Anne Schäfer

International Company Taxation in the Era of Information and Communication Technologies

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International Company Taxation in the Era of Information and Communication Technologies

Issues and Options for Reform

With a foreword by Prof. Dr. Dr. h.c. mult. Otto H. Jacobs

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Dedicated to my parents

Foreword

The increased use of information and communication technologies (ICT) is leading to noticeable changes within the organisational structure of the economy. Geographical distances within companies as well as between companies and their customers can be bridged more easily with the use of ICT. Thus, economic activities are less dependent on time and place. Taking into account the manifold changes in the economic structures, it has to be questioned whether and to what extent the current rules of international company taxation are still applicable in a reasonable way. With regard to this issue, a need for the development of suitable reform approaches covering the whole system of international taxation still existed. The doctoral thesis of Mrs. Schäfer provides a major contribution to fulfill this need.

Mrs. Schäfer has worked out in a very comprehensive way the creation of new organizational structures as well as the resulting implications on tax law and the system of international taxation. Moreover, the existing literature on the subject at hand has been analyzed in a competent way. The special merit of the doctoral thesis of Mrs. Schäfer consists in elaborating reform proposals for international company taxation which cover the different relevant issues of international taxation. More in detail, reform proposals for the definition of a company's residence, the definition of the permanent establishment, the possibilities of profit allocation as well as the methods of avoiding international double taxation are covered by the analysis. Thereby, the interrelation between these issues is taken into account. The reform proposals are methodically well-founded and feasible in practice.

The doctoral thesis of Mrs. Schäfer is a diversified and well-founded work. It fulfills both methodical and tax law requirements and covers complex issues of international company taxation. The doctoral thesis of Mrs. Schäfer constitutes a major contribution to the discussion of the economic and tax implications of information and communication technologies as well as to the methodical development of international company taxation. It is not only of particular importance for international research in this field, but also of special interest for national governments as well as supranational organizations dealing with this issue, such as the OECD or the Commission of the European Communities. I therefore highly recommend the doctoral thesis of Mrs. Schäfer to this audience.

Prof. Dr. Dr. h.c. mult. Otto H. Jacobs

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Anne Schäfer

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Abbreviations

AG	Aktiengesellschaft
APA	Advanced Pricing Agreement
ASP	Application Service Providing
B2B	Business to Business
B2C	Business to Consumer
BB	Betriebs-Berater (Journal)
BIFD	Bulletin for International Fiscal Documentation (Journal)
BStBl	Bundessteuerblatt
B.T.R.	British Tax Review (Journal)
CACM	Communications of the ACM (Journal)
CCBT	Common Consolidated Base Taxation
CDFI	Cahiers de Droit Fiscal International (Journal)
CESifo	Centre for Economic Studies Institut für Wirtschaftsforschung
CFC	Controlled Foreign Company
CHTB	Compulsory Harmonised Tax Base
CPM	Cost Plus Method
CTJ	Canadian Tax Journal (Journal)
CUPM	Comparable Uncontrolled Price Method
DB	Der Betrieb (Journal)
DBW	Die Betriebswirtschaft (Journal)
DIHK	Deutscher Industrie- und Handelskammertag
DStJG	Deutsche Steuerjuristische Gesellschaft e. V.
DStRE	Deutsche Steuerrecht Entscheidungsdienst (Journal)
DStZ	Deutsche Steuerzeitung (Journal)
e.g.	For example
ECJ	European Court of Justice
e-commerce	electronic commerce
Ed.	Editor
Eds.	Editors
ET	European Taxation (Journal)
Et al.	Et alii
EU	European Union
EUCIT	European Union Company Income Tax
FA	FinanzArchiv (Journal)
FB	Finanz Betrieb (Journal)
FDI	Foreign Direct Investment
FR	Finanzrundschau (Journal)
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product

GmbHR	GmbH-Rundschau (Journal)
HBR	Harvard Business Review (Journal)
HST	Home State Taxation
IAS	International Accounting Standards
IBFD	International Bureau of Fiscal Documentation
ibid.	ibidem
ICRT	International Communications Round Table
ICT	Information and Communication Technologies
IFRS	International Financial Reporting Standards
IJEC	International Journal of Electronic Commerce (Journal)
ISI	Institut für Systemtechnik und Innovationsforschung
ISP	Internet Service Provider
IStR	Internationales Steuerrecht (Journal)
IT	Information Technology
ITPF	International Tax and Public Finance (Journal)
IWB	Internationale Wirtschafts-Briefe (Journal)
JEP	Journal of Economic Perspectives (Journal)
JIBS	Journal of International Business Studies (Journal)
JILT	Journal of Information, Law & Technology (Journal)
JITE	Journal of Institutional and Theoretical Economics (Journal)
K&R	Kommunikation und Recht (Journal)
LAN	Local Area Network
mir	Management International Review (Journal)
MIT	Massachusetts Institute of Technology
No.	Number
NTJ	National Tax Journal (Journal)
OECD	Organization for Economic Cooperation and Development
OECD Model	OECD Model Tax Convention
p.	page
pp.	pages
PC	Personal Computer
R&D	Research and Development
RIW	Recht der Internationalen Wirtschaft (Journal)
RJF	Revue de Jurisprudence Fiscale (Journal)
RPM	Resale Price Method
SEC	Staff of the European Commission
SME	Small and Medium-Sized Enterprises
StbJb	Steuerberater-Jahrbuch (Journal)
StuB	Steuern und Bilanzen (Journal)
StuW	Steuern und Wirtschaft (Journal)
TLR	Tax Law Review (Journal)

TN	Tax Notes (Journal)
TNI	Tax Notes International (Journal)
TNMM	Transactional Net Margin Method
TPI	Tax Planning International (Journal)
TPI e-commerce	Tax Planning International e-commerce (Journal)
TPI Transfer Pricing	Tax Planning International Transfer Pricing (Journal)
TPSM	Transactional Profit Split Method
UK	United Kingdom
UN	United Nations
UN Model	UN Model Tax Convention
VAT	Value Added Tax
WiSt	Wirtschaftswissenschaftliches Studium (Journal)
WISU	Das Wirtschaftsstudium (Journal)
WPg	Die Wirtschaftsprüfung (Journal)
ZEW	Zentrum für Europäische Wirtschaftsforschung
ZfB	Zeitschrift für Betriebswirtschaft (Journal)
zfbf	Zeitschrift für betriebswirtschaftliche Forschung (Journal)
ZfCM	Zeitschrift für Controlling und Management (Journal)
zfo	Zeitschrift für Führung und Organisation (Journal)

1. Introduction

1.1. Motivation

In the last few years, *Information and Communication Technologies* (ICT) have spread with increasing speed in both private and business sectors. For example, in 2002, 64,9% of private households and 83,9% of businesses in Germany used the Internet.[1] The ICT sector contributed close to 10% of OECD business GDP in 2001 and employed over 6% of business employment.[2] In 2002, ICT goods represented 14% of total trade.[3]

The implementation of ICT is leading to noticeable changes within the organisational structure of the economy, such as in the market organisation and in the internal organisation of enterprises. *Market transactions* carried out by enterprises can be processed either completely or in part by ICT, thus creating digital markets. It is possible to participate in these markets from all over the world and the geographic distances between the participants become rather irrelevant. With respect to the *internal organisation* of a company, the implementation of ICT can lead to regional decentralisation, since the process of producing goods and services makes use of production factors situated in various locations. Also, organisational decentralisation can be observed within the enterprise, as a modularisation of the value added chain takes place. In addition, the application of ICT entails the creation of *hybrid forms of enterprise co-operation*, such as virtual organisations. Thus, the companies' boundaries are becoming blurred. To summarise, due to the utilisation of ICT, economic activities are becoming more mobile and international.

In general, international tax law is applied to the underlying organisational structures of the economy. Given the manifold ICT-induced economic changes outlined above, the question is raised whether and to what extent these changes have an impact on the *applicability of current international tax law*. The main developments influencing international taxation are, above all, the increasing regional independence and mobility of companies and their production factors as well as the increasing importance of firm-specific intangible assets and services. In addition, the data required for taxation may not always be available.

When applying international company tax law to the underlying economic structure, the tax law in general has to be consistent with the economic structure in question in order to arrive at a reasonable taxation. The tax system is considered to be reasonable when it meets various *normative criteria for optimal taxation*. For example, the tax system must provide efficiency and neutrality,

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1 See *OECD*, 2003b.
2 See *OECD*, 2004b, p. 3.
3 See *OECD*, 2004b, p. 4.

equity between different taxpayers and between different jurisdictions as well as feasibility in practice.

However, since the use of ICT has an impact on the organisational structures of the economy, the current tax system may not always be in line with these modified business structures. Contrary to the often mobile, geographically independent and international activities of companies, the tax system is intended to be applied rather to traditional economic activities. Thus, the economic assumptions underlying tax law can differ from the real economic circumstances. For example, tax law is in part based on the assumption of immobile business activities, such as in the case of the definition of a permanent establishment or the place of effective management. Moreover, it is assumed that the business activities are normally conducted in a physical way. For instance, physical objects, whose location can be determined easily, serve as tax attributes, such as in the case of the definition of a permanent establishment. However, in contrast, the business structures changed by the use of ICT are less often based on physical attributes and tend to be rather mobile. In addition, some new business structures or ways of doing business may have to be incorporated into existing international tax law. Possible examples are new forms of co-operation or new forms of doing business on digital markets. To sum up, the famous quote "business goes global, taxes stay local" highlights the gap between tax law and the economic reality.[4]

In light of these discrepancies between the international tax system and the underlying economic structures, various *consequences* may arise regarding the applicability of current international company taxation. Some aspects of the international tax system may prove to be more difficult to apply to the changed economic structure, or their application may lead to unreasonable results. Thus, with regard to various normative criteria for optimal taxation, international taxation may be less feasible or may not provide a neutral and equitable taxation. For example, inequalities between different taxpayers or increased incentives for tax planning and manipulation of the tax law may arise. In addition, an allocation of tax revenues that is not consistent with inter-nation equity may result. In extreme cases, the whole system of company income taxation may be deemed to be no longer applicable in a reasonable way.

Thus, since a tax system has to arrive at a taxation in accordance with normative criteria for optimal taxation, the possible incompatibility of international tax law with the underlying economic structures and the resulting scenario of an inefficient, unequal or unfeasible taxation constitutes a problem which might require the development of adequate modifications. Consequently, as shown in figure 1.1, if the economic structures change as outlined above, it is debatable whether and to

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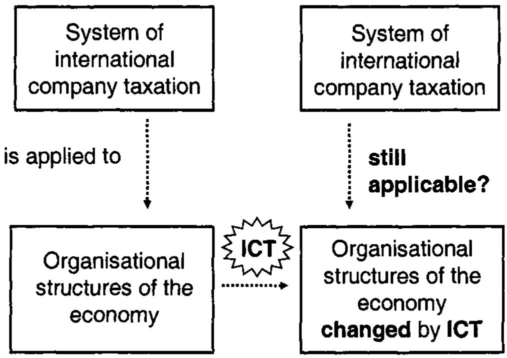
[4] Inter alia, see *Endres*, 1996, p. 92. See also *Spence*, 1997, p. 146, who states that the implication of ICT for the tax

what extent a revaluation of the existing system of international company taxation will be required to ensure that taxation is in line with general taxation principles. Thus, to what extent the current system of international taxation can be upheld and to what extent modifications will be required to provide a reasonable taxation must be examined.

Figure 1.1: Motivation of the Thesis



Previous debate on the impact of ICT on the suitability of international tax law has been conducted by the economic and legal scientific communities, international organisations, such as the OECD and the European Commission, and national jurisdictions.[5] The vast range of contributions shows that the subject-matter in question is up to date and relevant to a broad community. Still, previous contributions on ICT and international tax law can be completed with regard to different aspects as outlined below.

Firstly, regarding the subject under investigation, previous analyses have often focussed on one or only a few aspects of international taxation. For example, only issues regarding tax attributes in the source and the residence country or exclusively problems of transfer pricing have been considered.[6] These analyses are all meaningful and have their own rationale. However, the various tax fields interfere with each other and they are all part of the system of international taxation. Thus, when developing possible reforms for a specific tax field, some taxation issues may be shifted to another

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treatment of internationally active business is considered to be the most challenging strategic taxation issue.

5 See the quotations in footnotes 6 to 14.

6 For a focus on tax attributes in the source country, see inter alia *Utescher*, 1999; *OECD*, 2000; *ibid.*, 2001c; *ibid.*, 2003; *Pinto*, 2003. *Peter*, 2002, extended the analysis to tax attributes in the residence country. A comprehensive analysis is provided in *Brunsbach*, 2003, since the analysis of both the tax attributes in the source and in the residence country is further extended to an analysis of the choice between the source and the residence principle. For examinations focussed on issues regarding profit allocation, see *Kaminski*, 2001; *OECD*, 2001a; *ibid.*, 2001b; *Graf*, 2003.

tax field. For example, a re-definition of the permanent establishment may cope with the issues inherent to this tax attribute, but new issues with regard to profit allocation to a permanent establishment may then arise. Consequently, it is almost impossible to consider one tax field and to develop possible reforms without taking into account the interrelations with and the impact on other tax fields. This argument especially holds with regard to the underlying question of whether the tax system is still applicable. Therefore, it is reasonable and necessary to consider the whole system of international tax law consisting of different tax fields and to take their respective interrelations into account.[7]

Secondly, since the scope of the fiscal analysis may be restricted to specific fields, the economic analysis with regard to ICT-induced economic changes sometimes also considers only partial aspects. However, it is necessary to take the whole range of economic changes into account in order to provide a detailed analysis of the impact of ICT on international company taxation. Some systematisations of ICT-induced economic changes have already been developed[8] and can be extended to produce a systematic analysis of the impact of ICT on international taxation.

Thirdly, also with regard to the evaluation criteria underlying the fiscal analysis, some of the previous analyses on ICT and international tax law have focussed on a restricted range of criteria.[9] Thus, the analyses based on a diversified range of evaluation criteria still can be completed.[10]

Fourthly, and most importantly, although scientific debates on taxation issues raised by the advent of ICT have already been going on for some time, the search for suitable reforms still needs to be completed. Thus, even if several possible reforms for the various taxation issues have already been suggested,[11] further research is still required, especially with regard to the question of whether the whole system of international company taxation is still applicable.

1.2. Aim of the Thesis and Subject Under Investigation

In accordance with the underlying purpose and previous debates outlined above, the *aim* of the thesis first involves compiling the principal effects and issues of international company taxation resulting from the increased use of ICT. In a second step, the main aim of the thesis is to develop suitable reforms if required.

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7 Examples for analyses including various tax fields are *Doernberg / Hinnekens / Hellerstein / Li*, 2001; *Li*, 2003.

8 For example, see *Brunsbach*, 2003, pp. 19-34; *Li*, 2003, pp. 2-17; *Knödler*, 2004, pp. 15-40.

9 For example, some analyses are more focussed on legal aspects. Inter alia, see *Fetzer*, 2000; *Spatscheck*, 2000; *Volckens*, 2001.

10 Some examples of studies conducted on the basis of several evaluation criteria are *Utescher*, 1999; *Brunsbach*, 2003; *Li*, 2003; *OECD*, 2003.

11 Inter alia, see *United States Department of the Treasury*, 1996; *Utescher*, 1999; *Indian Ministry of Finance* (Ed.), 2001; *Kaminski*, 2001; *Brunsbach*, 2003; *Graf*, 2003; *Li*, 2003; *OECD*, 2003; *Pinto*, 2003; *Knödler*, 2004.

In order to achieve this aim, the impact of the changed organisational structures on the international tax planning activities of companies under the current tax system must first be examined. The goal of this step is to determine the relevant taxation issues resulting from the ICT-induced economic changes within the current international tax system. Based on these findings, each relevant taxation issue is analysed in relation to the evaluation criteria underlying the analysis. It is examined whether or not the application of the current tax system to the changed economic structures entails a taxation that is consistent with normative criteria for optimal taxation. The evaluation criteria considered here are efficiency and neutrality, equity among different taxpayers, inter-nation equity, which calls for an equitable division of tax revenues between the jurisdictions, and feasibility, meaning that the tax system has to be practicable and workable in an effective way. This stage of the analysis is necessary to find out whether or not the current international taxation regulations can be upheld and how far-reaching possible reform measures have to be. For example, it has at times been concluded that the current system of corporate income taxation is no longer workable with the advent of ICT and, therefore, should be replaced by a tax system based on a tax on consumption, e.g. a Bit-Tax on transactions.[12] Whether the tax issues are really that far-reaching can be established at the end of this stage.

Based on the compilation of the most important fiscal issues resulting from the organisational changes, the main focus and aim of the thesis consists in developing suitable reform scenarios for international company taxation. As shown in figure 1.2, the reform concepts have to be consistent with the underlying economic structure and must guarantee a taxation that is in line with the aforementioned evaluation criteria. At the same time, the analysis of possible reform scenarios should include the considerations developed in other countries or by supranational institutions, such as the European Commission or the OECD.

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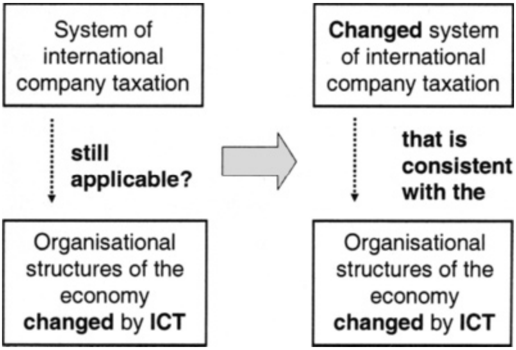
12 This idea has first been presented by Cordell. See *Cordell*, 1996; *Soete / Kamp*, 1996 for a detailed analysis and further quotations; *Ammann*, 1999, and the discussion in *ICRT*, 1997; *Fischer*, 1998, p. 12; *Basu*, 2004. See also *Rose*, 1991, pp. 7-34; *Wagner*, 1999, pp. 15-35; *ibid.*, 2003, pp. 369-390, who argue in general in favour of a consumption tax.

Figure 1.2: Aim of the Thesis



Bearing the aim of the thesis in mind, the analysis does not focus on the detailed examination of several international tax aspects, but rather, the outcome of the thesis involves a systematic analysis contributing to the debate on whether the entire system of international company taxation is still workable in the age of ICT and to what extent modifications are necessary in order to provide a reasonable and workable system of international company taxation. The outcome of the thesis is of importance to various parties. Firstly, the impact of an increased use of ICT on international taxation has implications for companies doing business internationally, as the possibilities for international tax planning may increase, but so may the tax risks. Secondly, with regard to the governments' point of view, the allocation of the tax base between different jurisdictions may change and, thus, some countries may worry about maintaining their tax base. Thirdly, since a tax system should be consistent with various normative criteria for optimal taxation, there are implications for national and international legislators and organisations as regards reforming national and international tax law.

With regard to the *subject under investigation*, the analysis includes the following *fields of international taxation*: the definition and location of the tax attributes in the source country and in the residence country, the assignment of profits to the respective income category, the methods of profit and asset allocation between taxable entities, and, finally, the choice between a taxation according to the residence principle or to the source principle, i.e. the choice of methods to avoid double taxation. Both current and non-current aspects of international taxation are included in the analysis. Since the focus is on income taxation, issues related to VAT are not included here.[13]

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[13] For a detailed analysis of issues related to ICT and VAT, see *Spatscheck*, 2000, pp. 42-67; *Doernberg / Hinnekens / Hellerstein / Li*, 2001, pp. 93-161, 394-588; *Knödler*, 2004, pp. 177-238.