allocation of functions and risks in section 4.2.2. Especially finance centres are of a high relevance in practice. See for more details Spengel, 2004: 17-21 with empirical analyses; 164-171; Herzig, 2003: S 88; Jacobs (Ed.), 2002: 813-815. Concerning empirical results of a survey about intermediaries in third countries conducted among UK companies, see Devereux and Pearson, 1989: 66-67.

141 See for more details of this tax planning strategy the remarks above.

exemption method.[142] The following remarks are to some extent based on examples of CFC rules relevant for subsidiaries, but are correspondingly valid for a PE. In light of the minimisation of the effective tax rate, the application of anti-tax-haven rules constitutes a potential tax risk and would probably lead to an increase in the effective tax rate.

Generally, three factors are relevant for the application of anti-tax-haven rules: *First*, the domestic shareholder must control the foreign entity or have a significant ownership interest in it, *second*, the geographical location where the entity is established or does business can be qualified as a tax haven with the income being taxed at a relatively low level and, *third*, regarding the nature of the foreign entity's activities, the income resulting thereof has to be passive income.[143] Whilst the first criterion is a legal one and, therefore, not influenced by the increased use of ICT, the second and the third economic criteria may be influenced by it.

Regarding the *second criterion*, in order to determine whether the source of a CFC's income is located in a tax haven and, thus, taxed at a low level, the location of the controlled foreign entity as well as the source of the respective income have to be pinpointed. Due to the increased use of ICT, these locations tend to be rather blurry. For example, especially in case of a virtual organisation, it may be difficult to determine the effective place of management.[144] Determining the source of income is in particular complicated regarding the place of performance of services or the place of use or consumption of intangibles.[145] Consequently, these well-known tax issues related to the increased use of ICT also influence the application of anti-tax-haven rules and increase the tax risk for the taxpayer.

In regard to the *third criterion*, a distinction has to be drawn between active income, which does not qualify for the application of anti-tax-haven rules, and passive or foreign base company income, which entails an application of these rules. Typical activities for ICT-based businesses are trading with digital goods, providing services or licensing.[146] Taking the CFC provisions in the *United States* as an example, the income from the *sale of property*, such as intangibles, is deemed to constitute foreign base company sales income if it is derived from transactions between the CFC and related parties and if it arises from sales made outside the

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142 See paragraph 2 of section 20 of the Foreign Transactions Tax Act; Lüdicke, 2003: 439; Jacobs (Ed.), 2002: 492 with further quotations regarding the issue of treaty overriding. An activity clause is generally also stipulated in double tax treaties.

143 See Doernberg et al., 2001: 323.

144 See for further details section 4.1.

145 See also United States Department of the Treasury, 2000: 76.

146 As outlined above, due to the increased use of ICT, such a classification turns out to be complicated in certain cases. See also Doernberg et al., 2001: 331; United States Department of the Treasury, 2000: 76. Concerning the qualification in active and passive income according to German CFC rules, see the detailed analysis in Brunsbach, 2003: 45-59; Müller, 2002: 520-528; Strunk (Ed.), 2000: 95-109. In regard to the provisions in Canada, see Li, 2003: 480-484.

CFC's tax jurisdiction.[147] In regard to the provision of *services*, the income is deemed to be foreign base company services income if it is derived from services performed outside the CFC's country of residence for or on behalf of a related party.[148] In case of *royalties*, for example from the lease of software, the income is supposed to constitute active income if the CFC has developed, created or produced the software or has added substantial value to the software in the regular course of the CFC's business.[149]

In order to examine whether the income is active or not, the income first has to be *classified in the respective income categories*.[150] The fact that the outcome of the anti-tax-haven rules differs depending on the income classification is of special interest in those cases in which certain activities of a company are very similar but classified differently. For example, a CFC may purchase software from its parent company and either can sell it to third parties or can provide services to unrelated parties by making use of this software. Whilst the selling-on of the software would constitute foreign base company sales income, the income realised by the provision of services would be qualified as active income, provided that the parent company does not render substantial assistance to the CFC.[151] These circumstances might be used in order to prevent the application of CFC rules, as a company can arrange its business affairs for purposes of choosing an income category providing a favourable outcome.

In addition, the classification of income as active or passive depends on the actual nature of the CFC's activities and on the location where the activities take place.[152] In regard to the *nature of the CFC's activities,* due to the use of ICT, functions, tasks or intangible assets, such as know-how, are more mobile and can be shifted more easily.[153] Consequently, the affairs of a company can be arranged more easily in a way that the CFC realises active income. For example, the operations of a company can be restructured by transferring software development personnel as well as the respective functions, tasks and assets to the CFC.[154]

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147 See United States Department of the Treasury, 2000: 77.

148 See United States Department of the Treasury, 2000: 79 and section 954 (e) of the Internal Revenue Code.

149 See Doernberg et al., 2001: 329; United States Department of the Treasury, 2000: 78.

150 See Doernberg et al., 2001: 328-330, providing further examples regarding these income classifications. For the example of the United States, see United States Department of the Treasury, 2000: 77. It has to be noticed that the question of income characterisation in the context of CFC rules is not identical to the characterisation for source taxation purposes under treaty law. See Li, 2003: 478.

151 Also in case a product can be sold either physically or made available digitally, the income categorisation may differ. See United States Department of the Treasury, 2000: 79-80 providing further examples.

152 Regarding the issues related to the location of a company's activities see the remarks made above.

153 See for further details regarding shifting of functions and risks section 4.2.1.

154 See Brunsbach, 2003: 39-42; Doernberg et al., 2001: 334.

Besides, there may be anti-tax-haven rules which contain tests for the differentiation between active and passive income being unsuitable in the era of ICT, since achieving active income requires a human element.[155] For example, in Canada, a CFC's royalty income is deemed to be active income only if the CFC employs more than five full-time employees engaged in the licensing business throughout the year.[156] As, due to ICT, the number of employees may be lower, an add back taxation may be applied although the foreign entity performs active activities. Consequently, these tests based on the existence of personnel constitute an increased risk for the taxpayer and may increase the effective tax rate.

To conclude, with the advent of ICT, there might well be more cases in which the existence of a controlled foreign subsidiary or PE comes into question,[157] since the organisational structure of companies gets more and more decentralised and minor functions or parts of a company can be separated and dispersed all over the world. However, this does not necessarily imply that the number of cases increases in which the anti-tax-haven rules are actually applied and, thus, in which a potential increase in the effective tax rate takes place. As shown above, it may be easier to prevent an add back taxation by a restructuring of operations. Thus, companies can legally avoid the application of anti-tax-haven rules and a possibly resulting increased effective tax rate with greater ease by the use of ICT. Besides, the current anti-tax-haven rules also constitute a potential risk, as more situations occur in which the application of anti-tax-haven provisions is uncertain and has to be clarified.[158] Thus, the boundary of lawful tax planning tends to blur.

Comparison of the Investment Alternatives and Location Decision

Subsequent to the separated analysis of the three investment alternatives, it is questionable whether there is a shift between their relative frequency due to ICT. When exclusively considering *business aspects*, it is in certain cases no longer necessary to install a physical presence in the source country in order to do business there, as the link between the company and the customer can be effected via ICT.[159] Thus, it has often been stated that the frequency

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155 However, bona fide business entities reducing human activities in order to increase reliance on technology shall not be penalised. See Advisory Committee on Electronic Commerce, 1998: 4.2.5.1. Regarding CFC rules based on a human element in the UK, see Inland Revenue, 1999: 5.33-5.34; Kilby and Wildi, 2000: 27. Thus, a re-examination of these rules is necessary in an ICT environment, especially in case of activities that can be done solely by means of ICT.

156 See Advisory Committee on Electronic Commerce, 1998: 4.2.5.3. and also Li, 2003: 483.

157 See also Li, 2003: 478; Doernberg et al., 2001: 331.

158 Especially in case an entity abroad fulfils ICT-related tasks, a company may not be aware of the fact that anti-tax-haven provisions have to be applied. Furthermore, it is discussed in principle whether the current anti-tax-haven rules are compatible with the basic principle of non-discrimination as stipulated in the EC Treaty. See the more detailed discussion in Spengel, 2003: 284-288.

159 See also Eicker, 2001b: 60, arguing that a direct physical presence in the country of the consumers may

of doing direct business in the source country will increase, whereas subsidiaries or PEs as forms of a physical presence will rather decrease.[160] However, often, a physical presence in the source country is still necessary for the purpose of providing products or services in a cost-effective manner or in order to make use of favourable investment conditions.[161] Besides, also the link within a company can be effected more easily via ICT which can facilitate the connection between the physical presence installed abroad and the parent company. Thus, it is doubtful whether the relative frequency of doing direct business can really be expected to increase. Until now, definite empirical results regarding this question do not exist. In case a physical presence shall be installed in the source country, PEs may possibly become more frequent compared to subsidiaries under economic aspects. Particularly in the times of ICT with ever-changing business models and a lack of capital, a PE is generally less costly, less time-consuming and more flexible.[162]

Under *mere tax planning aspects*, the investment decision is based on the distinction between lower-taxing and higher-taxing countries. Thus, the relative frequency of the investment alternatives depends on their potential to make use of the international tax differential in order to reduce the overall tax rate. Generally, an investment in a source country with a lower tax burden is advisable. As shown above, given a PE or a subsidiary, the lower tax rate can be used in an optimal way in case the tax exemption method is stipulated in the residence country of the parent company.[163] When comparing PEs to subsidiaries under tax aspects, there are several differences resulting from the fact that the subsidiary constitutes a separate legal entity, such as the possible imposition of a withholding tax on dividends distributed by the subsidiary or differences regarding the allocation of income and the treatment of losses.[164] Historically, subsidiaries were preferred compared to PEs because subsidiaries were supposed to raise less taxation issues. Besides, they constitute a suitable means for lowering the effective tax rate by use of profit retention and triangular constellations. However, nowadays, also PEs may constitute a suitable alternative form of investment for doing business abroad, since some of the tax disadvantages of PEs do no longer exist.[165] Taking into account this development together with the business development,

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also be less compelling due to the legal harmonisation of contract law within the EU.

160 See for example Satzger, 1999: 43; Doernberg, 1998: 1013-1014.

161 See also OECD, 2003: 6.

162 See Eicker, 2001b: 60.

163 See for further details the remarks in section 3.2.

164 See for further details Jacobs (Ed.), 2002: 756-757. Also the imposition of capital gains resulting from a disposal of the foreign direct investment differs. See Article 13 of the OECD Model Tax Treaty.

165 For example, the ECJ has recently abolished existing discriminatory rules of PEs in the field of direct taxation. Besides, income allocation issues are nowadays at least as likely to arise with subsidiaries as with

a relative increase in the number of PEs compared to subsidiaries may occur.

Generally, ICT-induced economic changes, such as a higher flexibility and a stronger independence of location factors, enable taxpayers to reach their respective business and tax optimising strategies more often and to a greater extent.[166] For example, creating a PE or a subsidiary in a low-tax source country or avoiding an investment in a high-tax source country is more easily possible by the use of ICT.[167] Thus, since tax aspects may additionally become more important due to the decreasing relevance of other location factors, it can generally be expected that investments in lower-taxing countries will further increase in the era of ICT, especially in form of PEs and subsidiaries.[168] In the end, since the decision regarding the optimal form of investment depends on many factors, the outcome differs depending on the main decision criterion and on the characteristics of the target jurisdiction.

4.3.2. External Organisation: New Forms of Enterprise Co-Operation

Besides the possibility of investing abroad oneself, it is also possible to engage in a form of co-operation with another business partner. As mentioned in section two, the increased use of ICT leads to new possibilities of hybrid forms of co-operation which may be organised virtually.[169] The legal base of these virtual co-operations is generally a contractual joint venture. Under tax considerations, it is in case of a contractual joint venture with profit pooling questionable whether the co-operation entails the creation of a partnership being liable to taxation.[170] This question depends on the degree of economic linkage between the two partners. In case a certain country classifies a contractual joint venture as a *partnership*, the income of this entity is subject to taxation there. The final tax rate then again depends on whether the tax exemption method or the tax credit method is applied in the residence countries of the business partners.[171] In contrast, if the engagement in a contractual joint

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PEs. See Eicker, 2001b: 60; Owens, 1997: 1848 and also section 4.2. regarding the allocation of income.

166 Regarding the optimal tax strategies for e-commerce activities, see also the analysis in Satzger, 1997.

167 See also Satzger, 1999: 43, denoting this fact a dramatic increase in the possibilities of tax planning.

168 See also the empirical results regarding the scope of income invested abroad in Spengel, 2004: 14-15, also showing that this amount is dependent on the applicable method to avoid double taxation in the residence country. Besides, it has been shown in several analysis that the international tax differential indeed has an impact on location decisions of companies doing business abroad. See the following examples of studies supporting this fact: Devereux and Griffith, 1998: 335-363; Commission of the European Communities, 1992: 93-119; Devereux and Pearson, 1989: 64-65. See also the overview of international studies as well as studies regarding German inbound and outbound investments in Spengel, 2003: 210-220.

169 See also the example of the M group in section 2.2.

170 See also Brunsbach, 2003: 62 and also in more detail Fischer-Zernin, 1997: 1273-1277. Especially for non-virtual contractual joint ventures, it is argued against the existence of a partnership that the aim of the partners consists of pooling profits and losses and not of establishing a joint business. See Endres, 2003: 199, giving the example of the German jurisprudence.

171 See also the general remarks in section 3.2.

venture is classified as *doing direct business*, the business partners are not liable to tax in the source country, but the apportioned business profits are taxed in the residence countries of the business partners according to the tax levels prevailing there.[172]

Due to the emergence of new hybrid forms of co-operation in terms of contractual joint ventures, it is often not obvious whether a partnership exists or not and, thus, according to which tax rate the profits are finally taxed. In case the qualification of a given contractual joint venture by the countries involved differs, a double taxation or a double non-taxation may result.[173] In terms of *international tax planning*, this possible qualification conflict as well as the differing final tax rates between a partnership and doing direct business can be used in order to minimise the effective tax rate. A company can take advantage of the international tax differential by stipulating the contractual terms of the joint venture and, thereby, choosing either a qualification as a partnership or as doing direct business in order to reach the lowest possible taxation. For example, in case extensive contractual relationships are agreed, the existence of a partnership is probable.[174] Besides, a potential qualification conflict can be used in order to reach a double non-taxation of parts of the profits and, thus, to lower the effective tax rate.

Furthermore, it has to be taken into account that the taxation of international contractual joint ventures also contains a potential *tax risk*. On the one hand, due to the uncertainty regarding the fiscal qualification of a virtual contractual joint venture, a taxpayer cannot be sure of whether he is liable to taxation in a certain country or not. Besides, in case of a differing qualification of the co-operation, a double taxation of profits and, thus, an increase in the effective tax rate may occur.[175] To conclude, the possibility of new hybrid forms of co-operation, such as virtual contractual joint ventures, constitutes a further opportunity of reducing the effective tax rate. However, potential risks, including an increase in the effective tax rate, have to be borne in mind.

5. Summary of the most Relevant Changes in International Tax Planning

The outcome of the previous analysis regarding the different tax planning instruments is summarised below. For each instrument, current and non-current tax aspects relevant in the era of ICT are compared to the so-called “old economy”, meaning rather centralised

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172 Thus, the tax consequences of doing direct business as described in sections 3.2. and 4.3.1. are applicable.

173 See the example in Jacobs (Ed.), 2002: 1202-1203 and Holz and Hippe, 1996: 25; de Hosson, 1996: 85-86.

174 See Endres, 2003: 199. See also Brunsbach, 2003: 71-72, arguing against a general denial of qualifying virtual contractual joint ventures as partnerships.

175 This potential double taxation may be prevented by the agreement of an advanced ruling with the tax administrations concerned. See also Endres, 2003: 199; Brunsbach, 2003: 72; Jacobs (Ed.), 2002: 1203.

organisational forms without using ICT. The respective tax risks are mentioned also.

Table 2: Overview of the Most Relevant Changes Regarding Different Tax Planning Instruments

Issue	**"Old Economy"**	**Doing Business in the Age of ICT**		
		Economic Changes due to ICT	Opportunities / Chances for International Tax Planning	Risks / Obstacles of International Tax Planning
location of a company's residence	- place of effective management rather fixed at one place - restricted scope of tax planning by means of choosing location of residence	- place of effective management can be mobile or there may be several places of effective management in different countries	- residence of a company can be chosen more freely - very effective instrument to lower effective tax rate, especially when setting up a company => scope of tax planning is enlarged - dual resident company might be used for tax planning purposes	- possible uncertainties regarding place of residence - effectiveness of instrument is restricted in case of relocation of residence due to realisation of hidden reserves - dual resident company may arise unintentionally
allocation of functions and risks	- rather centralised and immobile business activities - relocation causes high costs, since activities are based on physical factors of production - restricted scope of tax planning by allocating functions and risks	- rather mobile and decentralised business activities - business activities rather based on firm-specific intangible assets and services - cost-effective relocation may be possible	- wide range of functions can be allocated to lower-taxing countries => potential of this instrument is increased - very effective means to lower effective tax rate, especially in case of additional investments or new foundations => scope of tax planning is enlarged - reallocation of functions: necessary amount of assets transferred in certain cases not that high - phase-in and phase-out models to lower realisation of hidden reserves	- in case of transfer of assets: potential realisation and taxation of hidden reserves impairs the effectiveness of this instrument - uncertainties, valuation issues, difficulties of allocating profits between legal entities regarding intangibles occur more often => increased tax risk
implementation of a transfer pricing system	- transfer prices for physical goods can normally be found, comparable transactions exist in most cases	- business activities rather based on firm-specific intangible assets and services	- scope of tax planning by use of transfer pricing may be enlarged in certain cases, since business models tend to be more flexible	- difficulties to find and identify comparable transactions, especially regarding firm-specific intangibles and services - enhanced risk of double taxation, increase in costs due to high number of intra-company transactions
legal structure of a company - doing direct business	- rather clear-cut income qualification for different forms of doing direct business	- new business models emerge	- blurry income qualification - new tax planning potential due to qualification conflicts - potential risks may be avoided more easily	- increased uncertainty and potential double taxation due to blurry income qualification and qualification conflicts
- permanent establishment	- activities of a company generally constitute a fixed place of business => PE definition is suitable	- extensive activities without fixed place of business emerge => PE definition sometimes unsuitable	- more flexibility regarding creation or avoidance of PE - increased potential for reducing effective tax rate especially if tax exemption method is applied	- possible uncertainty whether PE exists or not, e.g. in case of a server or a teleworker - limitations of investing abroad: see below

Issue	"Old Economy"	Doing Business in the Age of ICT		
		Economic Changes due to ICT	Opportunities / Chances for International Tax Planning	Risks / Obstacles of International Tax Planning
- subsidiary	- rather centralised organisational structure	- mobile and decentralised business activities	- increased tax planning potential particularly if tax exemption method is applied - triangular constellation with intermediary subsidiary can be used more easily => increased potential for reducing effective tax rate	- limitations of investing abroad: see below
limitations of investing abroad: subsidiary and permanent establishment	- rather centralised organisational structure - anti-tax-haven rules are suitable in most cases	- rather decentralised organisational structure - minor functions can be separated - anti-tax-haven rules are unsuitable in some cases	- application of anti-tax-haven rules may be prevented more easily due to increased flexibility regarding location of income and income classification	- application of anti-tax-haven rules comes into question more often - increased risk due to uncertainties regarding location of source of income, income classification and unsuitability of anti-tax-haven rules
external organisation: hybrid forms of enterprise co-operation	- extent of co-operating internationally in form of contractual joint ventures is restricted, since often not efficiently feasible - contractual joint ventures generally classified as doing direct business	- international co-operations efficiently possible without necessity of localising all inputs in one place, link can be effected by ICT => emergence of virtual contractual joint ventures	- classification of virtual contractual joint venture as partnership may be possible => international tax differential can be used by stipulating terms of contract accordingly - qualification conflicts can be used for double non-taxation - => new tax planning potential	- increased tax risk due to uncertainty regarding classification of virtual contractual joint venture - qualification conflicts between countries may entail double taxation

6. Conclusions

(1) Due to the increased use of *ICT*, geographic distances within a company, between different companies as well as between companies and consumers tend to be less relevant. Besides, firm-specific factors such as intangible assets and services nowadays constitute the main factors for the creation of value. Consequently, many functions of a company are becoming more mobile and more independent of physical location factors.

(2) The main objective of *international tax planning* consists of minimising the effective tax rate of the whole company or group of companies. Taking advantage of the differences in international tax rates, qualification conflicts or permanent differences between the earnings before tax and the taxable income are the most prominent means to reduce the effective tax rate.

(3) The increased use of ICT provides for several new *chances of international tax planning*, but also entails an increase in potential *tax risks*. As certain investment decisions of a company tend to be less dependent on business aspects, fiscal considerations may

become relatively more important. Due to ICT, companies may reach their investment objective to a greater extent and, consequently, investments in source countries with a lower tax level might further increase.

(4) Since the firm-specific rents are more disposable and can more easily be shifted to lower-taxing countries due to ICT, the *potential for making use of the international tax differential* has increased. Thus, the effective tax rate can be reduced more easily and with lower investment costs, particularly by optimising the allocation of functions and risks on an international level. Consequently, companies can pay more attention to the tax-optimal choice between international locations. This already important means for reducing the effective tax rate is further strengthened by the use of ICT.

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