The Impact of Anti-Avoidance Measures on Profit Shifting Strategies of Multinational Companies –

A Comparison of Developed and Developing Countries

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Abbreviations

APA	Advance Pricing Agreement
appr.	approximately
ARS	Argentine Peso
Art.	Article
ASIT	Advisory Services on Investment and Technology
BEA	Bureau of Economic Analysis
BUPA	British United Provident Association
CAD	Canadian Dollar
CCCTB	Common Consolidated Corporate Tax Base
CCCTB WG	Common Consolidated Corporate Tax Base Working Group
CFC	Controlled Foreign Corporation
CFE	Conféderation Fiscale Européenne
CIT	corporate income tax
CNY	Chinese Yuan
COM	Commission of the European Union
CPM	Comparable Profit Method
CTJ	Citizens for Tax Justice
CUP	Comparable Uncontrolled Price
CZK	Czech Koruna
DFID	Department for International Development
DKK	Danish Krone
DStV	Deutscher Steuerberaterverband e.V.
EBIT	earnings before interest and taxes
EBITDA	earnings before interest, taxes, depreciation, and amortization
EC	European Commission
ECB	European Central Bank
ECJ	European Court of Justice
ECOFIN	Council of the European Finance Ministers
ECR	European Court Reports
ed.	edition
EEC	European Economic Community
e.g.	exempli gratia (for example)
EOI	exchange of information
EU	European Union
EUR	Euro (currency)
FDI	Foreign Direct Investment
Full Doc.	full documentation
G7	Group of Seven Finance Ministers
G20	Group of Twenty Finance Ministers and Central Bank Governors
GAAR	General Anti-Avoidance Regulation
GAO	General Accounting Office
GB	Great Britain
GDP	Gross Domestic Product

GNP	Gross National Product
HUF	Hungarian Forint
ICC	International Chamber of Commerce
ICI	Imperial Chemical Industries
i.e.	id est (that is)
IFA	International Fiscal Association
INR	Indian Rupee
IRS	Internal Revenue Service
JTPF	EU Joint Transfer Pricing Forum
Max	maximum
MiDi	Mikrodatenbank Direktinvestitionen
MIMIC	multiple indicator multiple cause
Min	minimum
MNE	multinational enterprise
MXP	Mexican Peso
n/a	not applicable, not available
NACE	Nomenclature statistique des activités économiques dans la Communauté Européenne
NIPA	National Income and Product Accounts
No.	Number
OECD	Organization for Economic Co-operation and Development
OJ	Official Journal
p.	page
para.	paragraph
PATA	Pacific Association of Tax Administrators
PLI	Profit Level Indicator
PwC	PricewaterhouseCoopers
Rel.	related
RON	Romanian Leu
RPM	Resale Price Method
SCE	Societas Cooperatia Europaea (European Cooperative Society)
SE	Societas Europaea (European Company)
SEK	Swedish Kronor
SIT	Slovenian Tolar
Stat. Requ.	statutory requirement
TCMP	Taxpayer's Compliance Measurement Program
TEU	Treaty on European Union
TFEU	Treaty on the Functioning of the European Union
ThinCap	Thin Capitalization Rules
TIEA	Tax Information Exchange Agreement
TNMM	Transactional Net Margin Method
TP	Transfer Pricing

TU	Tax Unit
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
US	United States
USA	United States of America
USD	United States Dollar
VAT	Value Added Tax
Vol.	Volume
vs.	versus

1 Introduction

In recent years, multinational enterprises reporting rising profits combined with decreasing tax payments have been, repeatedly, in the news. A very prominent example is Google Inc. which managed to reduce its overseas effective tax rate to 2.4% in 2010 through the concentration of taxable profits in low-tax countries (Drucker (2010)).[1] Such an allocation of taxable income to low-tax jurisdictions can be reached by different strategies. On the one hand, production plants or business activities can be moved entirely to those countries, while, on the other hand, only book profits may be shifted across borders. Google Inc., for instance, has licensed intellectual property rights to Bermuda, a well-known tax haven, at a rather low license fee. Royalty payments to Bermuda are, in turn, channeled from all over the world through an Irish and a Dutch subsidiary resulting in zero taxation. This strategy makes use of an adjustment of intercompany contracts in order to shift profits to low-tax affiliates. It is, thus, a considerably simple option to reduce the overall tax burden in contrast to a relocation of entire plants or other activities.

As businesses are becoming more and more global – it is estimated that in 2008 82,000 multinationals existed as compared to 3,600 in 1992 (UNCTAD (2010)) –, the opportunity to exploit the advantages of low-tax affiliates increases significantly. Governments face this development along two lines. On the one hand, they are aware of corporate tax planning strategies and try to sustain an attractive location for corporate investments. This awareness increases worldwide tax competition and, in many countries, results in a reduction of the corporate tax rate. This development is also called “race to the bottom” and has led to a significant reduction of corporate tax rates over the past years (Heinemann/Overesch/Rincke (2010)). On the other hand, governments are also threatened by decreasing tax revenues. Especially in times of the financial crisis and increasing national deficits, this threat gains in importance. Several studies have, so far, examined the extent of foregone tax revenues through profit shifting activities (for an overview see e.g. Fuest/Riedel (2009)). Due to data constraints, a great variation can be observed in the estimations, but all of them point out that the amount of lost tax revenues is remarkable. Furthermore, evidence is provided that developing countries are affected even more by the transfer of taxable income across borders. Oxfam (2000), for instance, estimates that annual tax revenues

[1] Other examples are General Electric, Apple, Amazon, or Total which have all employed similar tax structures to cut tax payments. See e.g. CTJ (2011), CTJ (2012), Orange (2011).

lost in developing countries due to corporate profit shifting is almost equal to the financial aid they receive per year.

Governments of developed as well as of developing countries have reacted to this development and have been introducing or tightening different measures to prevent profit shifting (Miller/Oats (2009), p. 17). Such anti-avoidance regulations follow different concepts and may either aim at the prevention of certain transactions by taxpayers, the improvement of tax administrative structures, or even national tax policy. Moreover, besides the national governments also international organizations, such as the OECD, the European Union, or the UN, have targeted this issue.

Against this background, this thesis has several objectives. In a first step, it aims at discussing and evaluating the different anti-avoidance measures implemented to prevent profit shifting within multinational companies as a whole. They are to be examined according to their compatibility with tax treaty law, European law, and other superior principles of international taxation, their practicability, as well as their feasibility to prevent tax avoidance. In addition, the analysis shall especially focus on the differences between developed and developing countries and evaluate anti-avoidance measures for both groups of countries. Overall, this first step will present a very comprehensive analysis of anti-avoidance measures against profit shifting including their interaction and combined effect on tax avoidance which is rather unique in the literature.

In a second step, two specific anti-avoidance measures, namely transfer pricing regulations and thin capitalization rules, are to be described and analyzed in more detail. The analysis shall include a comparison of applicable regulations in developed and developing countries over several years. The perennial examination will allow interpreting the development of such rules over time not only for the different groups of countries, but also for different geographical regions. In addition, the thesis aims at developing a measure for the strictness of transfer pricing regulations which takes the presented aspects into account. In the empirical literature, different measures for the enforcement of transfer pricing regulations have been used (Borkowski (2010), Jost/Pfaffermeyer/Stoeckl/Winner (2011), Beuselinck/Vanstraelen/Deloof (2009)). Compared to those measures, this thesis, however, aims at introducing an index based on a more comprehensive data collection and more precisely defined categories. The new measure may, thus, be an important component for future transfer pricing research.

Finally, the thesis intends to empirically investigate the impact of anti-avoidance measures on profit shifting activities, precisely whether they are feasible to prevent the reallocation of taxable income. The examination shall differentiate between developed and developing countries and include the index on the strictness of transfer pricing regulations developed in the second step as well as thin capitalization rules. In the empirical literature, the influence of tax policy, especially tax rates, on profit shifting behavior has been quite extensively examined (for overviews see Hines (1999), Devereux/Maffini (2007)). However, only few studies exist which provide evidence on the effectiveness of anti-avoidance measures (Buettner/Overesch/ Schreiber/Wamser (2012), Ruf/Weichenrieder (2012)). The empirical analyses in this thesis will, thus, close a gap in the existing literature and will provide evidence for the effectiveness of transfer pricing and thin capitalization regulations in developed and developing countries. The results will provide important insights into the functioning of anti-avoidance measures and will be highly relevant for national tax legislators in order to improve the effectiveness of such measures worldwide.

The thesis is structured according to the different objectives. The second chapter provides an overview of the conceptual basics of international tax avoidance. Firstly, it will outline the basic principles of international business taxation. Besides the concepts of source and residence taxation, it describes the principles of internation equity, efficiency, and simplicity, as well as the standards of European tax law. Secondly, the impact of international tax competition on corporate tax planning is described. This not only comprises a distinction of tax planning, tax avoidance, and tax evasion, but also points out the effects on foregone tax revenues due to increasing tax competition. Finally, the chapter describes the most common profit shifting strategies employed by multinational companies.

In the third chapter, existing anti-avoidance measures against profit shifting activities are presented and evaluated based on the principles laid out in the second chapter. It is differentiated between unilateral, bilateral, and multilateral measures which vary in their legal and geographical scope. Subsequently, the interaction of the presented measures, caused by the three different implementation levels, is discussed. Finally, the chapter closes with a concluding evaluation and provides recommendations for the design and further development of anti-avoidance measures in developed and developing countries.

The fourth chapter comprises a more detailed discussion of transfer pricing regulations and thin capitalization rules in more than 40 countries worldwide. The different aspects of such rules are described and the development over the years 1999 to 2009[2] is analyzed. Lastly, this chapter includes a categorization of transfer pricing regulations according to their strictness based on the different aspects of such rules which will be used in the following empirical analyses.

The empirical analyses are included in the fifth chapter. The first study focuses on European, mostly developed countries and examines the impact of transfer pricing regulations on profit shifting behavior in multinational companies. It employs different measures for profit shifting activities as well as different aspects of transfer pricing. It also includes an examination of profit shifting behavior over time. The second study provides evidence for the effect of transfer pricing and thin capitalization rules on profit shifting in developing countries. A combined anti-avoidance measure is used to control for the implemented regulations, but both profit shifting channels are also examined separately. Both studies make use of firm data provided by Bureau van Dijk for the years 1999 to 2008 and 2009 respectively which is supplemented by information on the tax systems implemented in the considered countries, as well as other time varying country characteristics.

Finally, the sixth chapter concludes.

[2] For transfer pricing regulations the analysis regards the years 2001 to 2009, for thin capitalization rules, the years 1999 to 2008.

2 Conceptual Basics of International Tax Avoidance

2.1 The International Taxation of Business Income

2.1.1 Source vs. Residence

It is widely accepted that governments may tax income according to the source or the residence principle. Under the residence principle, jurisdictions tax the worldwide income of their tax residents which is also known as an unlimited tax liability of residents. Tax residence is, however, not necessarily equal to physical residence, i.e. for corporations residence is usually based on the place of incorporation and/or the place of effective management.[3] The source principle, on the other hand, allows a jurisdiction to tax income arising within its borders by non-residents, also known as limited tax liability. Thus, both principles follow different concepts: while residence taxation ensures the equal taxation of the residents of a country, source taxation accounts for a connection of tax revenue and access to public services, such as infrastructure or property protection (Graetz (2003), p. 5-17). The simultaneous application of both principles as well as different designs thereof may, nevertheless, lead to a double taxation of income. It is, therefore, important to avoid double taxation of income while respecting the taxing rights of the involved countries. The two main methods for the avoidance of double taxation are the exemption and the credit method. Under the exemption method, the residence country fully exempts foreign income, so that the source country has full taxing rights (= territorial tax system). This method ensures capital import neutrality since all income in the domestic market is taxed equally, regardless of the residence of the investor. Under the credit method, foreign source taxation is credited against income tax in the residence country (= worldwide tax system). In the case of profit distributions, a direct and an indirect tax credit can be distinguished. While under the direct tax credit, only the foreign withholding tax on dividends is credited, the indirect tax credit also includes the underlying corporate income tax on the distributed profits. The direct tax credit, therefore, only prevents juridical double taxation, i.e. the double taxation of the same taxpayer, while the indirect tax credit also prevents economic double taxation, i.e. the double taxation of the same income. Irrespective of the type of credit granted, jurisdictions usually limit the credit to the domestic tax liability on the foreign income in order to ensure that no tax refund is provided by the residence country for taxes received by the source

[3] This may result in double residency. For a discussion of this issue see Schwarzenhofer (2005).

country. The limit may be further restricted on a per-country or a per-item-of-income basis.

Generally, with respect to the residence country, both methods lead to a different allocation of taxing rights and, thus, tax revenues. In case of the exemption method, all tax revenue is earned by the source country. Under the credit method, the allocation of tax revenues depends on the level of the foreign source taxation. If it is zero, full taxing rights apply to the residence country. If it is the regular income tax rate, full taxing rights are granted to the source country. The consequence in the residence country then depends on the level of the domestic and the foreign tax rate. In case the foreign tax rate exceeds the domestic tax rate, no further taxation takes place (excess tax credit). The overall tax burden then equals the tax burden levied by the source country which results in capital import neutrality. In the opposite case, where the foreign tax rate is below the domestic tax rate, an additional tax occurs. This constellation provides capital export neutrality because all investments, independent from their location, are taxed equally.

These methods are either laid out in domestic tax law (unilateral) or in bilateral tax treaties concluded between two countries. Bilateral tax treaties aim at avoiding double taxation between two jurisdictions and are based on extensive negotiations. Moreover, they respect the different economic circumstances of the respective countries.[4]

2.1.2 Standards for International Taxation

2.1.2.1 Principles of International Tax Law

2.1.2.1.1 Internation Equity

Equity is one of the most extensively discussed principles of taxation. It comprises several aspects, most importantly the equity in the levy of taxes between taxpayers. In this regard, equity has found expression through the ability-to-pay principle and the benefits principle.

The ability-to-pay principle intends to tax the taxpayers according to their ability to contribute to the society, i.e. the sacrifice made through taxation should be equal for

[4] For the use of the source and the residence principle in bilateral model tax treaties see Chapter 2.1.2.1.1.

all community members (Harris (1996), p. 15). However, this approach requires the determination of the ability to pay taxes which is also called the tax capacity. For the past two hundred years, tax capacity has been measured as the overall income of taxpayers.[5] It has been agreed that this concept is superior to other measurements for tax capacity as it is the most comprehensive measure which also comprises the holding of wealth as well as consumption (Harris (1996), p. 20). The ability-to-pay principle can be equally applied to individuals as well as corporations, where corporations must be seen as a legal tool for investments of shareholders. The corporate income taxation must then be interpreted as a prepayment of taxes of the shareholders (Schön (2009), p. 75).

The benefits principle complements the ability-to-pay principle and suggests that taxpayers, individuals as well as corporations, should be subject to taxes according to the benefits they receive from public spending. This concept, thus, introduces a direct link between tax payments and provided goods and services and, in this regard, differs from the ability-to-pay principle. However, an assessment of the benefits received is rather difficult, and taxation on this basis is even impossible where a redistribution of welfare among taxpayers is considered.

Both principles provide guidance on the allocation of taxing rights between countries which is the basis of internation equity. The ability-to-pay principle requires the determination of overall income in order to tax according to the tax capacity of taxpayers. In an international setting, this concept, thus, implies an assessment of worldwide income on the basis of residence (Schön (2009)). Regarding foreign corporate investments and the understanding of corporate income tax as a prepayment of personal income tax, it, furthermore, requires an indirect tax credit of foreign taxes. The benefits principle, on the other hand, establishes a link between tax payments and received benefits and, thus, postulates a source taxation of income.

Both principles are incorporated in tax regimes worldwide, which may lead to a simultaneous application of residence and source taxation on cross-border income. However, neither the ability-to-pay nor the benefits principle provides guidance on how to allocate the taxing rights among countries (Schön (2009)). But in the course of the development of model tax conventions, the allocation of taxing rights between

[5] Alternative concepts for the measurement of tax capacity include wealth, i.e. ownership, or consumption, see Harris (1996), p. 17-20.

countries has been widely discussed.[6] In this context, a general agreement has been reached that source countries have a prior right to tax as foreign owned capital equally benefits from the infrastructure or protection of property rights provided by the source country (OECD (1991), Musgrave (2002)). Residence countries, in turn, are expected to prevent international double taxation.

In current model tax treaties, different standards for the division of tax revenue are adopted for different types of income regarding their affiliation with the source country. In the following, the allocation of taxing rights in the two most important model treaties, the OECD and the UN Model Tax Convention, will be compared for the types of income mostly relevant for multinational enterprises.[7]

OECD Model Tax Convention

The OECD Model is the basis for many double tax treaties concluded between developed countries. Accounting for the principles laid out above, the suggested level of source taxation generally depends on the level of affiliation of the source of income with the source country. The OECD Model, thus, applies unlimited source taxation to income from assets located in the source country, e.g. land or buildings (Art. 6 OECD Model). Regarding business income, the source country is, moreover, only allowed to tax income if it originates from a permanent establishment. A permanent establishment is defined to be *“a fixed place of business through which the business of an enterprise is wholly or partly carried on”* (Art. 5 OECD Model). This concept functions as a threshold for the taxation at source and aims at ensuring a certain extent of association with the source country.[8] According to Articles 10 and 11 OECD Model, dividends and interest payments may be taxed in the source country, but only to a limited amount. This limitation is justified with the fact that such payments only derive from contractual relationships and do not show sufficient association with the source country. The source taxation of dividends is, therefore, limited to 15%, or 5% in case of substantial holdings (>25%), that of interest to 10%. No right to tax for source countries exists with regard to royalties (Art. 12 OECD Model) because in

[6] For more information see Chapter 3.2.1.1 and Chapter 3.2.1.2.
[7] The United States base their double tax treaties on their own model treaty which, however, is very similar to the OECD Model, for a comparison of the OECD and the US Model see Rohatgi (2002), p. 62-64.
[8] For more information on the OECD concept of a permanent establishment, see Reimer (2011), p. 3.

that case an economic connection is, supposedly, even less present.[9] The residence country is in Article 23 OECD Model, for cases where the source country has a full right to tax, offered two options for the avoidance of double taxation, the exemption and the credit method. The choice of a method, thus, depends on bilateral negotiations. For dividends and interest payments, where limited source taxation applies, the credit method is recommended.

UN Model Tax Convention

Due to the unequal economic status of developing and developed countries, the negotiation of double tax treaties is difficult. Developing countries have significantly higher imports from developed countries than exports to such countries. Therefore, the limitation of source taxation as implemented in the OECD Model would allocate a greater share of tax revenue to the developed country as it is more often the residence country. The UN Model accounts for this conflict and allocates a greater share of source taxation to the developing countries. The definition of a permanent establishment is, for those reasons, broader, so that more business activities fall under this provision and are subject to source taxation. The limited taxation of dividends and interest still exists, but no percentage is provided. A substantial holding, however, requires only a 10% shareholding. Royalty payments are treated accordingly to interest and dividends. The double taxation avoidance methods available to the residence country are identical to the OECD Model. Table 1 provides an overview of the allocation of taxing rights in the OECD and the UN Model.

Table 1: Comparison of the Allocation of Taxing Rights and the Avoidance of Double Taxation under the OECD and the UN Model for Selected Types of Income

	OECD Model		**UN Model**	
	source country	residence country	source country	residence country
Income from immovable property	full taxation	exemption/ credit method	full taxation	exemption/ credit method
Business profits (PE)	full taxation	exemption/ credit method	full taxation	exemption/ credit method
Business profits (no PE/exports)	no taxation	full taxation	no taxation	full taxation
Dividends	15%	credit method	limited, but negotiable	credit method

[9] 14 OECD countries have reserved the right to tax royalties at source because they do not agree with this allocation of taxing rights, see Commentary on Article 12 OECD Model. For a discussion of the treatment of royalties in the OECD Model see Tadmore (2007).

Dividends (substantial holding)	5%	credit method	limited, but negotiable	credit method
Interest	10%	credit method	limited, but negotiable	credit method
Royalties	no taxation	full taxation	limited, but negotiable	credit method

Source: own composition.

The conclusion of double tax treaties based on either model is generally based on the reciprocity of the loss of tax revenue in the respective countries, i.e. both treaty partners are willing to sacrifice an equal share of tax revenue. The reciprocity of withholding tax rates is, in this regard, widely accepted, i.e. both treaty partners apply the same rate of withholding tax on dividends or interest. But in case of dividends, this agreement may not always result in a reciprocal division of tax revenue (Harris (1996), p. 314) as the distribution also depends on the corporate tax system implemented in the respective countries. In case one country applies a shareholder relief system (e.g. (partial) exemption of dividends) and the other country a classical system, the country with the classical system will receive a greater share of the tax revenue. The concept of "effective reciprocity" has therefore been broadly discussed (Sato and Bird (1975), OECD (1991), p. 37), but due to its conflicts with other principles of international taxation, namely the non-discrimination rule established in Article 24 OECD Model[10] and capital import neutrality, it has been rejected.

Concluding, internation equity is a very complex topic, especially when considering multinational enterprises. Neither the ability-to-pay nor the benefits principle is able to provide a convincing framework for the allocation of taxing rights between countries. Much rather, the allocation of taxing rights represents a general agreement which has evolved over the past decades (Lang (2005)). The OECD and the United Nations both provide a proposition of an allocation depending on the economic status of the involved countries. Considering the intensive negotiations and efforts undertaken by academics as well as practitioners in order to design and further amend the OECD and the UN Model, it can be assumed that the suggested allocation of taxing rights successfully satisfies the different needs of jurisdictions and taxpayers and may serve as a benchmark. Yet, there still exist several possibilities to undermine a fair allocation of tax revenues through various tax avoiding strategies. Chapter 2.3 will, in this context, provide an overview of the most common profit shifting strategies used by multinational enterprises.

[10] The non-discrimination rule prohibits the different tax treatment of residents and non-residents of a treaty country.

2.1.2.1.2 Efficiency

There are generally two perspectives on efficiency. The first perspective focuses on the relationship between the tax revenue and the costs of compliance and administration, from both the taxpayer's and the tax authorities' perspective. Clearly, the lower compliance and administrative costs are compared to tax revenue, the more efficient is a tax.

The second perspective regards the impact of taxes on the taxpayer's behavior. In a free market, economic resources should be allocated to be most productive. Taxes, however, may distort this allocation, especially in cross-border situations. The extent to which a tax distorts the free market allocation is also a measurement of its efficiency. A tax that has no impact on such an allocation is also called neutral.

As previously outlined, both concepts of international taxation, i.e. the source and the residence principle, follow different neutrality concepts. A strict source taxation leads to capital import neutrality which treats all investors in the same jurisdiction equally regardless of their residence. Residence taxation, in turn, ensures capital export neutrality which treats investments at home and abroad equally. Which of the two concepts promotes economic efficiency better than the other has been widely discussed and it is agreed that capital export neutrality is, generally, preferable to capital import neutrality. The reasoning behind this argument is that investors face equal effective tax rates on foreign and domestic investments under capital export neutrality. Thus, when achieving equal after-tax rates of return as a consequence of capital mobility, this consequently leads to equal pre-tax rates of return which, in turn, are required for a maximization of world income (Griffith/Hines/Sorensen (2010)). Traditionally, developed countries have preferred capital export neutrality because they often serve as the residence countries of investors and choose to tax domestic and foreign investment equally. Developing countries, on the other hand, prefer capital import neutrality to ensure that investments of domestic and foreign investors are taxed equally (Rohatgi (2002), p. 1). However, over the past decade a trend towards the exemption of foreign income and, thus, capital import neutrality in developed countries could be observed (Elschner/Heckemeyer/Spengel (2011)). This trend was justified by jurisdictions based on an improvement of the competitive advantage of domestic firms investing abroad (Mullins (2006)) and a reduction of administrative complexities connected with the credit method (Blanluet/Durand (2011)).[11]

2.1.2.1.3 Simplicity

According to Harris (1996), there are three different aspects of simplicity: policy simplicity, form simplicity, and action simplicity. Policy simplicity stands for the government's choice for simple taxes, i.e. simple regarding type and incidence. This principle may be in contradiction with equity or efficiency as more complex taxes that account for the taxpayer's circumstances are usually more equitable and efficient. On the other hand, if taxes are too complex, they are not equitable since not all taxpayers can afford the assistance to understand and comply with the tax.

Form simplicity denotes the taxpayer's and the tax administration's ability to understand tax law. It relates to the certainty and accuracy provided in tax legislation and demands transparent guidelines for the application of the rules. Finally, action simplicity focuses on convenient procedures for the collection and administration of the tax.

2.1.2.2 Law of the European Union

The Treaty on European Union (TEU) and the Treaty on the Functioning of the European Union (TFEU) constitute the basis for the cooperation of the Member States in the European Union. They were both amended with effect from 1 December 2009 by the Treaty of Lisbon of 13 December 2007 which introduced several prominent changes, e.g. the introduction of qualified majority voting in several policy areas. The treaties form primary law and rank before secondary law which is enacted by the organs of the European Union, usually in the form of directives or regulations. In the following the primary and secondary law relevant for direct taxation in the Member States will be outlined.

Primary Law

Tax policy is not included in the treaties, much rather it still falls under the sole responsibility of the Member States. Nevertheless, the introduction and implementation of regulations in the Member States has always to be in accordance with EU law. The most relevant regulations for tax policy are the non-discrimination rule on the

[11] For further discussion of the advantages and disadvantages of both concepts as well as the concept of capital ownership neutrality, see Desai and Hines (2004), Avi-Yonah (2000), p. 1604-1610, Becker/Fuest (2010).

one hand, and the fundamental freedoms on the other hand. The non-discrimination rule is included in Article 18 TFEU and prohibits any kind of direct or indirect[12] discrimination based on nationality.[13] European case law has defined for regulations to comply with the non-discrimination rule that “comparable situations must not be treated differently and different situations must not be treated in the same way unless such treatment is objectively justified”.[14] The concept of non-discrimination only applies to cross-border situations, while internal discrimination in a Member State is not affected (Helminen (2009), p. 47).

The fundamental freedoms included in Articles 28-37 and 45-66 TFEU substantiate the non-discrimination rule and are in their application primary to Article 18 TFEU. They comprise the free movement of persons, goods, services, and capital, all of which may not be discriminated by domestic law. But besides the prohibition of discrimination, EU case law has, over the years, extended the scope of the fundamental freedoms to a prohibition of restrictions that do not constitute discrimination.[15] Fundamental freedoms are seen to be restricted if domestic legislation limits access to them or makes them less attractive.[16] A restriction, in this context, does not require a difference between a cross-border and an internal situation, but also applies to purely internal cases.

Each EU citizen may proceed against domestic regulations with reference to the fundamental freedoms. In this context, the European Court of Justice (ECJ) has decided on a considerable number of cases on direct taxation in the Member States.[17] If the ECJ constitutes a discrimination or restriction of the fundamental freedoms, it can, however, be justified (Helminen (2009), p. 111). Reasons for such a justification can be found in the TFEU. Article 36 TFEU includes, for instance, the protection of health and life of humans, animals or plants or the protection of industrial and commercial property as justifications for restrictions of the free movement of goods. Justifications for the restriction of the free movement of persons or services are found in Articles 45 and 52 TFEU respectively and refer to public policy, public security or

[12] An indirect or covert discrimination prevails if a regulation does not distinguish between nationality, but between another criterion which in turn results in a discrimination based on nationality, see ECJ, 14.02.1995, Case C-279/93, *Schumacker*, ECR 1995, I-00225; ECJ , 07.05.1998, Case C-350/96, *Car Clean Autoservice*, ECR 1998, I-02521.
[13] For an analysis of the EU concept of discrimination, see Wouters (1999).
[14] See ECJ, 13.12.1984, Case 106/83, *Sermide*, ECR 1984, 04209.
[15] See ECJ, 30.11.1995, Case C-55/94, *Gebhard*, ECR 1995, I-04165; Terra/Wattel (2008), p. 63-76.
[16] See, in detail, Arndt/Fischer/Fetzer (2010).
[17] For an overview of the cases relating to German direct taxation, see Kahler (2012).

public health. Similar criteria can be found in Articles 64 and 65 TFEU for the free movement of capital. But besides the reasons included in the treaty, restrictions – not discrimination – can also be justified by reasons formulated by the Court of Justice (rule of reason principle). In tax matters, such reasons include the prevention of tax avoidance[18], the effectiveness of fiscal supervision[19], or the coherence of the tax system[20], i.e. the systematic context of tax regulations. The ECJ has, however, only seldom allowed a justification on these grounds (van Thiel (2008)). Other reasons, e.g. administrative difficulties in obtaining information[21], additional financial charges[22] or reciprocity[23], i.e. the missing of a regulation in another Member State, have been discussed, but have never served as a justification.[24]

If the ECJ constitutes a discrimination or restriction of the fundamental freedoms which cannot be justified, the concerned domestic regulation has to be abolished or amended. As the interpretation of domestic law must conform to EU law (Article 4 TFEU), the decision will also affect similar regulations in other Member States (Helminen (2009), p. 44-45).

Secondary Law

Secondary law mainly comprises directives relevant for direct taxation. On 23 July 1990, the EC Parent-Subsidiary Directive (90/435/EEC) was issued which had to be implemented by the Member States until 1 January 1992. The purpose of this directive is to facilitate the formation of corporate groups across borders and to remove tax obstacles. This is done by eliminating the source taxation of profit distributions between corporations. In addition, the Member State where the parent resides has to guarantee that double taxation is eliminated through the exemption of dividends or an indirect tax credit. The EC Merger Directive (90/434/EEC) was also issued on 23

[18] See ECJ, 09.03.1999, Case C-212/97, *Centros*, ECR 1999, I-01459; ECJ, 21.02.2006, Case C-255/02, *Halifax*, ECR 2006, I-01609.
[19] See ECJ, 20.02.1979, Case 120/78, *Cassis de Dijon*, ECR 1979, 00649; ECJ, 15.05.1997, Case C-250/95, *Futura*, ECR 1997, I-02471.
[20] See ECJ, 28.01.1992, Case C-204/90, *Bachmann*, ECR 1992, I-00250; Verdoner (2009). In other cases, the ECJ referred to the protection of the territoriality principle or the need to preserve the balanced allocation of the power to impose taxes. These reasons are very similar and pursue the same concept, see Terra/Wattel (2008), p. 50-51.
[21] See among others ECJ, 28.01.1992, Case C-204/90, *Bachmann*, ECR 1992, I-00250; ECJ, 14.02.1995, Case C-279/93, *Schumacker*, ECR 1995, I-00225; ECJ, 26.06.2003, Case C-422/01, *Skandia and Ramstedt*, ECR 2003, I-06817.
[22] See among others ECJ, 21.09.1999, Case C-307/97, *Saint-Gobain*, ECR 1999, I-06161; ECR, 18.09.2003, Case C-168/01, *Bosal*, ECR 2003, I-09409; ECJ, 07.09.2004, Case C-319/02, *Manninen*, ECR 2004, I-07477.
[23] See ECJ, 28.01.1986, Case 270/83, Avoir Fiscal, ECR 1986, 273.
[24] For a discussion of the different justifications for restrictions see van Thiel (2008) and Helminen (2009), p. 111-128.

July 1990 and entered into force on 1 January 1992. It is intended to facilitate cross-border reorganizations within the EU, i.e. it provides for a tax deferral in the case of a cross-border restructuring of businesses. In 2005, the directive was amended to also include reorganizations regarding the European legal forms, European Company (SE) and European Cooperative Society (SCE) (2005/19/EC). Finally, the EC Interest-Royalty Directive (2003/49/EC) was issued on 3 June 2003 and entered into force on 1 January 2004. It supports the simplified cross-border payment of interest and royalties between associated companies and ensures the single taxation of such payments. Again, the source taxation of payments is prohibited, independent of the level of taxation in the residence country.

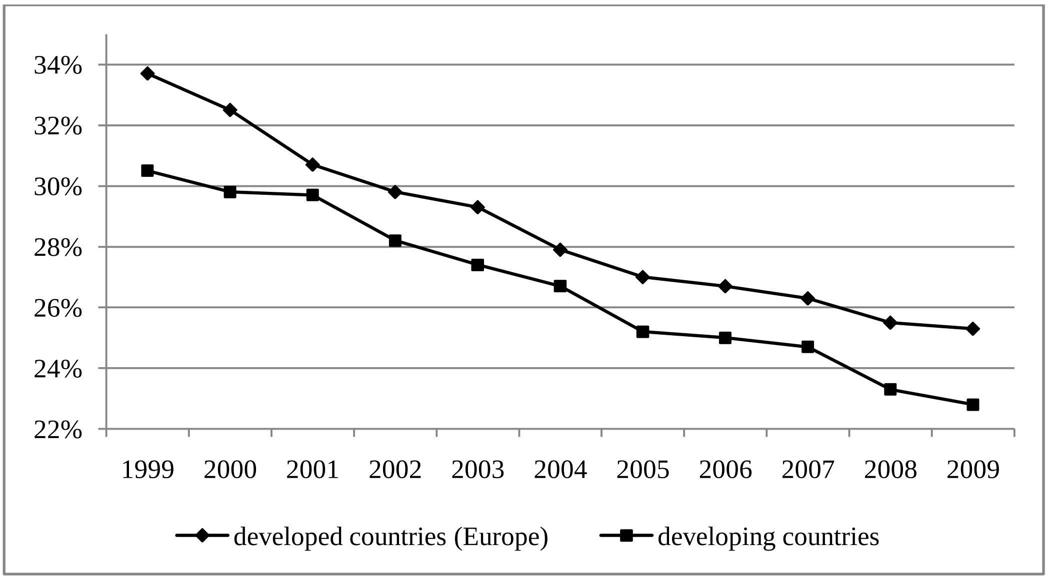
2.2 Consequences of International Tax Competition

2.2.1 International Tax Competition

The nationality of tax systems, as described in the previous sections, leads to a competition between jurisdictions on the grounds of taxation. Multinational companies are very much aware of this competition and locate their activities accordingly.[25] Jurisdictions, in turn, react to this behavior and try to attract investors by lowering corporate tax rates or granting favorable tax incentives. In both, developed and developing countries, a so called “race to the bottom” regarding corporate income tax rates has taken place over the past decades. Figure 1 depicts the development of the average corporate income tax rate in the developed and developing countries examined in Chapter 5.

[25] Many studies have shown the impact of taxation on the location of foreign direct investment (FDI), for an overview of such studies see Feld/Heckemeyer (2011).

Figure 1: Average Corporate Income Tax Rates in Developed and Developing Countries



Source: own illustration (Table A1, A2 in the Appendix).

The level of corporate income tax is, in this sample, lower in developing countries. However, corporate income tax rates in developed and developing countries both followed a downward trend over the past ten years. Heinemann/Overesch/Rincke (2010) show for European countries that this cutting of the tax rate is mainly driven by the actions of other, especially geographically close, jurisdictions.

The impact of tax competition has been widely discussed. Economists argue that a certain degree of tax competition improves welfare as it promotes fiscal discipline and implements the concept of a "market" to tax policy (McLure (1986), Schön (2003), p. 5-6). Nevertheless, tax competition may also impose a great burden on the tax system. As multinationals aim at reducing their overall effective tax rate, capital allocation is affected by different tax burdens in case capital import neutrality prevails. If profits are only taxed in the host country and no further taxation applies upon repatriation, they will be allocated to low-tax countries. In contrast, under capital export neutrality, the effective tax rate is equal irrespective of the location of investment. Thus, from an efficiency perspective, tax competition leads to a distortion of the allocation of capital, but only where capital import neutrality prevails. However, as Avi-Yonah (2000) points out, not all aspects of tax competition are bad, but are equally evened out under capital export neutrality.

Another obstacle of tax competition is that the reduction of corporate tax rates and the granting of incentives decrease tax revenues from corporate income significantly. Most countries react to this development by increasing the tax burden on less mobile factors, e.g. labor (Miller/Oats (2009), p. 393), or by reducing social security benefits which are, however, - due to demographic factors, but also income inequality and job insecurity - even more needed under globalization (Avi-Yonah (2000), p. 1578, 1618-1622). Thus, jurisdictions face a dilemma caused by the globalization of businesses which imposes a downward pressure on corporate tax rates, but at the same time an increasing need for social security benefits which can both be hardly satisfied simultaneously. Tax competition is, therefore, sometimes even regarded as a vicious circle (Eicke (2009), p.135-136).

Keen/Simone (2004) show that the effects of tax competition have been more significant for developing countries than for developed countries as they have not managed to broaden the tax base relative to the reduction of the income tax rate. This effect is even reinforced by the introduction of more favorable tax incentives by developing countries, especially in the poorest regions. Keen/Simone (2004) try to find explanations for this development and argue that political and institutional structures in developing countries are influenced more by the pressure of certain groups, e.g. multinational companies. Developing countries may also have less immobile factors that can be taxed, so they try to attract more foreign investments in order to outweigh the loss in corporate tax from resident companies.

A concept which is often discussed as the opposite of tax competition is tax harmonization. If tax systems were harmonized across countries, not only compliance costs would decrease, but also tax neutrality would be guaranteed which would promote internation equity (Musgrave/Musgrave (1990), p. 72-75). A concept on tax harmonization developed by the European Commission will be discussed in Chapter 3.3.1.2.

2.2.2 Tax Planning, Tax Avoidance and Tax Evasion

As outlined in the previous section, multinational companies react to international tax competition and pursue a reduction of the overall effective tax rate. Tax reducing activities can generally be divided into tax planning, tax avoidance, and tax evasion. The following sections provide a distinction of the three concepts.

2.2.2.1 Tax Evasion

Tax evasion is considered illegal, i.e. the taxpayer's behavior is in conflict with the tax law and has the purpose of escaping the payment of taxes. A definition of tax evasion used by Uckmar (1983) and Merks (2006) is: *"the taxpayer avoids the payment without avoiding the tax liability and consequently escapes the payment of tax – which is unquestionable due according to the law of the taxing jurisdiction – and even breaks the letter of the law."* Tax evading behavior, therefore, includes the non- or wrong declaration of income as well as the conduction of illegal activities (e.g. money laundering). It is questionable, however, whether only deliberate actions are considered tax evasion or also acts of omission. In many countries, a distinction is made and higher penalties are imposed on purposeful tax evasion, which is also called tax fraud.[26] The penalties and criminal sanctions on tax evasion vary widely across countries.[27]

As tax evasion always involves the concealment of income from tax authorities in a given country, there is no such thing as an internationally illegal transaction (see Russo (2007)). Nevertheless, the means taken to conceal income may be domestic or international, i.e. in a domestic setting, taxes may be evaded by not reporting income (shadow economy) while in an international setting, assets or profits could be transferred abroad in order to hide income from domestic tax authorities.[28]

2.2.2.2 Tax Planning

Tax planning is a legal and fully accepted way of minimizing taxes. There are generally different dimensions of (international) tax planning, based on the pursued objectives, the timely impact and the implementation strategies (based on Russo (2007)). In the following, these three dimensions will be outlined.

[26] For an overview of the different definitions of tax evasion across countries see Uckmar (1983), p. 21-23.
[27] Economists have examined whether, depending on the probability and cost of being detected, tax evasion can be favorable from the perspective of the taxpayer (Allingham/Sandmo (1972), Yitzakhi (1974)). The model shows that, applying a realistic probability of being audited as well as the applicable penalty rates, the amount of tax evaded should be significantly higher than it actually is. For an overview of tax penalties on wrong transfer prices, see Chapter 4.1.6.
[28] A distinction of a domestic and an international component of tax evasion is also made by Fuest/Riedel (2009).

Objectives

Tax planning can either pursue the elimination or minimization of double taxation, of single taxation or the realization of negative taxation. The elimination and minimization of double taxation is not only an objective of corporate tax planning, but is also pursued by the national tax legislation, the European Union, and the OECD. As is stated in the Introduction of the OECD Model 2010, "*[the] harmful effects [of double taxation] on the exchange of goods and services and movements of capital, technology and persons are so well known that it is scarcely necessary to stress the importance of removing the obstacles that double taxation presents to the development of economic relations between countries*".

The elimination or minimization of single taxation denotes that the taxation of corporate profits is either reduced or fully avoided (i.e. double non-taxation). The reduction of corporate taxation is a main goal of corporate tax planning which is also pursued by the profit shifting strategies examined in this study.[29] In turn, the full avoidance of corporate tax can usually only be achieved by exploiting tax legislation loopholes, such as qualification conflicts, in connection with cross-border investments.[30] Finally, the case of negative taxation is very rare and comprises arrangements where in the end a tax refund results although profits were generated.

Timely Impact

The minimization of taxes can generally be achieved by realizing temporary or permanent tax savings. Temporary tax savings only defer tax payments to a later point in time, which is favorable due to interest and liquidity effects. Permanent tax savings, on the other hand, will not reverse in the future. A deferral of tax payments usually results from a deferral of income recognition, e.g. transactions within a consolidated group, favorable depreciation schemes, or retaining instead of distributing profits. Permanent tax savings can, for example, be achieved by utilizing tax losses that would otherwise expire, by treaty-shopping strategies, or by transferring taxable

[29] See Chapter 2.3.

[30] On 29 February 2012, the European Commission has released a consultation to tackle double non-taxation cases (http://ec.europa.eu/taxation_customs/common/consultations/tax/2012_double_non_taxation_en.htm). All stakeholders (e.g. citizens, tax administrations, tax practitioners and academia) are asked to provide their views on this topic.

income to low-tax jurisdictions (e.g. through profit shifting or the relocation of business activities).[31]

Implementation

Different strategies can be pursued in order to realize tax savings. On the one hand, the economic activity itself can be adapted to tax circumstances, which is also called substantive tax planning. This can involve a relocation of entire companies or assets or a rerouting of flows of goods. On the other hand, formal tax planning has no influence on the economic activity, but exploits the tax saving potential of existing business structures. This can be done by using tax favorable elements of income determination (e.g. declining balance depreciation) or by shifting taxable profits from high- to low-tax jurisdictions through contractual arrangements.

2.2.2.3 Tax Avoidance

Governments generally accept that taxpayers organize their business as they prefer within the boundaries of the law, therefore it is also accepted that multinationals pursue tax-efficient arrangements.[32] Additionally, according to the principle of legal certainty, taxpayers should be able to rely on legal options (Russo (2007), p. 52). But, nevertheless, such tax-optimizing behavior is of great concern to governments as it has a significant effect on national tax revenues. Therefore, tax avoidance is distinguished from tax planning as being a legal, but not accepted way of saving taxes which is tried to be prevented through national tax legislation. The distinction of accepted and unaccepted arrangements is, however, rather difficult.

The description of tax avoidance stated by the OECD (1987a) claims that tax avoiding arrangements generally do not have business or economic goals, they are often kept secret and they apply legal provisions in a way they were not intended to be used. At the same time, the OECD argues that a reduction of tax payments is not necessary for strategies to be tax avoiding since they may not always succeed.

Within the European Union, case law also provides hints to the distinction of tax avoidance and tax planning. The ECJ has ruled in several tax cases that the location

[31] An example for a permanent tax savings strategy are multinationals which moved production to low-cost countries that also grant tax incentives, e.g. China or India (Endres/Fuest/Spengel (2010), p. 33, Timberlake et al. (2009), for empirical evidence see Klemm/van Parys (2012)).
[32] This principle has also been approved in a number of court cases in various jurisdictions, for a short overview see Russo (2007), p. 51.

of group companies in low-tax countries is not in itself tax avoidance since the companies will be subject to tax legislation in their state of residence.[33] However, it is also stated that it is legitimate to prevent *"wholly artificial arrangements"* through national legislation.[34] Nevertheless, it is not clear under what circumstances an arrangement is wholly artificial. The ECJ provides some answers to this question in its case law. In the *ICI* case, it was stated that it is accepted that multinationals arrange any economic activity as tax efficient as possible including the establishment of a subsidiary abroad.[35] Simply the fact that the activity could also be pursued in the home country of the taxpayer does not constitute a characteristic of artificiality. Furthermore, it is legitimate to take tax circumstances into consideration when deciding on a location for an establishment as the minimization of the tax burden is a valid objective.[36] In the *Eurowings* case, the ECJ held that only because of lower levels of taxation in other Member States, Member States cannot impose anti-avoidance regulations.[37] This is even the case if Member States grant special tax favorable regimes that may or may not constitute state aid.[38]

The different definitions and approaches show that there is no clear outline for tax avoidance, much rather it is located in a gray zone between tax planning and tax evasion.[39] The fact that the OECD has not commented on its definition in 25 years, although many countries have entered the OECD during that time period, underlines this observation. Therefore, it can be concluded that the distinction of tax avoidance and tax planning depends on the circumstances of each single case and the countries involved. In the course of this study, the different understandings of tax avoidance across countries will be described and analyzed, as they are reflected in national anti-avoidance measures.

[33] See ECJ , 16.07.1998, Case C-264/96, *ICI*, ECR 1998, I-4695, para. 26; ECJ, 08.03.2001, Case C-397/98, *Hoechst* and *Metallgesellschaft*, ECR 2001, I-1727, para. 57.
[34] This principle has been repeated by two cases in 2006, in both of which the ECJ has stated that no tax avoidance prevails if real economic activity is taking place, see ECJ, 21.02.2006, Cases C-255/02, C-419/02, C-233/03, *Halifax*, *BUPA Hospitals*, and *University of Huddersfield Higher Education Corporation*, ECR 2006, I-1609; ECJ, 12.09.2006, C-196/04, *Cadbury Schweppes*, ECR 2006, I-7995.
[35] See ECJ, 16.07.1998, Case C-264/96, *ICI*, ECR 1998, I-04695.
[36] See ECJ, 12.09.2006, Case C-196/04, *Cadbury Schweppes*, ECR 2006, I-07995.
[37] See ECJ, 26.10.1999, Case C-294/97, *Eurowings*, ECR 1999, I-07447.
[38] See Opinion of Mr Advocate General Léger in Cadbury Schweppes, ECR 2006, I-07995.
[39] The terms tax avoidance and tax evasion are sometimes even used interchangeably which is primarily confusing, but also resembles the uncertainty of tax legislators and judicature (see Merks (2006), p. 280-281).

2.2.3 Magnitude of Tax Avoidance and Evasion in Developed and Developing Countries

From an economic perspective, tax avoidance and tax evasion may be used interchangeably since tax revenue lost from either one has the same impact. The difference between the potential tax revenue and the actual tax revenue is, in the literature, called the “tax gap”. Many studies have so far tried to measure the tax gap, but all face difficulties due to lacking information. Generally, two different approaches for the measurement of the tax gap have to be distinguished. On the one hand, the additional tax revenue can be measured which would be raised if all economic activity was taxed that is escaping taxation and, on the other hand, only the tax revenue that could be raised by applying anti-avoidance regulations can be measured. Existing studies have mainly focused on the first type of the tax gap and are based on estimates of the shadow economy. The latter approach is, however, more relevant for tax policy, but also requires information about the expected reactions to policy changes (Fuest/Riedel (2009)).

As this study analyses the impact of anti-avoidance legislation on corporate behavior, studies examining the business sector will be focused on in the following.[40] As, due to the data used, the approaches employed to estimate the tax gap differ in the presented studies, the subsequent sections will be organized accordingly.

Tax Administration Data

The most reliable source of information on tax evasion is provided by the US Internal Revenue Service (IRS) which has, until 1988, pursued a Taxpayer’s Compliance Measurement Program (TCMP) that comprised intensive audits on a large sample of tax returns every three years. Information on tax compliance of large corporations is, in addition, gained from actual examination results as the audit coverage is extensive.

The IRS regularly publishes studies on new estimates of the tax gap which are mainly based on an extrapolation of the TCMP data. The most recent study was published in 2012 and provides estimates on the fiscal year 2006 (Internal Revenue Service (2012)). According to the study, the overall net tax gap, i.e. after late payments of tax, amounted to USD 385 billion which equals a net compliance rate of 85.5% and 2.8% of GDP. The tax gap can be divided into the non-filing of income, the underre-

[40] For a discussion of tax evasion and avoidance in the private sector see Slemrod/Yitzhaki (2002).

porting of income and the underpayment of taxes out of which the underreporting constitutes the largest part. Regarding corporate taxation, the underreporting gap is estimated to be USD 67 billion, where USD 19 billion can be attributed to small corporations and USD 48 billion to large corporations. While the non-filing component could not be measured for corporations, the underpayment of taxes amounted to USD 4 billion. These estimates do altogether not include legal actions taken to avoid taxation, much rather they describe tax evasion.

Comparable information is only rarely available for other countries.[41] In 2004, the Swedish Tax Agency has published estimates of the tax gap accounting to undeclared income and underreported income for the fiscal year 2000 (see Swedish Tax Agency (2004)). The estimates are based on the experience from random audits of individuals and small firms and from coordinated audits of large firms. The tax gap was estimated to amount to SEK 84.2 billion (appr. USD 12.8 billion) which equals 4% of Swedish GDP. This number cannot be broken down to individual and business income.

Although the presented studies probably have the most reliable data base, i.e. data collected by tax administrations, there are also some drawbacks. As Slemrod (2007) points out, the tax liability stated on the initial tax return may only serve as an “opening bid” for the following negotiations - especially with regard to companies. In addition, the long-term effects of non-compliance are unclear since an income adjustment may reverse in the future.

Other Micro and Macro Data

Several economists have also undertaken studies in this field, but have mainly focused on the measurement of the shadow economy.[42] They usually use approaches that can be divided into micro and macro methods (sometimes also called direct and indirect methods).[43] While micro methods use surveys, interviews or tax audit information of randomly selected taxpayers, macro methods use information publicly available to derive estimates. The estimates presented by the IRS or the Swedish Tax

[41] For a comparison of the tax gap in the United States and other developed countries, see Slemrod (2007).

[42] As noted earlier, in many studies the tax gap is linked to the shadow economy. But this has to be interpreted with caution as not all income from the shadow economy would be taxed if it was reported - partly because the activities are illegal, and partly because they would simply not take place in the official sector.

[43] For an overview of the different methods and corresponding studies see Schneider/Enste (2000), Fuest/Riedel (2009).

Agency are examples of micro approaches as they use individual audit information. Other studies using micro methods include Mogensen et al. (1995) who use taxpayer surveys to estimate the size of the shadow economy in Denmark. They find an extent of the shadow economy of 3.1% of GDP in 1994 with a slightly decreasing trend. A publication of the US General Accounting Office (GAO) (US General Accounting Office (2003), p. 13) also relies on surveys of IRS field offices and includes calculations on the amount of foregone tax through tax avoidance. It is estimated to be between USD 14.5 and USD 18.4 billion in 1999. La Porta/Shleifer (2008) used three sets of surveys conducted by the World Bank to conclude on the productivity of official and unofficial firms and find for developing countries that informal firms amount to 30-40% of total economic activity in the years 2002-2007.

Macro methods make use of different macroeconomic indicators that the development of the shadow economy can be inferred from. An often used approach is the currency demand method which is based on the assumption that a lot of underground activities involve cash payments. Cagan (1958) was first to use this approach which was further developed by Tanzi (1983). Tanzi estimated a currency demand function which controlled for several factors generally driving the currency demand. The "excess" demand is then attributed to the shadow economy and used as a proxy for the development of the unofficial sector over time. He estimates the shadow economy in the United States to be between 4.5-6.1% of GNP in 1980. Another possibility is to use physical input, i.e. electricity consumption, to measure overall GDP. This is based on the finding that the elasticity of GDP and electricity consumption is close to one. The difference between the growth rate of official GDP and electricity consumption can then be attributed to the unofficial GDP. In this context, Kauffman/Kaliberda (1996) find that in post-socialist countries, up to 50% of economic activity in 1994 is unofficial. Finally, Schneider/Buehn (2007) have used a "multiple indicator multiple cause" (MIMIC) approach to estimate the size of the shadow economy. They identify several causal variables, e.g. the tax burden, state regulation, unemployment rate and GDP per capita, which explain the size of the shadow economy. From the changes in those variables over time, they infer the development of the shadow economy. The study includes estimates for 120 countries worldwide with the size of the shadow economy ranging between appr. 14% in developed countries and appr. 35% in developing countries.

All of the above methods have in common that they have to use a base year or number in order to provide absolute figures for the shadow economy. This is either done by determining a year where the shadow economy was extremely low or not existent or by identifying a variable, usually the tax burden, that is the reason for the shadow economy. In that way, the reference point can be the indicator at a tax level of zero (see Tanzi (1983)).

Another possibility to measure the tax gap using macro data is to determine the gap between the income and expenditure sides of the National or Financial Accounts. The Bureau of Economic Analysis (BEA), the national statistics office of the US, calculates this discrepancy each year to adjust the National Income and Product Accounts (NIPA).[44] Regarding corporate profits, for the year 2006, it is estimated that they were disclosed USD 300 billion too low, which equals 13.6% of the amount that should have been declared.[45]

Both, macro and micro, methods have their drawbacks, but micro methods are generally preferred over macro methods because they are also able to explain the elements of the tax gap while macro methods can only provide aggregate information. The disadvantages of micro methods, however, are twofold: in the case of surveys, they face all weaknesses associated with surveys, especially the dependency on the respondents' willingness to cooperate; in the case of audit information, the randomness of the sample is questionable as tax authorities apply a certain selection process for audits. Additionally, micro methods are not able to provide insights into the development and growth of the shadow economy or the tax gap (Schneider/Enste (2000), Swedish Tax Agency (2008)). Macro methods, however, also face several problems. On the one hand, it is questionable whether the chosen indicators and underlying assumptions are really a good measure for the shadow economy. Especially the requirement of a base year is critical. On the other hand, numbers contained in the National Accounts contain measurement errors which influence the estimates of the unofficial economy.

[44] For the methodology used see Petrick (2002).
[45] National Income and Product Accounts, Table 7.16. For a comparison of the IRS and BEA measures see Slemrod (2004).

Data Available for Specific Channels of Tax Evasion and Avoidance

A different approach to measure the tax gap is taken by Baker (2005) who tried to identify the tax gap resulting from deliberate income shifting. He examines the general mispricing of trade between developed and developing countries using a survey of multinationals. He finds evidence that multinational companies withdraw money from developing countries by underpricing exports and overpricing imports and in return receive or pay bribe money. He estimates capital outflows from developing countries through these channels to be as high as USD 200 billion in the year 2003. Pak (2007), Christian Aid (2009) and Global Financial Integrity (2011) confirm these findings by comparing international trade statistics of different countries. A different approach is taken by Oxfam (2000) which estimates that tax revenues of at least USD 35 billion are lost in developing countries per year through income shifting by multinational companies. This estimate is based on the comparison of the tax burden on the average return on FDI stock and the actual tax revenue from foreign corporations.

A Comparison of Developed and Developing Countries

The studies presented above show that there is a great range of estimates of the shadow economy and the tax gap. Depending on the underlying method, there can be rather significant discrepancies. The only study applying the same method to developed and developing countries is the one by Schneider/Buehn (2007). Their results show that the shadow economy is essentially larger in developing countries, but there also exist differences between regions. Table 2 depicts the size of the shadow economy in six different regions. It shows that the unofficial sector is smallest in developed OECD countries. The highest shadow economy can, in contrast, be found in South America or Africa.[46] However, the spread between different countries is greater in South America compared to Africa, i.e. while in Africa in 50% of the countries the size of the shadow economy is 5 percentage points below or above the average, that is only the case in 25% of the countries in South America. Moreover, all numbers show an increasing trend over time.

[46] Studies have analyzed the reasons for the larger tax gaps in developing countries. Friedman et al. (2000) find that more bureaucracy, greater corruption and a weaker legal environment increase the shadow economy in a given country.

Table 2: The Size of the Shadow Economy in Different Regions

	Average Size of the Shadow Economy in 1999 (% of GDP)	Average Size of the Shadow Economy in 2005 (% of GDP)	Minimum Size of the Shadow Economy in 2005 (% of GDP)	Maximum Size of the Shadow Economy in 2005 (% of GDP)
OECD	14.7[a]	15.8	7.9 (USA)	31.7 (Mexico)
Eastern Europe and Central Asia	35.8	36.9	18.2 (Slovak Republic)	68.0 (Georgia)
South America	40.9	41.2	20.4 (Chile)	67.6 (Bolivia)
Africa	39.5	40.2	23.0 (Mauritius)	58.8 (Tanzania)
Middle East	23.0	23.7	19.3 (Saudi Arabia)	35.3 (Egypt)
East Asia	28.8	29.0	13.8 (China, Singapore)	44.8 (Sri Lanka)

Source: Schneider/Buehn (2007); [a] number for 1998.

As Fuest/Riedel (2009) point out, all of the mentioned studies on capital or income shifting do not provide reasons for such behavior. In the following section, we will describe the tax drivers of income shifting which may partly explain the findings of these studies.

2.3 Profit Shifting Strategies of Multinational Companies

For a long-term increase of profitability, permanent tax savings are crucial. They can be achieved by two different strategies, as described in Chapter 2.2.2.2: substantive or formal tax planning. This study focuses on the shifting of book tax income to jurisdictions where more favorable tax attributes can be used, e.g. a lower income tax rate, tax incentives, or existing tax losses (Kobetsky (2008)). As this income shifting does not include a transfer of real economic activity, it is an element of formal tax planning. It is, therefore, easier to implement which causes tax authorities to be particularly attentive in this respect.

In the following sections, the three most common channels of income shifting will be analyzed. All these actions take advantage of the fact that tax systems treat corporations as separate entities[47] and allow for a deduction of expenses in one jurisdiction and accordingly a receipt of payments in another jurisdiction. These basic principles of worldwide tax systems especially encourage arrangements purely based on the intention to save taxes (Eden (1998)).

[47] Note that the OECD also recommends a separate entity approach for permanent establishments, OECD, 2010 Report on the Attribution of Profits to Permanent Establishments, 22 July 2010.

2.3.1 Intercompany Financing Structures

Multinational corporations can generally choose how to arrange their cross-border financing structures. The two main options for intercompany financing are debt and equity financing.[48] In the case of equity financing, the parent injects equity capital into the subsidiary and in return receives dividends. The subsidiary is subject to unlimited taxation in its residence country and is not allowed to deduct costs of equity financing from taxable profits in most countries.[49] If after-tax profits are retained, no further taxation occurs. In the case of a profit distribution, the parent company is subject to limited taxation in the source country of the dividend and can be liable to withholding tax. In the residence country of the parent, the parent is subject to unlimited taxation. In order to avoid double taxation, two possibilities for the treatment of dividends exist. The dividends may either be fully exempt of taxation (exemption method) or they are subject to tax, but underlying corporate income tax (indirect tax credit) and/or withholding tax (direct tax credit) are creditable against domestic corporate income tax (credit method). The credit is usually limited to the amount of domestic tax, i.e. no tax repayment results. Overall, equity financing bears the tax burden of the residence country of the subsidiary (in case of the exemption method) or the higher tax burden of both countries (credit method).

In case of debt financing, a loan is granted to an affiliate which in return pays interest to the creditor. Interest payments are usually deductible from the taxable income of the debtor. The debtor is subject to withholding tax in the source country of the interest payments, according to his limited tax liability. Received interest payments are, furthermore, subject to unlimited taxation in the residence country of the debtor and are fully taxed with corporate income tax. Underlying withholding tax can usually be credited. The resulting overall tax burden, therefore, amounts to the tax level of the debtor's home country.

Comparing the tax consequences of the two financing options shows that through the choice of cross-border financing, different tax levels can be achieved. Financing arrangements are, therefore, often used by multinational corporations in order to decrease the overall tax burden. If profits occur in a high-tax country, a loan given to

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[48] Financing instruments which show elements of debt and equity financing, so called hybrid financing instruments, will not be considered in this study. For a detailed study of the tax treatment of hybrid instruments see Baersch (2012).

[49] An exception exists e.g. in Belgium, where a notional interest deduction on equity capital is allowed.

the respective affiliate from a low-tax country results in deductible interest payments at the high tax level, while the interest income is low taxed. This arrangement significantly decreases tax payments and the overall tax level of the corporate group is reduced (Tax Justice Network (2007), p. 50-51). If the subsidiary, on the other hand, is located in the low-tax country, equity financing can be favorable, especially if the exemption method applies, because profits are fully taxed in the residence country of the subsidiary and the distribution to the parent is only liable to withholding tax.

2.3.2 Transfer Pricing

In 2002, the OECD has reported that more than 60% of world trade account for intercompany trade (OECD (2002)). But in contrast to the globalizing business world, tax systems stay local. Each jurisdiction requests to tax all profits earned within its borders. It is, therefore, necessary to charge prices (transfer prices) for goods transferred or services conducted between affiliates in order to allocate profits between countries. The transfer prices paid to affiliates by the recipient of the goods or services are deductible from taxable income, while they are fully taxed at the level of the supplier of the goods or services. Due to the tax treatment of intercompany transactions, the price setting may be influenced by the tax circumstances of the respective affiliates.

If goods are imported by a high-tax country from a low-tax country, an incentive exists to overprice such imports. Higher costs are then deductible from the taxable income of the highly-taxed affiliate, while the corresponding receipts are low-taxed. In the reverse case, when goods are exported from a high- to a low-tax country, exports should be underpriced, so that only a minimum amount of receipts has to be taxed in the high-tax country (Pak (2007)).

2.3.3 Relocation of Intangible Assets

Intangible assets are generally located where they were created or commissioned (e.g. patents) or where they were acquired. The use of such intangible assets is usually connected with the charge of royalties or license fees. Similar to interest payments, they are deductible from taxable income. If paid cross-border, a withholding tax may be levied. The recipient, on the other hand, includes the royalty payments in his taxable income and credits the underlying withholding tax. Due to such a tax treatment of royalties, it is, from a tax perspective, favorable to locate intangibles in low-tax countries where receipts are only subject to a low tax burden. And since intangible assets are highly mobile, this strategy is often employed by multinational enterprises.

The transfer of an intangible asset, however, may be subject to exit taxation on the fair value of the asset which can cause a significant tax burden. The advantage of the low profit taxation in the future has, therefore, to be compared with the disadvantage of the exit taxation. Nevertheless, the fair value of an intangible asset is rather difficult to assess, especially directly after its creation when it has not proven to have commercial worth (Tax Justice Network (2007), p. 51). That’s why there exists certain latitude regarding the extent of the exit taxation which increases the favorability of a transfer.

3 Qualitative Analysis of Existing Anti-Avoidance Measures

The previous chapter has given an overview of the principles of international business taxation and the difficulties that arise from the interaction of different tax systems in a cross-border setting. At the same time, the number of cross-border transactions and multinational enterprises has been constantly rising over the past decades, which drives an increasing tax competition between jurisdictions. Multinational enterprises, however, make use of this complexity and exploit different strategies to reduce the effective tax burden. Jurisdictions are aware of this behavior which imposes a threat to their tax revenues. For that reason, different measures are taken by jurisdictions to prevent the tax avoiding strategies pursued by multinational enterprises.

Since this study focuses on profit shifting strategies of multinational enterprises, different measures will, in the following, be presented that aim at reducing tax avoidance through profit shifting. It can generally be distinguished between measures implemented in the domestic tax law of jurisdictions, i.e. unilateral measures, measures agreed on by two jurisdictions through a contract, i.e. bilateral measures, and measures developed multilaterally.

3.1 Unilateral Measures

3.1.1 General Anti-Avoidance Regulations (GAAR)

In order to prevent tax avoidance, most countries execute a general anti-avoidance rule which is either established in the domestic tax law or through case law. Generally, countries following a common law or a civil law system can be distinguished. An overview of general anti-avoidance legislation under those systems will be provided in the following.

Under a common law system, i.e. a system following the principle of case law, two main principles are followed: the "business purpose" rule and the "substance over form" rule. The "business purpose" rule differentiates between transactions following a predominant business purpose and transactions whose main purpose it is to avoid tax payments. There is no general definition of a business purpose, but case law has, in several decisions, provided for specifying criteria[50]. Generally wider is the "substance over form" test which determines the tax treatment of a transaction

[50] For court decisions in the United States and the United Kingdom see Rohatgi (2002), p. 345-346.

according to its economic substance and not to the legal form. There are different variations to this doctrine. Firstly, it may be applied in case of "sham" transactions, where the parties purposely pretend to carry out a transaction that is not actually taking place. According to case law, a sham does not necessarily require a deliberate attempt to deceive third parties, much rather also an "honest" sham may exist (Ward (1995)). Secondly, the parties may also use an incorrect "label" for a transaction which is connected with a specific tax consequence. In that case, the label will not change the nature of the transaction and will be disregarded. Furthermore, several countries have implemented a step transaction doctrine which allows for a series of transactions to be treated as a single transaction under the "substance over form" principle.

As Banoun (2002) points out, among the common law countries two groups can be distinguished. While in the first one, a great number of court decisions on anti-tax-avoidance exists which developed a sophisticated approach to combat tax avoidance, in the second group, courts were rather inactive, so that a general anti-avoidance regulation was introduced into domestic tax law. The United States, the United Kingdom, and Norway are good examples for the first group, while Australia, Canada, and Sweden represent the second group.

In contrast, in civil law countries statutes are followed which are interpreted by the courts. The application of the legal statutes generally acts upon three different interpretations, i.e. the "abuse of right", the "abuse of law" and the "simulation" approach. Under the "abuse of right" principle, the use of legal rights is limited to the purpose they initially intended to answer. In the tax context, this means that where the sole reason of a certain transaction is to avoid tax payments, the transaction may be recharacterized or disregarded (Uckmar (1983)). This principle is applied, for instance, in Argentina, Austria, France, Germany, and Spain. In France and Germany, there is an additional requirement for a certain extent of artificiality of the transaction. The Netherlands, in particular, apply the "abuse of law" or "fraus legis" principle which is a counterpart to the "business purpose" rule. Where a transaction does not pursue a real, practical intention and the only or prior goal is tax avoidance, it may be disregarded and substituted by a different transaction (van Weeghel (2010)). Finally, the "simulation" principle, as applied by Belgium and France, provides for a replacement of the simulated transaction with the real transaction in order to ensure "substance over form" (Rohatgi (2002), p. 352).

All of the above principles aim at preventing tax avoidance, but at the same time they have to ensure legal certainty. Thus, it is important to provide for a solid framework for the interpretation of transactions (Uckmar (1983)) which is in many cases better provided for by statutory regulations rather than through case law. This exactly is the reason why the introduction of a statutory GAAR is currently discussed in the United Kingdom (Freedman (2012), Lethaby (2012)).

3.1.2 Transfer Pricing Regulations

As previously outlined, transfer prices are prices paid on transactions or services between associated entities. In order to ensure that the allocation of tax revenues is not affected by a miscalculation of such prices, jurisdictions have implemented transfer pricing regulations in their domestic tax law. Transfer pricing legislation may either be based on general anti-avoidance regulations or on specific statutory regulations. In many cases, tax law is complemented with administrative guidelines published by the tax authorities.

Transfer pricing regulations account for different aspects of the price setting between associated enterprises. Firstly, they provide for rules on the applicability of the legislation, such as a definition of related entities. Secondly, they establish methods for the calculation of transfer prices and indicate how the best method shall be determined. Generally, the methods that relate to comparable transactions between unrelated parties are preferred, but as comparable transactions are often difficult to identify, also other methods have been introduced. A third aspect is the documentation that is required to be prepared by businesses, e.g. an overview of all concerned transactions or a description of the price calculations including all underlying information. This aspect has especially increased in importance over the past ten years and now constitutes a major compliance burden on businesses. In addition, some countries also introduce special transfer pricing penalties in case an adjustment has to be made or documentation is missing. Finally, the possibility to enter into advance pricing agreements may be implemented. Advance pricing agreements (APA) allow a taxpayer to negotiate a certain transfer price with the tax authorities of one or both concerned jurisdictions. They, thus, provide certainty for taxpayers and avoid double taxation.

Chapter 4.1 provides a very detailed discussion of the outlined aspects of transfer pricing regulations. It, furthermore, analyzes and compares transfer pricing regulations introduced by 44 jurisdictions.

3.1.3 Thin/Fat Capitalization Rules

The cross-border use of debt financing is a common vehicle for profit shifting.[51] Many jurisdictions, thus, try to avoid excessive debt financing by imposing unilateral thin capitalization rules which limit the deductibility of interest payments. Originally, thin capitalization rules were aimed at cross-border debt financing between related entities, but some jurisdictions have introduced rules that apply to all debt, i.e. between related and unrelated entities.[52] In that case, the regulations are also called fat capitalization rules.

However, all regulations have in common that they are based on the distinction of an acceptable and unacceptable extent of debt financing. The determination of that extent differs between jurisdictions. Furthermore, the regulations apply different tax consequences for the non-deductible amount of interest.

The different options for the design of thin or fat capitalization rules will be analyzed in Chapter 4.2. In addition, the regulations of 53 different countries worldwide will be presented and discussed.

3.1.4 Disclosure Requirements

Having access to the relevant information is a key element of fighting tax avoidance and evasion. In order to obtain information, some countries, e.g. the United States or Canada, apply a self-assessment system which obliges the taxpayers to provide all necessary information and to calculate the tax burden themselves. Upon disclosure of the tax statement, they are required to pay the self-assessed taxes. In other countries, taxes are, in contrast, assessed by the tax authorities. The taxpayers are then only obliged to provide the relevant information, usually by using standardized forms, to the authorities that, on this basis, calculate the tax burden. Advocates of the self-assessment system argue that the tax burden is assessed considerably faster which leads to a faster collection or refund of taxes. In addition, it reduces costs for the tax authorities as not all tax returns have to be examined upon disclosure (Hessisches

[51] See Chapter 2.3.1.
[52] For more information on the regulations implemented worldwide see Chapter 4.2.

Finanzministerium (1972)) and information is easily accessible (Uckmar (1983), p. 31). On the other hand, a self-assessment of taxes is only possible if the complexity of the tax law allows for a calculation of the tax burden by the taxpayer. It has to be guaranteed that the self-assessment is practicable and that taxpayers do not run the risk of undeliberately evading taxes (DStV (2008)). In addition, the usefulness of the information provided in a self-assessment system may vary considerably (Uckmar (1983), p. 31).

For certain types of income or activities, especially the ones that can be more easily concealed, special reporting requirements may exist in addition. This is, for instance, the case for offshore subcontractors in Norway, for remittances abroad in Brazil, or foreign direct investment in Germany.[53]

Also, the cross-border assistance in the collection of information and taxes may be implemented into the domestic tax law. Such a provision is usually the basis for bi- or multilateral agreements which can usually not constitute rights themselves. In some cases, the provision may only contain a reference to such bilateral or multilateral measures, as further explained in the following sections, but it may also include requirements for requesting assistance or for answering requests by other jurisdictions. However, if no bilateral or multilateral instrument exists, on which assistance may be based, the exchange of information or the assistance in the collection of taxes is rather limited (Rätke (2012), § 117, para. 2).

3.2 Bilateral Measures

3.2.1 Bilateral Model Tax Conventions

3.2.1.1 The OECD Model Tax Convention

Due to the increasing cooperation of OECD countries after the Second World War, the need for a uniform double tax convention which would serve as a non-legally binding format used for bilateral negotiations regarding the avoidance of double taxation, had become evident.[54] The OECD Fiscal Committee, therefore, began to work on a Model Convention in 1956 which resulted in the first OECD Model Tax Convention (OECD Model) published in 1963 (OECD (1963)). Besides the elimina-

[53] For more information see Uckmar (1983), p. 31.
[54] The first approaches towards a comprehensive model tax convention were pursued by the League of Nations, starting after the First World War (see Avery Jones (2012)).

tion of double taxation, the main goals of the Model were to prevent discriminatory taxation and to support the tax authorities in combating tax evasion (Baker (1994)). In order to take account of the changes in the tax systems, organizational structures and increasing cross-border transactions, revisions of the OECD Model have, however, been necessary. After a full revision in 1977 (OECD (1977)), it was recognized that the work on the OECD Model is an ongoing process and changes should be adapted more timely. Thus, modifications have, since then, not been made through full revisions of the Model, but rather through periodic amendments. Furthermore, as the OECD Model was increasingly used by non-member countries, the Committee decided to include non-member countries in the decision making process.

A Commentary to the OECD Model has always been published together with the Model. It interprets the provisions of the OECD Model and provides current opinions on their application. It is also non-binding, but OECD member countries have adopted it as the main source for the interpretation of tax treaties (Rohatgi (2002), p. 24). It is, however, uncertain whether amendments to the Commentary are relevant for already existing tax treaties (Lang (1997)).

Over the years, the OECD Model has become the basis of negotiations regarding the administrative tax co-operation between, mostly developed, countries. It is incorporated in the majority of bilateral treaties and thereby contributes to a facilitation of international taxation. Especially as the treaty network expands constantly, the importance of a generally accepted guidance increases accordingly (OECD (2010d), para. 15).

In the following sections, the Articles of the OECD Model that serve as anti-avoidance measures regarding profit shifting are presented and analyzed.[55]

3.2.1.1.1 Associated Enterprises (Article 9)

Since the first version of the OECD Model in 1963, the arm's length principle has been included in Article 9.[56] It states that where profits between associated enterprises resident in the Contracting States differ from those between independent enterprises, such profits may be adjusted and taxed in the state where they would have accrued between independent enterprises (para. 1). Furthermore, it arranges for a corresponding adjustment in the other state in order to avoid double taxation (para.

[55] For a use of anti-avoidance provisions in recent tax treaties, see Law (2012).

[56] For a discussion of the arm's length principle and formula apportionment, see Chapter 3.3.2.5.

2). While paragraph 1 has undergone only minor changes in the wording over time, paragraph 2 was first added in the course of the 1977 revision.

Associated enterprises are defined in Article 9 para. 1 and include cases where either one enterprise or the same persons participate directly or indirectly in the management, control or capital of an enterprise of a Contracting State. This definition is repeated in the OECD Transfer Pricing Guidelines (para. 11), but both provisions do not provide a minimum or maximum participation requirement. Thus, it is left to domestic tax law to substantiate the definition.

If profits are adjusted in one Contracting State, paragraph 2 promotes a corresponding adjustment in the other Contracting State. According to the OECD Commentary on Article 9, para. 6, the other Contracting State is, however, not automatically obliged to allow for a corresponding adjustment. The corresponding adjustment should, rather, only be granted if the other Contracting State agrees that profits have been adjusted according to the arm's length principle. Nevertheless, several countries (i.e. Australia, Czech Republic, Germany, Hungary, Italy, Slovenia) have expressed reservations to paragraph 2 and have reserved the right to exclude it from their tax treaties.

As a bilateral treaty only limits but not constitutes taxing rights, an according provision has to be included in national tax law in order for Article 9 to be applicable. It then sets a limit to the adjustment according to the arm's length price. The OECD's understanding of the identification of the arm's length price is, in turn, content of the OECD Guidelines on Transfer Pricing.

3.2.1.1.2 Interest and Royalty Payments (Articles 11, 12)

Both Articles 11 and 12 comprise a paragraph (para. 6 of Article 11 and para. 4 of Article 12) which deals with interest or royalty payments where payer and beneficial owner have a "special relationship". They both aim at limiting the benefits provided by the respective Article to arm's length amounts because it is assumed that excessive payments are made in order to shift profits from one jurisdiction to the other. The amount exceeding the arm's length payment is, therefore, treated under the domestic law of each Contracting State depending on the exact nature of the payment which has to be identified (Commentary on Article 11, para. 35). In case that, upon the determination of the nature of the income, the Contracting States apply different

Articles of the Convention, the mutual agreement procedure may be used to resolve the conflict.

A definition of a "special relationship" is provided in the Commentary on Article 11 and 12 and shows that the concept is generally wider than that of "associated enterprises" in Article 9. It, in addition, includes a *"relationship by blood or marriage and [...] any community of interests as distinct from the legal relationship"*.

3.2.1.1.3 Mutual Agreement Procedures (Article 25)

Article 25 OECD Model provides a mutual agreement procedure for cases where a person resident in one of the Contracting States believes that taxation has not been in accordance with the Convention. As a first step, the person must present the case to the competent authority in his state of residence within three years from the first notification of the action (para. 1). If that authority agrees that the objection is justified, it may then find itself a solution. If that is not possible, the authority should, in the next step, resolve the issue through a mutual agreement procedure with the other Contracting State (para. 2). In addition, general difficulties with the interpretation or the application of the Convention or the elimination of double taxation not regulated in the Convention should be resolved by mutual agreement by the competent authorities (para. 3). The procedures outlined in paragraphs 2 and 3 may, generally, overlap if the special taxpayer's case is also relevant for a greater number of cases. The only procedural advice is given in paragraph 4 which states that the competent authorities shall communicate directly, possibly through a joint commission.

The mutual agreement procedure provided for in Article 25 can generally be accessed irrespective of unilateral measures, i.e. it is not required to exhaust all domestic remedies before starting the procedure. The States may, however, include a provision in the treaty that the three year time limit is suspended as long as domestic legal proceedings are ongoing because otherwise resources may not be used efficiently (Commentary on Article 25, para. 25).

Article 25 has been included in the OECD Model since its first version in 1963, but in 2008, a fifth paragraph was added which comprises the possibility to enter into an arbitration procedure if no agreement can be reached by the two Contracting States within two years. The need for an arbitration procedure had been discussed for a long time (Lindencrona/Mattson (1981), p. 71, Guttentag/Misback (1986), Tillinghast

(1993)), but only when transfer pricing issues became more prominent and the EU adopted an Arbitration Convention in 1990[57], the OECD stated in the 1995 Transfer Pricing Guidelines for the first time that an introduction of such a procedure in the OECD Model is being studied. Mainly, the fact that under the mutual agreement procedure the competent authorities were not obliged to reach an agreement, but only to endeavor to do so was criticized (Ribes Ribes (2002)). From the viewpoint of the taxpayers, the procedure could, therefore, not be satisfactory, especially as they had no formal right to participate in the negotiations (Bricker (1998)). Only in 2004, the OECD issued a report on how to improve the resolution of tax disputes which not only dealt with changes of the mutual agreement procedures, but also discussed additional measures such as an arbitration procedure (OECD (2004b)). The OECD decided to evaluate different alternatives and to develop a proposal for the resolution of unresolved mutual agreement procedures. Finally, on 1 February 2006, a proposal was published which included the introduction of a mandatory arbitration procedure in Article 25 (OECD (2006a)). After extensive discussions of this proposal, a number of modifications have been made (OECD (2007)) and paragraph 5 has been added to the OECD Model in 2008. This inclusion has been perceived positively. Ault/Sasseville (2009) even see it as the most important change to the OECD Model since 1963. The main advantages of the provision are that it is an integral part of the mutual agreement procedure and only supplements it instead of being an alternative path. Moreover, the new paragraph leaves enough flexibility to the Contracting States in how to shape it (de Ruiter (2008)).

The Commentary on Article 25 has grown over the years and now includes an extensive set of comments on the use of the procedures. Especially, it provides a discussion of different procedural aspects of the arbitration process stated in paragraph 5. Furthermore, it includes the reservations of several countries on the Article. Mostly they relate to differences in the time limits provided for in the Article and in domestic tax law. The respective countries prefer to apply the domestic time limits also for bilateral mutual agreement procedures.

3.2.1.1.4 Exchange of Information (Article 26)

Article 26 on the exchange of information in tax matters was already included in the 1963 OECD Model. It provides for the exchange of information regarding the en-

[57] The EU Arbitration Convention includes a mandatory arbitration procedure for cases of profit adjustments between associated companies for all EU Member States, see Chapter 3.3.2.3.

forcement of the Convention as well as the enforcement of domestic tax law relating to persons and taxes covered by the Convention. The obtained information is to be kept secret and may only be made accessible to persons or authorities engaged in tax matters. However, the Contracting States are not obliged to conduct measures which are in conflict with domestic law or to obtain information which is not accessible under domestic law. Furthermore, information that reveals a trade, business, industrial, commercial or professional secret or trade process shall not be exchanged. In the course of the 1977 revision, the scope of the provision was extended to cover all persons, regardless of their residence or nationality, and concerning the secrecy requirements a reference to the respective domestic provisions was included. In 2000, the scope was further extended to all taxes.

A major change to Article 26 was undertaken in 2005, when the content of Article 26 and the OECD Model Agreement on Exchange of Information on Tax Matters[58] were partly harmonized. This change included the introduction of two new paragraphs (para. 4 and 5). While paragraph 4 states that a Contracting State may not reject to obtain information only because it has no domestic interest in them, paragraph 5 provides that a Contracting State may not decline to exchange information due to bank secrecy provisions. Austria, Belgium, Luxembourg, and Switzerland had reservations against the new paragraph 5, but due to the financial crisis and the increasing pressure exerted by other OECD member countries, they withdrew their reservations in 2009 (Gahleitner/Hristov (2010), Heuberger/Oesterhelt (2010)).

The scope of Article 26 provides for an exchange of information not only on request, but also automatically or spontaneously. The automatic exchange of information stands for a systematic transmission of information of certain categories of income between the two Contracting States. Several OECD Council Recommendations have dealt with this issue, whereupon a memorandum was published in 2001 which serves as a basis for an agreement of an automatic exchange of information between tax authorities (OECD (2001b)). The spontaneous exchange of information, on the other hand, comprises the transfer of information which was obtained through other investigations and which is assumed to be of interest to the other Contracting State.

[58] The OECD Model Agreement on Exchange of Information on Tax Matters was one of the results of an OECD project on harmful tax competition (see Chapter 3.3.1.1.1). For more information on the development and the content, see Chapter 3.2.2.

3.2.1.1.5 Assistance in the Collection of Taxes (Article 27)

Only in 2003, Article 27 was introduced to the OECD Model. It supplements Article 26 and provides for assistance in the collection of revenue claims with respect to all taxes levied in either Contracting State. In addition, paragraph 4 arranges for assistance in taking conservancy measures connected with revenue claims such as a freezing of assets (Commentary on Article 27, para. 20). In order to request assistance, the revenue claim has to be enforceable under domestic law in the requesting state and the taxpayer must not have administrative or legal rights to prevent the collection. The requested state then treats the request as if it were its own revenue claim, i.e. where the domestic law of the requested state restricts the collection of taxes, it is not obliged to assist. However, time limits and priority rules under the domestic law of the requested state are not applicable (para. 5). In the case that the underlying situation has changed and the requirements for a request on assistance are no longer met, the requesting state has to notify the requested state immediately (para. 7) (Gyöngyi Végh (2003)).

The Commentary on Article 27 illustrates how the Contracting States may restrict the scope and the applicability of the Article. This flexibility is meeting the concerns of several jurisdictions which are afraid to give up national sovereignty. Nevertheless, as Ismer/Sailer (2003) point out, it is important to ensure the collection of taxes in a globalized world where taxable income or assets could otherwise be easily shifted to other jurisdictions. But, when concluding a tax treaty, the level of collection efficiency in the Contracting States also has to be considered because otherwise Article 27 may not result in an equal assistance outcome (Ismer/Sailer (2003)).

3.2.1.2 The United Nations Model Tax Convention

Many developing countries felt that the OECD Model did not sufficiently address their issues as net capital importers. The United Nations, therefore, published a Model Convention especially for developing countries in 1980 (UN (1980)). The main difference between the OECD and the UN Model is the allocation of taxing rights. While the OECD Model prefers the allocation of taxing rights to the residence country, the UN Model allows for a more extensive taxation at source in order to generate sufficient tax revenue for developing countries.[59] The Model is voluntary for UN

[59] For a discussion of source vs. residence taxation and a comparison of the allocation of taxing rights under the OECD and UN Model, see Chapters 2.1.1 and 2.1.2.1.1.

member countries, but has gained great importance over the years and has even shaped the treaty policy of developed countries (Rohatgi (2002), p. 60). Revised versions of the UN Model were issued in 2001 and 2011 (UN (2001), UN (2011a)) which mainly incorporated changes to the OECD Model.

The UN Model generally follows the OECD format which is also pointed out in the introduction of the UN Model: *"[...] the Group of Experts had decided to use the OECD Model Convention as its main reference text in order to take advantage of the accumulated technical expertise embodied in that Convention and Commentary thereon, and also for reasons of practical convenience [...]"* (UN (2001), para. 9). Therefore, in the following, only the main differences between the OECD and the UN Model regarding the articles relevant for the avoidance of profit shifting will be analyzed.

Article 9: Associated Enterprises

Article 9 UN Model was identical to that of the OECD Model, but in the course of the 2001 revision, a new paragraph 3 was added. It states that a corresponding adjustment as described in paragraph 2 is not to be made where one of the associated enterprises is liable to a penalty with respect to fraud, gross negligence or willful default. Thereby it imposes an additional penalty on the enterprise by not eliminating double taxation. This new paragraph has been received critically and even the Commentary states that member countries might consider two penalties to be too harsh. But it is also argued that this paragraph will only apply to very exceptional cases and will not be part of routine procedures. As Kosters (2004) argues, it is, nevertheless, questionable whether the situation is that exceptional considering that extensive transfer pricing legislations are introduced in many countries. Van der Bruggen (2002) agrees and argues that *"the UN Model 2001 connects the "guilt" of one enterprise to the tax base of the second taxpayer"* which is a rather debatable approach.

Articles 11, 12: Interest and Royalty Payments

The provisions in Article 11 and 12 regarding non-arm's length payments of interest and royalties are identical in the OECD and the UN Model.

Article 25: Mutual Agreement Procedure

Ever since its publication in 1980, paragraph 4 of Article 25 of the UN Model has been slightly different from that of the OECD Model. Two sentences were added which request the competent authorities to adopt bilateral procedures which implement the mutual agreement procedure in domestic tax law as well as to supplement such procedures by unilateral measures. Recently, in the course of the 2011 update, the introduction of the mandatory arbitration procedure as included in the OECD Model has been discussed. After opinions were divided, the Committee finally agreed to incorporate two alternative versions of Article 25 in the UN Model. Version A does not contain the new paragraph 5, while Version B contains the arbitration procedure as introduced in the OECD Model. The Commentary on Article 25 explains the reasons for this course of action and especially points out that the very small number of mutual agreement procedures in the past and the lack of expertise in developing countries do not support the need for an arbitration procedure. On the other hand, the advantages of a mandatory arbitration procedure are outlined and it is recommended that countries shall balance such arguments when concluding a double tax treaty (Lennard (2012)).

Article 26: Exchange of Information

Article 26 of the UN Model has also always been to some extent different from that of the OECD Model. In its 1980 version, it was more restrictive regarding who could be recipient of secret information. It also promoted that authorities shall develop conditions, methods and techniques for the exchange of information (García Prats (1999)). But during the 2011 update, several changes were made to the Article which is now almost identical to the OECD Model. However, developing countries were concerned that developed countries may be able to exercise pressure on developing countries in order to receive information, but may, on the other hand, not be that cooperative in obtaining information themselves. As Lennard (2012) points out, the issue of double standards will be important for the future of international tax cooperation.

Article 27: Collection of Taxes

After Article 27 was introduced to the OECD Model, the UN Committee decided in 2006 to incorporate an almost identical version in the next update of the UN Model.

The only difference exists in the Commentary where the UN especially highlighted that developing countries should not be overburdened by this Article (Lennard (2009)).

3.2.1.3 Evaluation of Anti-Avoidance Measures in Model Tax Conventions

In the previous sections, the anti-avoidance measures implemented in the OECD and UN Model Tax Conventions were presented. Regarding the three different channels of profit shifting laid out in Chapter 2, they are all addressed by the discussed Articles. Article 9 OECD/UN Model includes the arm's length principle and is, thus, the basis for transfer pricing adjustments. Articles 11 and 12 OECD/UN Model additionally address the cases of intercompany debt financing and royalties. It has to, however, be kept in mind that bilateral tax treaties cannot constitute taxing rights, but rather impose mutually agreed limits on taxing rights implemented in the domestic tax laws. It is, therefore, important to consider the compatibility of unilateral anti-avoidance measures and tax treaties (De Broe et al. (2011)).[60]

The Model Tax Conventions also include measures for mutual agreement procedures as well as for the mutual assistance in the exchange of information and the collection of taxes. They altogether employ the currently highest standard of cross-border cooperation which includes a mandatory arbitration procedure and the exchange of information despite bank secrecy provisions. However, not all of these provisions are currently implemented in bilateral tax treaties, but as new treaties will be negotiated over time, it is expected that cooperation between jurisdictions will increase which will further prevent tax avoidance (Baker et al. (2011)).

3.2.2 The OECD Model Agreement on the Exchange of Information on Tax Matters

In the course of the project on Harmful Tax Competition[61], the OECD established a Forum on Harmful Tax Practices in 2000. A subgroup of this Forum, which consisted of all OECD member countries as well as representatives of Aruba, Bermuda, Bahrain, Cayman Islands, Cyprus, Malta, Mauritius, Seychelles, and San Marino, elaborated a Model Agreement on the Exchange of Information on Tax Matters in 2002 which, upon its publication, was perceived to represent a new standard for the

[60] For the interaction of unilateral anti-avoidance measures and tax treaties, see Chapter 3.4.
[61] See Chapter 3.3.1.1.1.

exchange of information between countries. It was even seen as a turning point in this field (Oberson (2003)).

The Model Agreement applies to all persons, regardless of their residence and nationality, and to all direct taxes, i.e. taxes on income, capital, net wealth, inheritance or gift taxes. Furthermore, it allows for an exchange of information upon request and for tax examinations abroad. Other forms of information exchange may be included in the agreement by the contracting states. The most important innovation of the Model Agreement was, however, that it also provided for an exchange of information which is held by banks or other financial institutions which also included the requirement to change domestic tax law accordingly (Gyöngyi Végh (2002)). This relaxation of bank secrecy was received critically by those jurisdictions having bank secrecy provisions in place. Due to such reservations, the Model Agreement was not as successful as expected. Moreover, as mentioned above, when Article 26 of the OECD Model was revised and the provision on bank secrecy was included, Switzerland, Luxembourg, Austria, and Belgium expressed reservations which they finally withdrew in 2009 (Fehling (2012)). Since then, the number of agreements in place has increased by more than 800 worldwide (OECD (2012a)).[62] The Forum now safeguards the implementation of the OECD standard by its members in bilateral agreements – double tax conventions as well as Tax Information Exchange Agreements (TIEA) – but also in the domestic tax law.

3.3 Multilateral Measures

3.3.1 International Coordination against Tax Avoidance

3.3.1.1 Projects on Harmful Tax Competition

3.3.1.1.1 The OECD's Harmful Tax Practice Project

In 1996, the OECD launched a project on harmful tax competition as requested by the G7-Ministers[63]. In 1998, the OECD Report on Harmful Tax Competition (hereinafter: OECD Report, OECD (1998)) was published. In the report, it is examined *"how harmful tax practices affect the location of financial and other service activities, erode the tax bases of other countries, distort trade and investment patterns and*

[62] For a critical assessment of that number see Falcao (2011). An overview of all existing agreements that include exchange of information provisions can be found under http://eoi-tax.org/.
[63] The G7 is a group of seven advanced economies, including Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.

undermine the fairness, neutrality and broad social acceptance of tax systems generally" (p.8). It, furthermore, distinguishes between tax havens and countries with harmful tax regimes and elaborates a list of factors identifying both categories. Lastly, it examines different measures taken to counteract the consequences of harmful tax regimes and formulates recommendations for the prevention of tax avoidance through domestic legislation, tax treaties or the intensification of international cooperation. The guidelines formulated at the end of the report suggest that member countries identify harmful tax practices within two years and remove them within five years of the report. One main goal is to, additionally, get as many non-member countries as possible to abstain from harmful tax practices and to establish a "level playing field" regarding international taxation. A Forum on harmful tax competition within the OECD was to be established which would promote the work in this area. All member countries, with the exception of Luxembourg and Switzerland, supported the project and over the following years, harmful tax practices in the member countries were started to be identified and eliminated. In the Forum's first Progress Report (OECD (2000)), a list of 47 harmful tax practices in the member countries was published. Those practices were supposed to be abolished by April 2003. Furthermore, the report contained a list of 35 tax havens with the intention of convincing them to commit to transparency and the exchange of information and to eliminate harmful tax regimes. If those countries did not commit, they would be stated on a list of uncooperative tax havens and the OECD member countries would be requested to conduct defensive measures against those regimes. The Report caused extensive discussions, in the course of which the US withdrew their support for the initiative. Thereupon, the 2001 Progress Report (OECD (2001a)) relaxed some statements, extended deadlines and shifted the focus of the project to a greater extent towards an increased exchange of information. But that Report was still, besides Switzerland and Luxembourg, not approved by Belgium and Portugal - both countries were subject to examination as they applied supposedly harmful tax practices.

When the list of uncooperative tax havens was finally published in 2002 it only comprised seven jurisdictions (i.e. Andorra, Liberia, Liechtenstein, the Marshall Islands, Monaco, Nauru, and Vanuatu), two of which (Nauru and Vanuatu) committed to cooperating in 2003. In addition, an Application Note, which was supposed to help countries to determine harmful tax practices, and a Model Agreement on Exchange of Information on Tax Matters, which promotes international cooperation through the provision of information[64], were developed over the following two years.

The 2004 Progress Report (OECD (2004a)) evaluated the abolishment of harmful tax practices in the member countries and pointed out that three regimes, which were offered in Luxembourg and Switzerland, were still not amended or eliminated. Switzerland, however, abolished the considered regulations in 2005 and Luxembourg amended the concerned regime, so that in the 2006 Progress Report all harmful regimes were eliminated (OECD (2006b)).

As the initial goal, the elimination of harmful tax practices in member countries and the commitment of tax havens[65], was successfully met[66], the work of the Forum has, since 2005, primarily focused on transparency and the exchange of information in tax matters. Not only negotiations on the Model Agreement on Exchange of Information on Tax Matters, but also the implementation of the new standards in the member countries of the Forum[67] and other important financial centers was promoted, with the goal of reaching a "level playing field". All member countries of the Forum endorsed the new principles, with other countries following. In 2009, the Global Forum was restructured and currently includes 110 jurisdictions which all participate on equal footing. Also, a peer review process was established to monitor the implementation of the standards in the member countries. The progress is closely supervised and documented by annual reports which state the number of exchange of information agreements, information on existing domestic regulations, and the results of the peer reviews (OECD (2010c)).

3.3.1.1.2 The European Union Code of Conduct for Business Taxation

After a report on the development of tax systems in the European Union was published in 1996 (European Commission (1996)), the Ministers for Economic Affairs and Finance in the European Union decided to launch a project on a comprehensive approach for business taxation in order to reduce the distortions in the single market. The report had outlined the challenges of tax policies in Europe and their impact on

[64] See Chapter 3.2.2.
[65] In 2007, Liberia and the Marshall Islands and, in 2009, the remaining three countries, Andorra, Liechtenstein, and Monaco, were removed from the list of uncooperative tax havens.
[66] For an overview of the OECD project until 2004, see Easson (2004).
[67] 26 OECD member countries and 33 Participating Partners.

economic growth, employment, and tax revenues. Thereupon, a tax package should be developed consisting of three parts: the elimination of distortions to the taxation of capital income, the facilitation of intercompany payments of interest and royalties, and a Code of Conduct for business taxation.

The Code of Conduct was developed over the following year and was adopted by the Council of Economics and Finance Ministers (ECOFIN) on 1 December 1997 (ECOFIN (1998)). The Code of Conduct promotes, on the one hand, the amendment or abolishment of existing measures that constitute harmful tax competition ("roll-back"), and, on the other hand, the renouncement of the introduction of such measures ("standstill"). Consequently, it identifies criteria to determine harmful tax measures, such as a significantly lower tax level, tax benefits only applicable to non-residents or the lack of transparency. The Code of Conduct is not legally binding, but constitutes a political commitment which the Member States, furthermore, agreed on promoting in other countries.

On 9 March 1998 a Code of Conduct Group was established in order to assess the harmful tax measures existing within the European Union. In 1999, a report, also called the "Primarolo-Report"[68], was published by the Group (Code of Conduct Group (1999)) which evaluated possibly harmful tax measures and concluded that 66 tax measures existing within the European Union and dependent or associated territories are harmful. It was expected that such measures were amended or abolished until 31 December 2002 including grandfathering rules until 31 December 2005. Over the following years, all countries have followed their commitment and amended or abolished existing tax practices.[69] In 2004 and 2007, tax practices in the accession countries were included in the process. Now, the Code of Conduct Group is mainly ensuring the "standstill", but has also established several sub-groups pursuing work on anti-abuse or administrative practices.

As harmful tax practices may also affect competition between Member States, they may be incompatible with the fiscal state aid rules according to Articles 107-109 TFEU which state that *"any aid granted by a Member State […] in any form whatsoever which distorts or threatens to distort competition […] in so far as it affects trade between Member States, be incompatible with the common market"*.[70] On 11

[68] Dawn Primarolo, Paymaster General (UK), was the Chairwoman of the Code of Conduct Group.
[69] The last two regimes were abolished/amended by Malta with effect from 1 January 2007.
[70] For a discussion of State aid and tax incentives see Pinto (1999), Nijkamp (2002).

July 2001, the European Commission, therefore, declared four tax regimes to violate state aid rules[71] and, additionally, challenged eleven national tax schemes located in eight EU Member States[72] under the state aid rules (see Wilkie/O'Grady (2001)). Out of the fifteen targeted regimes, thirteen were also characterized as harmful under the Code of Conduct (Kalloe (2011)). All measures have been amended or abolished over the past years.

3.3.1.1.3 A Comparison of the OECD and the EU Project

As outlined in the previous sections, the OECD and the EU project were both launched in the mid 1990s and aimed at tackling harmful tax competition. As the OECD Report points out *"each Organization is responsible independently for the interpretation and application of its respective instruments"* (OECD (1998), p. 11). Therefore, both projects coexist and it cannot be expected that both organizations will work jointly on this issue (Pinto (1998), p. 409). In the following, the two projects will be compared and similarities and differences will be identified.

While the OECD project focused on financial and other service activities, the EU Code of Conduct goes further and refers to business activity as a whole. The OECD, however, also aims specifically at tax havens, i.e. countries which are not OECD members. The Code of Conduct, on the other hand, only applies to EU Member States. The conceptual scope is, thus, wider under the Code of Conduct, while the geographic scope is wider under the OECD project. Furthermore, both projects only focus on the direct taxation of businesses, not the taxation of individuals which may, however, also be subject to harmful tax practices (Pinto (1998)) or the indirect taxation of businesses.

The key element of both projects is the identification of harmful tax practices. While both, the Code of Conduct and the OECD Report, did not define harmful tax competition as such, they determined a list of factors which refer to harmful tax measures. In this regard, both projects have in common that they name a low tax burden as the starting point for the evaluation of harmful tax regulations. Moreover, the ring-fencing of regimes, i.e. measures only available for foreign investors, is tackled in both projects. As such regimes lead to a tax base erosion in other countries, but have no impact on tax revenues in the own country, they are considered especially harmful

[71] Such tax regimes were located in Belgium, Greece, Italy, and Sweden.
[72] Tax regimes in Finland, France, Germany, Ireland, Luxembourg, Netherlands, Spain, and the United Kingdom were targeted.

and play an important role in both projects (Jacobs (2005), p. 274). The following table depicts the factors outlined by the OECD and the EU.

Table 3: Comparison of the Factors Identifying Harmful Tax Practices

OECD Report	EU Code of Conduct
Key factors for harmful preferential tax regimes: • No or low effective tax rates • "Ring-Fencing" of Regimes • Lack of transparency • Lack of effective exchange of information Other factors: • An artificial definition of the tax base • Failure to adhere to international transfer pricing principles • Foreign source income exempt from residence country tax • Negotiable tax rate or tax base • Existence of secrecy provisions • Access to a wide network of treaties • Regimes which are prompted as tax minimization vehicles • The regime encourages purely tax-driven operations or arrangements Key factors in identifying tax havens: • No or only nominal taxes • Lack of effective exchange of information • Lack of transparency • No substantial activities	Within the scope specified in paragraph A, tax measures which provide for a **significantly lower effective level of taxation**, including zero taxation, than those levels which generally apply in the Member State in question are to be regarded as potentially harmful and therefore covered by this code. Such a level of taxation may operate by virtue of the nominal tax rate, the tax base or any other relevant factor. When assessing whether such measures are harmful, account should be taken of, inter alia: • Whether advantages are accorded only to non-residents or in respect of transactions carried out with non-residents • Whether advantages are ring-fenced from the domestic market, so they do not affect the national tax base • Whether advantages are granted even without any real economic activity and substantial economic presence within the Member State offering such tax advantages • Whether the rules for profit determination in respect of activities within a multinational group of companies departs from internationally accepted principles, notably the rules agreed upon within the OECD • Whether the tax measures lack transparency, including where legal provisions are relaxed at administrative level in a non-transparent way

Source: OECD (1998), ECOFIN (1998)

This overview shows that there are only slight differences between the definitions of harmful tax practices.[73] The main difference is that in the OECD Report, a lack of effective exchange of information is mentioned which is not included in the Code of Conduct. The OECD Report argues that the efficiency of information exchange is especially limited in case of banking secrecy legislation which the OECD considers as *"facilitating tax evasion and money laundering"* (OECD (1998), p. 24). This dif-

[73] For a detailed analysis and comparison of the factors determining harmful tax practices see Pinto (1998), Osterweil (1999).

ference may be the reason why Luxembourg and Switzerland abstained from the OECD Report while approving the EU Code of Conduct.[74]

Regarding the implementation of the findings, both projects established groups of representatives that accompanied the process. In both cases, a list of existing preferential tax regimes was published. The Code of Conduct Group identified 66 harmful tax practices while the OECD found 47 measures. A comparison of the regimes located in the European Union shows that the difference results from the wider conceptual scope, i.e. measures on non-mobile factors (Easson (2004), p. 1047). Both reports promoted the "rollback" of such measures within a certain timeframe. In the Code of Conduct, the timeframe originally expired by the end of 2000 with the possibility of an extension until the end of 2003 – which was later extended to the end of 2005, and in the OECD Report, it ended by mid-2003 with an extension until the end of 2005. With only very few exceptions, the deadlines were met in both cases.

In addition, the OECD Report includes a list of recommendations for the member countries which comprises the introduction of certain unilateral anti-avoidance measures, the adjusted design of bilateral treaties, or increased international cooperation. The Code of Conduct, in turn, only highlights the importance of anti-abuse provisions and cooperation without formulating distinct recommendations.

Probably the most important difference between the two projects is, however, the availability of legal remedies in the European Union. Harmful tax measures may be tackled under state aid provisions (Articles 107-109 TFEU) which may force a legally binding decision on the abolishment of the respective regulations (see above). The OECD, on the other hand, has no such instrument to legally enforce their guidelines.

3.3.1.2 Common Consolidated Corporate Tax Base (CCCTB)

In the 2001 report "Company Taxation in the Internal Market" (European Commission (2001)), approaches to overcome tax obstacles within the European Union are presented, including different concepts for a common consolidated tax base in Europe. All concepts have in common that the tax base is determined uniformly within the European Union and is subsequently consolidated over all Member States. The allocation of taxable profits to the Member States is then done by a formula ap-

[74] In 1998, when the OECD Report on harmful tax competition was published, the OECD comprised 29 member countries including all EU Member States. See Easson (1999), p. 386.

portionment using input factors such as payroll, assets or sales. Tax rates are, according to the subsidiarity principle, still provided for by national tax law.

From the perspective of the internal market, such an approach has several advantages. Not only would compliance costs decrease significantly, but also double taxation could be eliminated, cross-border loss compensation could be granted, cross-border reorganizations could be facilitated, and transfer pricing between European affiliates would be invalid. Therefore, it also functions as an anti-avoidance measure as the incentives for profit shifting activities within Europe would be eliminated.

In 2004, a Common Consolidated Corporate Tax Base Working Group (CCCTB WG) was established which has set up a comprehensive work programme in order to be able to formulate a Community legislative measure. After several years of discussion, a proposal for a Council Directive was published on 16 March 2011 (European Commission (2011c)). It includes detailed regulations for the determination of the tax base, but also for the consolidation mechanism and the design of the formula apportionment. To this day, the chances of the Proposal being adopted are rather low since many Member States hesitate to give up sovereignty. However, in February 2012, Germany and France have agreed on a Green Paper which deals with the convergence of company taxation in these countries. This was perceived as an important step towards the harmonization of company taxation in Europe (Aymé/Ehlermann (2012), Dorenkamp (2012)).

3.3.1.3 Evaluation of International Cooperation Efforts

The projects to multilaterally tackle harmful tax competition have been widely discussed and have been both criticized and supported. As outlined in Chapter 2.2.1, the increasing mobility of capital leads to increasing tax competition between jurisdictions which implicates advantages as well as disadvantages. In this context, the projects on harmful tax competition can be seen as an approach that retains the positive effects, but limits the negative effects by introducing a framework for international cooperation that guarantees fairness and transparency (Francke (1998), Hendricks (2000)). Avi-Yonah (2000) supports this view and argues that by countering harmful tax competition, on the one hand, the problems of inefficiency, inequity, and tax-base erosion are dealt with, but, on the other hand, it is left enough leeway to the jurisdictions to decide on their size of the public sector. Nevertheless, the impact of both projects is geographically limited and, for those supporting the projects, exactly that is seen as a major restriction because as long as jurisdictions still offer preferential tax regimes, harmful tax competition will never be fully curbed (Avi-Yonah (2000), p. 1656).

Both projects, but particularly the OECD project, focus, in a first step, on the coordination of tax systems in the respective member countries, but aim at extending their efforts to other, non-member countries, especially tax havens. In this context, studies that have examined the impact of tax competition on small and large countries should be mentioned. It was found that, unless tax policies are fully harmonized, smaller countries will always prefer to undercut the tax rate on foreign income of the large country as the small country perceives higher capital elasticity (Razin/Sadka (1991), Kanbur/Keen (1993)). For this reason, it was argued that the abolishment of harmful tax regimes may deteriorate the relative position of small countries compared to large countries which already have a natural advantage due to their size (Ellis (2000), Klaver/Timmermans (1999), p. 187). Reality shows, however, that many tax havens have committed to abolishing harmful tax practices, i.e. out of an original OECD list of 35 tax havens, there are now none left. Critics have, however, argued that this development is purely based on the pressure that large OECD countries imposed on tax havens (Gaffney (1999)). In the European Union, it can be observed that smaller countries have agreed to the Code of Conduct, too. But also in this context, commentators stated that the Code of Conduct serves primarily as a means to protect the tax bases of the large, high-tax countries (Troup/Hale (1998)).

Wright (1998) has also taken a rather critical perspective in his review of the OECD Report and questions the orientation of the approach. He argues that *"tax havens and other international tax preferences are but a symptom of national tax policies that themselves cause global economic efficiency".* He, therefore, promotes a redesign of national tax systems, precisely a change from income taxes to consumption taxes. Yet, a general change from income taxes to consumption taxes has to be considered carefully, as it may be in conflict with the equity principle. Since rich individuals generally save more than poor individuals and the income from saved capital is only taxed under income taxes, they provide a greater progressivity than consumption taxes (Avi-Yonah (2000), p. 1576). Poorer individuals are, thus, relatively advantaged under income taxes.

Regarding the regulations addressed by the projects, the missing or imprecise definition of harmful tax competition has been repeatedly criticized (Wright (1998), Pinto (1999)). Although it has also been defended as being too much to ask (Osterweil (1998)), there remains critique about a certain degree of inaccuracy in the reports (Easson (1999), p. 383, Avi-Yonah (2000), p. 1662). Nevertheless, the factors for identifying harmful tax practices were widely accepted. Surprise was expressed, though, that the OECD claimed the access to a great number of tax treaties as a factor as they have been, very successfully, promoting such treaties over the past decades (Easson (1999)). In addition, the restriction to mobile activities in the OECD Report has been criticized since important aspects of tax competition are, thus, not covered (Avi-Yonah (2000), p. 1663).

The introduction of an OECD Forum on Harmful Tax Practices was perceived ambiguously. Wright (1998) considered it an *"international tax crimes tribunal"*. Weiner/Ault (1998), on the other hand, called it *"the first broadly mandated international institutional structure directly responsible for the evaluation and coordination of existing and proposed tax measures"*. Certainly, it serves as an environment to discuss and develop tax principles. Francke (1998) argues that this kind of cooperation is a lot more successful than imposing strict rules, which has been proven by prior experience of the OECD or the EU. Without doubt, the work it has done over the past decade has justified its existence.[75]

In the European Union, however, a step further towards the coordination of tax systems, i.e. a harmonization of the tax base, is currently discussed. The CCCTB project as outlined in Chapter 3.3.1.2 proposes to introduce a common consolidated tax base, but to leave the decision on corporate income tax rates to the national governments. On the one hand, this approach would abolish many aspects of harmful tax competition as the tax base would be consolidated and a shifting of book profits would not be favorable within the EU (Klaver/Timmermans (1999)), but on the other hand, other aspects would gain in importance. Firstly, tax competition would still prevail regarding third countries outside the EU. Secondly, as reallocating business structures and thereby changing the factors of the formula apportionment within the EU can reduce the tax burden, the downward pressure on corporate income tax rates may even increase since it is the only decisive measure. It is, therefore, argued that a minimum tax rate should be introduced in addition, so that the "race to the bottom" of tax rates

[75] See also Chapter 3.4.1.

can be prevented (Spengel/Zöllkau (2012), p. 14). Additionally, the factors used under formula apportionment – assets, labor, and sales – serve as a proxy for real economic activity. Therefore, such factors might be influenced by tax planning strategies which, in turn, increases distortions of real economic activity (Fuest (2008)).

Concluding, in my judgment, the projects against harmful tax competition are a very reasonable approach against the undermining of tax systems and the erosion of tax revenues. They may not be broad enough, conceptually, but especially geographically, to fully limit the obstacles of tax competition, but they constitute a common denominator of different jurisdictional interests. Furthermore, they still guarantee a certain degree of tax competition which is important for the effectiveness of fiscal policy. Considering the discussions that especially the OECD project initiated, it cannot be assumed that its scope will be extended in the near future.

The CCCTB, as discussed in the EU, would reduce many tax obstacles relevant for cross-border business activities. Therefore, it constitutes an important step towards the internal market pursued by the EU. But the impact of a common tax base on tax competition within the EU would be considerable and jurisdictions fear to give up national sovereignty.[76] In line with that, the reactions of the Member States are very hesitant and let assume that the introduction of a CCCTB is out of reach in the near future, especially considering the unanimity rule for direct tax matters (Art. 115 TFEU).[77]

3.3.2 Transfer Pricing Measures

3.3.2.1 The OECD Transfer Pricing Guidelines

As an extension to Article 9 OECD Model, which comprises the arm's length principle[78], a first report purely on transfer pricing matters was published in 1979 (OECD (1979)). The main focus of the report was the determination of acceptable transfer prices which also comprised the introduction of several relevant methods. It did, however, neither include a definition of multinational companies or control nor did it address burden of proof issues (Verlage (1982)).

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[76] See Gnaedinger (2008). Most countries are concerned about the consequences of the CCCTB on national tax revenues. Studies conducted by Fuest/Hemmelgarn/Ramb (2007), Devereux/Loretz (2008) or Oestreicher/Koch (2011) have shown that in most constellations, the introduction of a CCCTB is connected with a reduction of tax revenues, especially in small countries.
[77] Several jurisdictions have even opposed the proposal, see Röder (2012), p. 126.
[78] See Chapter 3.2.1.1.1.

The OECD decided to revise the 1979 report in the early 1990s for several reasons. On the one hand, further work that was conducted on transfer pricing should be taken into account[79] and on the other hand, the report should be updated regarding technological developments as well as changing legislation in the member countries. The new report was divided into two parts and discussion drafts of either one were published for public comment (OECD (1994), OECD (1995a)). After vital discussions, which lead to amendments regarding the applicability of transactional profit methods and the imposition of penalties, the 1995 Transfer Pricing Guidelines were published (OECD (1995b)). Compared to the 1979 report, they offer a more detailed guidance for both, multinational companies and tax administrations, on the application of the arm's length principle, including several methods for the determination of arm's length prices and their appropriateness with regard to the comparability of transactions. In addition, they provide assistance on administrative issues as well as recommendations on the documentation of transfer pricing.[80] In 1996, two chapters dealing with special problems regarding intangibles and intra-group services were added. A chapter on cost contribution arrangements was included in 1997. In 2003, two new projects were launched by a Working Party of the OECD Committee on Fiscal Affairs which covered comparability problems and the applicability of transactional profit methods. After public comments were invited from businesses and non-governmental organizations, discussion drafts were published which were again amended and finally resulted in a revision of Chapters I-III in 2010. Also in 2010, the last chapter so far was added which comprises aspects of business restructuring.

New projects for the adjustment of the Transfer Pricing Guidelines were launched in 2011 which deal with intangibles[81] and administrative issues. Just recently, on 6 June 2012, a discussion draft on a revised Chapter VI regarding intangibles was, in this context, released for public comment (OECD (2012c)).

3.3.2.2 The United Nations Transfer Pricing Manual

During an Ad Hoc Expert Group Meeting on transfer pricing organized by the UN in 2008, the project to develop a Transfer Pricing Manual especially for developing countries was initiated. Transfer pricing issues constitute a particular challenge for

[79] See e.g. OECD (1984).
[80] The content of the OECD Transfer Pricing Guidelines is further discussed in Chapter 4 when the different aspects of transfer pricing regulations are examined.
[81] For a discussion of the valuation issues regarding intangibles, see Oestreicher (2011).

developing countries as such countries do not have effective domestic rules or skilled personnel available. A Manual could, therefore, provide guidance to tax administrations and policymakers in developing countries and could contribute to the understanding of such issues.

In the fifth session of the Committee of Experts on International Cooperation in Tax Matters in 2009, a first draft outline of the Manual was discussed (UN (2009)) and a Subcommittee on Transfer Pricing was constituted. The Committee stated that it followed some guiding principles when drafting the Manual. It should address issues relevant for developing countries in a very simple and practical way considering the deficits in knowledge and personnel that prevails in such countries. It should also include some practical examples and incorporate the input from developing countries. The Manual is based on the widely accepted arm's length principle and does not question its appropriateness. In fact, it *"focus[es] on the most effective, efficient and transparent ways of applying internationally accepted transfer pricing concepts and rules"* (UN (2009), p. 11).

The 2009 draft only includes the outline of the Manual comprising keywords under the respective headlines which will be briefly outlined in the following. After providing general information on transfer pricing, its relation to model tax conventions or domestic tax law, and the arm's length principle, the Manual discusses how to implement transfer pricing capability in tax administrations. As a first step, it suggests an assessment of existing administrative capacity, especially the legal environment, tax treaties or the level of education of the personnel. Subsequently, a transfer pricing unit should be established, the structure and staffing of which will also be discussed in the Manual. Furthermore, it deals with the concepts of transfer pricing such as the functional analysis, the comparability analysis and the different methods. In this regard, the Manual seems to be, to a great extent, in line with the OECD Transfer Pricing Guidelines. Finally, the Manual suggests the implementation of documentation requirements as well as audit and dispute resolution procedures including the possibility for advance pricing agreements.

The Subcommittee continued to work on the Manual and was supposed to present a complete draft at the seventh annual session in 2011. In an intermediate report (UN (2010)), the progress was documented and new drafts of the first five chapters were published for comment. But the report also revealed that it was more difficult to obtain input from developing countries than expected. The Manual is, therefore, to this point missing practical country examples. For those reasons, at the next annual session in October 2011, again only a draft version of the Manual was presented, which incorporated comments received on the first five chapters and results of an informal meeting held in August 2011 (UN (2011b)). The current draft chapters were open for discussion until December 2011 and no further results have been published so far. The finalization of the Practical Manual can be expected in the following years and it remains to be seen how developing countries make use of the suggestions.

3.3.2.3 The European Union Codes of Conduct for Transfer Pricing

In 1976, the Commission proposed a directive which would eliminate double taxation occurring from transfer pricing between associated companies (European Commission (1976)). It was supposed to complement the Mutual Assistance Directive[82] by establishing a mutual agreement and arbitration procedure which would solve cases of double taxation in at most three years. After discussions on the legal basis of this issue, the Netherlands proposed to transform the directive into a convention based on Article 293 EC Treaty[83]. A convention is, in contrast to a directive, not legally binding, i.e. its application and interpretation is not subject to the legal practice of the European Court of Justice. Nevertheless, Member States had difficulties committing to the convention because they were concerned about giving up fiscal sovereignty (Chetcuti (2001), van Herksen (2008)). But finally, in 1990, the Member States of the European Union signed the Arbitration Convention (90/436/EEC), thirteen years after the Mutual Assistance Directive. It came into force after the ratification process was finalized by all Member States, which was on 1 January 1995. The convention has, until now, been amended and renewed several times and now covers all 27 EU Member States.

The Convention addresses transfer pricing cases between two associated enterprises, where enterprises include corporations, partnerships, and individuals, located in two different Member States. It is aimed at eliminating economic as well as juridical double taxation which may result from the lack of double tax conventions or conflicting interpretations of residency or the arm’s length principle (Chetcuti (2001)). If such cases cannot be solved unilaterally, i.e. one Member State does not agree to the

[82] See Chapter 3.3.3.1.
[83] Article 293 EC Treaty was repealed by the Treaty of Lisbon. It proposed that Member States should enter into negotiations with each other in order to abolish double taxation.

adjustment of the other Member State and conducts no corresponding adjustment, the taxpayer may initiate a mutual agreement procedure. In this case, both tax authorities negotiate on an appropriate solution, but are not obliged to reach an agreement. If no agreement can be reached within two years, the respective tax authorities must open an arbitration procedure. An advisory commission, comprising representatives of each tax authority and independent members has then to decide on the respective case and to formulate an opinion within six months. If the tax authorities cannot agree on a solution within the following six months of the opinion, they are obliged to adopt it.[84]

In 2001, the European Commission published a report "Company Taxation in the Single Market" which identified the differences in the effective level of corporate taxation and the main tax provisions hampering cross-border activity in the Single Market. The issue of transfer pricing was recognized as one of the most important concerns of multinational companies (European Commission (2001), p. 11). The establishment of a transfer pricing forum that would bring together tax authorities and business representatives in order to discuss transfer pricing issues was, therefore, proposed. Such a forum, the EU Joint Transfer Pricing Forum (JTPF), was informally set up in early 2002 and consisted of one representative from each Member State and 10 business representatives. The original agenda was to improve the functionality of the Arbitration Convention, to discuss uniform documentation requirements and to consider improved APA procedures (European Commission (2002), Zach (2002)). In an interim report (European Commission (2004)), the JTPF provided information on its work concerning the Arbitration Convention and proposed to the Council to adopt a Code of Conduct that laid out the detailed guidelines that were elaborated. After such a Code of Conduct was adopted in December 2004, the JTPF focused its work on the documentation requirements regarding transfer pricing. Different approaches of standardized documentation were discussed under consideration of the experience of other organizations (e.g. PATA[85] or OECD). Finally, the Forum decided on a combination of existing approaches which includes a "masterfile" of general standardized information, on the one hand, and "country-specific information", on the other hand (European Commission (2005)). This "EU Transfer

[84] It is, however, questionable whether tax authorities can be forced to adopt the opinion of the advising committee (Chetcuti (2001)). Vögele (2011), p. 532 provides arguments for a legally binding character of the opinion.
[85] See Chapter 3.3.2.4.

Pricing Documentation" concept would be beneficial for both tax administrations and taxpayers because it increases transparency and reduces compliance costs. The application of the approach is, however, optional, although if opted for it, it has to be employed for all group members within the EU. Again, the Forum proposed the implementation of a Code of Conduct which led to an adoption by the Council in 2006 (European Council (2006)). Both Codes of Conduct function as a guideline that all Member States accept, but they are not legally binding.

With effect from 1 March 2007, the Forum was also formally set up by a decision of the Commission (European Commission (2007a)), which was going to expire on 31 March 2011. The number of members of the Forum was extended to one representative of each Member State and 15 business representatives. Since then, the JTPF has published Guidelines for Advance Pricing Agreements, which provide guidance on APA procedures (European Commission (2007b)), guidelines on low value adding intra-group services, which deal with the evaluation of such transactions, and has made a proposal on how to treat non-EU triangular cases (European Commission (2011a)). In 2011, the decision on the formal set up of the Forum was renewed and now expires on 31 March 2015 (European Commission (2011b)). The number of business representatives has, in this course, been extended to sixteen. In its work program for the years 2011-2015, the Forum has planned to address the issues of cost contribution arrangements, risk assessment, yearend adjustments, and secondary adjustments as well as monitor the previous achievements (European Commission (2011d)).

3.3.2.4 PATA Guidance on Transfer Pricing

The Pacific Association of Tax Administrators (PATA) is an inter-governmental organization that comprises Australia, Canada, Japan, and the United States. In 2003, it published a documentation package that allows taxpayers to file only one set of documentation which is accepted in all four member countries (Anderson (2003), Markham (2004)). The application of the package is voluntary, but the member countries guarantee that documentation based on the package will satisfy all requirements and will not lead to penalties. The PATA documentation package follows three principles: transfer prices must be established according to the arm's length principle, taxpayers must keep contemporaneous documentation, and they must produce the documentation in a timely manner (Rienstra (2003)).

In 2004, the PATA issued, in addition, guidance on the use of mutual agreement procedures and bilateral advance pricing agreements. Both documents are aimed at facilitating existing procedures and ensuring a consistent and timely treatment of the respective cases (Internal Revenue Service (2004)). The tax administrations also agreed on a two year time frame for the completion of both, APA and mutual agreement procedures (Sawyer (2004)).

3.3.2.5 Evaluation of Multilateral Transfer Pricing Measures

Undoubtedly, the regulation of transfer pricing issues is necessary in order to sustain internation equity and neutrality (Eden (1998), p. 107). In this context, the OECD Transfer Pricing Guidelines have, by now, established themselves as a main guidance for transfer pricing issues in member as well as non-member countries. They also serve as the basis of the other measures outlined above, which supports this finding. In the following, several aspects of the different measures will be briefly analyzed and discussed.

Arm's Length Principle vs. Formula Apportionment

It can be argued whether the main principle of transfer pricing, i.e. the arm's length principle, which is also the basis of the OECD Guidelines, is appropriate. The arm's length principle has been introduced to the first model treaties as early as in the 1930s, but has since then been widely discussed. The alternative concept, a formulary apportionment stands for an allocation of consolidated group income according to a formula rather than a determination of prices for intercompany transactions. The formula may either, at different weights, incorporate macro factors, e.g. GDP or VAT sales on national level, or micro factors such as payroll, assets or sales.[86] It became prominent in the United States in the early 1990s when California was unsuccessfully challenged before the Supreme Court because it used formula apportionment to allocate income of multinationals doing business in the state. The OECD reacted to the debate by introducing two transactional methods (TNMM, profit split) which do not rely on comparable transactions between related and unrelated entities – the core of the arm's length principle. This amendment of the Guidelines was perceived as a step towards accepting formula apportionment (Avi-Yonah (2010)).

[86] For a discussion of the different formula options and their advantages and disadvantages, see Agúndez García (2006).

When drafting the 1995 Transfer Pricing Guidelines, the OECD expressed its opinion on the arm's length principle and its predominance over formula apportionment (OECD (1994), para. 24-31, 179-195).[87] As the arm's length principle promotes the equal treatment of associated and independent enterprises, it was argued that it prevents distortions of the respective relative competitive positions. The determination of the appropriate price is, additionally, based on specific facts and circumstances. Formula apportionment, on the other hand, does not provide an underlying principle as to what allocation is appropriate, i.e. which factors used at which weight lead to a fair apportionment of the tax base. Therefore, different jurisdictions may have different standpoints on this issue which accordingly leads to disagreement.[88] In addition, for the calculation of the formula, information of the entire worldwide business is necessary which may be difficult to assess (see also Wilkins/Gideon (1994)). The formula, moreover, assumes that the rate of return for each factor is identical for each affiliate and in each jurisdiction. This is a very far-reaching assumption which may potentially lead to a misallocation of taxable income (Willson/Coffill (1993), p. 1115).

Nevertheless, the arm's length principle also has its drawbacks. As Avi-Yonah (2010) points out, it treats transactions between associated enterprises equal to those between independent enterprises, which is simply unrealistic (see also Bird (1988)). In fact, multinationals often exist in order to overcome the inefficiencies of independent enterprises. The incentive structure emanating from this principle leads to profits shifted to low-tax jurisdictions which results in a significant amount of foregone tax revenues. In addition, the determination of an arm's length price and its documentation requires considerable efforts and imposes high compliance costs on taxpayers. But, regardless of such efforts, there still remains great uncertainty regarding the determined price as tax authorities may have a different view on the respective transaction. Avi-Yonah (2010) also takes a stand on the disadvantages of formula apportionment and tries to put them into perspective. He argues that even if no international agreement on a formula can be reached, the consequences will be managea-

[87] These explanations are still included in the current 2010 Transfer Pricing Guidelines. The fact that no changes were made under the amendments of Chapters I-III in 2010 was perceived as interesting regarding the effort of the European Union to introduce a common consolidated corporate tax base (CCCTB), see Förster (2009).

[88] Eden (1998), p. 313-319, however, finds that if all countries were to use the same tax base and the same tax rates and the weights used in the formula were to reflect economic activity of the affiliates, formulary apportionment would provide a nondistortionary way of taxation. This is only little surprising as the necessary level of coordination is extremely high and the requirements for the formula are rather challenging.

ble. In his opinion, it is questionable whether the number of double (non-) taxation disputes would even increase as *“a notorious absence of clear standards”* already prevails under the current system. The main advantages and disadvantages of both concepts are outlined in Table 4.

Table 4: Comparison of Arm’s Length Principle and Formula Apportionment

Arm’s Length Principle		**Formula Apportionment**	
Advantages	Disadvantages	Advantages	Disadvantages
• Guiding principle • Observation of facts and specific circumstances • Avoids distortions between associated and independent enterprises	• Treats transactions between independent and associated enterprises equally • Comparables to internal transactions may often not exist • High compliance costs for taxpayers and tax administrations in order to determine the appropriate price • Access to data difficult • Tax planning opportunities • No international uniformity	• Uses objective measures to allocate tax base • Greater certainty for taxpayers • Lower compliance costs • Easy to administer	• No guiding principle • Worldwide agreement on factors improbable → no uniformity • Choice and weight of factors used affects allocation significantly • Rates of return are assumed to be equal for different factors in different jurisdictions • Data of worldwide business structures needed • Definition of taxable group difficult • Manipulation of factors possible • Exchange rate problems

Source: own composition.

Due to the discussed difficulties, especially the need for multilateral agreement on detailed rules, formula apportionment has never been implemented across countries so far. But the application of the arm’s length principle has also proven to be complex and to impose high compliance costs on taxpayers. Therefore, the two concepts are still discussed and advocates of each one promote their benefits and drawbacks. Avi-Yonah/Clausing/Durst (2009) have recently re-proposed the implementation of a formula apportionment in the United States. But reactions were restrained which led Avi-Yonah (2010) to proposing a compromise: the introduction of formula apportionment within the concept of the arm’s length principle. Precisely, he suggests using a formula under the profit split method in order to allocate the residual profit to different jurisdictions. This is only a very modest step which can, in my opinion, hardly be seen as a step towards a change of principles.

However, under the CCCTB project pursued in the European Union[89], formula apportionment based on a uniform determination of the tax base is currently discussed. But also in this context, formula apportionment has been highly criticized (Röder (2012)). As Spengel/Zöllkau (2012) propose, the CCCTB could, therefore, be implemented in two steps.[90] First, national tax accounting rules could be replaced by harmonized rules. Later on, the consolidation and reallocation of the tax base can be introduced. This procedure would allow jurisdictions to become familiar with the concept and experience could be gained which could then influence the design of the consolidation and the formula apportionment.

The OECD Transfer Pricing Guidelines

Since the first version of the OECD Transfer Pricing Guidelines in 1979, they have been amended regularly and the OECD has made an effort to incorporate changes in the business, political, administrative, or technological circumstances into the Guidelines. Usually, this has been done very openly and has involved public discussions among practitioners, academics, and tax authorities. The amendments are, thus, based on a broad consensus and are usually perceived positively (see e.g. Katsushima (1995), ICC (1995), Rasch/Feistle (2009)). But they also reflect compromises made which may lead to a lack of precision in the guidelines (Förster (2009)).

UN Transfer Pricing Manual

As previously mentioned, the UN Transfer Pricing Manual must not be understood as an alternative to the OECD Guidelines. Much rather, it constitutes an add-on which aims at providing practical guidance for the application of the principles, especially in developing countries. As the Manual is not yet finalized, no experiences as to its practicability exist so far. The Indian government, however, has only recently expressed opposition to the Manual and demands an alternative set of transfer pricing guidelines especially for developing countries. It is argued that the OECD Guidelines have been constituted solely by developed countries and, contrary to the statement that the OECD Transfer Pricing Guidelines should be followed under the UN Model (paragraph 3 of the Commentary on Article 9 UN Model), they should not be applicable to non-member countries that are not part of the decision-making process (Ernst & Young (2012)). Since the UN has repeatedly highlighted the importance of

[89] See Chapter 3.3.1.2.
[90] See also Röder (2012).

the OECD Guidelines, it is improbable that this request will be answered – definitely not in the context of the currently discussed Manual.

EU Arbitration Convention and Codes of Conduct

The EU Arbitration Convention came into force almost at the same time as the OECD Guidelines. While the 1995 OECD Guidelines only included a section on mutual agreement procedures which referred to the relevant Article of the OECD Model[91], the scope of the Arbitration Convention has been wider and also included a mandatory arbitration procedure which was not introduced by the OECD until 2008. It has, therefore, at this time been an important step towards greater fairness and certainty for taxpayers (Schelpe (1995)). Nevertheless, when the Arbitration Convention came into effect, there were several open questions regarding its application. Practical issues were addressed in the Code of Conduct issued in 2004, but others remained unsolved. Especially the non-existence of definitions, e.g. of "enterprise", "permanent establishment" or the location of an entity, is a major weakness of the Convention as it may cause Member States to refuse its application (Farmer/Lyal (1994), p. 307).

The EU Code of Conduct on documentation requirements is also not in conflict with the OECD Guidelines, much rather it substantiates them. While the OECD Guidelines only provide general recommendations on documentation, such as helpful documents, it remains to the member countries to design precise requirements. The EU Code of Conduct, in contrast, functions as a common set of rules for all EU Member States. Since a Code of Conduct is not legally binding, the Member States are not obliged to adopt it. However, a study conducted by CFE shows that so far about 44% of the surveyed EU Member States have implemented the Code of Conduct in their tax legislation (Valente/Raventos-Calvo (2010)).[92] The survey also shows that those EU countries that did not introduce the Code of Conduct, apply stricter rules in all cases. Overall, the Code of Conduct on documentation requirements contributes to the simplification and transparency of transfer pricing regulations. If the Member States support the Code, taxpayers may only prepare one set of documentation for affiliates in several countries, which reduces compliance costs significantly (Hummer (2009)).

[91] See Chapter 3.2.1.1.3.

[92] For a comparison of the Code of Conduct and national documentation requirements in the Member States, see Schnorberger et al. (2006a), Schnorberger et al. (2006b), and Schnorberger et al. (2006c).

PATA Guidelines

A similar approach is chosen by the member countries of the PATA. They have also elaborated a common set of documentation requirements as well as advance pricing agreement procedures. However, the respective countries have not adjusted national tax legislation in order to meet the rules they agreed on. Much rather, the PATA documentation package is very extensive and in most cases goes beyond the scope of national requirements. But, on the other hand, it also guarantees certainty regarding the documentation requirements of all member countries which may ultimately reduce compliance costs (Lebovitz et al. (2003)). In a survey conducted by Ernst & Young shortly after the introduction of the package, a significant number of companies was unaware of its existence (50% of parent companies, 66% of subsidiaries). Out of the companies knowing the package, the great majority did not plan to use it (66% of parent companies, 75% of subsidiaries) (Ernst & Young (2003), p. 21).

3.3.3 Mutual Assistance Measures

3.3.3.1 Mutual Assistance Directives

On 15 March 1976 a Council Directive on the mutual assistance for the recovery of claims (76/308/EEC) was published which had to be implemented into the national tax law of the Member States until 1978. Originally, the Directive only applied to the enforcement of agricultural levies, customs duties, and value-added-tax, but in 2001 (Directive 2001/44/EC of 15 June 2001), the Directive's scope was extended to income taxes, capital taxes and insurance premiums. It was designed to protect the financial interests and competitiveness of the Member States by supplying required information to other Member States and by recovering claims against taxpayers. However, the Directive was also criticized by the Member States for being too slow, disparate, nontransparent, and poorly coordinated (European Commission (2009a)). For such reasons, after consultation of the Member States, the mutual assistance for the recovery of claims was reorganized in 2010. A Council Directive of 16 March 2010 (2010/24/EU) replaced the existing Directive and introduced a simplified process for the recovery of tax claims between the Member States. The main changes included a broadening of the scope, i.e. it now covers all taxes and a wider definition of persons, and an improvement of the efficiency of the recovery assistance by introducing uniform instruments for the enforcement of claims. This also comprised the implementation of the OECD standard for the exchange of information[93] (Vascega/van Thiel (2010)).

On 19 December 1977 the Directive on mutual assistance in tax matters (77/799/EEC) was released. It ensures that all information necessary for the correct assessment of direct taxes is exchanged between the Member States. The Directive distinguishes between an exchange of information on request, an automatic or a spontaneous exchange of information. In 2004 (2004/56/EC), the Directive was updated and the flow of information was improved. It then also permitted that Member States cooperate in acting against tax fraud. Similarly to the Directive on tax recovery, increased taxpayer mobility and cross-border transactions necessitated a revision of the Directive. Therefore, in 2011, a new Directive (2011/16/EU of 15 February 2011) was published and replaced the existing Directive. It modernized the processes by introducing standard forms, a central office, and binding time limits and also implemented the OECD standard. The proposed changes to the automatic exchange of information have, however, been replaced by a step-by-step approach after several Member States opposed the proposal of the Directive (Gabert (2011)).

The Savings Tax Directive (2003/48/EC of 3 June 2003)[94] introduced an automatic information exchange in the case of cross-border interest payments. The Directive was the result of long discussions among the Member States which finally resulted in adopting a compromise. In a first proposal, the Member States were given the choice between the exchange of information and the levy of a uniform withholding tax, the majority of the revenue of which (75%) was to be transferred to the residence country (Vascega/van Thiel (2010)). Finally, this option was only sustained for Austria, Belgium, Luxembourg, and several associated territories.[95] The withholding tax rate, however, was increased from 15% to 35% in 2011. Furthermore, the Member States only agreed on the Directive under the condition that the United States, Switzerland, Liechtenstein, San Marino, Monaco, Andorra and all associated territories of the United Kingdom and the Netherlands apply the same regulations on the exchange of information. The Directive came into force after the corresponding agreements were

[93] When the term “OECD standard” is used, it refers to Article 26 of the OECD Model Tax Convention in its 2005 version. See also Chapter 3.2.1.1.4.

[94] The Savings Tax Directive is one part of the “package to tackle harmful tax competition” of 5 November 1997 which also included a Code of Conduct on business taxation and the interest and royalties Directive. See also Chapter 3.3.1.1.2.

[95] The Directive states that this exception is due to structural differences in such countries (Art. 10). Those differences are mainly based on strong bank secrecy provisions. Effective 1 January 2010 Belgium switched voluntarily to an automatic information exchange.

signed which was on 1 July 2005. After the first years of its application were over, a report was published which revealed certain weaknesses, especially that not all relevant financial instruments were covered by the Directive and that it could, thus, be easily circumvented (Czakert (2009)). An amending proposal was adopted by the European Commission on 13 November 2008 (European Commission (2008)), but discussions are still ongoing.

On 26 October 2004, an anti-fraud agreement was signed between the European Union and Switzerland (European Council (2004)) which came into force on 8 April 2009. It includes provisions on administrative assistance on indirect taxes in order to protect the financial interests of both parties.

3.3.3.2 Convention on Mutual Assistance in Tax Matters

In 1978, the Council of Europe[96] published a recommendation for a convention on mutual assistance (Council of Europe (1978)) which was thereupon elaborated by the OECD. In 1987, the Convention, which contains rules on the exchange of information, tax examinations, and the recovery of taxes, was issued. Specifically, it allowed an exchange of information upon request, an automatic, and a spontaneous exchange of information as well as tax examinations abroad and simultaneous tax examinations. Furthermore, it covered all taxes levied by the signing countries, i.e. direct taxes as well as indirect taxes. The scope of the Convention was, therefore, at that time, beyond the scope of the EU Directive on mutual assistance. As a result, in Article 27, the Convention regulated that, where applicable, the EU Directive has first priority and recourse on the Convention is not feasible (Eilers (1988)).[97]

The Convention was opened for signature in 1988 and came into force after a minimum of 5 ratifications[98] on 1 April 1995. Upon the joining of the Convention, it serves as a basis for the exchange of information between all signing countries. The countries can, however, apply changes to their obligations in the Convention.

In 2009, the G20[99] called for a multilateral measure which was also open to developing countries. Therefore, the Convention was opened to all jurisdictions and the OECD standard for the exchange of information was introduced. Until 2012, 19

[96] The Council of Europe is an international organization supporting cooperation within Europe. In 2012, members comprise 47 European countries.
[97] See also Chapter 3.4.1.
[98] Denmark, Finland, Norway, Sweden, and the United States.
[99] The G20 is a group of finance ministers from 19 major economies and the European Union.

countries[100] have ratified the Convention and 15 countries[101] have signed it, but not yet ratified.

3.3.3.3 Evaluation of Multilateral Mutual Assistance Measures

Several measures for the mutual assistance in the exchange of information or the recovery of claims were presented in the previous sections. Generally, their scope and efficiency has increased over time and they now constitute an important vehicle in preventing tax evasion and avoidance. However, the following section will outline some strengths and weaknesses of these measures.

EU Directive on the Recovery of Tax Claims

The European Commission has published two reports which provide information on the use of mutual assistance for the recovery of claims (European Commission (2006), European Commission (2009b)). The 2006 report shows that the number of requests has increased between 2003 and 2004. But the main focus of the report was on the changes due to the accession of ten new Member Countries in 2004. Interestingly, among the old and new Member States, there are certain countries which pose considerably more requests than other countries. According to the report, this is the case for two reasons. First, the mobility of persons is higher between certain countries (e.g. UK and Ireland) and therefore more mutual assistance requests exist. Second, the numbers only represent mutual assistance requests based on the Directive, but there may be other channels for requests, e.g. the Nordic Convention or the Convention on Mutual Assistance in Tax Matters by the OECD and the Council of Europe. Concerning the recovered amounts through mutual assistance, a large gap exists between the amounts requested and those recovered, i.e. in 2004, only 1.82% of requested amounts could be recovered.[102] The report lays out several explanations for this small number. On the one hand, it is a well known fact that the chances for recovery decrease over time and since mutual assistance requests only play subordinated roles in the Member States, it is not surprising that recovery rates are rather low. Additionally, the cases where cross-border requests are used are by nature the more difficult ones. On the other hand, the Member States reported difficulties with

[100] Azerbaijan, Belgium, Denmark, Finland, France, Georgia, Iceland, India, Italy, Moldova, Netherlands, Norway, Poland, Slovenia, Spain, Sweden, Ukraine, the United Kingdom, and the United States.
[101] Argentina, Australia, Brazil, Canada, Germany, Greece, Indonesia, Ireland, Japan, Korea, Mexico, New Zealand, Portugal, Russia, South Africa, and Turkey.

the resources available or the communication between Member States. Finally, several cases exist where a recovery is not captured by the numbers, namely if outstanding tax payments are paid directly to the requesting authorities or if any kind of consensus regarding the payment has been reached.

The second report confirms the trend of rising mutual assistance requests for the years 2005 to 2008 while the use of other mutual assistance measures decreases. In addition, it provides information on the type of tax concerned by these requests. The two major areas are VAT claims and taxes on income and capital, together accounting for approximately 80% of all recovery requests. Regarding the amounts recovered, the report, unfortunately, only shows rising absolute numbers, but a percentage of all amounts requested is not available. As the report only states that a large gap still exists, it can be assumed that the numbers have not improved significantly compared to the first report.

The new Directive adopted in 2010 was perceived as an important step towards a more efficient and proper assessment of taxes. Especially as cross-border cases constantly increase within the European Union, an improvement of the cooperation of tax authorities is a central issue (Vascega/van Thiel (2010)).

EU Directive on the Exchange of Information

Since the adoption of the Directive on mutual assistance in the exchange of information its impact has been widely discussed. In a report presented by a EU Working Party on Tax Fraud established in 1999, the main weaknesses regarding the fight against tax fraud and tax evasion were identified (European Council (2000)). Besides the fact that Member States could refuse the exchange of information based on secrecy provisions, no time limits existed and received information could only be used for tax purposes. In addition, the provisions on the automatic exchange of information were not sufficient and required an additional agreement of the respective parties (Vascega/van Thiel (2011)). In 2004, the Directive was slightly amended and some weak points were improved, especially the use of information for other purposes. Finally, the amendment of the Directive in 2011 took account of the changing needs of the exchange of information and increased its efficiency and transparency. How-

[102] As a comparison: an OECD study reveals that in 2005, the recovery rate, i.e. the rate of collected tax payments over all outstanding tax debt, for countries available within the European Union is on average 23.2% (see OECD (2009), p. 118).

ever, in order to ensure the satisfactory functioning of the exchange of information, it is important to promote awareness of this issue in national tax authorities (Gabert (2011)).

EU Savings Tax Directive

As already mentioned, the EU Savings Tax Directive as adopted in 2005 showed some weaknesses. Firstly, the definition of interest is rather narrow so that several financial instruments are not covered. This leaves taxpayers the possibility to avoid the application of the Directive (Martín Jiménez (2006)). Secondly, the Directive did not install any control mechanisms. As tax authorities may, thus, not verify whether other jurisdictions exchange all accessible information or not, they will have an incentive to also exchange less information than possible (Schwarz (2006)). Lastly, associated territories and third countries were given the possibility to choose between an exchange of information and a final withholding tax. It can be assumed that otherwise, they would have not agreed on committing to the Directive. Although the withholding tax rate was increased from 25% to 35% in 2011, this system may still be favorable for taxpayers compared to an exchange of information. It is, therefore, questionable whether a comprehensive exchange of information system will ever be established (Schwarz (2006)).

Council of Europe/OECD Convention

After the proposal was first published, the Convention on Mutual Assistance in Tax Matters was heavily criticized, mainly because it was elaborated without the consultation of taxpayers. It was, therefore, argued that the Convention was only aligned with the interests of the tax authorities. Furthermore, it did not provide sufficient legal protection (ICC (1987)). On the other hand, advocates of the Convention stated that it offered an efficient means for the exchange of information as upon signing, it applies to all other signing countries. In contrast, negotiations on bilateral agreements are far more time-consuming and costly (Czakert (2010)). It also offers a wide scope of cooperation while respecting taxpayers' rights and is flexible enough to allow for adjustments based on reservations expressed by signing countries. Especially after the recent opening to all countries and the introduction of the OECD standard, it is perceived as a powerful tool for the exchange of information (Pross/Russo (2012)).

3.4 Interaction of Anti-Avoidance Measures

The previous sections presented and analyzed different anti-avoidance measures employed to combat profit shifting behavior of multinational enterprises. They also showed that some measures are implemented on different levels, i.e. unilaterally, bilaterally or multilaterally. This section will, therefore, discuss the interaction of such measures. Precisely, it will provide guidance on the applicability and priority of certain measures over others.

3.4.1 Mutual Assistance Measures

Two aspects of mutual assistance have been examined in this chapter: the exchange of information and the assistance in the collection of taxes. As the unilateral measures are in most cases only a residual element if bi- or multilateral measures do not exist and are rather inefficient[103], the scope and the interaction of both aspects will only be examined regarding the different bilateral and multilateral measures.

Table 5 provides an overview of the scope of the different instruments for the exchange of information. After recent amendments of the EU Directive, the Convention and Article 26 OECD Model, they are now all very similar. They have in common that no restrictions apply regarding the personal scope, i.e. neither the nationality nor the residence of a person is decisive. In addition, they now all include the OECD standard which allows for an exchange of information held by banks or other financial institutions.

Table 5: Scope of Different Measures for the Exchange of Information

	EU Directive 2011/16/EU	Council of Europe/ OECD Convention	OECD Model Agreement	Article 26 OECD Model
geographical scope	all EU Member States	all signing countries	two Contracting States	two Contracting States
personal scope	no restrictions	no restrictions	no restrictions	no restrictions
taxes covered				
direct taxes	✓	✓	✓	✓
indirect taxes	✗	✓	✗[a]	✓
form of information exchange				
EOI upon request	✓	✓	✓	✓
spontaneous EOI	✓	✓	✗[a]	✓
automatic EOI	✓	✓	✗[a]	✓
tax examinations abroad	✓	✓	✓	✗
simultaneous tax examinations	✓	✓	✗	✗

[103] See Chapter 3.1.4.

information held by banks	✓	✓	✓	✓

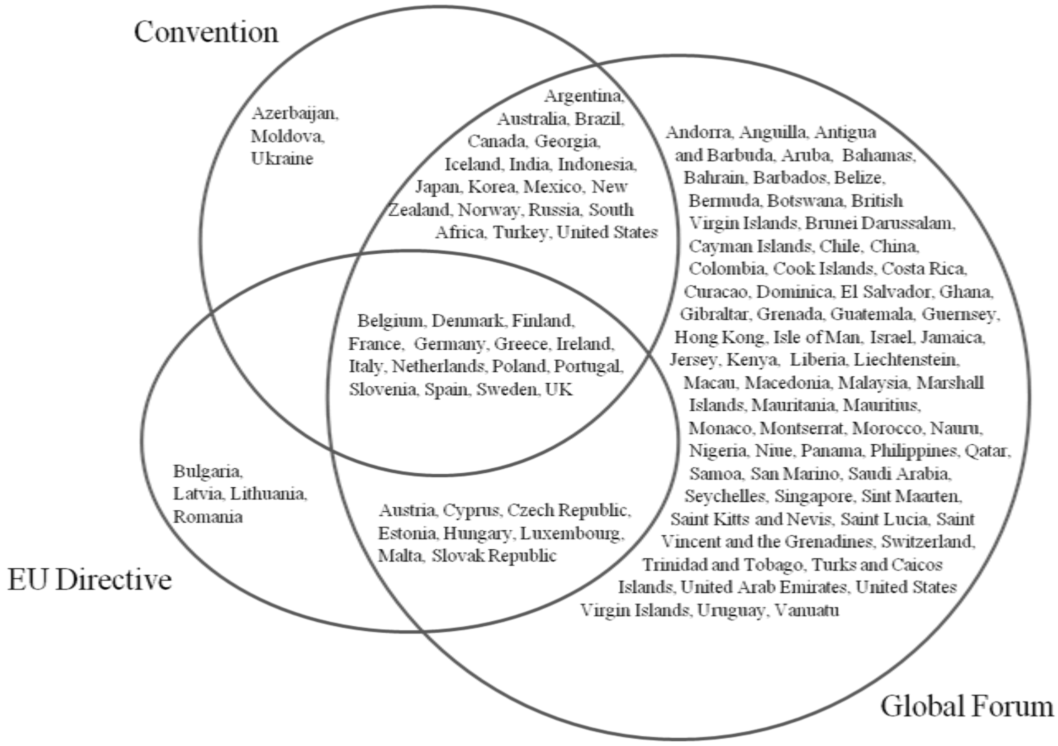
EOI: exchange of information; [a] the Contracting States may agree to include such provisions; source: own composition.

The Council of Europe/OECD Convention is the widest instrument and not only includes all taxes, i.e. direct and indirect taxes, but also all forms of information exchange. The EU Directive is comparable, but only includes direct taxes.[104] Regarding the bilateral instruments, both, the OECD Model Agreement and Article 26 OECD Model, do not allow for simultaneous tax examinations. Article 26 OECD Model also does not provide for tax examinations abroad. But besides that, Article 26 OECD Model is wider than the Model Agreement which does not contain indirect taxes or a provision on the spontaneous or automatic exchange of information. The contracting states may, however, include such aspects in the respective agreement.

Figure 2 displays the countries that are EU Member States, have signed the Council of Europe/OECD Convention and/or are members of the Global Forum which promotes the conclusion of the OECD Model Agreement for the exchange of information. In addition, the countries may also have included Article 26 OECD Model in their double tax treaties. As the intersections of the Figure show, the applicability of more than one instrument is rather likely.

[104] However, an EU Regulation for the exchange of information for VAT purposes exists since 2003 (No 1798/2003).

Figure 2: Implementation of Different Instruments for the Exchange of Information



Source: own illustration.

As Directives are legally binding for EU Member States, the EU Directive is generally prior to all other instruments, i.e. for all EU Member States the EU Directive guarantees a certain standard for the exchange of information. Therefore, only in case the Convention or a bilateral agreement is wider than the EU Directive, the applicability of the different instruments has to be analyzed. Regarding the interaction of the Convention and the EU Directive, it was stated in Article 27 of the first version of the Convention that *"notwithstanding the rules of the present Convention, those Parties which are members of the European Economic Community shall apply in their mutual relations the common rules in force in that Community."* This provision was requested by the EU Member States because the scope of the EU Directive was originally not as wide as the Convention. It was, thus, ensured that EU Member States could sign the Convention in order to apply its provisions to third countries, but could still rely on the EU Directive for intra-community cases. However, the provision was changed when the Convention was amended in 2010 and now permits the application of the Convention where it allows for a wider cooperation. Thus, the Convention is used subsidiarily to the EU Directive (Pross/Russo (2012)). The interaction of the EU Directive and a bilateral double tax treaty or a bilateral agreement on the exchange of information is treated similarly: the EU Directive is generally applied, only where the bilateral agreement is wider, it is used (Art. 1 para. 3 EU Directive 2011/16/EU, Seer/Gabert (2010)). In the case that a bilateral agreement and the Convention apply, there is no priority of either instrument.

For the assistance in the collection of taxes, three instruments exist which are displayed in Table 6. The Table gives an overview of the scope of the measures as well as the main differences. In contrast to the EU Directive on the exchange of information, the EU Directive for the recovery of claims also applies to indirect taxes. Furthermore, it limits the assistance to cases that are not older than five years, are higher than EUR 1,500 and which are not contested in the requesting state. Regarding the measures taken in the requesting state, the EU Directive is, however, wider than the other instruments and does not require to exhaust all possible unilateral measures. The Convention allows for a longer statute of limitations of 15 years and does not state a minimum amount of the claim. Furthermore, it does not take reference to the measures taken in the requesting state. Finally, Article 27 OECD Model is the only instrument that allows for assistance even in the case the claim is contested. On the other hand, it is stricter regarding the requirement to exhaust all possible measures in the requesting state before providing assistance.

Table 6: Scope of Different Measures for the Recovery of Taxes

	EU Directive 2010/24/EU	Council of Europe/ OECD Convention	Article 27 OECD Model
geographical scope	all EU Member States	all signing countries	two Contracting States
personal scope	no restrictions	no restrictions	no restrictions
<u>taxes covered</u>			
direct taxes	✓	✓	✓
indirect taxes	✓	✓	✓
<u>main differences</u>			
statute of limitations for the recovery of claims	5 years	15 years	n/a
requirement for measures taken in requesting state	possible domestic measures	n/a	all possible domestic measures
minimum amount of claim	EUR 1,500	n/a	n/a
request possible if claim is contested in requesting state	×	×	✓

Source: own composition.

The interaction of the different measures is generally treated equally to that of the provisions for the exchange of information. In this context, Art. 24 para. 1 of the EU

Directive 2010/24/EU states that *"this Directive shall be without prejudice to the fulfillment of any obligation to provide wider assistance ensuing from bilateral or multilateral agreements or arrangements, including for the notification of legal or extra-legal acts"*. Therefore, the Convention and tax treaties are applied subsidiarily to the EU Directive, while between the Convention and the tax treaties no priority exists.

Both aspects of mutual assistance are very important in sustaining international tax cooperation in order to combat tax avoidance and evasion. They allow closing the gap between the internationalization of the taxpayer's activities and the territoriality of the tax authorities' enforcement powers (Vascega/van Thiel (2011)). But while the exchange of information is currently on the way to be based on the OECD standard almost worldwide, the recovery of taxes is still at the beginning. Since Article 27 OECD Model is rather new, it is not included in many double tax treaties, but this will change as more states are likely to implement it in the future (Baker et al. (2011)).

3.4.2 Mutual Agreement Procedures

A mutual agreement procedure is arranged for under the EU Arbitration Convention for transfer pricing purposes as well as in Article 25 OECD Model. An interaction of both instruments may, therefore, only occur for EU Member States and for transfer pricing cases. Article 15 of the Arbitration Convention states that *"nothing in this Convention shall affect the fulfillment of wider obligations with respect to the elimination of double taxation in the case of an adjustment of profits of associated enterprises resulting either from other conventions to which the Contracting States are or will become parties or from the domestic law of the Contracting States"*. Thus, it is clear that where Article 25 OECD Model or domestic tax law is wider than the Convention, it will be applied. The opposite case, where the Convention is wider, is, however, not expressly mentioned. Under general principles on the priority of different legal provisions of the Vienna Convention on the Law of Treaties, superior law overrides inferior law, specific law overrides general law, and posterior law overrides prior law. As discussed by Hinnekens (1992), it can be argued that the Arbitration Convention is superior law due to its level of international law.[105] Therefore, it is assumed to prevail even over more specific provisions and over posterior law. As a

[105] Note that in contrast to a Directive, a Convention is not legally binding for EU Member States.

result, the Convention sets a minimum standard for mutual agreement procedures within the European Union.

3.4.3 General Anti-Avoidance Regulations

The compatibility of domestic general anti-avoidance regulations and tax treaties is perceived differently by countries, depending on the interpretation of the OECD Commentary. Para. 22.1 of the Commentary on Article 1 OECD Model states that general anti-abuse rules are part of the basic domestic rules which *"are not addressed in tax treaties and are therefore not affected by them".* It is, however, questionable whether this rule is also true in cases where domestic anti-avoidance rules include a recharacterization of transactions. The 2010 IFA Congress revealed that while for some countries the applicability of domestic anti-avoidance rules under tax treaties is unproblematic, for other countries the interpretation of tax treaty obligations is in contradiction with the application of domestic anti-avoidance measures (van Weeghel (2010)). The Netherlands, for instance, which apply an "abuse of law" doctrine, report that the recharacterization of income provided for through the domestic tax law is, according to case law, not compatible with tax treaty obligations. Moreover, Luxembourg and Portugal have both expressed an observation on the Commentary on Article 1 and both agree that a tax treaty overrides domestic anti-avoidance rules.

Concluding, the interaction of general anti-avoidance regulations and tax treaties cannot be finally answered. Much rather it depends on the specific design of such rules and the interpretation of tax treaties followed by the respective countries.

3.4.4 Transfer Pricing Regulations

Transfer pricing regulations are generally implemented in domestic tax law. In nearly all countries, OECD member and non-member countries, they are based on the arm's length principle which is also implemented in Article 9 OECD Model. In this regard, domestic tax law and double tax treaties are, thus, in conformity. Article 9 OECD Model, however, refers to the OECD Transfer Pricing Guidelines in order to substantiate the arm's length principle (para. 1 Commentary on Article 9 OECD Model). The prevailing opinion on the binding effect of the OECD Guidelines states that where Article 9 OECD Model is implemented in double tax treaties, the Guidelines have to be considered by the Contracting States (Calderón (2007)). This impact of the OECD Guidelines might be also the reason why many OECD member countries introduce the Guidelines into domestic tax law. But also non-member countries follow this trend and rely on the Guidelines. Calderón (2007) argues that this development can be perceived as a globalization of tax law since a certain level of tax harmonization has been reached through an institutional process.

3.4.5 Thin/Fat Capitalization Rules

Thin Capitalization Rules are only applied unilaterally, but nevertheless their interaction with double tax treaties is not clear. The OECD has discussed the applicability of Article 9 OECD Model on thin capitalization cases and argues that when adjusting profits under thin capitalization rules because of excessive interest payments which would not have been paid in an arm’s length situation, this would be in conformity with Article 9 OECD Model (OECD (1987b)). Therefore, thin capitalization rules are generally not prevented by Article 9 OECD Model. But para. 3 of the Commentary on Article 9 OECD Model also states that thin capitalization rules should not increase an enterprise’s profits to more than the arm’s length profit. Thus, Article 9 OECD Model can be applied in order to determine whether the interest rate used is at arm’s length, but also to identify loans that should be reclassified as equity.

It is, however, questionable whether fat capitalization rules, i.e. thin capitalization rules that apply to all loans not only between associated enterprises, are also covered by Article 9 OECD Model (van Weeghel (2010)). On the one hand, it can be argued that, since not only associated enterprises are affected, such fat capitalization rules are part of the general rules for the determination of taxable income. Consequently, they are not in conflict with tax treaties as they do not comprise regulations for the determination of income (Linn (2010)). On the other hand, the intention of Article 9 OECD Model to avoid double taxation must not only be true for associated enterprises, but even more for unrelated enterprises (Eigelshoven (2008)). Thus, Article 9 OECD Model should also be applicable to fat capitalization rules. If the latter opinion is followed, then the design of fat capitalization rules has to ensure that interest deductibility is limited to an arm’s length standard.

If under thin/fat capitalization rules it is determined that not all interest payments are deductible, they may either be treated as non-deductible business expenses or they may be reclassified as dividends. The tax treatment in both cases under a double tax treaty is not quite clear and will be further discussed in Chapter 4.2.3.

3.5 Concluding Evaluation of the Qualitative Analysis

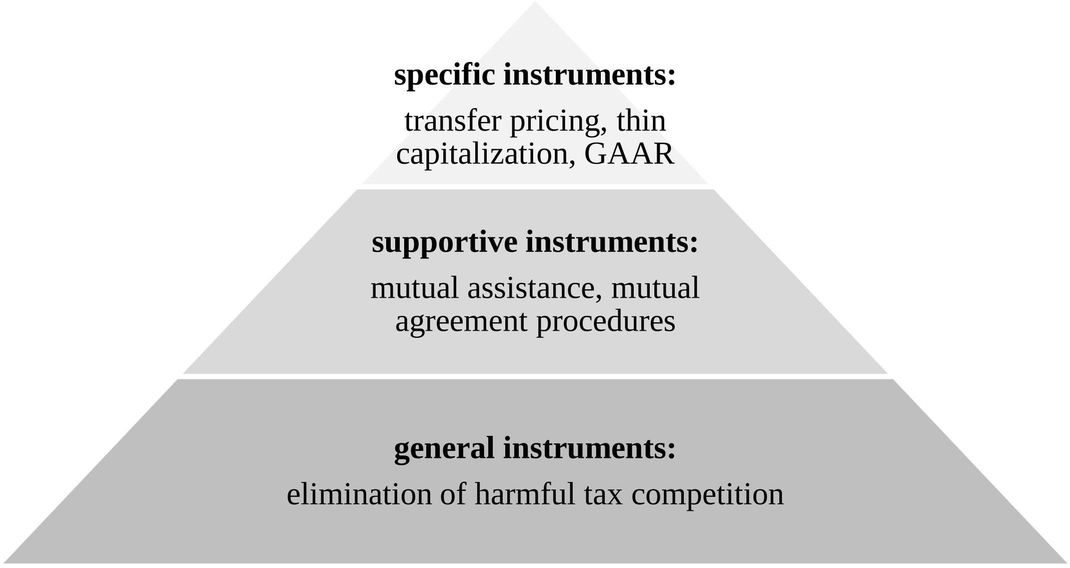
3.5.1 Three Types of Anti-Avoidance Measures

In the previous sections, several unilateral, bilateral, and multilateral instruments to combat tax avoidance and evasion through profit shifting have been described and analyzed. In my opinion, such instruments can be distinguished into three different groups. A first group of instruments directly aims at transactions or arrangements between associated companies. Thin capitalization rules, which target excessive debt financing, or transfer pricing regulations, which provide standards for the determination of arm's length prices, belong to this category. General anti-avoidance regulations do not have such a specific focus, but they serve as a residual provision for transactions through which tax is avoided. This group of measures is typically implemented in national tax law, although, in the case of transfer pricing regulations, also multilateral agreements exist (e.g. PATA).

A second group of instruments, namely the exchange of information, the assistance in the recovery of taxes and the mutual agreement procedure, has a supportive character. They facilitate the application of the domestic tax law in case of cross-border transactions, especially regarding the anti-avoidance measures of the first group (Tanzi/Zee (2000)). They are not only implemented in national tax law, but also through bilateral agreements and multilateral conventions where generally the widest standard is applicable if more than one measure is available.

Finally, a third group of instruments follows a more general and comprehensive approach and intends to establish a "level playing field" for international taxation by eliminating harmful tax practices. This procedure, in turn, reduces tax competition and, thus, tax avoidance and evasion. The OECD "Harmful Tax Competition" Project and the EU Code of Conduct for Business Taxation can be allocated to this group. The measures form a multilateral agreement which will not directly be implemented in national tax law, but countries decided to abolish domestic harmful tax practices through their commitment.

Figure 3: Three Types of Instruments Against Profit Shifting



Source: own illustration.

Figure 3 shows, how, in my opinion, those three types of instruments can be depicted. The general instruments serve as a basis because they address the basic concepts of international taxation. By eliminating harmful tax competition, the general framework of international tax planning is affected which, consequently, has an impact on all other instruments. The supportive instruments of the second group affect the administrative conditions of international taxation. They are, thus, the basis for specific instruments and ensure the enforcement of such rules. Finally, the specific instruments form the top of the pyramid. They aim at combating tax avoidance by ensuring certain standards for specific transactions. They function within the framework of the other instruments and, therefore, base on them.

3.5.2 Anti-Avoidance Measures and the Principles of International Taxation

In this section, the presented anti-avoidance measures will be briefly evaluated with respect to the principles of international taxation laid out in Chapter 2, i.e. internation equity, efficiency, and simplicity.

Internation equity is based on a fair allocation of taxing rights across jurisdictions. As outlined, the OECD and the UN provide for recommendations regarding the allocation of taxing rights with respect to different kinds of income. Where profit shifting strategies are used by multinational companies, this allocation of taxing rights is exploited in order to decrease the overall tax burden. Thus, under profit shifting transactions book income is accrued in a jurisdiction where it would not have accrued in an arm’s length setting. Profit shifting, therefore, takes advantage of the allocation of taxing rights and shifts taxable income away from the jurisdiction where it was earned. The result is a violation of internation equity because low tax countries get a proportionately greater share of tax revenues than they would according to the arm’s length principle (OECD (1987a)). Where anti-avoidance measures prevent those strategies, they, therefore, conform to internation equity. However, this is only true if anti-avoidance measures address the right transactions and enforce a fair allocation of taxing rights. As a fair allocation of taxing rights cannot be concluded from the basic principles of taxation, such as the ability-to-pay or the benefits principle (see Chapter 2.1.2.1.1), the agreement found in the OECD or UN model tax conventions should be used as a standard. Furthermore, the arm’s length principle may serve as an underlying standard for anti-avoidance measures, but, nevertheless, the drawbacks of the principle have to be kept in mind.

Regarding the measures discussed in this study, transfer pricing regulations generally base on the arm’s length principle, although it is not guaranteed that an arm’s length price can always be determined. Under thin capitalization rules, however, different standards for the determination of acceptable debt financing are used across countries, which may not always be in accordance with the arm’s length principle.[106] The OECD, therefore, states that thin capitalization rules are only in conformity with Article 9 OECD Model if the arm’s length standard prevails (OECD (1987b), para. 3 Commentary on Article 9 OECD Model). Thus, the existence of comprehensive guidelines on the determination of arm’s length interest rates and debt-equity ratios is essential.

Two aspects of the principle of efficiency were mentioned: On the one hand, the efficiency of compliance, measured as administrative costs in relation to tax revenue, and, on the other hand, efficiency in terms of neutrality which allows for a non-distorted allocation of resources. Transfer pricing regulations and thin/fat capitalization rules have a direct impact on the compliance costs of taxpayers. Especially the compliance effort connected with transfer pricing regulations is significant. In many cases, the documentation requirements impose a significant burden on taxpayers which is underlined by a survey on transfer pricing conducted by Ernst & Young

[106] Homburg (2007), for instance, argues that German thin capitalization rules are not in accordance with the arm’s length principle.

where 75% of multinational enterprises expressed the increasing importance of transfer pricing documentation (Ernst & Young (2010)). From the perspective of the tax authorities, not only the growing compliance requirements of taxpayers increase the administrative burden, but also the mutual assistance and mutual agreement procedures implemented have made new organizational structures necessary (OECD (2012b)). Especially with regard to the exchange of information and the recovery of tax claims, the EU and the OECD, therefore, aim at increasing efficiency by introducing uniform procedures (Vascega/van Thiel (2010))

Capital import and capital export neutrality concepts prevail simultaneously in many countries due to the implementation of both, source and residence taxation, in national tax law. Profit shifting strategies undermine these concepts by artificially undertaking transactions which would not take place in the free market (OECD (1987a)). However, credit systems are generally less affected by tax avoidance as foreign and domestic income is subject to the same tax burden which reduces the favorability of profit shifting (Jacobs (2011), p. 33). Jurisdictions applying the exemption method, on the other hand, face the risk that profits are shifted to foreign low-tax jurisdictions and are not subject to any further tax whether the profits are repatriated or not (Blanluet/Durand (2011), Kofler (2012)). Thus, anti-avoidance measures which prevent profit shifting behavior should have no impact on capital export neutrality, but sustain capital import neutrality.

Finally, all three forms of simplicity, i.e. policy, form, and action simplicity, do not always prevail regarding anti-avoidance measures. The concepts of general anti-avoidance rules, transfer pricing regulations or thin/fat capitalization rules may, in some cases, be rather complex and do not provide legal certainty to the taxpayer as to how to determine acceptable transactions. They may, thus, be in conflict with policy and form simplicity. The procedures implemented to administer and collect taxes may also impose a great compliance burden and do not conform to action simplicity.

Concluding, when introducing anti-avoidance measures, several aspects should be considered and balanced against each other. While anti-avoidance measures are generally in conformity with internation equity and the neutrality principle, this is only true where they are not too far-reaching and enforce a fair allocation of taxing rights. The arm’s length principle should, thus, be implemented and substantiated by sufficient guidelines. In addition, the compliance effort required from taxpayers has to be considered and kept at a minimum in order to ensure efficiency and simplicity.

3.5.3 Practical and Political Aspects of Anti-Avoidance Measures

The three groups of instruments vary in their scope and reach from very specific anti-avoidance measures to very general measures. Altogether they, therefore, constitute a rather solid framework of anti-avoidance measures which takes account of the objections of jurisdictions to give up national sovereignty. Over the past decades, jurisdictions have been willing to make concessions and to be more open to tax cooperation. Especially in times of the recent financial crisis, the importance of such measures has become evident which is also proven by Switzerland and Austria that just recently gave up their reservations to the exchange of information.[107] It seems, however, necessary that especially developing countries are supported in establishing the processes needed for the enforcement of anti-avoidance measures. As the studies on foregone tax revenues in developing countries show[108], developing countries are especially affected by cross-border profit shifting. The attempts of the UN to support developing countries in setting up transfer pricing legislation by providing a manual is, thus, an important step. This can also be underlined by a study commissioned by the European Commission and implemented by PwC which analyzed the impact of the introduction of transfer pricing regulations in developing countries. It was found, that the estimated benefit, even in a low-impact scenario, outweighs the costs by far (PricewaterhouseCoopers (2011)). Moreover, the empirical studies in Chapter 5 will examine the impact of such regulations on profit shifting by using firm data.

The CCCTB approach pursued by the European Commission goes far beyond the scope of all existing measures and provides for a very high level of tax coordination which would be unique worldwide. For that reason, the EU Member States are currently hesitant to agree to this approach, but it remains to be seen how the attempt of Germany and France within the scope of the Green Paper evolves.[109]

[107] See Chapter 3.2.1.1.4.
[108] See Chapter 2.2.3.
[109] See Chapter 3.3.1.2.

4 A Comparison of Selected Anti-Avoidance Measures Worldwide

The previous chapter has presented several anti-avoidance measures against profit shifting implemented worldwide. This overview provides a framework which the following chapters should be put into relation to.

In this chapter, two specific instruments, i.e. transfer pricing regulations and thin capitalization rules, will be presented in more detail. Information on transfer pricing regulations was collected for the years 2001 to 2009 and comprises 44 countries worldwide. As the regulations comprise many different aspects, an index is developed in Section 4.1.9 which measures the strictness of transfer pricing regulations. Moreover, the information on thin capitalization rules comprises 53 countries worldwide for the years 1999 to 2008. The different numbers of surveyed countries and years are mainly due to data constraints regarding transfer pricing regulations. The detailed information can be found in the appendix which also includes references to data sources. The collected information will be further used in Chapter 5 to conduct an empirical analysis in order to examine the impact of such rules on profit shifting within multinational companies.

4.1 Transfer Pricing Regulations[110]

The following sections will, on the one hand, discuss several aspects of transfer pricing regulations, i.e. their existence and applicability, applicable transfer pricing methods, documentation requirements, submission deadlines, statutes of limitations, and advance pricing agreements. On the other hand, an index will be created which measures the strictness of transfer pricing regulations taking different aspects into account.

4.1.1 Previous Literature

To my knowledge, this is the first study to analyze transfer pricing regulations in such detail for such a large number of countries and years. However, several studies have, so far, tried to capture the impact of transfer pricing regulations on corporate decisions and made use of different measures. Borkowski (2010) uses mostly survey data to examine whether the choice of a transfer pricing method and the transfer pricing risks taken by multinational corporations are influenced by demographic, behavioural, financial, or tax variables. In order to account for differences in transfer pric-

[110] The following sections are based on Lohse/Riedel/Spengel (2012).

ing legislation and tax authority attitudes, she uses a home country dummy. This variable can only be a very rough proxy for the considered aspects as it also captures a multitude of other factors connected to the home country (e.g. size, wealth, currency, development, or corruption). Jost/Pfaffermayr/Stoeckl/Winner (2011) apply a dummy variable capturing transfer pricing risk in their study on profit shifting within European multinationals. They define low and high risk depending on the existence of statutory transfer pricing regulations and a penalty regime where high risk is only imposed in case both components exist. They argue that the existence of penalties is usually connected with statutory documentation requirements and that, therefore, the documentation aspect is captured in the penalties component. In addition, a variable which states the time passed since the introduction of transfer pricing regulations is used in order to account for companies' and tax administrations' experience with the matter. The survey conducted in this study shows, however, that the existence of statutory rules alone is not a valid measure of transfer pricing risk. Some countries base their regulations on sophisticated guidelines which are not implemented in the tax law and others do not enforce statutory rules although they have existed for a long time. It is, therefore, necessary to include an enforcement component in addition which is not only based on time of existence.

Finally, Beuselinck/Deloof/Vanstraelen (2009) examine income shifting in the European Union accounting for tax enforcement by defining a variable which comprises different features of transfer pricing regulations. Besides the availability of advance pricing agreements and audit risk, the strictness of documentation requirements is included. Each feature is expressed as a score between 0 and 1, the sum of which is the value of the tax enforcement variable. Although this variable comprises important aspects of the strictness of transfer pricing regulations, it has to be interpreted with caution since the weights used for audit risk and documentation requirements are difficult to comprehend and their coverage is only limited over time.[111]

This study adds to existing literature by defining a new variable which measures the strictness of transfer pricing regulations. The variable is based on a very comprehensive data collection and thereby extends the data background of other measures considerably. The variable consists of six categories which are, in contrast to some existing measures, precisely defined and easily comprehensible. The categories not only

[111] In both of the last two outlined studies, the bi-annual Ernst & Young transfer pricing guide was used for data collection.

take into account the existence of transfer pricing regulations, but also the enforcement. It can, therefore, be a very useful and valuable component of future transfer pricing research. In the following sections, the different aspects of transfer pricing regulations, which are partly incorporated in the variable, will be presented.

4.1.2 Existence and Applicability

Almost all tax codes worldwide contain anti-avoidance regulations with respect to the conditions of intercompany transactions. Such anti-avoidance regulations are mainly based on the arm's length principle which the OECD member countries have agreed upon as an international standard for transfer pricing. It supports an equal treatment of independent companies and those part of a multinational enterprise which avoids the possibility of tax loopholes and the creation of market distortions. A downside of the principle is that it may not always take economies of scale or other privileges into account that prevail for associated companies (Kobetsky (2008), Francescucci (2004)).[112]

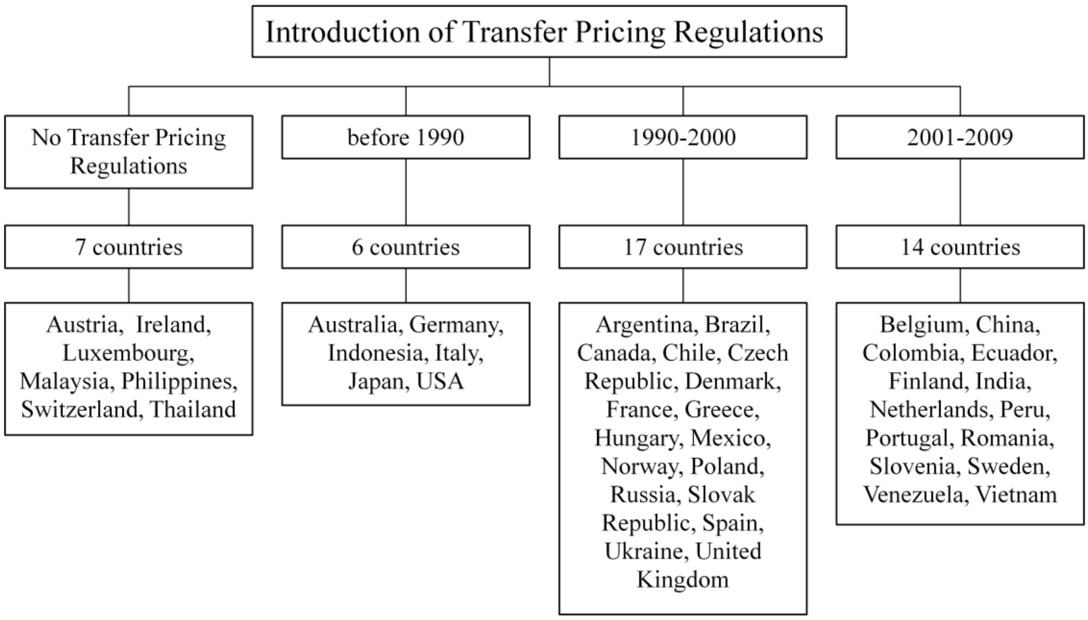
In addition to a general anti-avoidance regulation, many countries have also introduced specific transfer pricing regulations. However, the survey showed that the definition of transfer pricing regulations and especially their distinction to general anti-avoidance rules is not always clear. For this survey, it is assumed that transfer pricing regulations exist where, in addition to the arm's length principle, key elements, such as the terms related party or controlled transaction, methods or documentation requirements, are additionally included in the national tax law. Where only guidelines published by the tax authorities supplement the anti-avoidance rule in the tax law, it is still defined as a general anti-avoidance rule. However, this distinction does not always indicate that a general anti-avoidance rule is generally more generous than transfer pricing regulations. This has much rather to been seen in context with the other aspects of the regulations outlined in the following sections. In some cases, guidelines in conjunction with a general anti-avoidance rule are very sophisticated and often enforced (e.g. Australia or China before 2008), while transfer pricing regulations included in the national tax law are only rarely applied (e.g. Russia).

Table A3 in the appendix shows that the arm's length principle is included in the national tax law of almost all considered countries in this survey which proves that it is the internationally accepted standard for transfer pricing. The only exception is

[112] For a discussion of the arm's length principle see also Chapter 3.3.2.5.

Brazil where maximum price ceilings and minimum income floors are defined. Specific transfer pricing regulations were mainly introduced in the last two decades (see Figure 4). The United States was the first country to focus on intercompany transactions and extended the transfer pricing regulations as early as 1968. Until now it is seen as one of the toughest and most detailed transfer pricing systems in the world (PricewaterhouseCoopers (2011), p. 777). Five countries, mainly large, developed economies followed in the 1980s (Australia, Germany, Indonesia, Italy, Japan). 17 countries introduced transfer pricing regulations between 1990 and 1999 and 14 in the surveyed time period (2001-2009). This development can be attributed to globalization and the increasing awareness of this matter, but also to the fact that the introduction of transfer pricing regulations can function as a defense against other countries. As taxpayers tend to allocate more taxable income to countries where regulations are extremely aggressive in order to ensure compliance, the introduction of transfer pricing regulations can be a way to protect tax revenues (Calderón (2005), Kobetsky (2008)).

Figure 4: Introduction of Transfer Pricing Regulations



Source: own illustration.

There are seven countries in the sample that still do not have transfer pricing regulations introduced to their tax law. Those countries are Austria, Ireland, Luxembourg, Malaysia, the Philippines, Switzerland, and Thailand. In the case of Austria, it is rather unexpected that no detailed regulations exist, but tax authorities are aware of this issue and apply the OECD guidelines consequently. Ireland, Luxembourg, and Switzerland on the other hand are all European developed countries that attract a large amount of international investments due to their generous tax regulations (Grimes/Maguire (2005), Bogaerts (2002)).[113] It may, therefore, be the case that those countries benefit from non-arm's length transactions which may explain the missing regulations. At last, while Malaysia and Thailand both introduced detailed guidelines with respect to the general anti-avoidance rule and already pay attention to transfer pricing issues, the Philippines are now starting to focus on the matter (PricewaterhouseCoopers (2011), p. 639).

As follows from the arm's length principle, transactions under consideration are those between related parties. Such related parties may either be located in the same country or abroad. In addition, some countries treat unrelated parties in tax havens as related parties. The majority of countries apply transfer pricing regulations to domestic and foreign related parties. Profit shifting usually only leads to a tax revenue loss if shifted cross-border, but as many countries offer very advantageous tax incentives for certain types of investment or for investments in certain regions, e.g. lower tax rates or tax holidays, a more favorable tax position can also be created through profit shifting between domestic related parties. The survey shows that most of the countries applying their rules to domestic and foreign related parties have a tax incentive system in place (UNCTAD (2000), p. 69, 119, 145).[114] In turn, the countries restricting transfer pricing regulations only to foreign related entities are mainly developed, high-tax countries (e.g. Canada, Germany, Japan, or the USA).

The survey also shows that seven countries apply their transfer pricing regulations also to unrelated parties in tax havens, the countries are: Argentina, Brazil, Chile, Colombia, Ecuador, Peru, and Venezuela. All countries are located in South America which may be explained by their geographical proximity to the most relevant tax havens in the world (Owens/Sanelli (2008)).

A definition of associated enterprises is also included in Article 9 OECD Model. It states that two parties are related if one party *"participates directly or indirectly in the management, control, or capital of the other or if the same persons participate directly or indirectly in the management, control, or capital of both parties"*. Such a

[113] Both, Luxembourg and Switzerland, were the only two OECD member countries that abstained in the approval of the OECD Report on Harmful Tax Competition, see also Chapter 3.3.1.1.1.
[114] For an overview of tax incentives in the Asia-Pacific region, see Endres/Fuest/Spengel (2010), p. 33-54.

participation is stated as “de facto control” and “under common control” in Table A3. The OECD does neither in the Model Tax Convention nor in the Transfer Pricing Guidelines define a certain minimum threshold which determines control. This approach is followed by 13 of the 44 considered countries (amongst others: Australia, Chile, France, Malaysia, Mexico, and the United States). All other countries define a fixed percentage of capital shareholding which identifies related parties.[115] Poland introduced the lowest threshold of at least 5% for the definition of a related party. The largest group of countries uses a 25% capital contribution (including China and Germany) for their related party definition. A 50% shareholding is used by seven countries (e.g. Argentina and Japan). It is questionable, whether the threshold gives an indication of how strict tax authorities are with regards to the identification of controlled transactions. At least for the countries without a fixed threshold, a conclusion on their stringency cannot be drawn.

4.1.3 Methods

Based on the arm’s length principle, several methods have been established in order to determine the appropriate transfer price for a certain transaction. In its 1979 report, the OECD has introduced three traditional transaction methods (the comparable uncontrolled price (CUP) method, the resale price method (RPM), and the cost plus method) with a clear preference for the CUP method. After the United States had announced additional methods based on profit comparisons in the early 1990s, the OECD also extended its recommendations. In the Transfer Pricing Guidelines published in 1995, besides the traditional transactions methods, two transactional profit methods (transactional net margin method (TNMM) and profit split method) were included, which define prices based on different profit allocations. While the OECD expressed a clear preference for the traditional transaction methods, especially the CUP method (OECD (2010b), para. 2.5), the United States introduced a best method rule.[116] Only in 2010, the OECD has published an amended version of the Transfer Pricing Guidelines showing a greater openness towards the transactional profits methods (OECD (2010b), para. 2.3).

[115] Note that these rules are not necessarily in line with the criteria of control relevant for the consolidation of financial accounts.
[116] For further explanation see below.

Comparable Uncontrolled Price (CUP) Method

Under the CUP method, the price of an uncontrolled transaction is compared with the price of a controlled transaction. An uncontrolled transaction implies that the parties involved are not affiliated and are themselves not part of a group.

The major requirement of the CUP method is the comparability of transactions. The OECD outlines several characteristics which have to be comparable, i.e. among others, product type, quality, availability, assets used and risks assumed, contractual terms, and economic circumstances (e.g. level of market, geography, and timing). If such a comparable transaction can be identified or if differences can be accounted for by reasonably adjusting the price, tax administrations usually prefer the CUP method.

However, in some cases, the CUP method may not be applicable, e.g. if the market is not competitive or if assets are so unique that a comparable transaction cannot be identified. This holds especially true for transactions involving intangible assets as they usually base on substantial negotiations and contract terms and bargaining power can in most cases not be observed (King (2009), p. 24).

Resale Price Method (RPM)

Under the resale price method, in order to find an arm's length price, the resale price obtained by a distributor is reduced by an appropriate gross margin. The appropriate gross margin can be found with reference to transactions with unaffiliated companies (internal comparable). In case such a comparison is not possible, the gross margins of other individual distributors of similar products may be used (external comparable).

The method is based on the assumption that gross margins are comparable for all products. This implies that products and circumstances of the transaction must be similar - under US regulations even higher standards of comparability are required than for the CUP method. However, it is questionable whether this assumption is true even if comparability prevails because it also suggests that gross margins are equal over firms, which does not seem a realistic assumption (King (2009), p. 19). For those reasons, the OECD guidelines state that adjustments are needed under several circumstances which increase the documentation effort and complexity of the RPM method.

Cost Plus Method

The cost plus method is very similar to the resale price method, but takes the perspective of a manufacturer selling similar products to affiliated and unaffiliated companies. It adds an appropriate cost plus mark up to the costs of goods sold to find an arm's length price.

The same critique as to the resale price method can generally be applied to the cost plus method. Especially whether cost plus mark ups are similar over different products and different firms and whether costs are even an appropriate starting point (OECD (2010b), para. 2.43).

Profit Split Method

Under the profit split method total profits accruing from controlled transactions are identified and split between all associated companies using ratios that would have been utilized in an uncontrolled transaction. The method can be applied using ex ante or ex post profits, i.e. projected or actual profits. The split of profits should take into account the circumstances of the transaction and consider assets used and risks assumed by the associated companies. This can be done by using comparables or by applying a residual approach. The residual profit split method, in a first step, allocates profits to the associated companies using one of the other methods (traditional transaction method or TNMM/CPM), not accounting for individual contributions. In a second step, the residual profit is split according to the relative value of each partner's contribution. The comparable profit split method, on the other hand, uses comparable transactions between independent parties for the allocation of profits. This is done by defining key allocators which are based on assets/capital, costs, headcounts, or time spent (OECD (2010b), para. 2.135).

The profit split method allows an analysis of transfer prices for more complex business structures, e.g. highly integrated processes. Due to the two-sided approach, cases where both parties of a transaction contribute unique and valuable components can be accounted for. However, the measuring of total profits may be a difficult task, especially if considering foreign affiliates (OECD (2010b), para. 2.114). As the residual profit split method makes use of a second method, the shortcomings of that method have to be considered as well. Furthermore, it is questionable, whether the profit allocation of independent companies with reference to key allocators provides appropriate ratios.

Transactional Net Margin Method (TNMM) and Comparable Profits Method (CPM)

The TNMM, as outlined in the OECD guidelines, and the CPM, which is part of US transfer pricing regulations[117], are both based on the comparison of the taxpayer with a group of similar, standalone companies. The companies in the sample have to operate in the same field, perform similar functions, and distribute comparable products. For each company, a profit level indicator (PLI), e.g. operating profits to sales or gross profits to operating expenses, is calculated, which is then applied to the respective denominator of the taxpayer's accounting results. While the CPM applies a "top-down"-approach, which means that the entire operations of the company are broken down to transactions, the TNMM uses a "bottom-up"-approach and starts on the transactional level. If the profit level indicator of a controlled transaction lies within a range of indicators of uncontrolled transactions, the transfer price is assumed to be appropriate.

The advantages of both methods are that information is more easily available and that the documentation effort is reduced compared to other methods. However, operating profits can be affected by several factors which are hard to identify and to quantify (Vögele/Borstell/Engler (2011), p. 321). Therefore it is often argued that transfer prices found are not at arm's length.[118]

Selection of Method

The OECD generally prefers the traditional transaction methods as they are a more direct way of identifying a transfer price. However, ultimately the facts and circumstances of the transaction are crucial. In cases where no or not sufficient information on third parties is available or where business processes are very complex and a two-sided approach is needed, the transactional profit methods can be more appropriate. Other countries, including the United States, do not define a priority of methods, but take several factors into account in order to identify the most appropriate method (also called best method). The process of identifying the most appropriate method differs between countries, but it often includes the testing of each single method.

[117] See US-Regulations § 1.482-5.
[118] For a more detailed discussion of the Transactional Net Margin Method and Comparable Profit Method see Casley/Kritikides (2003).

Table A4 provides an overview of the applicable transfer pricing methods and their priority in the considered countries. Regarding the different transfer pricing methods, there is only little variation across countries. With the exception of Brazil, the OECD transfer pricing methods are widely accepted. Since Brazil did not base transfer pricing regulations on the arm's length principle, the available methods differ and include fixed margins applied on resale price or costs. In an international context, this causes large problems as the methods will vary in both countries involved in the transaction which may in turn lead to double taxation (Falcao (2010)). Another exceptional method which uses the market value established in transparent markets of certain goods on the day of their shipment was introduced by Argentina in 2005. The method is mandatory if certain conditions are fulfilled (PricewaterhouseCoopers (2011), p. 202).

Only few countries (e.g. Chile, Greece, or Russia) have limited their acceptable methods to the traditional transaction methods (CUP, RPM, and Cost Plus). In Russia, the limited number of methods comes along with a strict hierarchy of methods which makes the regulation very difficult and inefficient in practice (Variychuk (2011)). In Greece, the acceptable methods were even more limited until 2009. Only the CUP method could be used to determine arm's length prices causing great difficulties in identifying comparable transactions as the required data was not always available (Malliou/Savvaidou (2007)).

Also with respect to the priority of methods, the great majority of countries follows the approach by the OECD and prefers the traditional transactions methods over the transactional profit methods. Some countries apply, in addition, a strict preference for the CUP method (e.g. Australia, Italy, or Mexico). Nine countries use a best method rule for the selection of the applicable method (e.g. Argentina, Peru, China, India, or the USA).

Out of the OECD member countries, only Greece and Ireland do not follow the OECD guidelines. In Ireland only a very general anti-avoidance rule is in place which does not require the definition of methods.

4.1.4 Documentation Requirements

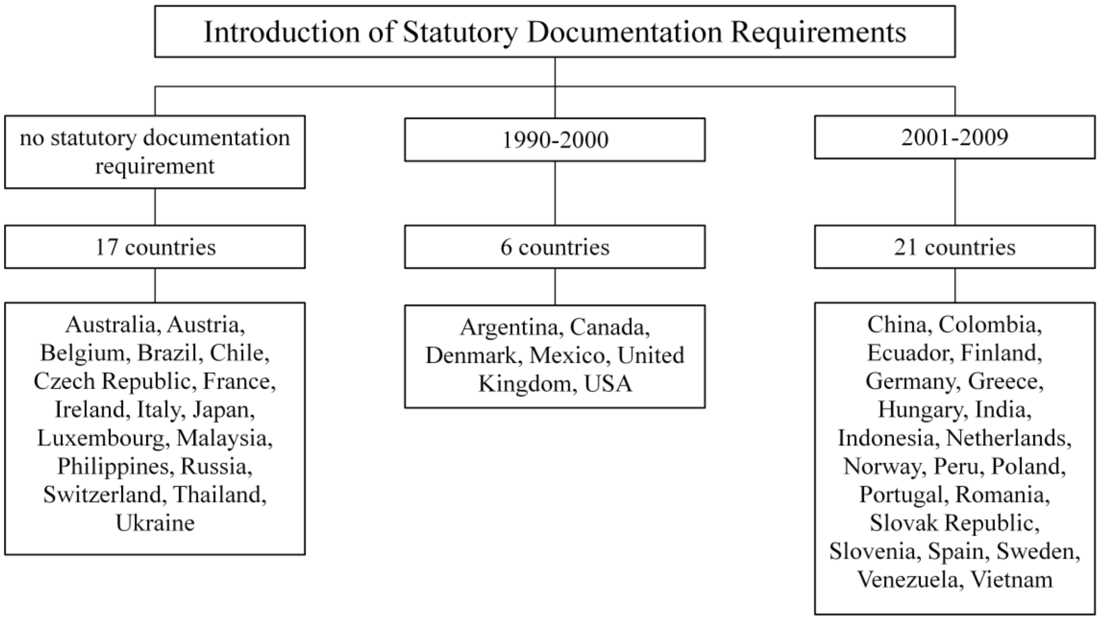
In order to monitor the transfer pricing policy of multinational companies, tax authorities in most countries require detailed documentation. The preparation of sufficient documentation is especially important as in most countries the burden of proof will then rest on the tax authorities. It may, however, switch to the taxpayer if documentation is incomplete or inaccurate.

The OECD has included a chapter on recommended documentation in its Transfer Pricing Guidelines which is supposed to help tax authorities when formulating documentation inquiries as well as taxpayers when preparing documentation on intercompany transactions. It states that *"information about the associated enterprises involved in the controlled transactions, the transactions at issue, the functions performed, [and] information derived from independent enterprises engaged in similar transactions or businesses"* is required to analyze transfer pricing policies (OECD (2010b), para. 5.17). The guidelines also include other factors that should be documented in certain transactions or under certain circumstances such as a business outline, an organizational structure, or an economic analysis (OECD (2010b), para. 5.18). It has, however, to be noted that all explanations are only recommendations and do not go into much detail concerning their implementation.

Besides the documentation that should be maintained by the taxpayer, some countries even require information to be disclosed with the annual tax return. In this regard, the OECD recommends that the requested information should be limited to an extent that allows the tax authorities to identify taxpayers that require additional examination.

As detailed country-specific information is not available and only hard to assess, the exact content of the requested documentation in each country is difficult to capture. Lists of required documents may exist, but it is not always clear whether such lists are enforced in practice. Therefore, the overview provided in Table A5 is limited to the existence of documentation requirements and whether taxpayers are obliged to disclose any information with the tax authorities. In the case that documentation requirements are not implemented in the national tax law (no statutory requirement), documentation may still be required in practice, based on tax administration's guidelines or the fact that companies are expected to provide documentation in an audit. For simplification, the content of the required disclosure is stated as short or long in Table A5. A short content is assumed to exist if only a summary or overview of transactions is necessary for disclosure, while a long content is assumed if (almost) full documentation (also called a transfer pricing study) is required.

Figure 5: Introduction of Statutory Documentation Requirements



Source: own illustration.

Figure 5 shows that documentation has become an important issue in the past ten years. 21 out of the 27 countries applying a statutory documentation requirement have introduced it in the last decade. Only six countries already had documentation requirements in place before 2001. The introduction of a statutory documentation requirement was in most cases linked to the introduction of transfer pricing regulations in general. Especially the Southern American and Asian countries have introduced comprehensive rules in the considered time period. The only country that introduced transfer pricing regulations without a documentation requirement is Belgium. Interestingly, a lot of European countries have had transfer pricing regulations in place for a considerable time period before they extended their scope and included a documentation requirement. This shows the increasing awareness of transfer pricing and the need for proper documentation.

Only three out of the 17 countries that still do not have a statutory requirement, do not require documentation to exist in practice (Chile, Ireland, and Ukraine). The remaining 14 countries require documentation to exist in practice, especially in the course of an audit. The fact that a documentation requirement is included in the national tax law does, however, not necessarily mean that documentation is strictly enforced. Therefore another aspect, the required disclosure of documents, should be taken into account.

By the year 2009, 24 countries require a disclosure of documents on transfer pricing, eleven of which have introduced the disclosure during the considered time period. Remarkably, out of the 20 countries, that still do not require any disclosure in the annual tax return, 17 are European countries (the other three countries are Chile, the Philippines, and Thailand). This shows that while many European countries have introduced a statutory documentation requirement, they have not taken the second step and added a mandatory disclosure to their regulations. The survey also shows that the need to submit documents to the tax authorities is not always connected with a statutory documentation requirement in the tax law. Six countries have required or still require a disclosure of information although no statutory requirement exists (i.e. Australia, Brazil, China, Indonesia, Italy, and Malaysia). In most cases, the disclosure is then based on detailed guidelines by the tax authorities.

A distinction can also be made with respect to the content of the disclosure. While some countries only require a short summary or overview over controlled transactions, other countries require a transfer pricing study. Out of the 24 countries where submitting documentation is required, 16 require a short and eight a long content. Interestingly, the countries requesting an extensive disclosure are, with the exception of Mexico, no OECD member states. The content of disclosure has generally been extended over the last decade, i.e. Argentina, China, Indonesia, and Peru have switched from a short to a long content.

From the survey, it becomes evident that a great variety of documentation requirements exists. The compliance with those detailed requirements demands a high allocation of resources and effort from multinational companies.

4.1.5 Submission Deadlines

Another aspect of transfer pricing regulations are submission deadlines for full documentation or for transfer pricing disclosure. Full documentation is in most countries only submitted upon request, but the time period available may vary. For the disclosure, it is usually the deadline of the annual tax return, but may in some cases also be a separate date. Table A6, therefore, gives an overview of applicable deadlines for full documentation and disclosure. It shows that great differences exist in the amount of days that taxpayers are granted to submit the required documentation. The countries requiring an extensive disclosure generally grant a longer period of time for the submission of the tax return, i.e. between four months from tax year end in Indonesia and twelve months from tax return submission in Ecuador, resulting in an average of 7.6 months. In contrast, the countries requiring a short disclosure only allow for a shorter period of time, i.e. between two months from the tax year end in Japan and seven months from the tax year end in Malaysia and Italy, the average being 4.7 months, which shows that the disclosure dates of the transfer pricing return generally reflect the required content.

The deadlines for the full documentation can be compared for the countries not requiring a disclosure and those requiring a short disclosure. Overall, the deadlines are between three days in Hungary and three months in Canada, the Netherlands, and Slovenia. Where a short disclosure is required, the deadlines for the full documentation are slightly longer (average 43.1 days) than in the countries without any disclosure (average 35.9 days). A possible explanation could be the fact that the tax authorities in the latter case do not have any information on the transfer pricing policy, therefore they require the necessary information in a shorter period of time. A geographical or OECD membership correlation does not exist with regard to the deadlines, instead the strictest and the most generous countries are both members of the OECD.

4.1.6 Penalties

In order to enforce the correct handling of tax regulations, many countries impose penalties. Besides penalties on the wrong determination of taxable income, regulations may also include penalties on wrong or incomplete documentation. The OECD acknowledges the use of penalties in order to ensure compliance, but emphasizes the need for a fair and not too burdensome regime. It is argued that a penalty regime that is too hard on the taxpayers may distort the determination of taxable income between two jurisdictions (OECD (2010b), para. 4.25). Therefore, the OECD member states have agreed not to impose substantial penalties on taxpayers who have acted in good faith (OECD (2010b), para. 4.28). Most countries apply general tax penalties to transfer pricing cases, but some countries have introduced special transfer pricing penalties, especially with respect to documentation.

As can be seen in Table A7, information on transfer pricing penalties is exceptionally difficult to gather as several available sources state conflicting information. Therefore, the table does not provide a comprehensive list, but rather indicates the penalties that could be identified for a given country in a given year. There may be additional penalties not listed in the table and penalties may be applicable for a longer period of time.

The first aspect considered in this overview is whether special transfer pricing penalties exist or if the general tax penalties are applicable for transfer pricing matters. It can be found that the great majority of countries (32 out of 44 countries) do not impose special transfer pricing penalties. Out of the remaining twelve countries, eight countries have introduced special transfer pricing penalties in the considered time period. The introduction of transfer pricing penalties is in most cases connected with the introduction of statutory documentation requirements (e.g. in China, Ecuador, Germany, India, Romania, and in Spain). It is, therefore, not surprising that the special penalties typically refer to the transfer pricing documentation requirements, while penalties on transfer pricing adjustments are usually the same as for other taxable income adjustments.

Penalties on Transfer Pricing Adjustments

The penalties on adjustments of transfer prices follow a similar pattern but lie in a broad range regarding their severity. In most cases, the penalties on a transfer pricing adjustment are expressed as a percentage of unpaid tax or of the transfer pricing adjustment itself. About half of the countries apply a percentage of less than 100% of additional tax with Austria (2%), Denmark (surcharge of about 6%), and Vietnam (10%) being the countries with the lowest rates. The other half imposes penalties of at least 100%, Argentina of even 400%. Five countries (Canada, Finland, Greece, Poland, and Spain) use the transfer pricing adjustment as the base of the penalty, thereby applying a special tax rate on the additional income. The rates range from 10% in Canada and Greece to 50% in Poland. In many countries, a higher percentage applies to cases where transfer prices were fraudulently manipulated. Some countries even limit the imposition of penalties to cases of fraud (e.g. Russia or Switzerland). The applicable percentages are at least doubled, ranging between 20% in Russia and 1,000% in Argentina. However, it has to be mentioned that many countries allow for a reduction in penalties on the adjustment if sufficient documentation exists. The reduction usually depends on the quality of the documentation and is therefore difficult to quantify (for that reason, it is not included in Table A5). Overall, no trend as to the application of stricter or milder penalties over time can be observed, while some countries increase the percentages (Argentina), others decrease them (Malaysia, Mexico, and Vietnam).

Another aspect of penalties on transfer pricing adjustments is interest on the late payment of taxes. It is imposed in almost all countries. While some countries only apply a federal or market rate in order to account for the time value of the payments, others impose interest rates that include a penalty component. In particular this means that interest rates may be as high as 3% per month or 0.1% per day which amounts to approximately 36% per year (Argentina and Vietnam).

Penalties on Documentation

Penalties on documentation also vary significantly. For 14 out of the 44 considered countries, it is known that no documentation penalties exist (e.g. Australia, Japan, and the United States). But many countries impose penalties on wrong, late or missing documentation. The penalties either amount to a fixed monetary amount, to a percentage of unpaid tax or to another specific factor as defined in the national tax code. 16 countries impose a fixed fine which lies between RON 14,000 (~USD 3,900) in Romania and ARS 450,000 (~USD 150,000) in Argentina. The Latin American countries tend to express monetary fines in tax units (e.g. Peru, up to 30TU with 1TU=~USD 1,000). The value of a tax unit is defined in the tax law and is adjusted according to inflation.

Eight countries (e.g. Belgium, Brazil, and the United Kingdom) impose a penalty on the transfer pricing adjustment only if no documentation exists. The percentage ranges between 45% in Malaysia and 225% in Brazil. The distinction between documentation and adjustment penalties is rather difficult in this case, but generally, adjustment penalties are also applicable if full documentation exists. There may be a reduction regarding the quality of the provided information, but it is not only imposed if no documentation exists.

Some countries define other specific measurements for documentation penalties, for example, a percentage of the transaction value for which the information is wrong or missing (e.g. Brazil and Colombia). A very interesting approach is chosen by Denmark where the penalty amounts to 200% of costs saved by not preparing documentation. It is questionable how saved costs should be calculated and so far - although introduced in 2006 - no guidance exists on that behalf.

4.1.7 Statute of Limitations

The statute of limitations defines the time period during which tax authorities can undertake reassessments of the tax liability. It is, therefore, also part of transfer pricing regulations as it prescribes how long documentation has to be kept or how long changes can be made to transfer prices applied in intercompany transactions. Table A8 provides an overview of national regulations on statutes of limitations. It shows that most countries (28 out of 44 countries) use the tax year end or the end of the year in which the tax return has been filed to determine the beginning of the statute of limitations. The remaining countries apply the date of the filing of the return.

In order to compare the duration of the statute of limitations, it is assumed that the end of the filing year is one year after the end of the tax year. The survey then shows that the great majority of countries applies a duration of up to five years (34 countries), the shortest time period being two years (e.g. Colombia, India, France, or Russia). The longest statutes of limitations are prescribed by Australia (unlimited), the Czech Republic, Switzerland (both 15 years), and Austria (10 years). It has to be noted that the four countries that have amended their regulations on the statute of limitations have reduced the duration (Austria, Belgium, Czech Republic, and Indonesia).

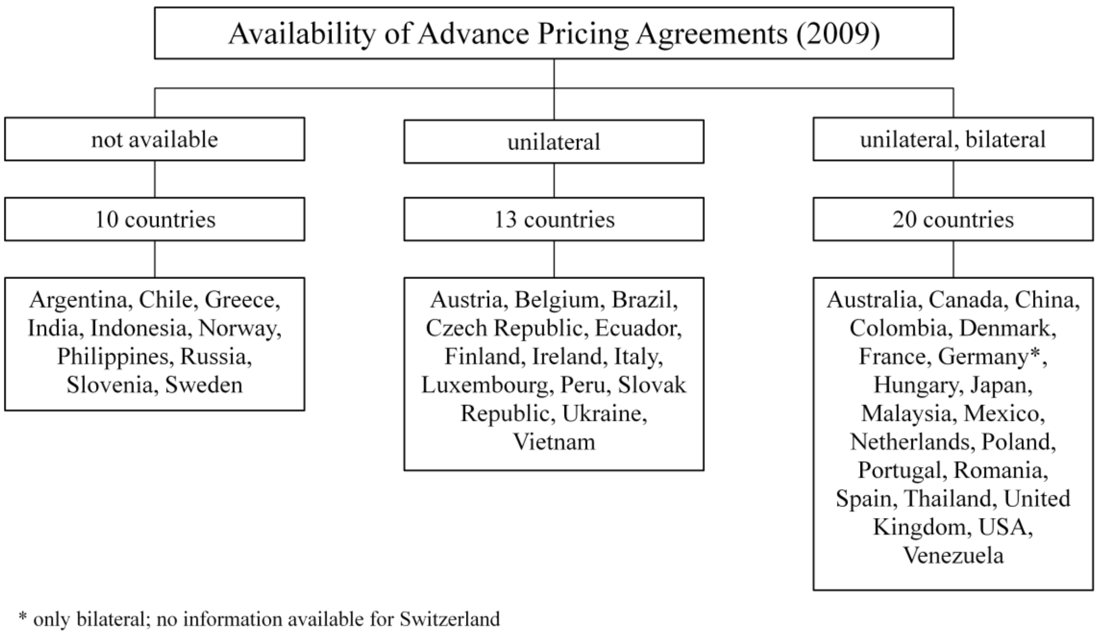
13 countries apply a longer duration of the statute of limitations for cases of fraud. The interval is usually at least doubled, with four countries even applying an unlimited time period (i.e. Indonesia, Malaysia, Ukraine, and the United States). The Netherlands are the only country which prescribes a specified statute of limitations for foreign income (i.e. 12 years, compared to 5 years for other income).

4.1.8 Advance Pricing Agreements

In the course of the application of transfer pricing regulations, disputes may arise between taxpayers and tax authorities. Besides the instruments outlined in Chapter 3 to solve such transfer pricing disputes, i.e. the corresponding adjustment provided for in Article 9 para. 3 OECD Model and the mutual agreement procedure (Article 25 OECD Model), taxpayers may also have the possibility to enter into an advance pricing agreement. In an advance pricing arrangement (APA), a set of characteristics for controlled transactions is determined in advance and for a fixed period of time. Some countries offer unilateral APAs that are concluded between the taxpayer and the tax administration in the same jurisdiction and do not take other parties into account. But since unilateral APAs also affect the tax liability of the related party, there may still be a need for an agreement procedure. Therefore, bilateral or multilateral APAs are more favorable (OECD (2010b), para. 4.147). In those cases, taxpayers of at least two jurisdictions negotiate with the responsible tax administrations and identify a transfer pricing strategy that is more equitable to all participants in the agreement. Such arrangements reduce the risk of double taxation and lead to a greater certainty in international trade, which is supported by the result of a survey conducted by Ernst & Young, where 90% of multinationals that have entered into advance pricing agreements indicated that they would use them again (Ernst & Young (2010)).

Some countries offer sophisticated procedures for the set-up of an APA, others do not allow for binding agreements between the tax administration and the taxpayer. In such cases, an APA can only be concluded between tax authorities through a mutual agreement procedure on a case-by-case basis.

Figure 6: Advance Pricing Agreements



Source: own illustration.

Figure 6 (based on Table A9) shows that APAs are common in the considered countries. Only ten countries do still not allow for such agreements. Unilateral agreements are generally easier to administer as they only consider one country and can be dealt with in an existing rulings process. Bilateral agreements, on the other hand, require an extensive procedure that has to be set up in most tax administrations. It is, therefore, not surprising that most countries start with the availability of unilateral agreements and later extend the procedure to bilateral agreements. By the end of the considered time period, more countries offer uni- and bilateral agreements than only unilateral agreements.

Where advance pricing agreements were introduced for the first time in the considered time period, three countries have introduced the possibility for unilateral agreements (i.e. Czech Republic, Ecuador, and Peru), while six countries have introduced an agreements procedure offering uni- and bilateral agreements (i.e. Hungary, Malaysia, Poland, Portugal, Romania, and Venezuela). For most of those countries, the introduction took place after transfer pricing regulations and documentation requirements were in place. An exception is Malaysia, where no transfer pricing rules exist and Venezuela where all aspects were introduced at once. Besides Malaysia, there are only few countries where the possibility for a bilateral agreement existed before transfer pricing rules were introduced (i.e. China, the Netherlands, and Thailand). Another seven countries have extended the scope of their agreements procedure to uni- and bilateral agreements. As an exception, Germany only allows for bilateral agreements.

Surprisingly, there are still a number of countries that have comprehensive transfer pricing regulations in place, but do not offer the possibility to enter into an advance pricing agreement. Those countries are Argentina, Greece, India, Indonesia, Norway, the Slovak Republic, Slovenia, and Sweden.

Nevertheless, the overview shows that countries are increasingly offering advance pricing agreements. This may be an answer to the need of multinational companies to reduce their risk in transfer pricing matters as awareness is rising. But it can also be argued that the introduction of APAs functions as a tax incentive, giving the tax authorities a possibility to agree on rather flexible terms and thereby attracting investment (Calderón (2005), Kamphuis/Oosterhoff (2003)).

4.1.9 Categorization of Transfer Pricing Regulations

The previous sections provide a comprehensive overview of different aspects of transfer pricing regulations. As the scope of regulations was continuously extended, it becomes obvious that transfer pricing is increasingly important, to governments and to multinational corporations. A survey conducted by Ernst & Young in 2010, in which multinationals across 25 countries were interviewed on their perception on transfer pricing, underlines this result. About 75% of the respondents stated that transfer pricing will be "absolutely critical" or "very important" in the following two years (Ernst & Young (2010), p. 3, 7).

This section, thus, aims at providing a measure for the strictness of transfer pricing regulations. As a first step, it is crucial to define strictness. On the one hand, the design and scope of implemented rules have to be taken into account. The applicability to a broader range of taxpayers, the availability of stricter methods, the requirement of an extensive documentation in a rather short period of time and high material penalties are elements of a strict regulation. But on the other hand, also the enforcement and awareness of such rules has to be considered. As one element of enforcement, it is considered whether or not regulations are introduced in national tax law since statutory rules generally have a wider range and importance than guidelines published by the tax authorities. Concerning available methods, the survey revealed that, on the one hand, most countries refer to the methods laid out in the OECD Guidelines and, thus, almost no variation exists. On the other hand, the strictness of one method, i.e. the leeway it offers in setting a transfer price, depends on the circumstances and details of the transaction. Therefore, it is not possible to rank methods according to their generosity. Furthermore, the survey shows that especially the introduction of documentation requirements into national tax law plays an important role for the awareness of the issue in a given jurisdiction. However, there may also be exceptions where the administrative procedures are very sophisticated and based purely on guidelines. To bring these aspects together, the need for disclosure is defined as a valid measure for the enforcement of documentation requirements and, in turn, transfer pricing regulations in general, because it stands for a requirement of documentation connected with a definite annual deadline for submission. It thereby encourages taxpayers to comply with transfer pricing regulations.

Based on this reasoning, six categories are defined in order to evaluate the strictness of transfer pricing regulations in a given country. The categories are depicted in Table 7.

Table 7: Categories of Transfer Pricing Regulations

Category	**Description**
Category 0	No general anti-avoidance rule/no transfer pricing regulations or documentation requirements exist

Category 1	Arm's length principle (through transfer pricing regulations or general anti-avoidance rule) introduced in national tax law, but **no documentation requirement**
Category 2	Arm's length principle (through transfer pricing regulations or general anti-avoidance rule) introduced in national tax law, documentation requirement is not introduced in national tax law, but **required to exist in practice** (audit)
Category 3	Arm's length principle (through transfer pricing regulations or general anti-avoidance rule) introduced in national tax law, **documentation requirement is introduced in national tax law**, but full documentation must only be available upon request
Category 4	Arm's length principle (through transfer pricing regulations or general anti-avoidance rule) introduced in national tax law, (documentation requirement is introduced in national tax law), a **short disclosure** of documentation is required
Category 5	Arm's length principle (through transfer pricing regulations or general anti-avoidance rule) introduced in national tax law, (documentation requirement is introduced in national tax law), a **long disclosure** of documentation is required

Source: own composition.

The categories defined in Table 7 account for the existence of transfer pricing regulations, the introduction of documentation requirements into the national tax law as well as the required disclosure. As mentioned in Chapter 4.1.4, the content of the required documentation is extremely difficult to identify, therefore it is not considered.

Other elements of transfer pricing regulations that could also be used for this measure are the definition of related parties, the deadlines for documentation, the statute of limitations, and penalties. Clearly, the lower the applicable threshold, the shorter the deadlines, the longer the statute of limitations, and the higher the penalties, the stricter are the regulations. But as the weight of each single element is very difficult to assess, it is assumed that they should not be accounted for by additional categories. Much rather, they could be used as separate variables.

For the countries considered in this study, the distribution over the categories is given in Table 8.

Table 8: Allocation of Transfer Pricing Categories[119]

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009
NORTH AND SOUTH AMERICA									
Argentina	5	5	5	5	5	5	5	5	5
Brazil	5	5	5	5	5	5	5	5	5
Canada	4	4	4	4	4	4	4	4	4
Chile	1	1	1	1	1	1	1	1	1
Colombia	2	2	2	4	4	4	4	4	4
Ecuador	0	0	0	0	5	5	5	5	5
Mexico	5	5	5	5	5	5	5	5	5
Peru	n/a	n/a	n/a	n/a	4	5	5	5	5
United States	4	4	4	4	4	4	4	4	4
Venezuela	1	4	4	4	4	4	4	4	4
ASIA/AUSTRALIA									
Australia	4	4	4	4	4	4	4	4	4
China	4	4	4	4	4	4	4	5	5
India	5	5	5	5	5	5	5	5	5
Indonesia	1	4	4	4	4	4	4	4	5
Japan	4	4	4	4	4	4	4	4	4
Malaysia	4	4	4	4	4	4	4	4	4
Philippines	n/a	n/a	n/a	n/a	n/a	n/a	2	2	2
Thailand	2	2	2	2	2	2	2	2	2
Vietnam	2	2	2	2	2	4	4	4	4
EUROPE									
Austria	2	2	2	2	2	2	2	2	2
Belgium	2	2	2	2	2	2	2	2	2
Czech Republic	2	2	2	2	2	2	2	2	2
Denmark	4	4	4	4	4	4	4	4	4
Finland	n/a	n/a	2	2	2	2	3	3	4
France	2	2	2	2	2	2	2	2	2
Germany	2	2	3	3	3	3	3	3	3
Greece	1	1	1	1	1	1	1	3	3
Hungary	2	2	3	3	3	3	3	3	3
Ireland	1	1	1	1	1	1	1	1	1
Italy	4	4	4	4	4	4	4	4	4
Luxembourg	n/a	n/a	n/a	n/a	2	2	2	2	2
Netherlands	1	4	4	4	4	4	4	4	4
Norway	n/a	n/a	n/a	2	2	2	2	4	4
Poland	4	4	4	4	4	4	4	4	4
Portugal	1	4	4	4	4	4	4	4	4
Romania	n/a	n/a	2	2	2	2	3	3	3
Russia	2	2	2	2	2	2	2	2	2
Slovak Republic	n/a	n/a	n/a	n/a	2	2	2	2	3
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	4	4	4
Spain	2	2	2	2	2	2	3	3	3
Sweden	2	2	2	2	2	2	3	3	3

[119] There are few countries where a disclosure of documentation is necessary, but no statutory documentation requirement exists (e.g. Australia and Brazil). The documentation is then based on comprehensive guidelines. The disclosure is assumed to outweigh the missing statutory regulation and such countries are chosen to fall under Category 4 or 5.

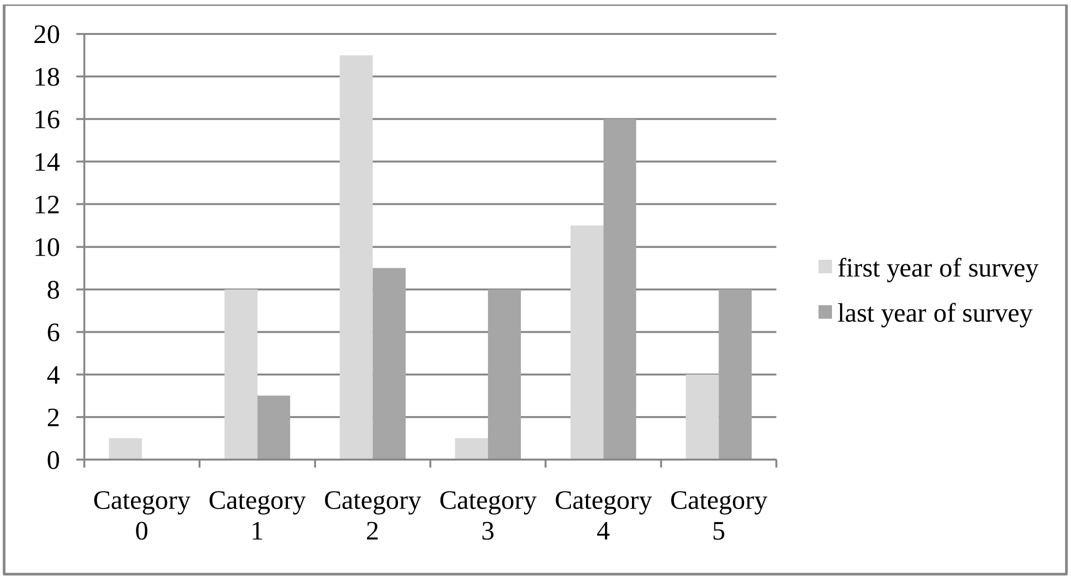
Switzer-land	2	2	2	2	2	2	2	2	2
Ukraine	1	1	1	1	1	1	1	1	1
United Kingdom	3	3	3	3	3	3	3	3	3

Source: own illustration.

The categorization in Table 8 shows that 26 out of the 44 considered countries did not change the strictness of transfer pricing regulations. They are allocated to the same category over the considered time period. For 13 out of the 26 countries this is due to the fact, that they were already allocated to categories 4 or 5 in 2001 (e.g. Argentina, Brazil, Canada, India, or the United States). However, 18 countries changed transfer pricing regulations and, in all cases, increased their strictness. Most countries increased the strictness with regard to 1 or 2 category steps, by introducing documentation or disclosure requirements (e.g. China, Germany, Spain, or Sweden). But few countries (i.e. Ecuador, Indonesia, and the Netherlands) show a more significant increase. Ecuador, for instance, has not applied any anti-avoidance rule until it introduced comprehensive transfer pricing rules in 2005. Therefore, it increases from Category 0 to Category 5 over the considered time period.

When comparing the categories for each country in the first year that information is available and in the last year (2009), the distribution displayed in Figure 7 is found.

Figure 7: Development of Transfer Pricing Categories over Time

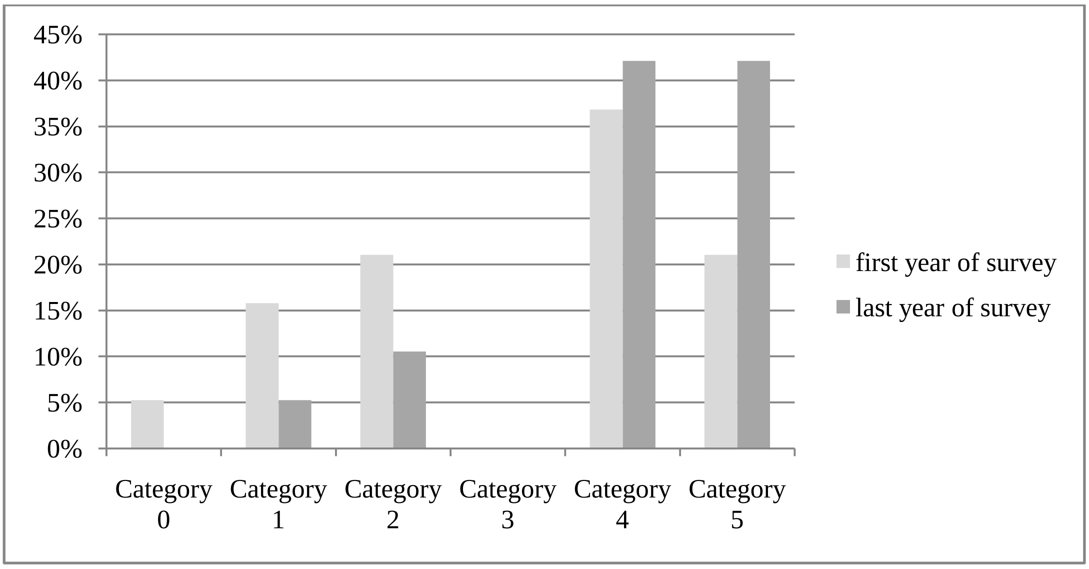


Source: own illustration.

Considering the development over time, Figure 7 also shows that transfer pricing regulations became stricter. While in the first year of available information, 28 countries were attributed to categories 0, 1, and 2, in the last year, it was only 12 countries. The greatest decrease over time was recognized by category 2, while category 3 denotes the highest increase. This means that many countries introduced a statutory documentation requirement.

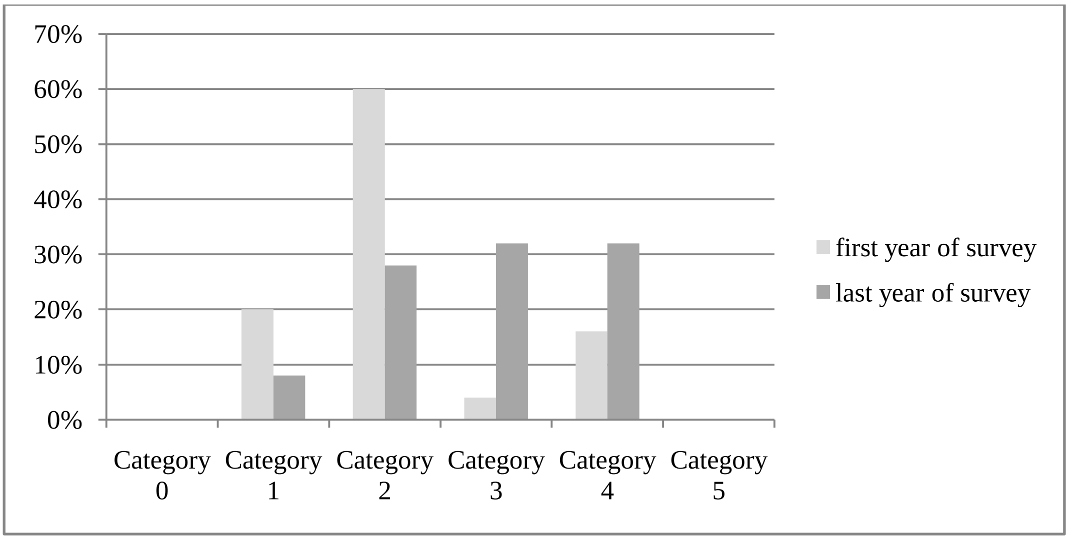
The same diagram can be plotted for geographical areas (due to the different size of the areas, numbers are expressed in percent). Figure 8 displays the results for North and South America, Asia, and Australia, Figure 9 the results for Europe.

Figure 8: Transfer Pricing Categories in North and South America, Asia, and Australia



Source: own illustration.

Figure 9: Transfer Pricing Categories in Europe



Source: own illustration.

Figure 8 and Figure 9 show again that the development in North America, South America, Asia, and Australia is different from the development in Europe. In the first group of countries, more than 80% of countries require disclosure of documentation, while in Europe it is only 32%. The increase of Category 3 can only be accounted to European countries since in American and Asian countries, a statutory requirement is in all cases connected with a disclosure. The findings are generally in line with the results found in the survey conducted by Ernst & Young where multinationals from the United States, Mexico, India, and Argentina stated that they spend a lot of resources on preparing documentation (Ernst & Young (2010), p. 4).

4.2 Thin/Fat Capitalization Rules

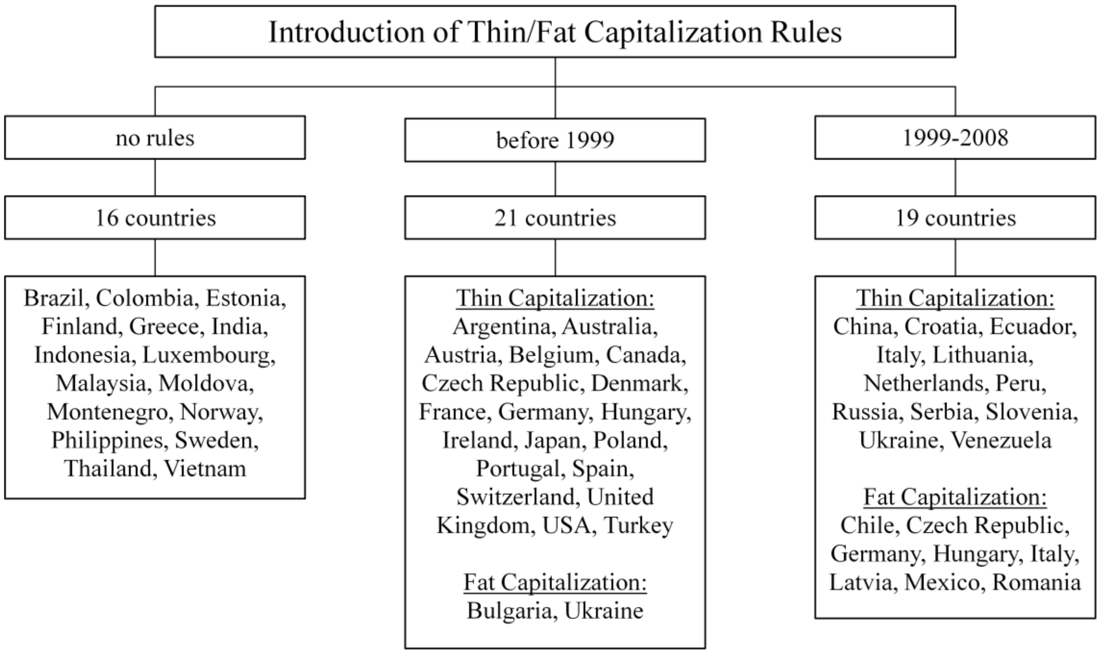
As previously outlined, thin capitalization rules are unilateral measures that are implemented to prevent excessive debt financing. The following sections will discuss the design of such rules in 53 countries worldwide and over a time period of ten years (1999-2008).

4.2.1 Existence and Applicability

The regulations for the avoidance of excessive debt financing can be distinguished into thin and fat capitalization rules. While thin capitalization rules usually aim at preventing disproportionate debt financing between related entities, fat capitalization rules apply to debt financing between all entities, related and unrelated.

Figure 10 provides an overview of the different types of rules implemented in the surveyed countries. 16 out of 53 countries still do not apply any thin or fat capitalization rules. Developed, OECD member states like Finland, Norway, or Sweden are among those countries as well as developing countries. However, the majority of countries have regulations in place. 21 countries have introduced thin/fat capitalization rules before 1999, only two of which applied fat capitalization rules. But Figure 10 also shows that over the past decade, several countries have switched from thin to fat capitalization (i.e. Czech Republic, Germany, Hungary, and Italy) or have introduced fat capitalization rules (i.e. Chile, Latvia, Mexico, and Romania). Only Ukraine has switched from fat to thin capitalization rules.

Figure 10: Introduction of Thin/Fat Capitalization Rules



Source: own illustration.

The Slovak Republic is not displayed in the Figure as it was the only country that, in 2004, abolished thin capitalization rules. This abolishment has been an exception to the trend of introducing or tightening thin/fat capitalization rules.

Table A10 in the appendix also shows that several European countries adjusted their thin capitalization rules during the considered time period. This is due to a decision by the ECJ in the German *Lankhorst-Hohorst* case (C-324/00 of 12 December 2002) in which it was decided that if under thin capitalization rules foreign related entities are treated differently from domestic related entities, it constitutes an unjustifiable violation of the freedom of establishment (Cordewener (2003), Körner (2003)).[120] This decision had an effect not only on German thin capitalization rules, but also on several other European jurisdictions (Kessler/Obser (2004)). In the following years, such jurisdictions, therefore, amended their regulations. Where thin capitalization rules were applicable only to foreign related entities, there were two options for amendment in line with EU law: either the regulations could be extended to all related entities, domestic and foreign, or they could be narrowed only to non-EU foreign related entities. Four out of the eight countries where an amendment was required extended the scope to all related entities (i.e. Czech Republic, Denmark, Germany, and Poland) and four countries reduced the scope to only non-EU foreign related entities (i.e. France, Ireland, Portugal, and Spain).

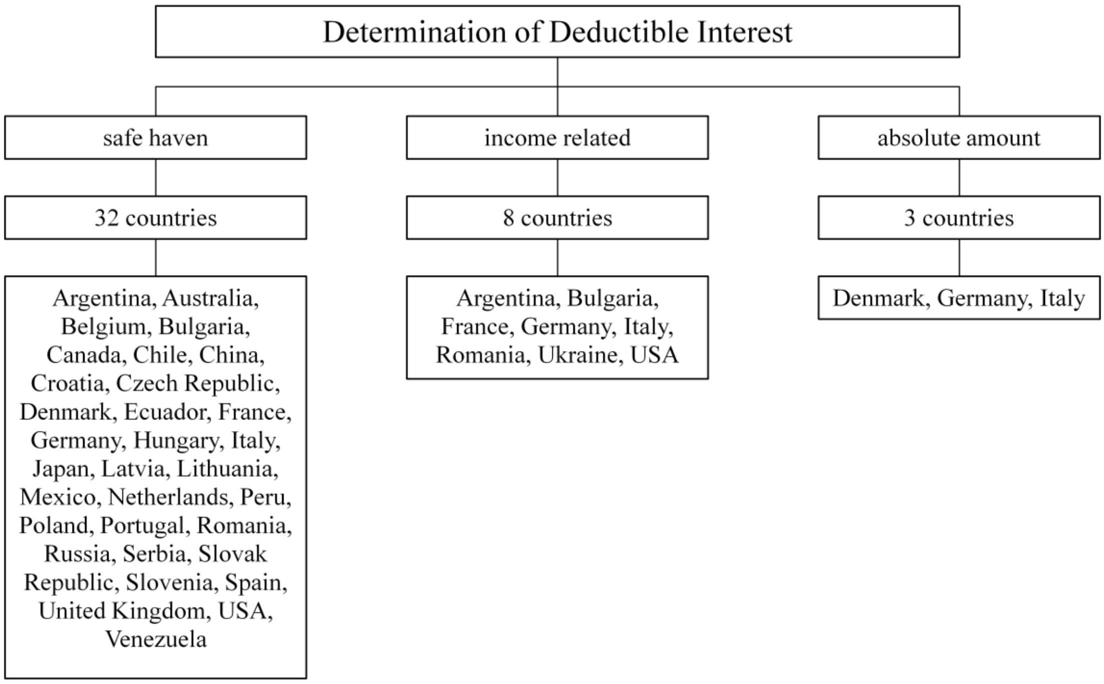
Overall, it can be concluded that thin capitalization rules are a very common anti-avoidance measure employed in the wide majority of countries. Over the past decade, a slight trend towards fat capitalization rules, and accordingly an increase in strictness, can, however, be observed.

4.2.2 Determination of Deductible Interest

Both, thin and fat capitalization rules, base on a distinction between acceptable and unacceptable debt financing. In order to determine the extent of debt financing that is considered acceptable, different approaches exist. A very common approach is the use of a debt-to-equity ratio up to which interest is fully deductible. Such a ratio is also called a safe haven. The calculation of the debt-to-equity may differ between jurisdictions, especially regarding the use of all debt or only of debt to related entities in the ratio. An alternative approach is to use an income parameter to calculate deductible interest. This may be a certain percentage of total income or of earnings before interest, taxes, depreciation, and amortization (EBITDA). Furthermore, the acceptable amount of debt financing can also be calculated applying a certain percentage on certain groups of assets that may not be exceeded. Finally, some countries also allow for an absolute amount of interest deduction which is usually applied in addition to one of the other approaches. Figure 11 provides an overview of the approaches used in the considered countries over the years 1999 to 2008.

[120] See also ECJ, 13.7.2007, Case 524/04, *Thin Cap Group Litigation*, ECR 2007, I-2107.

Figure 11: Determination of Deductible Interest



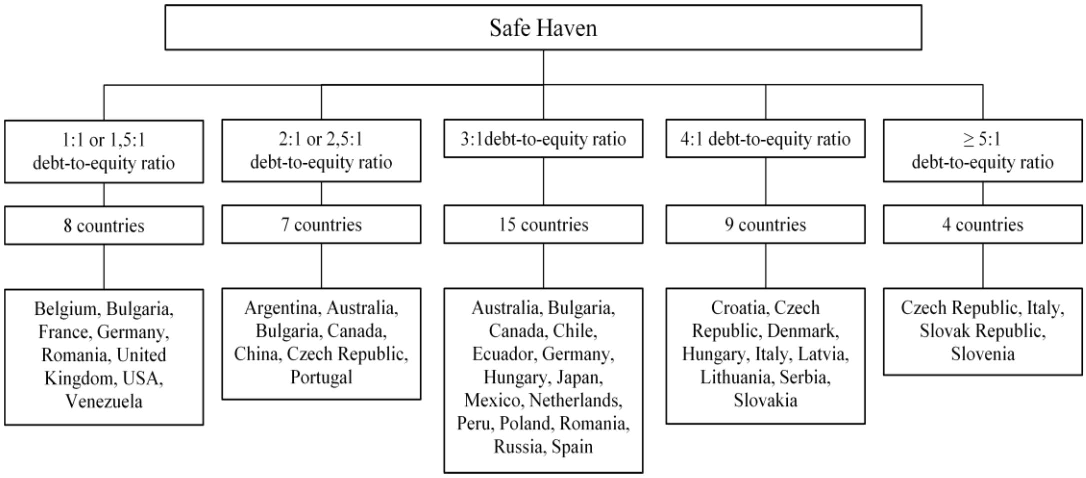
Source: own illustration.

Out of the 37 countries applying thin/fat capitalization rules, 32 countries applied a safe haven approach and eight countries an income related measure at some point in the considered time period. Countries that are displayed in more than one category either apply a combination of approaches or they have switched regulations over time (i.e. Argentina, Bulgaria, France, Germany, Italy, Romania, and the United States). A combination of approaches is applied by Argentina, Bulgaria, and Romania which use a debt-to-equity ratio as a first test. If that is not met an income related measure is applied (Argentina and Romania have both abolished the income related measures and switched to only a safe haven approach in 2004 and 2005 respectively). France, on the other hand, has introduced a combined approach in 2007 and added an income-related measure to the debt-to-equity ratio. Germany and Italy, in contrast, have both fully abolished the safe haven approach and introduced an income related measure in 2008 (30% of EBITDA in both cases). The United States have always applied two different measures. Under thin capitalization rules, the excessive usage of debt financing is limited, but no guideline is provided as to how to determine excessive debt financing. In practice, it is, however, assumed that a 3:1 debt-to-equity ratio is sufficient. In addition, under earnings stripping rules interest to foreign related entities is limited to a stricter debt-to-equity ratio (1,5:1) and to 50% of adjustable taxable income. The absolute amount used by Denmark, Germany, and Italy applies in addition to another approach, it, thus, serves as a tax threshold.

Switzerland is the only country that applies an asset ratio to determine acceptable debt financing. It is, thus, not included in the Figure. Moreover, Austria, Ireland, and Turkey apply only rather general guidelines and do not provide for levels of acceptable debt or interest.

Regarding the safe haven approach, the applicable debt-to-equity ratio differs between the respective jurisdictions. Many countries have also changed the ratio over the considered time period. Figure 12, therefore, shows the debt-to-equity ratios implemented in the domestic tax law of the surveyed countries.

Figure 12: Safe Haven Approach



Source: own illustration.

The Figure shows that the great majority of countries apply a 3:1 or stricter debt-to-equity ratio. Again several countries (i.e. nine countries) are allocated to more than one safe haven category because they changed it over time or because they apply different ratios for different transactions. Out of the ten times that the debt-to-equity ratio was adjusted in the surveyed countries and time period, six times it was tightened (i.e. Argentina, Canada, Germany, Hungary, Italy, and Slovenia) and four times it was loosened (i.e. Bulgaria (2x), Australia, and Romania). A split debt-to-equity ratio is used by the Czech Republic and Slovakia. Until the end of 2007, the Czech Republic applied a 4:1 debt-to-equity ratio which in 2008 changed to a 2:1 ratio for debt from related entities and to 6:1 for debt from unrelated entities. A similar approach is used by Slovakia where a 4:1 ratio applies to related parties while a 35:1 ratio applies to all other debt.

The explanations show that it is most common to implement a safe haven approach to determine deductible interest payments. Where the regulations were changed over the considered time period no general trend towards a specific approach can be found. Two developed, European countries, Italy and Germany, have, in 2008, switched from a safe haven approach to an income-related measure. In Germany, the new approach has been heavily criticized by practitioners as well as academics. Not only is it questionable whether the regulations are compatible with European tax law and constitutional law (Führich (2007), Lenz/Dörfler (2010), Prinz (2012)), but especially during the financial crisis, the limitations on the deductibility of interest payments also imposed a great strain on debt financed companies (Spengel/Zinn (2011). The latter aspect led to significant relaxations of the regulations in 2010 (Stadler/Bindl (2010)). However, several countries have discussed introducing similar rules (see e.g. van den Berg van Saparoea (2009)) and it remains to be seen, whether a trend towards income measures evolves.

Regarding the applicable debt-to-equity ratio, only slightly more countries have tightened the ratio than have loosened it. Also, no regional trend for the application of certain approaches can be found, much rather the different approaches are distributed equally across regions.

4.2.3 Tax Consequences of Thin/Fat Capitalization Rules

If the previously outlined rules come to the result that debt financing is excessive and that interest payments should not be deductible, it is questionable, how such interest payments are treated for tax purposes. Generally, two different concepts can be distinguished. Firstly, the excessive interest may be treated as non-deductible business expenses or, secondly, it may be reclassified as dividends[121]. Both concepts lead to an increase of taxable income for the borrower. Under the first approach, several jurisdictions provide for a possibility to carry forward the excessive payments. In subsequent years, the interest is, thus, deductible if debt financing is no longer excessive and allows for an additional deduction. If the recipient of non-deductible interest payments is located in the same jurisdiction, double taxation can be prevented by allowing for a corresponding reduction of received interest. Regarding a foreign re-

[121] For a critical discussion of the reasoning behind this concept see Brosens (2004), p. 191.

cipient of the interest payments, withholding taxes on interest will only be levied on the deductible amount. For the treatment of non-deductible interest at the level of the recipient, two cases have to be distinguished. If no tax treaty exists, the full payments are treated as interest at the level of the recipient and double taxation results. If a tax treaty exists, Article 11 OECD Model applies and allocates the taxing rights of interest to the recipient, which can also possibly result in international double taxation. However, if Article 9 OECD Model includes a provision on corresponding adjustments as outlined in para. 2, this can be applicable to the non-deductible amount of interest. The Contracting State is, thus, obliged to adjust the received interest.

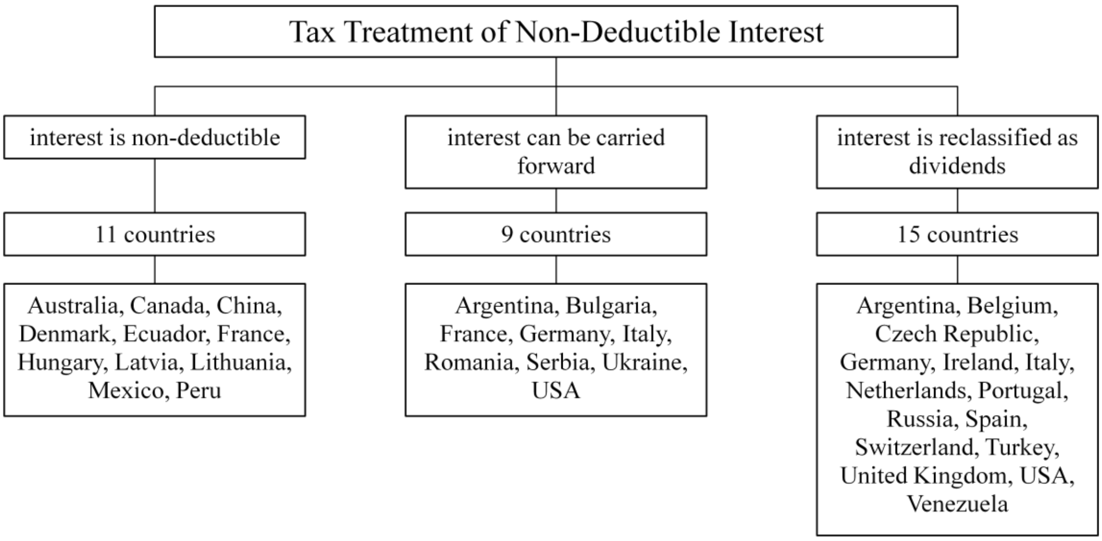
Under the second approach, if the recipient of reclassified interest payments is located in the same jurisdiction, the payments will also be treated as dividends and taxed accordingly. However, if the recipient is located in a different jurisdiction, the tax treatment of the payments is more difficult. Regarding the source taxation of the payments, the withholding tax rate on dividends will be applied, according to domestic law or a double tax treaty. Where payments are between subsidiaries and parent companies within the European Union, it is questionable whether the Parent-Subsidiary-Directive, which exempts cross-border dividends from withholding tax, is applicable. An answer is provided by the Advocate General in the *Lankhorst-Hohorst* case (C-324/00 of 12 December 2002) who pointed out that the Directive is valid in this case since the characteristics of a withholding tax as defined in the Directive are satisfied.

Nevertheless, for the treatment of the payments in the country of the recipient, several possible options exist. Regarding EU cases, the Parent-Subsidiary-Directive does not include a provision for the requalification of interest. It can, thus, not be assumed that countries will apply the Directive to such cases (Brosens (2004), p. 204). Where no tax treaty between the two concerned countries exists, the received payments will be treated as interest and will be fully included in domestic taxable income. Furthermore, the country of the recipient will apply the unilateral relief for double taxation by most likely crediting withholding tax on interest, not on dividends. If, on the other hand, a double tax treaty exists, a provision on the reclassification of interest into dividends under thin capitalization rules may be implemented. The OECD has in 1992 included a paragraph in the Commentary on Article 23 OECD Model which allows for a reclassification under certain conditions. Mainly, the OECD Model requires that the lender in fact assumes the risks taken by the borrower, i.e. the loan has to show some characteristics of equity capital. If that is the case, the payments may be recharacterized and both Contracting States apply the dividend article.

Zielke (2010) provides an overview of the treatment of non-deductible interest or of interest requalified as dividends by all OECD member states. In this context, he analyzed 870 relations between OECD member countries and finds that in exactly half the cases, double taxation will not be prevented because the country of the recipient will not provide for a corresponding adjustment or treatment of the excessive interest payments. Regarding this impressive number of cases where double taxation prevails, it has to be considered that it may reduce the attractiveness of a country for inward investment (Hinny (2008), p. 27). It is, thus, crucial to guarantee a corresponding treatment of interest payments.

Figure 13 provides an overview of the tax treatment of excessive interest payments in the surveyed countries. Again, the Figure displays the tax treatment applicable in the considered time period, i.e. where the tax treatment was changed, countries are allocated to both alternatives (that is the case for four countries: Argentina, France, Germany, and Italy). While Germany and Italy switched from a reclassification of interest as dividends, to non-deductible business expenses including a carry forward, Argentina conducted the opposite change. France, in turn, only introduced a carry forward of excessive interest payments. The USA are also assigned to two categories because of the two different sets of rules they apply. For six countries (i.e. Japan, Austria, Croatia, Poland, Slovakia, and Slovenia), the information on the tax treatment could not be observed, therefore, they cannot be found in the Figure.

Figure 13: Tax Treatment of Non-Deductible Interest



Source: own illustration.

Fifteen countries reclassify interest as dividends, irrespective of the difficulties connected with this approach. Twenty countries treat interest as a non-deductible business expense, nine of which allow for a carry forward of excessive interest payments. Again, the different concepts are spread equally across regions and across developed and developing countries. Also, when looking at the changes made, no trend towards a certain concept can be observed.

5 Quantitative Analysis of the Impact of Anti-Avoidance Measures on Profit Shifting

The previous chapter has outlined transfer pricing regulations and thin capitalization rules in more detail over several years for 44 and 53 countries respectively. Moreover, an index for the strictness of transfer pricing regulations was introduced. This information constitutes the basis of the following two studies which examine the impact of both anti-avoidance measures on profit shifting in multinational companies.

5.1 The Impact of Transfer Pricing Regulations on Profit Shifting within European Multinationals[122]

5.1.1 Scope of the Study

As outlined in the previous chapters, profit shifting strategies significantly reduce corporate tax revenues in high-tax countries. Huizinga/Laeven (2008) estimate that in 1999 the corporate tax base of Germany, which was the country with the highest corporate tax rate in Europe at that time, would have been by 14% larger in the absence of tax rate differentials between European countries.

Especially in Europe, this and related evidence on tax competition behavior in the setting of corporate tax rates has fueled debates about an international coordination of company taxation. In addition, several countries have introduced anti-profit shifting legislations on a unilateral basis which are designed to reduce the incentive for income relocations from their borders. In order to restrict profit outflow through transfer price distortions, a rising number of countries implemented transfer pricing regulations during the last decade, which require multinational enterprises (MNEs) to document their intra-firm transfer prices for tax purposes. The strictness of these regulations varies across countries, ranging from a mere acknowledgement that price setting must adhere to the arm's length principle (i.e. intra-firm prices must correspond to prices that would have been set between third parties) up to strict legal requirements for transfer price documentation that have to be submitted with the tax return on an obligatory basis. A major shortcoming of the stricter versions of transfer pricing rules is that they imply considerable administrative costs for both, firms and tax authorities. Whether their use is beneficial from a social perspective thus largely

[122] The following sections are based on Lohse/Riedel (2012a).

depends on whether they are indeed instrumental in dampening earnings stripping from high-tax countries.

In the course of this project, detailed information on the transfer pricing requirements in 26 European countries over the past decade was collected.[123] This data was then merged with information on corporate tax rates and rich accounting and ownership data on European MNEs between 1999 and 2009.

In a first step, this data is exploited to replicate existing evidence on multinational profit shifting behavior. Precisely, previous studies are followed and the impact of corporate tax rate changes on the reported profitability of multinational affiliates is determined using panel data estimations that control for unobserved affiliate heterogeneity and for time-varying firm, industry and host-country characteristics.

Using these estimates as a starting point, the relation between tax-motivated income relocations and the implementation of transfer pricing legislations is, in a second step, assessed. For this purpose, three transfer pricing categories are defined that reflect the existence and strictness of a country's transfer pricing legislations: the first category comprises countries without transfer pricing legislations or with very general anti-avoidance rules only; the second category comprises countries in which transfer pricing regulations do exist in practice and where tax authorities may require some form of transfer price documentation while the transfer price legislations are not implemented in national tax law; the third category comprises countries in which documentation requirements are introduced into national tax law and imply that firms must disclose their transfer pricing choices to the tax authorities upon request or directly with the annual tax return.[124]

The results are robust against a number of robustness checks. Not only alternative measures of profitability are used as the dependent variable, but also different measures for the strictness of transfer pricing regulations. Also another transfer pricing aspect is assed to the estimations, which is the possibility to enter into advance pricing agreements (APA). It is assumed that such procedures can proxy for a good organizational structure of the tax administration.

[123] See Chapter 4.1.
[124] These categories are based on the categorization laid out in Chapter 4.1.9.

Finally, an alternative tax measure is employed, i.e. a tax differential measuring the difference between the firm's host country's corporate tax rate and an unweighted average tax rate of the entire corporate group.

5.1.2 Literature Overview

This study contributes to several strands of the recent public finance literature. First, it adds to the large and growing literature on international profit shifting (see e.g. Hines (1999) and Devereux/Maffini (2007) for surveys on the existing literature) which provides compelling evidence that multinational entities strategically relocate income from high-tax to low-tax countries. To do so, they pursue different strategies, the most important ones being distortions of intra-firm transfer prices and the MNE's debt-equity structure.[125] Recent empirical papers suggest that it is especially transfer price distortions which are quantitatively important instruments to transfer income to low-tax economies (see e.g. Clausing (2003) and Buettner/Wamser (2012)).

Similar to the approach used in this study, most papers provide indirect evidence on multinational shifting behavior by establishing a significantly negative effect of the affiliates' host country tax on the reported pre-tax profitability of firms (see e.g. Grubert/Mutti (1991), Hines/Rice (1994), Huizinga/Laeven (2008), and Weichenrieder (2009)). Some studies, moreover, assess the importance of individual income shifting channels. Clausing (2003) provides evidence in favor of tax-motivated transfer price distortions using data on intra-firm trade prices of US multinationals (see also Swenson (2001) and Bartelsman/Beetsma (2003) on related studies). Several papers, furthermore, show that intangible assets play an important role in profit shifting strategies as for them arm's length prices from third-party trade are hardly available due to their firm-specific nature (see e.g. Grubert (1998), Grubert (2003), and Dischinger/Riedel (2011)). Huizinga/Laeven/Nicodeme (2008), Altshuler/Grubert (2003), and Buettner/Wamser (2012), moreover, determine the effect of corporate taxation on the multinational's debt-equity structure providing evidence in favor of tax-motivated debt shifting. The evolution of profit shifting behavior over time has, in turn, received less attention. The only study found which tackles that issue is Altshu-

[125] Debt shifting strategies imply that affiliates in low-tax countries provide loans to high-tax entities within the multinational group. The associated interest payment is deductible from the corporate tax base at the high-tax entity and accrues with the low-tax affiliate. Transfer pricing strategies, in turn, involve a distortion of the transfer price from its true value, i.e. the underpricing (overpricing) of goods traded from high-tax to low-tax entities (from low-tax to high-tax entities). Buettner/Wamser (2007) find evidence for significant debt shifting activities which are quantitatively small in size though.

ler/Grubert/Newlon (2001) who show that between 1984 and 1992 US multinationals have increased their outward profit shifting.

While profit shifting strategies are in general well-documented, the literature is largely silent on the effectiveness of legislations which aim to restrict international income shifting to low-tax countries. Exceptions are Buettner/Overesch/Schreiber/ Wamser (2012) and Ruf/Weichenrieder (2012). Buettner/Overesch/Schreiber/ Wamser (2012) provide evidence that thin capitalization rules which restrict the deductibility of interest payments (for intra-firm debt) from the corporate tax base indeed dampen multinational debt shifting behavior. Similarly, Ruf/Weichenrieder (2012) report evidence that controlled foreign company (CFC)-regulations are effective in reducing the attractiveness of passive investment in low-tax jurisdictions. This study complements these studies by showing that transfer pricing legislations equally hamper the relocation of multinational income towards low-tax countries.

5.1.3 A Simple Theoretical Model

Consider a representative multinational group with two affiliates in countries A and B. Both firms produce an output s_i with $i \in \{A, B\}$. For simplicity reasons, the price for the final output good is normalized to 1. Moreover, it is presumed that affiliate A produces an input good that is required for production by both affiliates and is sold to affiliate B. The true price for this input good is $\bar{q}$. Following previous papers, it is assumed that the true transfer price is unobservable to the tax authorities and the MNE can thus choose a transfer price which deviates from the true price.

Distorting the transfer price from its true price is, however, not costless. Following Haufler/Schjelderup (2000), it is assumed that the MNE accrues positive costs denoted by C if the transfer price is deviated from $\bar{q}$, whereas the costs convexly increase in the absolute deviation. This may either reflect that the probability for the tax authorities to detect price distortions convexly increases in the deviation from the true price. Alternatively, the MNE may incur convex concealment costs as it may find it increasingly difficult to cover transfer pricing activities from the tax authorities the further the price is deviated from its true price. Plausibly, transfer pricing costs are, moreover, determined by the country's level of transfer price documentation requirements. If tax authorities, for example, require firms to document and justify transfer prices in their common tax returns, the firm's ability to deviate the transfer price from the true price is presumed to be significantly restricted. Formally, the transfer pricing costs are thus modeled as a u-shaped cost function with a local minimum at $\bar{q}$: $C = \gamma\, K(q - \bar{q})$, whereas $\gamma > 0$ and $K(\bar{q}) = 0$, $sign(K') = sign(q - \bar{q})$, and $K'' > 0$.[126] The strictness of the country's transfer pricing requirements are reflected by the parameter γ which increases the absolute and marginal shifting costs for all q.[127]

The MNE's after-tax profit reads

$$\pi = (1 - t_A)(s_A - q) + (1 - t_B)(s_b + q) - C \tag{1}$$

The MNE maximizes the after-tax profit in (1) by choosing the optimal transfer price q. The first order condition reads

$$t_A - t_B = \gamma\, K'(q - \bar{q}) \tag{2}$$

The optimal transfer pricing choice thus equates marginal shifting costs (right hand side of equation (2)) and marginal benefits from shifting activities (left hand side of equation (2)). Thus, if $t_A > t_B$, the MNE chooses a transfer price $q > \bar{q}$ and thus relocates income from country A to country B by overpricing the input good delivered from affiliate A to affiliate B. Analogously, if $t_B > t_A$, the MNE chooses a transfer price $q < \bar{q}$ and thus relocates income from country B to country A by underpricing the input good delivered from affiliate A to affiliate B.

Comparative statics read

$$\frac{\partial\, q}{\partial\, (t_A - t_B)} = \frac{1}{\gamma K''}, \quad \frac{\partial\, q}{\partial\, \gamma} = -\frac{K'}{\gamma K''}, \quad \frac{\partial^2 q}{\partial (t_A - t_B) \partial \gamma} = -\frac{1}{\gamma^2 K''}.$$

Thus, profit shifting incentives imply that the optimal transfer price q increases in the tax rate differential between countries A and B. Moreover, transfer price distortions are reduced if transfer price documentation requirements, as modeled by the parameter γ, rise. For the same reason, the marginal effect of changes in the tax rate difference on the transfer price choice is dampened with rising documentation requirements γ.

[126] It is assumed that the parent is located in a country which fully exempts foreign profits.
[127] Note that a simple modeling strategy is assumed for the implementation of transfer pricing legislation into the cost function, which essentially assumes that the regulations increase the firm's detection risk and hence proportionally shift up the MNE's cost function. Note that the results are, however, robust to more complex formulations of the cost function.

The model, thus, predicts that transfer price documentation lowers the MNE's incentive to engage in income shifting behavior and dampens the sensitivity of transfer prices (and in consequence reported pre-tax profits) to changes in the corporate tax rate.

5.1.4 Data

This hypothesis is assessed using firm level data on multinational affiliates in the EU. The data is taken from the firm database AMADEUS (version February 2011) provided by the Bureau van Dijk. It includes rich information on accounting and financial data which comprises balance sheets, profit and loss accounts and several financial indicators. Data is available in panel format for the years 1999 to 2009 and includes firms in 26 European countries.[128] The firms included in the analysis belong to a multinational group in the sense that either their parent company or one of their wholly owned subsidiaries is located in a foreign economy. As Bureau von Dijk draws on different sources of information across countries, sample coverage varies and, thus, some caution is warranted when drawing conclusions from the results for the population of firms. A country distribution of the sample affiliates is presented in Table 9.

Table 9: Country Statistics I

Country	Firm Number
Austria	300
Belgium	2,187
Bulgaria	633
Croatia	365
Czech Republic	551
Denmark	1,771
Estonia	282
Finland	544
France	3,001
Germany	1,510
Hungary	34
Ireland	33
Italy	2,348
Latvia	8
Luxembourg	18
Netherlands	2,196
Norway	1,101
Poland	934
Portugal	337
Romania	4,735
Slovak Republic	78

[128] The countries comprise the EU-27, with the exception of Cyprus, Greece, Lithuania, Malta, and Slovenia, and in addition Croatia, Norway, Switzerland, and Ukraine.

Spain	2,803
Sweden	2,127
Switzerland	136
Ukraine	133
United Kingdom	4,343
Sum	**32,508**

Source: own composition.

The observational unit in the analysis is the multinational affiliate per year. In total, the sample comprises 151,716 observations from 32,508 affiliates for the years 1999 to 2009. Hence, each affiliate is observed for 4.7 years on average. Besides the rich set of accounting information available in AMADEUS, the dataset is enlarged by merging information on the country's tax system, i.e. the statutory corporate tax rates and information on transfer pricing legislation. The corporate tax information is taken from Ernst & Young's worldwide corporate tax guide, while the information on transfer pricing regulations was collected from various sources, mainly transfer pricing guides published by Deloitte, Ernst & Young, KPMG, and PwC.[129] In the following, the development of corporate tax rates and transfer pricing rules in the sample countries over time will be briefly sketched and it will be described how this information is classified and exploited for the empirical analysis.

Development of Corporate Income Tax Measures

In Europe increasing tax competition has led to a race to the bottom of corporate income tax rates. The driving forces behind this downward trend have been extensively discussed in the literature. Just recently, Heinemann/Overesch/Rincke (2010) provided evidence suggesting that the decrease in corporate tax rates in Europe is related to international tax competition. They find that high-tax countries experienced pressure to decrease their corporate tax rates which was even larger if low-tax countries were geographically close.

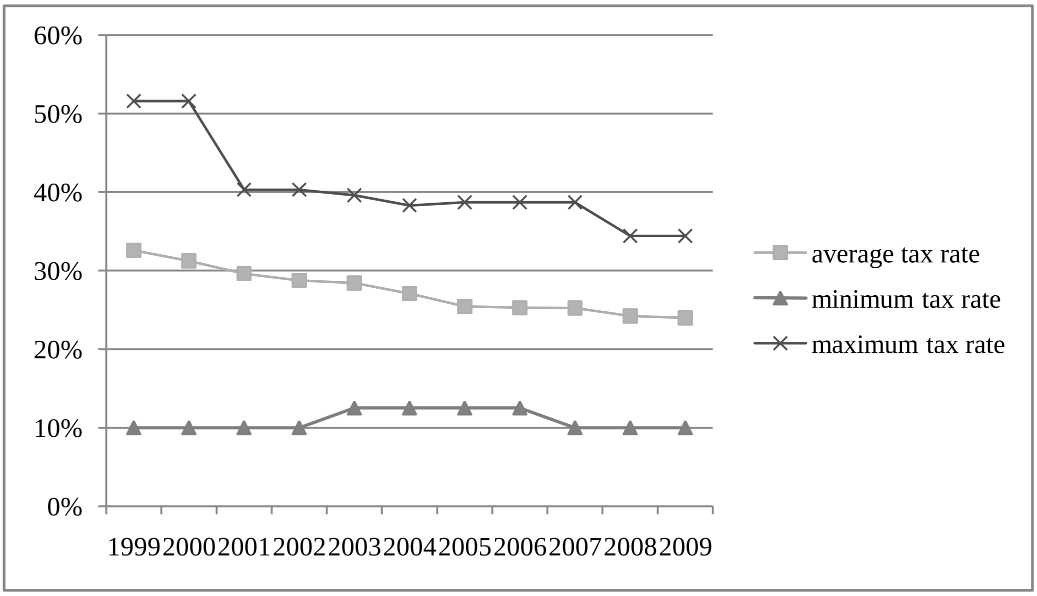
During the considered time period, the average corporate income tax rate fell from 32.59% to 23.98%. Except for Norway and Hungary, every single country lowered its tax rate, Bulgaria and Germany by even more than 20%.

Figure 14 shows that while maximum tax rates in Europe dropped significantly (from 52.3% to 34.4%), minimum tax rates were rather stable (10-12.5%). Therefore, the

[129] See Chapter 4.1.

spread between the maximum and minimum tax rate has decreased from 42.3% in 1999 to 24.4% in 2009.[130]

Figure 14: Development of Corporate Tax Rates between 1999 and 2009



Source: own illustration.

Besides the corporate tax rate, an alternative tax measure is also employed. A tax differential is calculated which measures the difference between the firm's host country's tax rate and the unweighted average tax rate of the entire corporate group. The data shows that the tax differential was rather stable over time, the average always being very close to zero. However, whenever the observed firm had a lower tax burden than the average of the corporate group, the absolute value of that tax differential increased over time. I.e. while in 1999, the firm's host country's tax rate was at most 20 percentage points below the average, it was 31 percentage points lower in 2009. This is also proof for the development of corporate tax rates in Europe and the existence of several low-tax locations.

Quantifying Transfer Pricing Regulations

In general, transfer pricing regulations vary across countries and may differ in a number of characteristics, most importantly in their applicability and scope, in the allowed methods for transfer price calculation, in the documentation requirements, or penalties for non-compliance with the rules.

[130] See Table A1 and A2 in the Appendix for additional information. The statutory tax rates considered include local income taxes and tax surcharges. In case of progressive tax rates, the highest income level was assumed.

In the following, countries will be classified in three categories reflecting the strictness of their transfer pricing legislations. A first natural step is to assess whether a country has enacted any form of transfer price legislation at all. Transfer pricing rules are commonly based on the so called arm's length principle which requires that prices for intercompany transactions have to correspond to the price that would have been chosen between two unrelated parties. While most European countries have implemented arm's length principles in their national tax law, the legislation is often imprecise and does not include further details as to its applicability, the determination of transfer prices, or the required documentation and hence lacks in scope to restrict transfer pricing behavior. Countries without or with only limited transfer pricing legislations are hence assigned to the first transfer pricing category.

In the next step, differences in the strictness of existing transfer pricing legislation are identified. The major instrument to limit transfer pricing opportunities is the introduction of documentation requirements for controlled transactions and prices as the increased level of transparency reduces the scope for deviations of the transfer pricing choice from the 'true' price. The importance of transfer pricing requirements is underpinned by the fact that in most jurisdictions the burden of proof as to the appropriateness of a transfer price switches from the tax authorities to the taxpayer if only insufficient documentation is available. Furthermore, the introduction of documentation requirements into national tax law is in general accompanied by special transfer pricing penalties on missing or wrong documentation. Jurisdictions, however, differ in the stage at which the transfer price documentation must be made available to the tax authorities. While some jurisdictions require the documentation only in case of a formal audit, others require the documentation to be available upfront to answer requests by the tax authority or hand it in with the tax return. In the following, the former countries will be classified in category 2 and the latter countries in category 3.[131] An overview of the categories can be found in Table 10 (for a more detailed study on the different transfer pricing regulations see Chapter 4.1.9).[132]

[131] Note that the detection risk of transfer pricing activities likely differs across asset types. For instance, the transfer of an intangible asset, where no market of comparable goods exists, are more difficult to assess and offer a greater scope for manipulation than other types of assets. This difference, however, is not specific to any particular country but plausibly holds for all economies within our sample.

[132] Note that compared to the categories introduced in Chapter 4.1.9, categories 0 and 5 were dropped because they were not represented in the data. Furthermore, categories 3 and 4 were merged as a disclosure requirement did not make any difference compared to a statutory requirement in this sample of countries where disclosure is only barely required.

Table 10: Categorization of Transfer Pricing Regulations I

Category	Description
Category 1	No or only very general anti-avoidance regulations; no documentation requirements
Category 2	Transfer pricing rules exist; documentation requirement is not introduced in national tax law, but is required to exist in an audit
Category 3	Transfer pricing rules exist; documentation requirement exists in national tax law

Source: own composition.

Note that the definition of the above categories abstracts from issues related to the calculation methodology for intra-firm transfer prices. This can be justified along two lines: on the one hand, there is little variation in the allowed pricing methods across countries and, on the other hand, different methods are not considered to imply more or less leeway in the transfer pricing choice.[133] In the contrary, the supervision of transfer price determination by tax authorities may be crucial for transfer pricing choices. Regarding penalties levied on transfer price adjustments, it has to be distinguished between general tax penalties and special transfer pricing penalties. Unfortunately, reliable information on the design of such penalties over time could not be found. But the research revealed that special transfer pricing penalties are in almost all cases introduced together with the implementation of documentation requirements in national tax law. It can, therefore, be assumed that the measure for the strictness of transfer pricing regulations, which is based on documentation requirements and their enforcement, equally serves as a proxy for penalties.

In all sample countries, transfer pricing regulations have been either introduced or tightened between 1999 and 2009. Not a single country has relaxed its regulations. While in the first year of their inclusion in the sample, the great majority of countries was allocated to category 2 (16 countries), and only six countries were allocated to category 1 and four countries to category 3, in the last year of the sample, the majori-

[133] The different countries have formulated regulations on how to determine such prices depending on the kind of transaction taking place, which in most cases are based on the OECD Transfer Pricing Guidelines. The available methods either follow an opportunity cost approach that determines arm's length prices considering prices or profit margins of comparable uncontrolled transactions or they make use of benchmark analyses of competitors. The methods available may lead to different ranges of possible transfer prices. Therefore, a certain method may increase the possibility to over- or understate the transfer price in a specific situation, but this depends on the kind of transaction and the detailed circumstances and is, plausibly, not specific to any particular country. Therefore, no general proposition can be made as to how generous a certain method may be.

ty of countries moved up to category 3 (15 countries), while only two countries remained in category 1 and nine in category 2.[134]

Furthermore, in order to account for the enforcement of tax regulations another aspect of transfer pricing was also added which is the possibility to enter into an advance pricing agreement (APA). Such an agreement allows taxpayers and tax authorities to negotiate a transfer price for a certain transaction in advance and for a certain period of time. It, therefore, significantly reduces the risk of a transfer pricing adjustment. APAs are generally offered in different forms, they can either be unilateral or bilateral. A unilateral agreement is entered by the taxpayer and the national tax authority of the hosting country, while a bilateral agreement also includes the tax authority of a foreign country which is affected by the transaction. Therefore, bilateral agreements are generally more favorable for taxpayers as transfer prices are approved by both affected countries. But for tax authorities such a procedure involves a high level of effort and cross-border coordination. It is, for that reason, necessary to establish sophisticated procedures to be able to process requests. It can, therefore, be assumed that the possibility to enter into a bilateral advance pricing agreement can be seen as a proxy for a sophisticated structure and progressiveness of tax authorities which in turn may also be seen as a measure for enforcement.[135]

None of the countries considered in this study offered bilateral advance pricing agreements in 1999, but this changed over the years with ten countries offering bilateral APA procedures in 2009.

Descriptive statistics on firm characteristics and other country variables

Moreover, information on GDP as a proxy for market size, GDP per capita as a proxy for a country's income and development level, the GDP growth rate as a measure for economic growth, the unemployment rate as a proxy for the state of a country's economy and the corruption index as a proxy for the state of governance institutions, is added. The corruption index is obtained from Transparency International while other country data is retrieved from the World Development Indicator Database. For an overview of the descriptive statistics see Table 11.

[134] See Table A11 in the Appendix for more details.
[135] See Table A12 in the Appendix for information on the availability of APAs.

Table 11: Descriptive Statistics I

Variable	Obs	Mean	Std. Dev.	Min	Max
Earnings Before Interest and Taxes (EBIT)*	150,214	17,086.5	255,592.8	0.0011	3.54e+07
Pre-tax Profits*	151,716	21,565.42	272,660	0.0004	3.45e+07
Earnings Before Interest and Taxes over Total Assets*	150,214	0.1277	0.2075	1.41e-06	22.9051
Pre-tax Profits over Total Assets*	151,716	0.1380	2.0007	1.62e-06	764.946
Fixed Assets*	151,716	181,206.8	2,207,504	0.0014	2.36e+08
Costs of Employees*	151,716	27,373.47	222,174.1	0.0003	2.26e+07
Corporate Tax Rate	151,716	0.3019	0.0627	0.1	0.4025
Tax Differential◊	87,152	0.0097	0.0626	-0.303	0.314
Existence of Transfer Pricing Legislation	151,716	0.9596	0.1970	0	1
Transfer Pricing Legislation	151,716	2.3863	0.5639	1	3
Category 1	151,716	0.0404	0.1970	0	1
Category 2	151,716	0.5329	0.4989	0	1
Category 3	151,716	0.4267	0.4946	0	1
APA	146,321	0.5243	0.4994	0	1
GDP per Capita▪	151,716	20,688.4	9,660.09	594	56,600
GDP▪	151,716	7.40e+11	6.42e+11	8.19e+09	2.1e+12
GDP growth rate▼	151,716	2.1978	3.0162	-18	12.1
Corruption Index♦	151,716	6.947	1.9872	1.5	9.7
Unemployment▲	151,716	7.3699	2.9651	2.1	20.5

Notes: Firm data is exported from AMADEUS database offered by Bureau van Dijk, version: February 2011
* taken from unconsolidated accounts, in thousand USD
◊ difference between the host country's corporate tax rate and the unweighted average tax rate of the corporate group (ownership >50%)
▪ in USD, constant prices, year 2000 (Source: World Development Indicator Database, World Bank)
▼ in % (Source: World Development Indicator Database, World Bank)
♦ index ranges from 1 (high level of corruption) to 10 (no corruption) (Source: Transparency International)
▲ in % of total labor force (Source: World Development Indicator Database, World Bank)

Source: own calculations.

5.1.5 Estimation Strategy

A model of the following form is estimated

$$EBIT_{it} = \beta_0 + \beta_1 \tau_{it} + \beta_2(\tau_{it} * TP_{it}) + \beta_3 TP_{it} + \beta_4 X_{it} + \rho_t + \varphi_i + \varepsilon_{it}$$

where $EBIT_{it}$ depicts the earnings before interest and taxes of affiliate i at time t. As the distribution of the variable is strongly skewed, a logarithmic transformation of the variable is used.

The regressors of main interest are the corporate tax rate, denoted by τ_{it}, and the variable indicating the strictness of a country's transfer pricing regulations (as defined in the previous section) denoted by TP_{it}. Following previous papers, international profit shifting activities are tested for by regressing the affiliate's earnings before interest and taxes (EBIT) on the host country's corporate tax rate. The EBIT is used because it captures operational profit only which is mainly effected by transfer pricing regulations.[136] If MNEs engage in significant income shifting behavior, it is presumed that a high corporate tax rate dampens the reported earnings and vice versa, expecting $\beta_1 < 0$. But at the same time, it is supposed that profit shifting activities and, hence, the sensitivity of a company's reported pre-tax earnings with respect to corporate tax rate changes is influenced by transfer pricing legislation. It is, therefore, expected that the tax rate sensitivity of profit shifting for European multinationals decreases with the introduction or tightening of transfer pricing regulations.

Regarding the interaction of the corporate tax rate and TP_{it} a positive coefficient $\beta_2 > 0$ is expected since reported pre-tax profits are supposed to increase due to less profit shifting activity. The coefficient estimate β_3 captures the effect of stricter transfer price regulations on EBIT in countries with a corporate tax rate of zero. Here, the sign of the coefficient estimate is expected to be negative as tax haven countries are, in the absence of transfer pricing legislations, expected to be at the receiving end of profit shifting relations implying high reported earnings. If tax haven countries in turn introduce transfer price documentation requirements (the result of which may in the course of disputes also become accessible to authorities in high-tax countries), profit shifting opportunities are likely dampened, inducing the reported level of the EBIT to fall.

Furthermore, the estimations are augmented by a large set of control variables X_{it}. Most importantly, it is controlled for affiliate size as measured by a company's fixed asset stock and costs of employees. Moreover, a set of time-varying country controls comprising the country's GDP (to proxy for country size), GDP per capita (to proxy for the country's level of development), the GDP growth rate (as a measure for economic growth), the unemployment rate (as a proxy for the economic state of the country) and a corruption index (to proxy for the governance situation in a country) is included. Additionally a full set of affiliate fixed effects to absorb any time-constant differences between the entities is included. All specifications, furthermore, comprise a full set of one-digit industry-year effects which capture common shocks to all affiliates within the same industry over time.

[136] Note that the pre-tax profit, which also includes financial profit, will be included in robust checks as an alternative measure.

5.1.6 Results

The results are presented in the following sections. Section 5.1.6.1 presents the basic results, while Section 5.1.6.2 includes a number of robustness checks.

5.1.6.1 Basic Results

In the basic regression, the logarithm of earnings before interest and tax (EBIT) is used as the dependent variable (Table 12). The sample only includes firms which are part of a multinational group, i.e. either the parent or a wholly owned subsidiary is located in a foreign country. Heteroscedasticity robust standard errors which account for clustering at the firm level, the country-year level or the industry level are reported in parentheses below the coefficient estimates.

In Specification (1), the logarithm of EBIT is regressed on the statutory corporate tax rate and several input factor choices. A negative and significant coefficient estimate for the corporate tax rate is found. The result confirms the presumption that a higher corporate tax rate reduces reported earnings in a given country. Quantitatively, the results suggest that an increase of the corporate tax rate by 1 percentage point decreases reported profits before tax by 0.394%.

Table 12: Regression Results I

Table 12: Regression Results, Fixed Effects, Panel 1999-2009
Dependent Variable: Log Earnings Before Interest and Tax (EBIT)

	(1)			(2)			(3)		
Corporate Tax Rate	-0.394** (0.166)	-0.394 (0.300)	-0.394** (0.194)	-2.068*** (0.355)	-2.068*** (0.506)	-2.068*** (0.259)	-3.425*** (0.409)	-3.425*** (0.638)	-3.425*** (0.365)
Corporate Tax Rate x Time							0.185*** (0.034)	0.185*** (0.054)	0.185*** (0.031)
Existence of Transfer Pricing Legislation				-0.575*** (0.121)	-0.575*** (0.209)	-0.575*** (0.109)	-0.468*** (0.124)	-0.468** (0.221)	-0.468*** (0.111)
Existence of TP Leg. x Corporate Tax Rate				1.912*** (0.357)	1.912*** (0.595)	1.912*** (0.317)	1.709*** (0.363)	1.709*** (0.624)	1.709*** (0.324)
Log Cost of Employees	0.433*** (0.012)	0.433*** (0.021)	0.433*** (0.016)	0.432*** (0.012)	0.432*** (0.021)	0.432*** (0.016)	0.437*** (0.012)	0.437*** (0.020)	0.437*** (0.016)
Log Fixed Assets	0.082*** (0.005)	0.082*** (0.005)	0.082*** (0.016)	0.082*** (0.005)	0.082*** (0.005)	0.082*** (0.016)	0.083*** (0.005)	0.083*** (0.005)	0.083*** (0.015)
Corruption Index	-0.012 (0.010)	-0.012 (0.016)	-0.012 (0.011)	-0.004 (0.010)	-0.004 (0.017)	-0.004 (0.011)	0.005 (0.010)	0.005 (0.014)	0.005 (0.010)
GDP	-3.04e-13** (1.32e-13)	-3.04e-13** (1.54e-13)	-3.04e-13 (2.21e-13)	-2.43e-13* (1.35e-13)	-2.43e-13 (1.67e-13)	-2.43e-13 (2.20e-13)	-9.48e-14 (1.34e-13)	-9.48e-14 (1.52e-13)	-9.48e-14 (2.23e-13)
GDP per Capita	0.00006*** (7.43e-6)	0.00006*** (9.98e-6)	0.00006*** (8.93e-6)	0.00006*** (7.44e-6)	0.00006*** (9.74e-6)	0.00006*** (9.33e-6)	0.00008*** (8.10e-6)	0.00008*** (0.00001)	0.00008*** (0.00001)
GDP Growth Rate	0.008*** (0.002)	0.008** (0.004)	0.008*** (0.002)	0.007*** (0.002)	0.007* (0.004)	0.007*** (0.002)	0.006*** (0.002)	0.006* (0.003)	0.006** (0.002)
Unemployment	-0.006** (0.002)	-0.006* (0.003)	-0.006* (0.003)	-0.006*** (0.002)	-0.006* (0.003)	-0.006** (0.003)	-0.010*** (0.002)	-0.010*** (0.004)	-0.010*** (0.003)
Industry-Year-Effects	✔	✔	✔	✔	✔	✔	✔	✔	✔
Within R-Squared	0.1571	0.1571	0.1571	0.1575	0.1575	0.1575	0.1578	0.1578	0.1578

# Obs	150,214	150,214	150,214	150,214	150,214	150,214	150,214	150,214	150,214

Notes: Heteroscedasticity robust standard errors adjusted for firm, country-year or industry levels in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level respectively (where the significance level differs between clustering levels, the corresponding significance is reported in parentheses). Observational unit is the multinational firm, i.e. either the parent or a wholly owned subsidiary is located in a foreign jurisdiction. The dependent variable is the logarithm of the firm's earnings before interest and taxes (EBIT). 'Corporate tax rate' depicts the host country's statutory corporate tax rate including local income taxes and possible surcharges. 'Corporate Tax Rate x Time' stands for the interaction term of the corporate tax rate and a time indicator (values 1 to 11 for the years 1999-2009). 'Existence of Transfer Pricing Legislation' describes an indicator variable for the existence of transfer pricing legislation in a given country. 'Existence of TP Leg. x Corporate Tax Rate' stands for the interaction term of such an indicator variable and the corporate tax rate. 'Log Fixed Assets' depicts the logarithm of the fixed asset stock and 'Log Costs of Employees' stands for the logarithm of the costs of employees. 'Corruption Index' is the Transparency International Corruption Index (1=high corruption, 10=no corruption). 'GDP (per capita)' stands for the host country's gross domestic product (per capita). 'GDP Growth Rate' accounts for the growth of GDP. 'Unemployment' depicts the host country's unemployment rate in % of the total labor force. Industry-year-effects are based on one-digit NACE-codes.

Source: own calculations.

In Specification (2), an additional regressor is included which indicates whether a country has implemented binding transfer pricing regulations (the variable takes on the value 1 if the country is classified in categories 2 or 3 as defined in Section 5.1.4 in a given year), as well as its interaction term with the corporate tax rate. The results suggest that the implementation of binding transfer pricing regulations reduces the profit shifting effect significantly. While in countries without transfer pricing legislation, an increase in the corporate tax rate of 1 percentage point decreases the EBIT by 2.068%, we cannot find a statistically significant profit shifting effect in countries where transfer pricing regulations exist. Note that the coefficient estimate for the transfer pricing legislation dummy is negative which might appear puzzling at first sight. In general, one would expect that the introduction of transfer pricing legislation tends to increase the reported earnings before interest and taxes of firms in high-tax countries as it is more difficult to shift profits to foreign low-tax entities (as indicated by the positive coefficient estimate for the interaction term with the corporate tax variable). The effect of transfer pricing legislation on reported earnings in low-tax countries is in turn less clear. Precisely, the introduction of transfer pricing legislation in low-tax countries may also hamper profit shifting activities into these countries as transfer pricing legislations increase the transparency of price setting behavior and may make profit shifting behavior more costly (transfer pricing information might eventually, e.g. in transfer pricing disputes, also become available to the high-tax countries' authorities). Therefore, the effect of an introduction of transfer pricing regulations depends on the level of the corporate tax rate. The results show that for countries with a corporate tax rate larger than approximately 30% (=0.575/1.912), the reported earnings before interest and taxes increase with the introduction of transfer pricing rules, while in countries with lower tax rates, they decrease.

In Specification (3), a linear time trend is additionally interacted with the baseline corporate tax rate variable to allow the profit shifting effect to vary over time. The results suggest that the tax sensitivity of corporate profitability has significantly decreased over time as the coefficient estimate for the baseline corporate tax variable turns out negative and significant while the coefficient for the interaction term is positive. Quantitatively, the profit shifting effect is dampened by approximately 6% per year (=0.185/3.24).

In all specifications, the control variables show the expected signs. The firm size, measured by the logarithm of fixed assets and the logarithm of costs of employees, has a positive impact on reported EBIT. With increasing unemployment rates, the reported earnings before interest and taxes decrease, while they increase with an increasing GDP per capita and an increasing GDP growth rate. The coefficient for the GDP has, however, a negative sign, which can be interpreted as a competition effect in the given market. Finally, the results show that they are robust to different clustering levels.

5.1.6.2 Robustness Checks

In the following, the sensitivity of the results to alternative model specifications will be further assessed. Besides using different profitability measures as the dependent variable, the effect of the existence of advance pricing agreements (APA) procedures will be included and an alternative tax measure will be used. The following estimations all report heteroscedasticity robust standard errors clustered at the firm level.

Different Profitability Measures

In this section, different dependent variables will be used to capture profit shifting behavior, explicitly the logarithm of profit before taxes as well as the logarithm of EBIT over total assets and the logarithm of profit before tax over total assets. While EBIT captures operating profit, the pre-tax profit also includes financial profits. Transfer pricing measures, however, mainly address operational profit. Thus, EBIT is used as the baseline profit measure. Debt shifting activities are expected to be captured by the pre-tax profit measure only.[137]

Specifications (1)-(3) of Table 13 use the logarithm of earnings before interest and taxes (EBIT) as the dependent variable and show that they are robust to different measures for the strictness of transfer pricing regulations. In Specification (2), the categorial variable, introduced in Section 5.1.4, is used to measure the strictness of transfer pricing regulations. The results confirm the previous findings. Quantitatively, moving from category 1 to category 2 dampens the profit shifting effect as measured by the corporate tax rate coefficient in the year 1999 by approximately 47% (=1.058/2.212). Finally, indicator variables for categories 2 and 3 are included in Specification (3) and profit shifting behavior is found which is decreasing with stricter transfer pricing rules as indicated by the increasing coefficient of the interaction

[137] Note that debt shifting and hence financial profit may also be affected by transfer pricing regulations as they also require arm's length interest rates between related entities, but interest rates are generally more comparable and therefore leave less leeway.

term across categories, i.e. while in countries with no transfer pricing regulations a 1 percentage point increase in the corporate tax rate decreases the reported EBIT by 2.855%, for category 2-regulations, EBIT only decreases by 1.066% and for countries with category 3-regulations, no profit shifting activity statistically different from zero can be found.

Table 13: Regression Results II

Table 13: Robustness Checks: Different Profitability Measures, Fixed Effects, Panel 1999-2009 Dependent Variable: Log Earnings Before Interest and Tax (EBIT)						
	(1)	(2)	(3)	(4)	(5)	(6)
Corporate Tax Rate	-3.425*** (0.409)	-3.339*** (0.377)	-2.942*** (0.412)	-4.018*** (0.397)	-4.246*** (0.359)	-3.560*** (0.400)
Corporate Tax Rate x Time	0.185*** (0.034)	0.069* (0.037)	0.087** (0.037)	0.406*** (0.032)	0.291*** (0.035)	0.313*** (0.035)
Existence of Transfer Pricing Legislation	-0.468*** (0.124)			-0.219* (0.121)		
Existence of TP Leg. x Coporate Tax Rate	1.709*** (0.363)			1.155*** (0.354)		
Transfer Pricing Legislation		-0.327*** (0.047)			-0.287*** (0.044)	
Transfer Pricing Leg. x Corporate Tax Rate		1.058*** (0.145)			0.977*** (0.138)	
Category 2			-0.478*** (0.124)			-0.230* (0.121)
Category 3			-0.737*** (0.135)			-0.472*** (0.131)
Category 2 x Corporate Tax Rate			1.789*** (0.366)			1.250*** (0.357)
Category 3 x Corporate Tax Rate			2.494*** (0.396)			1.886*** (0.383)
Log Costs of Employees	0.437*** (0.012)	0.436*** (0.012)	0.437*** (0.012)	0.162*** (0.010)	0.160*** (0.010)	0.162*** (0.010)
Log Fixed Assets	0.083*** (0.005)	0.083*** (0.005)	0.083*** (0.005)	-0.171*** (0.005)	-0.171*** (0.005)	-0.171*** (0.005)

Corruption Index	0.005 (0.010)	0.012 (0.010)	0.014 (0.010)	-0.007 (0.009)	-0.004 (0.009)	0.002 (0.009)
GDP	-9.48e-14 (1.34e-13)	-2.42e-13* (1.34e-13)	-1.89e-13 (1.35e-13)	2.91e-13** (1.28e-13)	1.06e-13 (1.28e-13)	1.98e-13 (1.29e-13)
GDP per Capita	0.00008*** (8.10e-6)	0.00008*** (8.11e-6)	0.00008*** (8.11e-6)	0.0001*** (7.69e-6)	0.00009*** (7.70e-6)	0.00009*** (7.69e-6)
GDP Growth Rate	0.006*** (0.002)	0.006*** (0.002)	0.006*** (0.002)	0.007*** (0.002)	0.008*** (0.002)	0.007*** (0.002)
Unemployment	-0.010*** (0.002)	-0.008*** (0.002)	-0.007*** (0.002)	-0.008*** (0.002)	-0.007*** (0.002)	-0.005** (0.002)
Industry-Year-Effects	✔	✔	✔	✔	✔	✔
Within R-Squared	0.1578	0.1580	0.1582	0.0341	0.0341	0.0345
# Obs	150,214	150,214	150,214	150,214	150,214	150,214

Notes: Heteroscedasticity robust standard errors adjusted for firm clusters in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level respectively. Observational unit is the multinational firm, i.e. either the parent or a wholly owned subsidiary is located in a foreign jurisdiction. The dependent variable is the logarithm of the firm's earnings before interest and taxes. 'Corporate tax rate' depicts the host country's statutory corporate tax rate including local income taxes and possible surcharges. 'Corporate Tax Rate x Time' stands for the interaction term of the corporate tax rate and a time indicator (values 1 to 11 for the years 1999-2009). 'Existence of Transfer Pricing Legislation' describes an indicator variable for the existence of transfer pricing legislation in a given country. 'Existence of TP Leg. x Corporate Tax Rate' stands for the interaction term of such an indicator variable and the corporate tax rate. 'Transfer Pricing Legislation' depicts the strictness of transfer pricing legislation (1= no or only very general anti-avoidance regulations; 2= Transfer pricing rules exist; documentation requirement is not introduced in national tax law, but is required to exist in an audit; 3 = Transfer pricing rules exist; documentation requirement exists in national tax law, but must only be available upon request). 'TP Leg. x Corporate Tax Rate' describes the interaction term of the categorial transfer pricing variable and the corporate tax rate. 'Category 2' and 'Category 3' stand for indicator variables for categories 2 and 3 as defined above. 'Category 2 x Corporate Tax Rate' and 'Category 3 x Corporate Tax Rate' describe the interaction term of the respective category and the corporate tax rate. 'Log Fixed Assets' depicts the logarithm of the fixed asset stock and 'Log Costs of Employees' stands for the logarithm of the costs of employees. 'Corruption Index' is the Transparency International Corruption Index (1=high corruption, 10=no corruption). 'GDP (per capita)' stands for the host country's gross domestic product (per capita). 'GDP Growth Rate' accounts for the growth of GDP. 'Unemployment' depicts the host country's unemployment rate in % of the total labor force. Industry-year-effects are based on one-digit NACE-codes.

Source: own calculations.

In Specifications (4)-(6) of Table 13, the logarithm of EBIT over total assets is used as the dependent variable. The results are very similar to those in Specifications (1)-(3). Interestingly, the time effect on profit shifting increases relative to the transfer pricing effect.

The results are confirmed when using the pre-tax profit as the dependent variable. In Table 14, Specifications (1)-(3) apply the profit before taxes, and Specifications (4)-(6), the profit before taxes over total assets, as the dependent variable.

Table 14: Regression Results III

Table 14: Robustness Checks: Different Profitability Measures, Fixed Effects, Panel 1999-2009 Dependent Variable: Log Profit Before Tax						
	(1)	(2)	(3)	(4)	(5)	(6)
Corporate Tax Rate	-4.464*** (0.448)	-4.705*** (0.410)	-3.788*** (0.451)	-5.104*** (0.436)	-5.760*** (0.395)	-4.430*** (0.440)
Corporate Tax Rate x Time	0.354*** (0.038)	0.194*** (0.041)	0.211*** (0.041)	0.589*** (0.036)	0.427*** (0.039)	0.446*** (0.039)
Existence of Transfer Pricing Legislation	-0.355** (0.139)			-0.079 (0.137)		
Existence of TP Leg. x Coporate Tax Rate	1.252*** (0.405)			0.628 (0.398)		
Transfer Pricing Legislation		-0.405*** (0.050)			-0.373*** (0.048)	
Transfer Pricing Leg. x Corporate Tax Rate		1.186*** (0.157)			1.134*** (0.151)	
Category 2			-0.376*** (0.139)			-0.101 (0.137)
Category 3			-0.744*** (0.149)			-0.468** (0.146)
Category 2 x Corporate Tax Rate			1.451*** (0.409)			0.829** (0.401)
Category 3 x Corporate Tax Rate			2.370*** (0.437)			1.741*** (0.426)
Log Costs of Employees	0.359*** (0.011)	0.359*** (0.011)	0.360*** (0.011)	0.101*** (0.009)	0.100*** (0.009)	0.102*** (0.009)
Log Fixed Assets	0.083*** (0.006)	0.083*** (0.006)	0.084*** (0.006)	-0.169*** (0.006)	0.168*** (0.006)	-0.168*** (0.006)

Corruption Index	-0.013 (0.011)	-0.003 (0.011)	0.001 (0.011)	-0.026** (0.010)	-0.020** (0.010)	-0.012 (0.010)
GDP	-4.66e-13*** (1.41e-13)	-6.84e-13*** (1.41e-13)	-6.15e-13*** (1.42e-13)	0.011*** (0.002)	0.010*** (0.002)	0.010*** (0.002)
GDP per Capita	0.0001*** (8.72e-6)	0.0001*** (8.72e-6)	0.0001*** (8.71e-6)	-1.81e-14 (1.33e-13)	-2.74e-13** (1.34e-13)	-1.67e-13 (1.35e-13)
GDP Growth Rate	0.009*** (0.002)	0.009*** (0.002)	0.009*** (0.002)	0.0001*** (8.30e-6)	0.0001*** (8.28e-6)	0.0001*** (8.29e-6)
Unemployment	-0.015*** (0.003)	-0.012*** (0.003)	-0.010*** (0.003)	-0.013*** (0.002)	-0.011*** (0.002)	-0.008*** (0.002)
Industry-Year-Effects	✔	✔	✔	✔	✔	✔
Within R-Squared	0.1425	0.1431	0.1432	0.0326	0.0330	0.0334
# Obs	151,716	151,716	151,716	151,716	151,716	151,716

Notes: Heteroscedasticity robust standard errors adjusted for firm clusters in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level respectively. Observational unit is the multinational firm, i.e. either the parent or a wholly owned subsidiary is located in a foreign jurisdiction. The dependent variable is the logarithm of the firm's profit before taxes. 'Corporate tax rate' depicts the host country's statutory corporate tax rate including local income taxes and possible surcharges. 'Corporate Tax Rate x Time' stands for the interaction term of the corporate tax rate and a time indicator (values 1 to 11 for the years 1999-2009). 'Existence of Transfer Pricing Legislation' describes an indicator variable for the existence of transfer pricing legislation in a given country. 'Existence of TP Leg. x Corporate Tax Rate' stands for the interaction term of such an indicator variable and the corporate tax rate. 'Transfer Pricing Legislation' depicts the strictness of transfer pricing legislation (1= no or only very general anti-avoidance regulations; 2= Transfer pricing rules exist; documentation requirement is not introduced in national tax law, but is required to exist in an audit; 3 = Transfer pricing rules exist; documentation requirement exists in national tax law, but must only be available upon request). 'TP Leg. x Corporate Tax Rate' describes the interaction term of the categorial transfer pricing variable and the corporate tax rate. 'Category 2' and 'Category 3' stand for indicator variables for categories 2 and 3 as defined above. 'Category 2 x Corporate Tax Rate' and 'Category 3 x Corporate Tax Rate' describe the interaction term of the respective category and the corporate tax rate. 'Log Fixed Assets' depicts the logarithm of the fixed asset stock and 'Log Costs of Employees' stands for the logarithm of the costs of employees. 'Corruption Index' is the Transparency International Corruption Index (1=high corruption, 10=no corruption). 'GDP (per capita)' stands for the host country's gross domestic product (per capita). 'GDP Growth Rate' accounts for the growth of GDP. 'Unemployment' depicts the host country's unemployment rate in % of the total labor force. Industry-year-effects are based on one-digit NACE-codes.

Source: own calculations.

Advance Pricing Agreements

In Table 15 an indicator variable for the possibility to enter into advance pricing agreements is included. It is expected that the possibility to enter into an APA indicates a sophisticated tax authority organizational structure which in turn is a measure for the enforcement of anti-avoidance legislation. The results are in line with this assumption. The positive coefficient of the interaction term shows that the existence of APA procedures also decreases profit shifting behavior. Precisely, in countries with transfer pricing regulations and APA procedures, no profit shifting activity statistically different from zero can be found (Specification (1)).

The negative coefficient of the APA variable itself provides evidence that in low tax countries, the introduction of APA procedures reduces reported earnings before interest and taxes, since profit shifting into such countries becomes more difficult.

Specifications (3) and (4) use the logarithm of EBIT over total assets as dependent variable and show similar results.

Table 15: Regression Results IV

Table 15: Robustness Checks: Advance Pricing Agreements, Fixed Effects, Panel 1999-2009 Dependent Variable: Log Earnings Before Interest and Taxes (EBIT)				
	(1)	(2)	(3)	(4)
Corporate Tax Rate	-2.438*** (0.432)	-2.401*** (0.431)	-3.294*** (0.420)	-3.228*** (0.419)
Corporate Tax Rate x Time	0.037 (0.040)	0.031 (0.040)	0.307*** (0.038)	0.298*** (0.038)
Existence of Transfer Pricing Legislation	-0.466*** (0.125)		-0.188 (0.122)	
Existence of TP Leg. x Coporate Tax Rate	1.673*** (0.368)		1.087*** (0.358)	
Category 2		-0.459*** (0.126)		-0.173 (0.122)
Category 3		-0.528*** (0.142)		-0.304** (0.138)
Category 2 x Corporate Tax Rate		1.689*** (0.373)		1.081*** (0.363)
Category 3 x Corporate Tax Rate		1.837*** (0.417)		1.408*** (0.404)
APA	-0.213*** (0.050)	-0.156** (0.073)	-0.118** (0.048)	0.016 (0.070)
APA x Corporate Tax Rate	0.387** (0.175)	0.231 (0.231)	0.020 (0.167)	-0.264 (0.220)
Log Costs of Employees	0.431*** (0.012)	0.431*** (0.012)	0.162*** (0.010)	0.163*** (0.010)

Log Fixed Assets	0.083***	0.083***	-0.171***	-0.171***
	(0.005)	(0.005)	(0.005)	(0.005)
Corruption Index	0.005	0.004	-0.010	-0.012
	(0.011)	(0.011)	(0.010)	(0.010)
GDP	1.41e-13	1.09e-13	5.42e-13***	4.92e-13***
	(1.50e-13)	(1.51e-13)	(1.43e-13)	(1.44e-13)
GDP per Capita	0.00007***	0.00007***	0.00009***	0.00009***
	(8.25e-6)	(8.42e-6)	(7.84e-6)	(8.00e-6)
GDP Growth	0.008***	0.007***	0.009***	0.009***
	(0.002)	(0.002)	(0.002)	(0.002)
Unemployment	-0.012***	-0.011***	-0.011***	-0.010***
	(0.002)	(0.002)	(0.002)	(0.002)
Industry-Year-Effects	✔	✔	✔	✔
Within R-Squared	0.1575	0.1575	0.0350	0.0351
# Obs	146,321	146,321	146,321	146,321

Notes: Heteroscedasticity robust standard errors adjusted for firm clusters in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level respectively. Observational unit is the multinational firm, i.e. either the parent or a wholly owned subsidiary is located in a foreign jurisdiction. The dependent variable is the logarithm of the firm's earnings before interest and taxes. 'Corporate tax rate' depicts the host country's statutory corporate tax rate including local income taxes and possible surcharges. 'Corporate Tax Rate x Time' stands for the interaction term of the corporate tax rate and a time indicator (values 1 to 11 for the years 1999-2009). 'Existence of Transfer Pricing Legislation' describes an indicator variable for the existence of transfer pricing legislation in a given country. 'Existence of TP Leg. x Corporate Tax Rate' stands for the interaction term of such an indicator variable and the corporate tax rate. 'Category 2' and 'Category 3' stand for indicator variables for categories 2 and 3 (1= no or only very general anti-avoidance regulations; 2= Transfer pricing rules exist; documentation requirement is not introduced in national tax law, but is required to exist in an audit; 3 = Transfer pricing rules exist; documentation requirement exists in national tax law, but must only be available upon request). 'Category 2 x Corporate Tax Rate' and 'Category 3 x Corporate Tax Rate' describe the interaction term of the respective category and the corporate tax rate. 'APA' is an indicator variable for the possibility to enter into advance pricing agreements. 'APA x Corporate Tax Rate' is the interaction term of this indicator variable and the corporate tax rate. 'Log Fixed Assets' depicts the logarithm of the fixed asset stock and 'Log Costs of Employees' stands for the logarithm of the costs of employees. 'Corruption Index' is the Transparency International Corruption Index (1=high corruption, 10=no corruption). 'GDP (per capita)' stands for the host country's gross domestic product (per capita). 'GDP Growth Rate' accounts for the growth of GDP. 'Unemployment' depicts the host country's unemployment rate in % of the total labor force. Industry-year-effects are based on one-digit NACE-codes.

Source: own calculations.

Comparing Specification (1) of Table 15 and Specification (1) of Table 13 shows that, while without controlling for APA procedures profit shifting activity is dampened by 52.8% (=1.709/3.24) through the existence of transfer pricing legislations, it is fully compensated by the additional existence of APA procedures. Overall, a negative impact of the corporate tax rate on reported profits is found which is dampened by the introduction of transfer pricing regulations and the existence of bilateral APA procedures.

Different Tax Measures

In this section, a tax differential is used instead of the corporate tax rate. The tax differential is calculated by determining the unweighted average tax rate of all corporate group members (ownership >50%) of the firm and deducting it from the corporate tax rate in the firm's host country.[138]

Therefore, the larger the absolute value of the tax differential, the greater is the difference between the firm's tax burden and that of the entire group. It is a positive number, if the host country's tax rate is larger than the average of the group. In that case, we assume that profits should be shifted out of the country to other group members. In case, the tax differential is negative, the firm could be used for inward profit shifting as its tax burden is lower than the average tax burden of the group.

The results confirm those expectations, the greater the tax differential, the lower is the reported EBIT. Quantitatively, if the difference between the host country's tax rate and the average tax rate of the entire group increases by 1 percentage point, the reported EBIT decreases by 1.4% (Specification (1)) in a country where no transfer pricing regulations exist. Note that for negative numbers of the tax differential, this stands for an approximation of the firm's tax burden to that of the group. In that case, less profit is shifted into the firm's host country since its relative advantage decreases. For positive numbers, it increases the relative tax disadvantage of the firm's location and accordingly increases outward profit shifting.

[138] The group structure was determined by identifying the global ultimate owner of the observed firm and all available subsidiaries. The corporate tax rate of each subsidiary with an ownership of greater than 50% was then used to calculate an unweighted average. If the global ultimate owner was not available, the immediate shareholder was used. If the immediate shareholder was also not available, the subsidiaries of the firm itself were used.

Table 16: Regression Results V

Table 16: Robustness Checks: Different Tax Measures, Fixed Effects, Panel 1999-2009
Dependent Variable: Log Earnings Before Interest and Taxes

	(1)	(2)	(3)	(4)	(5)	(6)
Tax Differential	-1.427***	-1.436***	-1.479***	-1.054***	-1.037***	-1.031***
	(0.363)	(0.367)	(0.382)	(0.338)	(0.343)	(0.358)
Tax Differential x Time	0.031	0.032	0.016	0.040	0.039	0.032
	(0.030)	(0.031)	(0.034)	(0.029)	(0.029)	(0.033)
Existence of Transfer Pricing Legislation	0.105***			0.138***		
	(0.032)			(0.031)		
Existence of TP Leg. x Tax Differential	1.054***			0.667*		
	(0.385)			(0.359)		
Category 2		0.102***	0.072*		0.141***	0.126***
		(0.037)	(0.039)		(0.036)	(0.037)
Category 3		0.106***	0.072**		0.138***	0.124***
		(0.032)	(0.034)		(0.031)	(0.033)
Category 2 x Tax Differential		1.079***	1.191***		0.615	0.615
		(0.410)	(0.423)		(0.387)	(0.402)
Category 3 x Tax Differential		1.032**	1.256***		0.703*	0.782*
		(0.399)	(0.431)		(0.372)	(0.405)
APA			-0.006			-0.032
			(0.027)			(0.026)
APA x Tax Differential			-0.116			-0.094
			(0.239)			(0.234)
Log Costs of Employees	0.502***	0.502***	0.493***	0.210***	0.210***	0.208***
	(0.017)	(0.017)	(0.018)	(0.014)	(0.014)	(0.014)
Log Fixed Assets	0.087***	0.087***	0.087***	-0.198***	-0.198***	-0.197***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)

Corruption Index	0.037***	0.037***	0.016	0.035***	0.035***	0.017
	(0.013)	(0.013)	(0.014)	(0.012)	(0.012)	(0.013)
GDP	0.014***	0.014***	0.015***	0.021***	0.021***	0.023***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
GDP per Capita	-5.71e-14	-5.12e-14	2.29e-13	3.51e-13**	3.42e-13**	5.98e-13***
	(1.64e-13)	(1.66e-13)	(1.90e-13)	(1.53e-13)	(1.56e-13)	(1.80e-13)
GDP Growth	0.00004***	0.00004***	0.00004***	0.00003***	0.00003***	0.00003***
	(0.00001)	(0.00001)	(0.00001)	(9.29e-6)	(9.38e-6)	(9.48e-6)
Unemployment	0.001	0.0007	-0.001	0.007**	0.007**	0.004
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Industry-Year-Effects	✔	✔	✔	✔	✔	✔
Within R-Squared	0.1790	0.1790	0.1776	0.0370	0.0370	0.0367
# Obs	87,152	87,152	85,415	87,152	87,152	85,415

Notes: Heteroscedasticity robust standard errors adjusted for firm clusters in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level respectively. Observational unit is the multinational firm, i.e. either the parent or a wholly owned subsidiary is located in a foreign jurisdiction. The dependent variable is the logarithm of the firm's earnings before interest and taxes (EBIT). 'Tax Differential' depicts the difference between the host country's statutory corporate tax rate including local income taxes and possible surcharges and the unweighed average tax rate of all group members. 'Tax Differential x Time' stands for the interaction term of the tax differential and a time indicator (values 1 to 11 for the years 1999-2009). 'Existence of Transfer Pricing Legislation' describes an indicator variable for the existence of transfer pricing legislation in a given country. 'Existence of TP Leg. x Tax Differential' stands for the interaction term of such an indicator variable and the tax differential. 'Category 2' and 'Category 3' stand for indicator variables for categories 2 and 3 (1= no or only very general anti-avoidance regulations; 2= Transfer pricing rules exist; documentation requirement is not introduced in national tax law, but is required to exist in an audit; 3 = Transfer pricing rules exist; documentation requirement exists in national tax law, but must only be available upon request). 'Category 2 x Tax Differential' and 'Category 3 x Tax Differential' describe the interaction term of the respective category and the tax differential. 'APA' is an indicator variable for the possibility to enter into advance pricing agreements. 'APA x Corporate Tax Rate' is the interaction term of this indicator variable and the corporate tax rate. 'Log Fixed Assets' depicts the logarithm of the fixed asset stock and 'Log Costs of Employees' stands for the logarithm of the costs of employees. 'Corruption Index' is the Transparency International Corruption Index (1=high corruption, 10=no corruption). 'GDP (per capita)' stands for the of the host country's gross domestic product (per capita). 'GDP Growth Rate' accounts for the growth of the GDP. 'Unemployment' depicts the host country's unemployment rate in % of the total labor force. Industry-year-effects are based on one-digit NACE-codes.

Source: own calculations.

Also in this setting, the results show that the existence of transfer pricing regulations decreases profit shifting. The positive coefficient of the interaction term of the different measures for transfer pricing and the tax differential show that the tax effect is dampened by the existence of (stricter) transfer pricing rules. Interestingly, the coefficient of the transfer pricing variables is now positive as well. This might appear surprising at first sight, but it has to be noted, that this coefficient applies to situations where the tax differential is zero (as compared to a corporate tax rate of zero in the previous estimations). This means it is now not the case, that the coefficient measures the introduction of transfer pricing regulations in low-tax countries, but much rather in countries where the corporate tax rate is equal to the average tax rate of the group. Profit shifting activities, thus, become more difficult and reported EBIT increases.

Table 16 also shows that these findings are robust to different measures for the dependent variable (EBIT in Specifications (1)-(3) or EBIT over total assets in Specifications (4)-(6)) as well as different measures for transfer pricing regulations. However, a significant impact of the APA indicator cannot be found in this setting.

5.1.7 Conclusion of Results

The aim of this study was to investigate multinational profit shifting within Europe and to assess whether international shifting is significantly dampened by the introduction and tightening of transfer price documentation requirements. As transfer pricing is widely acknowledged to be an (perhaps the most) important income shifting channel (see e.g. Clausing (2003) and Buettner/Wamser (2012)), many countries have implemented transfer pricing documentation requirements in recent years to hedge against profit outflows through intra-firm price distortions. As these rules, especially the stricter versions, imply significant compliance costs by multinational firms and bind resources within tax authorities, evaluating their effectiveness in restricting transfer pricing behavior by MNEs is crucial to assess their welfare implications.

It is assumed that this study is the first to assess the link between transfer price documentation and multinational income shifting behavior. For that purpose, information on transfer price legislations in 26 European countries over the past decade was collected and linked to panel data on multinational firms in the EU.

In line with previous studies, evidence for multinational profit shifting from high-tax to low-tax countries is found. These shifting activities, however, are reduced by the introduction of transfer pricing regulations, i.e. the tax rate sensitivity is reduced by approximately 52.7% through the introduction of transfer pricing regulations. It is also found that, in addition to this effect, profit shifting activities decrease over time, i.e. by 5.7% per year.

The results, furthermore, indicate that the stricter the transfer pricing rules, the greater is the influence on reported profits. But one has to keep in mind that the impact of transfer pricing regulations on high- and low-tax countries has to be distinguished. While the introduction of such rules prevents the outward flow of profits from high-tax countries, it also prevents the inward flow of profits in low-tax countries. The consequence on reported profits is, therefore, twofold.

The same effect can be accounted to the existence of bilateral APA procedures in national tax authorities, which demonstrate sophisticated administrative structures, precisely the existence of APA procedures fully compensates profit shifting activities in countries with transfer pricing legislation. It is also showed that the alternative use of a tax differential measure instead of the corporate tax rate, confirms the expectations and also shows that transfer pricing regulations are instrumental in decreasing profit shifting. Finally, the results are robust to different measures for profit shifting and for the strictness of transfer pricing regulations.

Overall, the results show that profit shifting activity has decreased in Europe due to the introduction of anti-avoidance legislation. From that follows that transfer pricing regulations are, although they imply great administrative burden for both taxpayers and tax authorities, a valid instrument to prevent profit shifting across borders. Furthermore, the results provide implications for the design and enforcement of transfer pricing regulations for tax legislators. They show that especially documentation requirements as well as sophisticated administrative structures play an important role for the prevention of cross-border profit shifting.

5.2 The Impact of Anti-Avoidance Measures on Profit Shifting in Developing Countries[139]

5.2.1 Scope of the Study

The comparison in Chapter 2.2.3 shows that developing countries are even more subject to profit shifting activities of multinational companies than developed countries. A considerable amount of taxable income is shifted out of such countries due to, among others, tax reasons. At the same time, developing countries do often not have the capacities to implement sophisticated administrative structures in order to combat tax avoidance. Nevertheless, several countries have started to introduce anti-avoidance measures which are more or less rigorously enforced.

This study, thus, aims at analyzing the impact of two different kinds of anti-avoidance measures, namely thin capitalization rules and transfer pricing regulations, on profit shifting activities in 17 developing countries worldwide. The information was collected for the years 1999 to 2008 and merged to firm data provided by Bureau van Dijk's ORBIS database.

In a first step, general profit shifting behavior of multinational enterprises will be examined by determining the impact of the statutory tax rate on reported profits, controlling for firm, industry, and host-country characteristics. In a second step, the introduction or tightening of anti-avoidance measures will be analyzed. Due to constraints in the data base, this will be done using an overall anti-profit-shifting variable which controls for the existence of thin capitalization rules and/or transfer pricing regulations. Finally, both anti-avoidance measures will be analyzed separately by examining the two different channels of income shifting, i.e. intercompany trade and intercompany financing, in order to confirm the results.

5.2.2 Literature Overview

Similarly to the first study provided in Chapter 5.1, this study also adds to the growing literature on international profit shifting. The studies presented in Chapter 5.1.2 can, thus, be equally referred to when outlining the existing literature on this topic. However, none of the studies especially focuses on developing countries, which is also due to data constraints. Fuest/Riedel (2010) have pointed out this lack of empirical investigations and suggest several approaches and data sources to close this gap.

[139] The following sections are based on Lohse/Riedel (2012b).

In 2011, Fuest/Hebous/Riedel (2011) have made use of one of the outlined approaches. They used the MiDi-database provided by the German Bundesbank to compare the tax rate sensitivity of the share of intercompany debt financing for developed and developing countries. They argue that the share of intercompany debt financing should be higher in high-tax countries as it is a common channel for profit shifting. The results confirm this expectation for both groups of countries, i.e. developed and developing countries. However, the tax rate sensitivity is significantly larger in developing countries, which suggests that those countries are more affected by profit shifting activities.

As the previous chapter points out, a great number of both, developed and developing, countries worldwide has introduced or tightened anti-profit-shifting legislation, namely transfer pricing regulations and thin capitalization rules, over the past decade. While few studies exist that examine the impact of certain kinds of anti-avoidance regulations on profit shifting in developed countries (Ruf/Weichenrieder (2012), Buettner/Overesch/Schreiber/Wamser (2012), Chapter 5.1), until now, no empirical study exists which examines the impact of such measures especially in developing countries. Therefore, this study aims at contributing to previous findings by analyzing the impact of transfer pricing regulations and thin capitalization rules on profit shifting activities in developing countries.

5.2.3 Data

The study uses firm level data provided by the ORBIS database of Bureau van Dijk, which is the worldwide version of the AMADEUS database used in the first study. It also comprises information on financial and accounting data, including balance sheets, profit and loss accounts, as well as financial indicators. The study focuses on 17 developing countries worldwide over the years 1999 to 2008. Unfortunately, ownership information is not available in the data, i.e. not all firms are necessarily affiliates of a multinational enterprise. Since purely domestic firms do not have an opportunity to shift profits cross-border, no profit shifting activity should be detectable for this group of companies. Therefore, using the entire sample will possibly distort the results and decrease the impact of the statutory tax rate on reported profitability. However, if a relationship can nevertheless be found, it indicates that profit shifting is taking place and might even be of greater impact when analyzing multinational affiliates only. Table 17 depicts a country distribution of the firms in the sample.

Table 17: Country Statistics II

Country	Firm Number
Argentina	74
Brazil	187
Chile	213
China	113,180
Colombia	143
Ecuador	41
India	3,080
Indonesia	1
Malaysia	4
Mexico	18
Moldova	671
Peru	624
Philippines	1,826
Russia	59,874
Thailand	632
Ukraine	12,087
Venezuela	7
Sum	**192,662**

Source: own composition.

In total, the sample comprises 597,226 observations from 192,662 firms. Thus, each firm is observed for 3.1 years on average. The country statistics show that the coverage of firm data varies considerably between countries. China and Russia are strongly represented in the sample and account for the great majority of all firms. This composition of the data has to be considered in the empirical analysis.

The firm data is matched with information on the corporate tax system in the respective host country, i.e. the statutory corporate tax rate and information on anti-avoidance measures. Furthermore, host country characteristics, such as GDP, GDP per capita, the unemployment rate, the real interest rate, and a corruption perception index, are added to control for different aspects of economic and administrative development. In the following, the employed tax information and the descriptive statistics of the data will be further discussed.

Information on Domestic Tax Systems

The first component of the domestic tax system that is controlled for is the statutory corporate tax rate. It is calculated taking local business taxes as well as surcharges into account.[140] A comparison of the tax rates in the considered countries shows that they have, after a slight increase between 1999 and 2001, significantly decreased

[140] Information is collected using Ernst & Young worldwide corporate tax guides.

over time, i.e. from 31% in 1999 to 25.75% in 2008.[141] In contrast to European countries, however, maximum as well as minimum tax rates have been rather constant, with the exception of Moldova which completely abolished the corporate income tax.

The second component of tax information employed is information on the anti-avoidance measures implemented in the respective countries. On the one hand, countries may have introduced thin capitalization rules which prevent excessive debt financing. As outlined in Chapter 4.2, the design of thin capitalization rules varies across countries and is difficult to assess quantitatively. Therefore, only an indicator variable indicating whether such rules exist will be used.[142] Out of the considered countries, only two countries (Argentina and Ukraine) had thin capitalization rules in force in 1999, but another seven countries introduced such rules during the considered time period.

On the other hand, the transfer pricing regulations employed in the domestic tax law will be considered. As described in Chapter 4.1.9, transfer pricing regulations can be categorized according to their strictness. For this study, three different categories will be distinguished which are outlined in Table 18.[143]

Table 18: Categorization of Transfer Pricing Regulations II

Category	**Description**
Category 0	No general anti-avoidance regulations; no documentation requirements
Category 1	Transfer pricing rules exist; documentation requirement is not introduced in national tax law, but may be required to exist in an audit
Category 2	Transfer pricing rules exist; documentation requirement exists in national tax law and a disclosure may be required in addition

Source: own composition.

Table A14 in the Appendix depicts the allocation of the considered countries to the different categories and shows that several countries have tightened their rules over the years 1999 to 2008. Precisely, while in the first year that information was available, the average category was 1.3, it is 1.7 in 2008.

[141] See also Chapter 2.2.1 and Table A2 in the Appendix.
[142] See Table A13 in the Appendix.
[143] Note that, analogically to the previous chapter, a recategorization was conducted. In this setting, categories are numbered 0 to 2 as category 0 still is the original category 0 as defined in Chapter 4.1.9.

This development shows that both components of anti-avoidance measures have been introduced or tightened in many countries of the sample. Not a single country has abolished or loosened such regulations. However, when analyzing the impact of anti-avoidance measures on profit shifting activities, the distribution of countries in the data has to be considered. Due to the overrepresentation of some countries, the data shows, counterintuitively, a rather high negative correlation of thin capitalization rules and transfer pricing regulations. I.e., in the data set, where thin capitalization rules are implemented, there are no or only very lax transfer pricing regulations and vice versa. This correlation is, however, not found when analyzing anti-avoidance measures on a country level. Much rather, it is driven by four countries in the sample: China and India, which both have rather strict transfer pricing regulations, but no thin capitalization rules, and Russia and Ukraine, which both have thin capitalization rules, but very generous transfer pricing regulations. These combinations are surprising as one would expect that countries engaging in combating tax avoidance make use of both measures. The reasons for this structure are not clear and may be justified historically (for the historic Indian tax policy on transfer pricing see e.g. Dash/Krishnan (2010)), but, nevertheless, all four countries already have or currently discuss introducing the missing component of the two anti-avoidance measures.

This negative correlation, however, imposes a multicollinearity problem on the empirical model.[144] Therefore, an overall anti-profit-shifting measure will be employed which controls for the existence of both components. This measure will be calculated as the sum of transfer pricing and thin capitalization existence indicator variables. In this way, both components are equally weighted and the anti-profit-shifting measure takes on the values 0 to 2. The transfer pricing indicator variable will take on the value one if transfer pricing regulations are allocated to category 2 and zero otherwise.

Descriptive Statistics

Besides the information on the domestic tax systems, other host country characteristics have been added. GDP serves as a proxy for market size, GDP per capita for the development level of the host country, the unemployment rate stands for the economic state and the corruption perception index provided by Transparency International

[144] Note that an analog correlation cannot be found in the AMADEUS data set used in the first study.

describes circumstances in governance institutions. The real interest rate is used to control for costs of financing when estimating the impact of thin capitalization rules on the reported debt ratio.

The debt ratio was calculated as the sum of non-current and current liabilities over total assets. Furthermore, outliers are not included, i.e. where the debt ratio was smaller than zero or larger than one, the observation was dropped. Table 19 shows the descriptive statistics of the data.

Table 19: Descriptive Statistics II

Variable	Obs	Mean	Std. Dev.	Min	Max
Earnings Before Interest and Taxes (EBIT)*	538,478	4,664.6	75,112.1	1	2.83e+07
Pre-tax Profits*	476,337	2,884.81	43,361.6	1	1.26e+07
Debt over Total Assets*	597,226	0.5931	0.2825	0	1
Total Assets*	597,226	33,745.7	558,141.6	1	1.75e+08
Corporate Tax Rate	597,226	0.2901	0.0491	0	0.385
Anti-Profit-Shifting Measure	476,337	0.9955	0.1090	0	2
Existence of Transfer Pricing Legislation	538,478	0.5146	0.4998	0	1
Transfer Pricing Legislation	538,478	1.5145	0.4999	0	2
Existence of Thin Capitalization Rules	597,226	0.4319	0.4953	0	1
Real Interest Rate▼	597,226	-1.0120	4.3241	-11.539	47.327
GDP per Capita▪	597,226	1,810.31	695.8	407	9,890
GDP▪	597,226	1.14e+12	7.92e+11	1.47e+09	2.69e+12
Corruption Index♦	597,226	2.9408	0.4875	1.7	7.5
Unemployment▲	597,226	5.5084	1.5776	1.4	19.6

Notes: Firm data is exported from ORBIS database offered by Bureau van Dijk (2010)
* taken from unconsolidated accounts, in thousand USD
▼ in % (Source: World Development Indicator Database, World Bank)
▪ in USD, constant prices, year 2000 (Source: World Development Indicator Database, World Bank)
♦ index ranges from 1 (high level of corruption) to 10 (no corruption) (Source: Transparency International)
▲ in % of total labor force (Source: World Development Indicator Database, World Bank)

Source: own calculations.

5.2.4 Estimation Strategy

The presented data is used to test different models. In a first step, the impact of the outlined anti-profit-shifting measures (APS) will be examined. This is done using the following model

$$PLBT_{it} = \beta_0 + \beta_1 \tau_{it} + \beta_2(\tau_{it} * APS_{it}) + \beta_3 APS_{it} + \beta_4 X_{it} + \rho_t + \varphi_i + \varepsilon_{it}.$$

$PLBT_{it}$ stands for the profit or loss before taxes of firm i in year t. For this model, the profit before tax is used rather than the EBIT as used in Chapter 5.1, because it is affected by both channels of profit shifting, i.e. transfer pricing and intercompany debt financing. In contrast, EBIT does not include interest payments and should, thus, not be affected by thin capitalization rules. Furthermore, a logarithmic transformation is used for $PLBT_{it}$ as its distribution is strongly asymmetric.

The statutory corporate tax rate is depicted by τ_{it} and the overall anti-profit-shifting measure by APS_{it}. It is expected that cross-border profit shifting takes place and, thus, reported profitability should be lower in high-tax countries which means $\beta_1 < 0$. In line with the previous study, it is expected that the introduction or tightening of anti-avoidance measures decreases the tax rate sensitivity of profit shifting as it becomes more difficult to transfer taxable income through intercompany debt financing and/or trade, i.e. it is expected that $\beta_2 > 0$. Finally, due to the inclusion of the interaction term, β_3 measures the impact of the anti-profit-shifting variable in countries with a statutory corporate tax rate of zero. Such low-tax countries usually benefit from inward profit shifting and, thus, the effect of the introduction of anti-avoidance measures in those countries is less clear. While thin capitalization rules only have an influence on outward profit shifting by limiting the amount of deductible interest, transfer pricing regulations also affect inward profit shifting as they set guidelines for the pricing of transactions in either direction. Therefore, with the introduction or tightening of transfer pricing regulations, the profitability is expected to decrease in low-tax countries as inward profit shifting is restricted which means $\beta_3 < 0$. As the anti-profit-shifting measure also includes thin capitalization rules, the effect might be reduced.

In a second step, both channels of profit shifting, i.e. intercompany trade and debt financing, will be examined separately in order to confirm the results of the first step. As previously outlined, it is not expected that thin capitalization rules have an impact on EBIT as it does not account for interest payments. Therefore, EBIT can be used to estimate solely the impact of transfer pricing regulations. The model will have the following form

$$EBIT_{it} = \beta_0 + \beta_1\tau_{it} + \beta_2(\tau_{it} * TP_{it}) + \beta_3 TP_{it} + \beta_4 X_{it} + \rho_t + \varphi_i + \varepsilon_{it}.$$

Again, the impact of the statutory corporate tax rate on reported EBIT will be analyzed and it is expected that the introduction or tightening of transfer pricing regulations (TP_{it}) decreases this impact. Again, the coefficient β_3 depicts the effect of transfer pricing regulations in zero-tax countries and is expected to be negative.

In order to test for profit shifting through intercompany debt financing, the impact of thin capitalization rules on the debt ratio, i.e. debt over total assets, of the firms is examined. Since the data does not allow for a distinction between external and internal debt, all debt is used which will bias the results as usually only internal debt, i.e. between related entities, is affected by thin capitalization rules. The following model will be applied

$$DEBT\ RATIO_{it} = \beta_0 + \beta_1\tau_{it} + \beta_2 THINCAP_{it} + \beta_4 X_{it} + \rho_t + \varphi_i + \varepsilon_{it}$$

In this model, a higher debt ratio stands for increased outward profit shifting activities. Thus, the statutory corporate tax rate is expected to have a positive impact on debt ratio ($\beta_1 > 0$), since firms located in high-tax countries use intercompany financing for outward profit shifting. Thin capitalization rules are expected to curtail such activities, therefore it is expected that $\beta_2 < 0$. Note that the model does not include an interaction term as thin capitalization rules only limit outward profit shifting and should, thus, have the same effect on low- and high-tax countries.

All models also include a set of control variables X_{it}. The firm size is controlled for by including total assets.[145] Furthermore, the host country characteristics presented above (GDP, GDP per capita, unemployment rate, and corruption perception index) are included. The real interest rate is controlled for in the debt ratio model to account for costs of financing. Industry-year effects using one-digit NACE-Codes are also included to control for external effects to firms of the same industry over time. Finally, firm fixed effects control for time-constant firm heterogeneity.

5.2.5 Empirical Study

As previously outlined, the empirical study will be divided into two parts. In a first part, the impact of overall anti-avoidance measures on profit shifting activities will be studied, while in the second part, the different channels of profit shifting will be more closely examined.

[145] Note that the study conducted in Chapter 5.1 included fixed assets and costs of employees to control for firm size. But both variables show only a very poor coverage in this data set, so that total assets are used instead.

5.2.5.1 Impact of Anti-Profit-Shifting Legislation

In the first set of regressions, the logarithm of the profit before taxes is used as the dependent variable. Heteroscedasticity robust standard errors which account for clustering at the firm level are reported in parentheses.

In Specification (1), the tax rate sensitivity of reported profitability is estimated for all firms in the sample. The results show that an increase in the statutory corporate tax rate has a highly significant and negative effect on reported profits, i.e. an increase of the tax rate of 1 percentage point decreases reported profits before taxes by 2.4%. This result is in line with the expectations that firms subject to high corporate taxes tend to shift profits across borders.

Specification (2) includes an anti-profit-shifting measure which is constructed as the sum of the indicator variables for the existence of thin capitalization rules and for transfer pricing regulations, where the indicator variable for transfer pricing regulations takes on the value 1 for regulations referring to category 2 as defined above. The results show that the introduction or tightening of anti-profit-shifting legislation significantly reduces the tax rate sensitivity of reported profits. Quantitatively, the introduction of one component of anti-avoidance measure reduces the tax rate sensitivity by 71% (=5.036/7.054). The coefficient of the anti-profit-shifting measure is negative, which might seem surprising. However, as discussed in the previous section, due to the inclusion of the interaction term, the coefficient measures the impact of the introduction or tightening of anti-profit-shifting legislation in countries with a statutory corporate tax rate of zero. Since those countries benefit from inward profit shifting, anti-profit-shifting measures may lead to a decrease of reported profits. Precisely, the results show that up to a statutory tax rate of 32.1% (=1.616/5.036) profits decrease, while they increase for higher tax rates.

Specifications (3) and (4) show the results of the corresponding estimates on only the large companies in the sample. Large companies are defined according to the Bureau van Dijk standard and have to report either total assets larger than USD 28,000,000 or operating revenues larger than USD 14,000,000. This restriction takes into account that the data set does not allow for a distinction of multinational firms. It was assumed that large firms are more likely to be multinational and, thus, have the opportunity to shift profits to foreign affiliates. However, the results show that, indeed, the same effects can be found for the restricted sample, but they are weaker than for the entire sample. In addition, the coefficient of determination (within R-squared) is lower. Thus, the underlying assumption cannot be confirmed. For the following estimations, the results for large firms will, therefore, not be reported in addition.

Table 20: Regression Results VI

Table 20: Anti-Profit-Shifting Legislation, Fixed Effects, Panel 1999-2008 Dependent Variable: Log Profit Before Taxes				
	(1)	(2)	(3)	(4)
Corporate Tax Rate	-2.397*** (0.353)	-7.054*** (1.348)	-1.914*** (0.551)	-5.050*** (1.773)
Anti-Profit-Shifting Legislation		-1.616*** (0.448)		-1.139** (0.520)
Anti-Profit-Shifting Leg. x Coporate Tax Rate		5.036*** (1.369)		3.110* (1.711)
Log Total Assets	0.585*** (0.005)	0.586*** (0.005)	0.399*** (0.013)	0.399*** (0.013)
Corruption Index	-0.188*** (0.026)	-0.178*** (0.026)	-0.429*** (0.048)	-0.430*** (0.048)
Log GDP	2.9995*** (0.676)	3.164*** (0.678)	3.212*** (0.863)	3.409*** (0.869)
Log GDP per Capita	-1.820** (0.779)	-1.929** (0.782)	-2.349** (0.915)	-2.599*** (0.920)
Unemployment	0.040*** (0.015)	0.029** (0.015)	-0.044** (0.021)	-0.046** (0.021)
Industry-Year-Effects	✔	✔	✔	✔
Within R-Squared	0.2481	0.2481	0.1489	0.1490
# Obs	476,337	476,337	165,289	165,289

Notes: Heteroscedasticity robust standard errors adjusted for firm clusters in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level respectively. Observational unit is the firm. The dependent variable is the logarithm of the firm's profit before taxes. 'Corporate tax rate' depicts the host country's statutory corporate tax rate including local income taxes and possible surcharges. 'Anti-Profit-Shifting Legislation' describes the sum of the indicator variables for the existence of thin capitalization rules and for transfer pricing legislation in a given country. 'Anti-Profit-Shifting Leg. x Corporate Tax Rate' stands for the interaction term of such a variable and the corporate tax rate. 'Log Total Assets' depicts the logarithm of the total asset stock. 'Corruption Index' is the Transparency International Corruption Index (1=high corruption, 10=no corruption). 'GDP (per capita)' stands for the host country's gross domestic product (per capita). 'Unemployment' depicts the host country's unemployment rate in % of the total labor force. Industry-year-effects are based on one-digit NACE-codes.

Source: own calculations.

5.2.5.2 Different Channels of Profit Shifting Activities

In this section, the two different channels, namely intercompany trade and debt financing, will be examined separately in order to confirm the results of the previous section. Firstly, estimations on intercompany trade will be conducted using the logarithm of earnings before interest and taxes (EBIT) as the dependent variable as this measure is not expected to be influenced by thin capitalization rules. Secondly, the effect of thin capitalization rules on debt financing will be estimated using the debt ratio (i.e. debt over total assets) as the dependent variable.

Transfer Pricing Regulations

Specification (1) of Table 21 tests for the tax rate sensitivity of reported EBIT. Again, the coefficient is significant and negative, i.e. a 1 percentage point increase of the tax rate results in a 0.6% decrease of reported EBIT.

Table 21: Regression Results VII

Table 21: Transfer Pricing Regulations, Fixed Effects, Panel 1999-2008 Dependent Variable: Log Earnings Before Interest and Taxes (EBIT)			
	(1)	(2)	(3)
Corporate Tax Rate	-0.556** (0.229)	-0.660*** (0.245)	-1.645*** (0.586)
Existence of Transfer Pricing Regulations		-0.315* (0.183)	
Existence of TP Reg. x Corporate Tax Rate		0.998** (0.450)	
Transfer Pricing Regulations			-0.295** (0.148)
TP Regulations x Coporate Tax Rate			0.986** (0.441)
Log Total Assets	0.614*** (0.005)	0.614*** (0.005)	0.614*** (0.005)
Corruption Index	0.083*** (0.019)	0.080*** (0.019)	0.080*** (0.019)
Log GDP	-0.872** (0.438)	-0.753 (0.459)	-0.755* (0.454)
Log GDP per Capita	2.602*** (0.498)	2.448*** (0.527)	2.450*** (0.521)
Unemployment	0.067*** (0.011)	0.067*** (0.011)	0.067*** (0.011)
Industry-Year-Effects	✔	✔	✔
Within R-Squared	0.3221	0.3221	0.3221
# Obs	538,478	538,478	538,478

Notes: Heteroscedasticity robust standard errors adjusted for firm clusters in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level respectively. Observational unit is the firm. The dependent variable is the logarithm of the firm's earnings before interest and taxes (EBIT).

'Corporate tax rate' depicts the host country's statutory corporate tax rate including local income taxes and possible surcharges. 'Existence of Transfer Pricing Regulations' is an indicator variable which equals one for countries that implement transfer pricing regulations allocated to category 2 (=documentation requirement exists in national tax law and a disclosure may be required in addition), and zero otherwise. 'Existence of TP Reg. x Corporate Tax Rate' stands for the interaction term of the indicator variable and the corporate tax rate. 'Transfer Pricing Regulations' is a categorial variable which ranges from 0 to 2 (0= no TP regulations, 1= TP regulations exist, but no statutory documentation requirement, 2=documentation requirement exists in national tax law and a disclosure may be required in addition). 'TP Regulations x Corporate Tax Rate' stands for the interaction term of the categorial variable and the corporate tax rate. 'Log Total Assets' depicts the logarithm of the total asset stock. 'Corruption Index' is the Transparency International Corruption Index (1=high corruption, 10=no corruption). 'GDP (per capita)' stands for the host country's gross domestic product (per capita). 'Unemployment' depicts the host country's unemployment rate in % of the total labor force. Industry-year-effects are based on one-digit NACE-codes.

Source: own calculations.

In Specification (2), an indicator variable is included which equals one if transfer pricing regulations correspond to category 2 as defined above. The results show that the tax rate sensitivity of reported EBIT is fully compensated when introducing transfer pricing regulations of category 2. No profit shifting activities statistically different from zero can be found in this setting. This result is confirmed by Specification (3) which uses a categorial variable ranging from 0 to 2 according to the strictness of implemented transfer pricing regulations as an alternative regressor. It shows that the introduction of category 1-transfer pricing regulations reduces the tax rate sensitivity of reported EBIT by approximately 60% (=0.986/1.645). Moreover, no profit shifting activities statistically different from zero can be found for transfer pricing regulations allocated to category 2.

Thin Capitalization Rules

Specification (1) shows an estimation of the statutory corporate tax rate on the reported debt ratio of the firm. The coefficient is highly significant and positive which suggests that in countries with higher tax rates, higher debt ratios are reported. This is in line with the expectation that the debt ratio is a proxy for profit shifting activities through intercompany debt financing. Quantitatively, if the tax rate increases by 10 percentage points, the debt ratio increases by 5%. In addition, the real interest rate prevailing in the respective host country is included and shows the expected negative sign. This means where the real interest rate is higher, the debt ratio decreases due to higher costs of financing.

Including the indicator variable for the existence of thin capitalization rules in Specification (2) shows the expected results. The existence of such rules has a negative impact on the reported debt ratio while the tax rate still has a positive impact. Certainly, the results are distorted since all debt, internal and external, is included in the debt ratio. But, nevertheless, for the entire sample, the coefficient is still negative and stands for a 1.1% decrease of the debt ratio where thin capitalization rules exist. These results confirm the findings of Buettner/Overesch/ Schreiber/Wamser (2012) who also find that thin capitalization rules reduce the share of internal debt.

Table 22: Regression Results VIII

Table 22: Thin Capitalization Rules, Fixed Effects, Panel 1999-2008
Dependent Variable: Debt Ratio

	(1)	(2)
Corporate Tax Rate	0.450*** (0.030)	0.413*** (0.034)
Existence of Thin Capitalization Rules		-0.013** (0.007)
Real Interest Rate	-0.001*** (0.0001)	-0.001*** (0.0001)
Log Total Assets	0.048*** (0.001)	0.048*** (0.001)
Corruption Index	0.047*** (0.003)	0.047*** (0.003)
Log GDP	-0.259*** (0.053)	-0.255*** (0.053)
Log GDP per Capita	0.146** (0.059)	0.135** (0.059)
Unemployment	0.003** (0.001)	0.003*** (0.001)
Year-Effects	✔	✔
Within R-Squared	0.0589	0.0589
# Obs	597,226	597,226

Notes: Heteroscedasticity robust standard errors adjusted for firm clusters in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level respectively. Observational unit is the firm. The dependent variable is the firm's debt ratio calculated as debt over total assets. 'Corporate tax rate' depicts the host country's statutory corporate tax rate including local income taxes and possible surcharges. 'Existence of Thin Capitalization Rules' is an indicator variable which equals one for countries that implemented thin capitalization rules, and zero otherwise. 'Real Interest Rate' stands for the host country's real interest rate in %. 'Log Total Assets' depicts the logarithm of the total asset stock. 'Corruption Index' is the Transparency International Corruption Index (1=high corruption, 10=no corruption). 'Log GDP (per capita)' stands for the logarithm of the host country's gross domestic product (per capita). 'Unemployment' depicts the host country's unemployment rate in % of the total labor force.

Source: own calculations.

Concluding, both models have confirmed the findings of the first part and reveal international profit shifting activities in developing countries. Intercompany trade and debt financing respond to changes in the statutory corporate tax rate and appear to be important channels for profit shifting. However, the results also show that through the introduction or tightening of anti-profit-shifting measures, developing countries may prevent extensive tax base erosion.

5.2.6 Conclusion of Results

Developing countries are especially affected by outward profit shifting as previous studies have shown (see e.g. Baker (2005)). In addition, they often lack the resources to enforce anti-avoidance measures. Thus, it was the goal of this study to analyze whether developing countries have anti-avoidance measures in place and if so, whether they are effective in preventing tax base erosion.

The results show that a considerable number of developing countries have introduced both, transfer pricing and thin capitalization rules, over the years 1999 to 2008. But, nevertheless, there still exist a number of countries that have only very lax transfer pricing regulations and no thin capitalization rules.

Furthermore, the results of the estimations suggest that where anti-profit-shifting measures were introduced or tightened, they had the desired effect. While a highly significant tax rate sensitivity prevails in the sample, it was significantly reduced by a change in thin capitalization or transfer pricing regulations. This result is also confirmed in separate estimations for transfer pricing regulations and thin capitalization rules. The earnings before interest and taxes (EBIT), which are presumably only affected by transfer pricing regulations since they do not include interest payments, also show a high tax rate sensitivity which is reduced upon the introduction or tightening of transfer pricing regulations. Moreover, the impact of thin capitalization rules on the reported debt ratio was analyzed. The debt ratio also shows a high tax rate sensitivity which suggests that the channel of intercompany financing is used to shift profits across borders. But, where thin capitalization rules are introduced, the debt ratio decreases.

The study provides evidence that the introduction and enforcement of anti-profit-shifting measures in developing countries helps to prevent the erosion of the tax base and, thus, the loss of tax revenues. Anti-avoidance measures are, therefore, an important means to secure a fair allocation of taxing rights for developing countries.

5.3 Comparison of Results

The presented studies examine the influence of anti-avoidance measures on profit shifting of multinational companies located in developed and developing countries. Although the scope of both studies differs, the problems assessed still partly overlap.

Where this is the case, it is interesting to compare the results for developed and developing countries.

Firstly, the tax rate sensitivity of reported EBIT is found to be higher in developing countries than in developed countries, i.e. a 1 percentage point increase of the statutory corporate tax rate reduces the reported EBIT of firms in developing countries by 0.6% while it reduces the reported EBIT of firms in developed countries by only 0.4%.[146] This result is in line with the study by Fuest/Hebous/Riedel (2011) who show that profit shifting through intercompany debt financing in developing countries is twice as sensitive to tax rate changes than in developed countries. These findings also relate to the studies on the magnitude of tax avoidance outlined in Chapter 2.2.3 which provide evidence that developing countries a more affected by outward profit shifting than developed countries.

Secondly, the impact of the introduction of transfer pricing regulations may also be compared. In both cases, the existence of transfer pricing regulations fully compensates the negative tax rate effect on reported EBIT. Thus, it can be concluded that where transfer pricing regulations exist, in developed as well as in developing countries, they serve their purpose and function as a valid tool to prevent profit shifting.

However, one has to be cautious when drawing conclusions from these results for the entire population of firms in developed and developing countries. In order to generalize the findings and to provide more reliable evidence, more studies would have to be evaluated in addition. While no further evidence can be found for the effect of transfer pricing regulations, several studies exist on the tax rate sensitivity of profit shifting. However, an additional evaluation of such studies is beyond the scope of this thesis.[147]

[146] See Table 12 and Table 21.
[147] For a meta-study on profit shifting, see, however, Heckemeyer/Overesch (2012).

6 Conclusion

(1) The globalization of businesses in connection with the nationality of tax systems leads to an increasing international tax competition which is exploited by multinational enterprises through profit shifting activities. Such activities include intercompany debt financing, the relocation of intangible assets, and transfer pricing. Studies have shown that profit shifting causes a significant loss of tax revenues which is even higher in developing countries.

(2) In order to prevent profit shifting, several anti-avoidance measures have been introduced. Unilateral measures comprise general anti-avoidance rules, transfer pricing regulations, thin/fat capitalization rules, and disclosure requirements. However, the design and enforcement level of those instruments varies widely across countries.

(3) Bilateral measures comprise double tax treaties and agreements on the exchange of information. The OECD as well as the UN Model Tax Convention include several anti-avoidance measures which mainly differ where the UN took account of the lack of administrative expertise in developing countries. Nevertheless, it has to be kept in mind that double tax treaties do not constitute taxing rights, but provide limits to domestic tax law.

(4) Multilateral measures have been mainly initiated by the OECD, the European Union, and the UN. The OECD and EU projects on harmful tax competition aimed at an increasing tax cooperation across countries in order to prevent the loss of tax revenues. They constitute a reasonable means considering the negative impact of tax base erosion, on the one hand, and the positive implications of tax competition, on the other hand.

(5) The OECD Transfer Pricing Guidelines serve as an internationally agreed basis for transfer pricing regulations in member and non-member countries which undergoes regular amendments regarding changes in the transfer pricing circumstances. The UN Transfer Pricing Manual complements the Guidelines and is an important instrument for the promotion of such rules in developing countries. Moreover, the documentation requirements introduced by the European Union and the PATA allow for a common set of documents and, thus, reduce compliance costs significantly.

(6) The scope of mutual assistance measures has been constantly increasing over the past and now widely includes a mandatory arbitration procedure as well as an override of bank secrecy. However, the awareness of this issue in national tax authorities is still rather low and has to be augmented in order to ensure the functioning of the instruments.

(7) Due to the three different implementation levels, there may be cases where two or more anti-avoidance measures are applicable simultaneously. For instruments for the mutual assistance in tax matters, it is generally true that the one with the widest scope may be applied. The interaction of unilateral instruments and tax treaties is, however, more difficult. Their compatibility largely depends on the interpretation of specific treaty provisions by jurisdictions.

(8) Three different groups of anti-avoidance measures against profit shifting activities of multinational companies can be distinguished: specific measures which target particular transactions and are usually implemented in domestic tax law, supportive measures which aim at improving the administrative background, and the more general measures that intend to abolish harmful tax competition by coordinating the abolishment of certain harmful tax practices.

(9) The presented anti-avoidance measures are generally in accordance with the principles of internation equity and neutrality as they aim at ensuring a fair allocation of taxing rights. This is, however, only true where such measures are based on the internationally accepted arm's length principle. On the other hand, the principles of efficiency and simplicity may be violated by anti-avoidance measures as they, in many cases, impose a high compliance burden on taxpayers and tax authorities. Thus, both aspects have to be balanced against each other when deciding on the introduction and design of such measures.

(10) The existing anti-avoidance measures form a solid framework which takes into account the current willingness of jurisdictions to give up national sovereignty. However, developing countries do not sufficiently take part in this framework. It is, therefore, important to provide such countries with guidance on the establishment and enforcement of anti-avoidance instruments.

(11) Transfer pricing regulations comprise a great number of aspects which all add to some extent to the severity of such rules. In order to categorize transfer pricing

regulations according to their strictness, it can mainly be focused on the level of implemented documentation requirements because they not only stand for the level of control of transfer prices, but also express the level of enforcement.

(12) A survey of 44 countries worldwide shows that the strictness of implemented transfer pricing regulations has increased over the past decade. Not a single country has loosened its regulations. Interestingly, a considerable difference exists between European and American and Asian countries. While in American and Asian countries a statutory documentation requirement is in all cases connected with an annual disclosure of documents, the majority of European countries do not require disclosure.

(13) Thin capitalization rules are employed in the great majority of the 53 surveyed countries. Over the past ten years a slight tendency towards fat capitalization rules, i.e. rules that apply to loans from third party lenders, can be observed. In addition, several countries have switched from a safe haven approach (fixed debt-to-equity ratio) to an income related approach.

(14) The study on the impact of transfer pricing regulations on profit shifting activities in European countries confirms findings of previous studies and shows that a significant impact of the statutory corporate tax rate on reported firm profitability exists. This tax rate sensitivity is, however, reduced by the introduction of transfer pricing regulations, i.e. 52.7% of the tax rate effect is captured by the introduction of transfer pricing regulations. Furthermore, the results show that profit shifting activities in European countries decrease over time, precisely over the years 1999 to 2009 profit shifting activities are reduced by 5.7% per year.

(15) Employing the measure for the strictness of transfer pricing regulations developed in the course of this thesis shows that with an increasing level of strictness, profit shifting activities are reduced even more. The same effect can be accounted to the possibility to enter into Advance Pricing Agreements (APA) which is assumed to proxy for advanced administrative structures.

(16) Examining the impact of anti-avoidance measure on profit shifting in developing countries shows similar results. While a highly significant tax rate sensitivity of reported profitability prevails, it is reduced by the introduction of transfer pricing and/or thin capitalization rules. These results are confirmed when both chan-

nels of profit shifting are examined separately. On the one hand, the tax rate sensitivity of earnings before interest and taxes (EBIT) is reduced significantly by the introduction of transfer pricing regulations. On the other hand, the debt ratio reported by firms is also significantly affected by the existence of thin capitalization rules.

(17) A comparison of the results shows that the tax rate sensitivity of profit shifting is larger in developing countries than in developed countries, which confirms previous findings in the literature. The existence of transfer pricing regulations, however, fully compensates that effect in both groups of countries. This proves that where transfer pricing regulations are in place, they are equally successful in the prevention of profit shifting.

(18) Both empirical studies show that anti-avoidance measures, i.e. transfer pricing regulations as well as thin capitalization rules, are a valid instrument in reducing and hampering profit shifting activities within multinational companies. They are, thus, an important means to protect national tax revenues and, consequently, sustain domestic welfare. Tax legislators may, furthermore, derive valid guidance on the design and enforcement of anti-avoidance regulations from the results.

7 Appendix[148]

[148] For references see end of Appendix.

Table A1: Corporate Tax Rates in Developed Countries

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Austria	34	34	34	34	34	34	25	25	25	25	25
Belgium	40.2	40.2	40.2	40.2	34	34	34	34	34	34	34
Croatia	35	35	20	20	20	20	20	20	20	20	20
Czech Republic	35	31	31	31	31	28	26	24	24	21	20
Denmark	32	32	30	30	30	30	28	28	25	25	25
Estonia	26	26	26	26	26	26	24	23	22	21	21
Finland	28	29	29	29	29	26	26	26	26	26	26
France	40	37.8	36.4	35.4	35.4	35.4	35	34.4	34.4	34.4	34.4
Germany	51.6	51.6	38.3	38.3	39.6	38.3	38.7	38.7	38.7	29.8	29.8
Hungary	19.6	19.6	19.6	19.6	19.6	17.6	17.5	17.5	21.3	21.3	21.3
Ireland	28	24	20	16	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Italy	41.3	41.3	40.3	40.3	38.3	37.3	37.3	37.3	37.3	31.4	31.4
Luxembourg	37.5	37.5	37.5	30.4	30.4	30.4	30.4	29.6	29.6	28.6	28.6
Netherlands	35	35	35	34.5	34.5	34.5	31.5	29.6	25.5	25.5	25.5
Norway	28	28	28	28	28	28	28	28	28	28	28
Poland	34	30	28	28	27	19	19	19	19	19	19
Portugal	37.4	35.2	35.2	33	33	27.5	27.5	27.5	26.5	26.5	26.5
Slovak Republic	40	29	29	25	25	19	19	19	19	19	19
Spain	35	35	35	35	35	35	35	35	32.5	30	30
Sweden	28	28	28	28	28	28	28	28	28	28	26.3
Switzerland	25	25	24.7	24.5	24.1	24.1	21.3	21.3	.	.	.
United Kingdom	30	30	30	30	30	30	30	30	30	30	28
Mean	33.7	32.5	30.7	29.8	29.3	27.9	27	26.7	26.3	25.5	25.3
Min	19.6	19.6	19.6	16	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Max	51.6	51.6	40.3	40.3	39.6	38.3	38.7	38.7	38.7	34.4	34.4

Source: own collection.

Table A2: Corporate Tax Rates in Developing Countries

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Argentina	33	35	35	35	35	35	35	35	35	35	35
Bulgaria	34.3	32.5	28	23.5	23.5	19.5	15	15	10	10	10
Brazil	33	33	34	34	34	34	34	34	34	15	15
Chile	15	15	15	16	16.5	17	17	17	17	17	17
China	33	33	33	33	33	33	33	33	33	25	25
Colombia	35	35	35	35	35	35	35	35	34	33	33
Ecuador	25	25	25	25	25	25	25	25	25	25	25
Indonesia	30	30	30	30	30	30	30	30	30	30	28
India	35	38.5	38.5	35.7	36.8	35.9	36.6	33.7	33.7	34	34
Latvia	25	25	25	22	19	15	15	15	15	15	15
Lithuania	29	24	24	15	15	15	15	15	15	15	15
Moldova	.	.	.	25	25	20	18	15	15	0	0
Montenegro	.	.	.	.	20	20	9	9	9	.	.
Mexico	34	35	35	35	34	33	30	29	28	28	28
Malaysia	28	28	28	28	28	28	28	28	27	26	25
Peru	30	30	30	30	27	30	30	30	30	30	30
Philippines	33	32	32	32	32	32	32	35	35	35	30
Romania	38	25	25	25	25	25	16	16	16	16	16
Russia	35	35	35	24	24	24	24	24	24	20	20
Serbia	20	20	20	20	14	12.3	10	10	10	10	10
Thailand	.	.	30	30	30	30	30	30	30	30	30

Ukraine	30	30	30	30	30	30	25	25	25	25	25
Venezuela	34	34	34	34	34	34	34	34	34	34	34
Vietnam	.	.	32	32	32	28	28	28	28	28	25
Mean	30.5	29.8	29.7	28.2	27.4	26.7	25.2	25.0	24.7	23.3	22.8
Min	15	15	15	15	14	12.3	9	9	9	0	0
Max	38	38.5	38.5	35.7	36.8	35.9	36.6	35	35	35	35

Source: own collection.

Table A3: Transfer Pricing Existence and Applicability

Country		National Regulations on Transfer Pricing and their Applicability								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
NORTH AND SOUTH AMERICA										
Argentina	Existence	TP regulations since 1998								
	Applicability	foreign related entities; entities in tax havens								
	Rel. Party	> 50%; de facto; common								
Brazil	Existence	TP regulations since 1997, but not arm's length principle, instead: maximum price ceilings and minimum gross income floors								
	Applicability	foreign related entities; entities in tax havens								
	Rel. Party	> 10%; common								
<u>Canada</u>	Existence	TP regulations since 1998								
	Applicability	foreign related entities								
	Rel. Party	n/a	n/a	n/a	n/a	n/a	n/a	> 50%; de facto; common		
Chile	Existence	TP regulations since 1997								
	Applicability	n/a	n/a	foreign related entities; entities in tax havens						
	Rel. Party	n/a	n/a	no threshold; de facto; common						
Colombia	Existence	n/a	n/a	n/a	**1.1.2004:** introduction of TP regulations					
	Applicability	n/a	n/a	n/a	foreign related entities; entities in tax havens					
	Rel. Party	n/a	n/a	n/a	> 50%; de facto; common					
Ecuador	Existence	general anti-avoidance rule which has never been applied in practice				**1.1.2005:** introduction of TP regulations				
	Applicability	-	-	-	-	foreign related entities			**30.12.2007:** foreign related entities; entities in tax havens	
	Rel. Party	-	-	-	-	de facto; common			**30.12.2007:** > 25%; de facto; common	
<u>Mexico</u>	Existence	TP regulations since 1996								
	Applicability	n/a	domestic and foreign related entities							
	Rel. Party	n/a	no threshold; de facto; common							
Peru	Existence	**1.1.2001:** TP regulations are introduced								
	Applicability	n/a	domestic and foreign related entities; entities in tax havens							
	Rel. Party	n/a	n/a	n/a	n/a	n/a	> 30%; de facto; common			

Country		National Regulations on Transfer Pricing and their Applicability								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
United States	Existence	TP regulations since 1968								
	Applicability	foreign related entities								
	Rel. Party	no threshold; de facto; common								
Venezuela	Existence	anti-avoidance rule regarding imports/exports	**28.12.2001:** introduction of TP regulations							
	Applicability	foreign related entities	domestic and foreign related entities; entities in tax havens							
	Rel. Party	n/a	no threshold; de facto; common							
ASIA/AUSTRALIA										
Australia	Existence	TP regulations since 1981								
	Applicability	foreign related entities								
	Rel. Party	no threshold; de facto; common								
China	Existence	general anti-avoidance rule since 1991 (for foreign companies), 1993 (for domestic companies)							**1.1.2008:** introduction of TP regulations	
	Applicability	n/a	domestic and foreign related entities							
	Rel. Party	n/a	n/a	n/a	n/a	> 25%; de facto; common				
India	Existence	**1.4.2001:** introduction of TP regulations								
	Applicability	foreign related entities								
	Rel. Party	> 26%; de facto; common								
Indonesia	Existence	TP regulations since 1984								
	Applicability	domestic and foreign related entities								
	Rel. Party	> 25%; de facto; common								
Japan	Existence	TP regulations since 1986								
	Applicability	foreign related entities								
	Rel. Party	> 50%; de facto; common								
Malaysia	Existence	general anti-avoidance rule								**1.1.2009:** additional anti-avoidance rule is introduced
	Applicability	n/a	domestic and foreign related entities							

Country		National Regulations on Transfer Pricing and their Applicability								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
	Rel. Party	-	-	**1.7.2003:** no threshold; de facto; common						
Philippines	Existence	general anti-avoidance rule since 1939								
	Applicability	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Rel. Party	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Thailand	Existence	general anti-avoidance rule								
	Applicability	n/a	**16.5.2002:** domestic and foreign related entities							
	Rel. Party	n/a	**16.5.2002:** no threshold; de facto; common							
Vietnam	Existence	general anti-avoidance rule					**28.1.2006:** introduction of TP regulations			
	Applicability	foreign related entities			**1.1.2004:** domestic and foreign related entities					
	Rel. Party	-	-	-	-	-	> 20%; de facto; common			
EUROPE										
Austria	Existence	general anti-avoidance rule (OECD guidelines have been issued for guidance in 1996)								
	Applicability	no provision in national tax law; OECD: foreign related entities								
	Rel. Party	no provision in national tax law; OECD: no threshold; de facto; common								
Belgium	Existence	general anti-avoidance rule				**19.7.2004:** introduction of TP regulations				
	Applicability	n/a	n/a	n/a	n/a	foreign related entities				
	Rel. Party	n/a	n/a	n/a	n/a	no threshold; de facto; common				
Czech Republic	Existence	TP regulations since 1993								
	Applicability	domestic and foreign related entities								
	Rel. Party	> 25%; de facto; common								
Denmark	Existence	TP regulations since 1998								
	Applicability	n/a	domestic and foreign related entities							
	Rel. Party	n/a	> 50%; de facto; common							
Finland	Existence	general anti-avoidance rule						**1.1.2007:** introduction of TP regulations		
	Applicability	n/a	foreign related entities							
	Rel. Party	n/a	n/a	n/a	n/a	n/a	n/a	> 50%; de facto; common		
France	Existence	TP regulations since 1996								
	Applicability	foreign related entities								
	Rel. Party	n/a	no threshold; de facto; common							
Germany	Existence	TP regulations since 1983								

Country		National Regulations on Transfer Pricing and their Applicability								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
	Applicability	foreign related entities								
	Rel. Party	> 25%; de facto; common								
Greece	Existence	TP regulations since 1994								
	Applicability	domestic and foreign related entities								
	Rel. Party	-	-	-	-	-	-	-	-	-
Hungary	Existence	TP regulations since 1992								
	Applicability	domestic and foreign related entities								
	Rel. Party	> 50%; de facto; common								
Ireland	Existence	anti-avoidance rules specified for certain transactions (rule on foreign transactions is not applied in practice)								
	Applicability	n/a	domestic related entities subject to tax incentives							
	Rel. Party	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Italy	Existence	TP regulations since 1988								
	Applicability	foreign related entities								
	Rel. Party	n/a	no threshold; de facto; common							
Luxembourg	Existence	general anti-avoidance rule								
	Applicability	n/a	foreign related entities							
	Rel. Party	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Netherlands	Existence	general anti-avoidance rule	**1.1.2002:** introduction of TP regulations							
	Applicability	n/a	domestic and foreign related entities							
	Rel. Party	n/a	no threshold; de facto; common							
Norway	Existence	TP regulations since 1999								
	Applicability	n/a	domestic and foreign related entities							
	Rel. Party	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Poland	Existence	TP regulations since 1992								
	Applicability	domestic and foreign related entities								
	Rel. Party	no threshold; de facto; common			**1.1.2004:** > 5%; de facto; common					
Portugal	Existence	general anti-avoidance rule	**1.1.2002:** introduction of TP regulations							
	Applicability	n/a	domestic and foreign related entities							
	Rel. Party	n/a	> 10%; de facto; common							

Country		National Regulations on Transfer Pricing and their Applicability								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
	Existence	general anti-avoidance rule since 1994			**1.1.2004:** introduction of TP regulations					
Romania	Applicability	n/a	n/a	n/a	foreign related entities					
	Rel. Party	-	-	-	**1.1.2004:** > 25%; de facto; common					
	Existence	TP regulations since 1999								
Russia	Applicability	domestic and foreign related entities								
	Rel. Party	> 20%; de facto; common								
	Existence	TP regulations since 1993								
Slovak Re-public	Applicability	foreign related parties								
	Rel. Party	n/a	> 25%; de facto; common							
	Existence	general anti-avoidance rule				**1.1.2005:** introduction of TP regulations				
Slovenia	Applicability	n/a	n/a	n/a	n/a	domestic and foreign related entities				
	Rel. Party	n/a	n/a	n/a	n/a	> 25%; de facto; common				
	Existence	TP regulations since 1997								
Spain	Applicability	n/a	domestic and foreign related entities							
	Rel. Party	n/a	n/a	n/a	n/a	n/a	n/a	**1.12.2006:** > 25%; de facto; common		
	Existence	general anti-avoidance rule since 1928						**1.1.2007:** introduction of TP regulations		
Sweden	Applicability	foreign related entities								
	Rel. Party	-	-	-	-	-	-	no threshold; de facto; common		
	Existence	general anti-avoidance rule								
Switzerland	Applicability	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Rel. Party	-	-	-	-	-	-	-	-	-
	Existence	TP regulations since 1997								
Ukraine	Applicability	n/a	n/a	n/a	n/a	n/a	n/a	domestic and foreign related entities		
	Rel. Party	n/a	n/a	n/a	n/a	n/a	n/a	> 20%; de facto; common		
	Existence	TP regulations since 1999								
United Kingdom	Applicability	foreign related entities			**1.4.2004:** domestic and foreign related entities					
	Rel. Party	n/a	n/a	> 40%; de facto; common						

Country		National Regulations on Transfer Pricing and their Applicability								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
Underlined countries are OECD member countries; information as of 1 July of the respective year. Existence: general anti-avoidance rule: arm's length principle stated in the national tax code; guidelines may be based on general anti-avoidance rules. TP regulations: in addition documentation rules, definition of methods, related entities etc. exist in the law Related Party: de facto: de facto control (control of management; exercise of significant influence); common: under common control ; Poland: related party definitions apply to cross-border transactions, slightly different for domestic transactions.										

Source: own collection.

Table A4: Transfer Pricing Methods

Country		National Regulations on Transfer Pricing Methods								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
NORTH AND SOUTH AMERICA										
Argentina	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM			**22.10.2003:** CUP, RPM, Cost Plus, Profit Split, TNMM, shipment value					
	Priority	best method			best method, shipment value if applicable					
Brazil	Methods	CUP, RPM (fixed margins), Cost Plus (fixed margins)								
	Priority	method that yields lowest taxable income								
<u>Canada</u>	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	transaction-based over profit-based								
Chile	Methods	CUP, Resale Price, Cost Plus								
	Priority	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Colombia	Methods	n/a	n/a	n/a	**1.1.2004:** CUP, RPM, Cost Plus, Profit Split, TNMM					
	Priority	n/a	n/a	n/a	**1.1.2004:** most appropriate method					
Ecuador	Methods	n/a	n/a	n/a	n/a	CUP, RPM, Cost Plus, Profit Split, TNMM				
	Priority	n/a	n/a	n/a	n/a	-	-	-	-	**15.5.2008:** CUP, RPM, Cost Plus, Profit Split, TNMM

Country		National Regulations on Transfer Pricing Methods								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
Mexico	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	-	-	-	-	-	-	**1.1.2007:** transaction-based over profit-based, priority for CUP		
Peru	Methods	n/a	CUP, RPM, Cost Plus, other		**1.1.2004:** CUP, RPM, Cost Plus, Profit Split, TNMM					
	Priority	n/a	most appropriate method							
United States	Methods	CUP, RPM, Cost Plus, Profit Split, CPM								
	Priority	best method								
Venezuela	Methods	n/a	**28.12.2001:** CUP, RPM, Cost Plus, Profit Split, TNMM							
	Priority	n/a	most appropriate method, priority for CUP							
ASIA/AUSTRALIA										
Australia	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	transaction-based over profit-based, priority for CUP								
China	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM, other								
	Priority	most appropriate method								
India	Methods	**1.4.2001:** CUP, RPM, Cost Plus, Profit Split, TNMM, other								
	Priority	**1.4.2001:** most appropriate method								
Indonesia	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Japan	Methods	CUP, RPM, Cost Plus, Profit Split			**1.1.2004:** CUP, RPM, Cost Plus, Profit Split, TNMM					
	Priority	transaction-based over profit-based								
Malaysia	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	transaction-based over profit-based								
Philippines	Methods	n/a	n/a	n/a	n/a	CUP, RPM, Cost Plus, Profit Split, TNMM, other				
	Priority	n/a	n/a	n/a	n/a	most appropriate method				
Thailand	Methods	n/a	CUP, RPM, Cost Plus, Profit Split, TNMM							
	Priority	n/a	transaction-based over profit-based							
Vietnam	Methods	**8.3.2001:** CUP, RPM, Cost Plus					**1.1.2006:** CUP, RPM, Cost Plus, Profit Split, TNMM			
	Priority	n/a	n/a	n/a	n/a	n/a	most appropriate method			
EUROPE										
Austria	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	transaction-based over profit-based								

Country		National Regulations on Transfer Pricing Methods								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
Belgium	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	transaction-based over profit-based								
Czech Republic	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	transaction-based over profit-based								
Denmark	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	transaction-based over profit-based								
Finland	Methods	none specified in domestic law, but OECD guidelines recognized						**1.1.2007:** CUP, RPM, Cost Plus, Profit Split, TNMM		
	Priority	-	-	-	-	-	-	transaction-based over profit-based		
France	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	transaction-based over profit-based								
Germany	Methods	CUP, RPM, Cost Plus, Profit Split					**12.4.2005:** CUP, RPM, Cost Plus, Profit Split, TNMM			
	Priority	transaction-based over profit-based								
Greece	Methods	n/a	n/a	n/a	n/a	n/a	n/a	CUP	CUP	**1.1.2009:** CUP, RPM, Cost Plus, Profit Split, TNMM
	Priority	n/a	n/a	n/a	n/a	n/a	n/a	-	-	**1.1.2009:** transaction-based over profit-based, priority for CUP
Hungary	Methods	CUP, RPM, Cost Plus, other								
	Priority	transaction-based over profit-based								
Ireland	Methods	none specified in domestic law								
	Priority	-	-	-	-	-	-	-	-	-
Italy	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	transaction-based over profit-based, priority for CUP								
Luxem-bourg	Methods	none specified in domestic law, but OECD guidelines recognized								
	Priority	-	-	-	-	-	-	-	-	-

Country		National Regulations on Transfer Pricing Methods								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
Nether-lands	Methods	n/a	CUP, RPM, Cost Plus, Profit Split, TNMM							
	Priority	n/a	transaction-based over profit-based							
Norway	Methods	none specified in domestic law, but OECD guidelines recognized								
	Priority	-	-	-	-	-	-	-	-	-
Poland	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	transaction-based over profit-based								
Portugal	Methods	n/a	CUP, RPM, Cost Plus, Profit Split, TNMM							
	Priority	n/a	transaction-based over profit-based							
Romania	Methods	n/a	n/a	n/a	**1.1.2004:** CUP, RPM, Cost Plus, Profit Split, TNMM					
	Priority	n/a	n/a	n/a	**1.1.2004:** transaction-based over profit-based, priority for CUP					
Russia	Methods	CUP, RPM, Cost Plus								
	Priority	CUP, RPM, Cost Plus								
Slovak Republic	Methods	**1.1.2001:** CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	n/a	n/a	n/a	n/a	transaction-based over profit-based				
Slovenia	Methods	n/a	n/a	n/a	n/a	**1.1.2005:** CUP, RPM, Cost Plus, Profit Split, TNMM				
	Priority	n/a	n/a	n/a	n/a	**1.1.2005:** transaction-based over profit-based				
Spain	Methods	CUP, RPM, Cost Plus, Profit Split						**1.12.2006:** CUP, RPM, Cost Plus, Profit Split, TNMM		
	Priority	transaction-based over profit-based, priority for CUP						**1.12.2006:** transaction-based over profit-based		
Sweden	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	transaction-based over profit-based								
Switzer-land	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	transaction-based over profit-based								
Ukraine	Methods	n/a	n/a	n/a	n/a	CUP, RPM, Cost Plus				
	Priority	n/a	n/a	n/a	n/a	CUP preferred				
United Kingdom	Methods	CUP, RPM, Cost Plus, Profit Split, TNMM								
	Priority	transaction-based over profit-based								
Underlined countries are OECD member countries; information as of 1 July of the respective year CUP: Comparable Uncontrolled Price, RPM: Resale Price Method, TNMM: Transfer Net Margin Method										

Source: own collection.

Table A5: Transfer Pricing Documentation

Country		National Regulations on Documentation Requirements								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
NORTH AND SOUTH AMERICA										
Argentina	Stat. Requ.	statutory requirement since 1999								
	Disclosure	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Content	**1.1.2001:** long	long	long	long	long	long	long	long	long
Brazil	Stat. Requ.	no statutory requirement, but required in practice								
	Disclosure	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Content	long	long	long	long	long	long	long	long	long
Canada	Stat. Requ.	statutory requirement								
	Disclosure	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Content	short	short	short	short	short	short	short	short	short
Chile	Stat. Requ.	no statutory requirement								
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Colombia	Stat. Requ.	no statutory requirement, but required in practice			**1.1.2004:** statutory requirement					
	Disclosure	no	no	no	**1.1.2004:** yes	yes	yes	yes	yes	yes
	Content	-	-	-	short	short	short	short	short	short
Ecuador	Stat. Requ.	n/a	n/a	n/a	n/a	**1.1.2005:** statutory requirement				
	Disclosure	no	no	no	no	**1.1.2005:** yes	yes	yes	yes	yes
	Content	-	-	-	-	long	long	long	long	long
Mexico	Stat. Requ.	statutory requirement since 1997								
	Disclosure	**1.1.2001:** yes	yes	yes	yes	yes	yes	yes	yes	yes
	Content	long	long	long	long	long	long	long	long	long
Peru	Stat. Requ.	**1.1.2001:** statutory requirement								
	Disclosure	n/a	n/a	n/a	n/a	yes	yes	yes	yes	yes
	Content	n/a	n/a	n/a	n/a	short	**1.1.2006:** long	long	long	long
United States	Stat. Requ.	statutory requirement since 1994								
	Disclosure	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Content	short	short	short	short	short	short	short	short	short

Country		National Regulations on Documentation Requirements								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
Venezuela	Stat. Requ.	no statutory requirement	**1.1.2002:** statutory requirement							
	Disclosure	no	**1.1.2002:** yes	yes	yes	yes	yes	yes	yes	yes
	Content	-	short	short	short	short	short	short	short	short
ASIA/AUSTRALIA										
<u>Australia</u>	Stat. Requ.	no statutory requirement, but required in practice								
	Disclosure	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Content	short	short	short	short	short	short	short	short	short
China	Stat. Requ.	no statutory requirement, but required in practice							**1.1.2008:** statutory requirement	
	Disclosure	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Content	short	short	short	short	short	short	short	**1.1.2008:** long	long
India	Stat. Requ.	**1.4.2001:** statutory requirement								
	Disclosure	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Content	long	long	long	long	long	long	long	long	long
Indonesia	Stat. Requ.	no statutory requirement							**1.1.2008:** statutory requirement	
	Disclosure	no	**1.1.2002:** yes	yes	yes	yes	yes	yes	yes	yes
	Content	-	short	short	short	short	short	short	short	**1.1.2009:** long
<u>Japan</u>	Stat. Requ.	no statutory requirement, but required in practice								
	Disclosure	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Content	short	short	short	short	short	short	short	short	short
Malaysia	Stat. Requ.	no statutory requirement		**1.7.2003:** no statutory requirement, but required in practice						
	Disclosure	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Content	short	short	short	short	short	short	short	short	short
Philippines	Stat. Requ.	n/a	n/a	n/a	n/a	n/a	n/a	no statutory requirement, but required in practice		
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Thailand	Stat. Requ.	no statutory requirement, but required in practice								
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Vietnam	Stat. Requ.	no statutory requirement, but required in practice					**28.1.2006:** statutory requirement			
	Disclosure	no	no	no	no	no	**28.1.2006:** yes	yes	yes	yes

Country		National Regulations on Documentation Requirements								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
	Content	-	-	-	-	-	short	short	short	short
EUROPE										
Austria	Stat. Requ.	n/a	n/a	n/a	n/a	no statutory requirement, but required in practice				
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Belgium	Stat. Requ.	no statutory requirement, but required in practice								
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Czech Republic	Stat. Requ.	no statutory requirement, but required in practice								
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Denmark	Stat. Requ.	statutory requirement since 1999								
	Disclosure	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Content	short	short	short	short	short	short	short	short	short
Finland	Stat. Requ.	n/a	n/a	no statutory requirement, but required in practice				**1.1.2007:** statutory requirement		
	Disclosure	no	no	no	no	no	no	no	no	**1.1.2009:** yes
	Content	-	-	-	-	-	-	-	-	short
France	Stat. Requ.	no statutory requirement, but required in practice								
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Germany	Stat. Requ.	no statutory requirement, but required in practice		**1.1.2003:** statutory requirement						
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Greece	Stat. Requ.	no statutory requirement							**1.1.2008:** statutory requirement	
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Hungary	Stat. Requ.	no statutory requirement, but required in practice		**1.1.2003:** statutory requirement						
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-

Country		National Regulations on Documentation Requirements								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
Ireland	Stat. Requ.	no statutory requirement								
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Italy	Stat. Requ.	no statutory requirement, but required in practice								
	Disclosure	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Content	short	short	short	short	short	short	short	short	short
Luxem-bourg	Stat. Requ.	n/a	n/a	n/a	n/a	no statutory requirement, but required in practice				
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Nether-lands	Stat. Requ.	no statutory requirement	**1.1.2002:** statutory requirement							
	Disclosure	no	**1.1.2002:** yes	yes	yes	yes	yes	yes	yes	yes
	Content	-	short	short	short	short	short	short	short	short
Norway	Stat. Requ.	n/a	n/a	n/a	no statutory requirement, but required in practice				**1.1.2008:** statutory requirement	
	Disclosure	no	no	no	no	no	no	no	**1.1.2008:** yes	yes
	Content	-	-	-	-	-	-	-	short	short
Poland	Stat. Requ.	**1.1.2001:** statutory requirement								
	Disclosure	**7.5.2001:** yes	yes	yes	yes	yes	yes	yes	yes	yes
	Content	short	short	short	short	short	short	short	short	short
Portugal	Stat. Requ.	n/a	**1.1.2002:** statutory requirement							
	Disclosure	no	**1.1.2002:** yes	yes	yes	yes	yes	yes	yes	yes
	Content	-	short	short	short	short	short	short	short	short
Romania	Stat. Requ.	n/a	n/a	no statutory requirement, but required in practice				**1.7.2007:** statutory requirement		
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Russia	Stat. Requ.	no statutory requirement, but required in practice								
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Slovak Republic	Stat. Requ.	n/a	n/a	n/a	n/a	no statutory requirement, but required in practice				**1.1.2009:** statutory re-quirement

Country		National Regulations on Documentation Requirements								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Slovenia	Stat. Requ.	n/a	n/a	n/a	n/a	n/a	n/a	**1.9.2006:** statutory requirement		
	Disclosure	n/a	n/a	n/a	n/a	n/a	n/a	yes	yes	yes
	Content	n/a	n/a	n/a	n/a	n/a	n/a	short	short	short
Spain	Stat. Requ.	no statutory requirement, but required in practice						**1.12.2006:** statutory requirement		
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Sweden	Stat. Requ.	no statutory requirement, but required in practice						**1.1.2007:** statutory requirement		
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Switzer-land	Stat. Requ.	no statutory requirement, but required in practice								
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
Ukraine	Stat. Requ.	no statutory requirement								
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-
United Kingdom	Stat. Requ.	statutory requirement since 1999								
	Disclosure	no	no	no	no	no	no	no	no	no
	Content	-	-	-	-	-	-	-	-	-

Underlined countries are OECD member countries; information as of 1 July of the respective year
statutory requirement: documentation requirement is included in the national tax law (not administrative guidelines)
short: a summary or an overview over transactions has to be submitted
long: full documentation has to be submitted; in some cases, only a short content is applicable to small enterprises or low incomes (Ecuador, Mexico, Peru)

Source: own collection.

Table A6: Deadlines of Transfer Pricing Documentation

Country		National Regulations on Submission Deadlines								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
NORTH AND SOUTH AMERICA										
Argentina	Full Doc.	-	-	-	-	-	-	-	-	-
	Tax Return	5 months after fiscal year end			8 months after fiscal year end					
Brazil	Full Doc.	-	-	-	-	-	-	-	-	-
	Tax Return	30 Septem-ber	30 June							
Canada	Full Doc.	within 3 months of request								
	Tax Return	6 months after fiscal year end								
Chile	Full Doc.	-	-	-	-	-	-	-	-	-
	Tax Return	-	-	-	-	-	-	-	-	-
Colombia	Full Doc.	n/a	n/a	n/a	n/a	within 15 days of request				
	Tax Return	-	-	-	2 September	30 June		11 July		22 July
Ecuador	Full Doc.	n/a	n/a	n/a	n/a	-	-	-	-	-
	Tax Return	-	-	-	-	within 12 months of tax return				within 6 months of tax return
Mexico	Full Doc.	-	-	-	-	-	-	-	-	-
	Tax Return	n/a	31 July	31 May			n/a	n/a	30 June	
Peru	Full Doc.	n/a	n/a	n/a	n/a	n/a	-	-	-	-
	Tax Return	n/a	n/a	n/a	n/a	n/a	n/a	25 July	31 July	
United States	Full Doc.	n/a	within 30 days of request							
	Tax Return	15th of third month after fiscal year end								
Venezuela	Full Doc.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Tax Return	-	30 June							
ASIA/AUSTRALIA										
Australia	Full Doc.	n/a	n/a	n/a	n/a	within 2 weeks of request				
	Tax Return	6 months after fiscal year end		5 months after fiscal year end		15th of seventh month after fiscal year end				
China	Full Doc.	n/a	within 60 days of request						-	-
	Tax Return	4 months after fiscal year end							5 months after fiscal year end	

Country		National Regulations on Submission Deadlines								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
India	Full Doc.	n/a	-	-	-	-	-	-	-	-
	Tax Return	n/a	31 October							30 September
Indonesia	Full Doc.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-
	Tax Return	-	3 months after fiscal year end						4 months after fiscal year end	
Japan	Full Doc.	case by case								
	Tax Return	2 months after fiscal year end								
Malaysia	Full Doc.	n/a	n/a	n/a	n/a	n/a	n/a	within 30 days of request		
	Tax Return	6 months after fiscal year end			7 months after fiscal year end					
Philippines	Full Doc.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	within 45 days of request
	Tax Return	-	-	-	-	-	-	-	-	-
Thailand	Full Doc.	n/a	n/a	n/a	n/a	within 60 days of request				
	Tax Return	-	-	-	-	-	-	-	-	-
Vietnam	Full Doc.	n/a	n/a	n/a	n/a	n/a	n/a	within 30 days of request		
	Tax Return	-	-	-	-	-	2 months after fiscal year end	90 days after fiscal year end		
EUROPE										
Austria	Full Doc.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	within 3 weeks of request	
	Tax Return	-	-	-	-	-	-	-	-	-
Belgium	Full Doc.	n/a	within 30 days of request							
	Tax Return	-	-	-	-	-	-	-	-	-
Czech Republic	Full Doc.	n/a	n/a	n/a	n/a	within 15 days of request				
	Tax Return	-	-	-	-	-	-	-	-	-
Denmark	Full Doc.	n/a	n/a	n/a	n/a	n/a	within 60 days of request			
	Tax Return	6 months after fiscal year end								
Finland	Full Doc.	n/a	n/a	n/a	n/a	n/a	n/a	within 60 days of request		
	Tax Return	-	-	-	-	-	-	-	-	4 months after fiscal year end
France	Full Doc.	within 60 days of request								
	Tax Return	-	-	-	-	-	-	-	-	-
Germany	Full Doc.	n/a	n/a	within 60 days of request						

Country		National Regulations on Submission Deadlines								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
	Tax Return	-	-	-	-	-	-	-	-	-
Greece	Full Doc.	-	-	-	-	-	-	-	n/a	n/a
	Tax Return	-	-	-	-	-	-	-	-	-
Hungary	Full Doc.	n/a	n/a	n/a	n/a	n/a	within 3 days of request			
	Tax Return	-	-	-	-	-	-	-	-	-
Ireland	Full Doc.	-	-	-	-	-	-	-	-	-
	Tax Return	-	-	-	-	-	-	-	-	-
Italy	Full Doc.	n/a	within 15 days of request							
	Tax Return	n/a	n/a	10 months after fiscal year end				7 months after fiscal year end		
Luxem-bourg	Full Doc.	n/a	n/a	n/a	n/a	within 30 days of request				
	Tax Return	-	-	-	-	-	-	-	-	-
Nether-lands	Full Doc.	n/a	within 3 months of request							
	Tax Return	-	6 months after fiscal year end							5 months after fiscal year end
Norway	Full Doc.	n/a	n/a	n/a	n/a	within 4 weeks of request				within 45 days of request
	Tax Return	-	-	-	-	-	-	-	31 May	31 May
Poland	Full Doc.	within 7 days of request								
	Tax Return	-	9 months after fiscal year end	3 months after fiscal year end						
Portugal	Full Doc.	n/a	n/a	n/a	n/a	within 10 days of request				
	Tax Return	-	31 May							
Romania	Full Doc.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Tax Return	-	-	-	-	-	-	-	-	-
Russia	Full Doc.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	within 10 days of request	
	Tax Return	-	-	-	-	-	-	-	-	-
Slovak Republic	Full Doc.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	within 60 days of request
	Tax Return	-	-	-	-	-	-	-	-	-
Slovenia	Full Doc.	n/a	n/a	n/a	n/a	n/a	n/a	within 90 days of request		
	Tax Return	n/a	n/a	n/a	n/a	n/a	n/a	3 months after fiscal year end		

Country		National Regulations on Submission Deadlines								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
Spain	Full Doc.	case by case								
	Tax Return	-	-	-	-	-	-	-	-	-
Sweden	Full Doc.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	within 30 days of request	
	Tax Return	-	-	-	-	-	-	-	-	-
Switzer-land	Full Doc.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	within 30 days of request	
	Tax Return	-	-	-	-	-	-	-	-	-
Ukraine	Full Doc.	-	-	-	-	-	-	-	-	-
	Tax Return	-	-	-	-	-	-	-	-	-
United Kingdom	Full Doc.	n/a	within 30 days of request							
	Tax Return	-	-	-	-	-	-	-	-	-
Underlined countries are OECD member countries; information as of 1 July of the respective year										

Source: own collection

Table A7: Transfer Pricing Penalties

Country		National Regulations on Transfer Pricing Penalties								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
NORTH AND SOUTH AMERICA										
Argen-tina	TP Penalty	no	no	no	**14.11.2003:** yes	yes	yes	yes	yes	yes
	Adjustment	50-100% of unpaid tax; up to 10 times unpaid tax in case of fraud; late interest (3% per month)			**14.11.2003:** 100-400% of unpaid tax; up to 10 times unpaid tax in case of fraud; late interest (3% per month)					
	Documentation	n/a	fixed fine for not filing return		**14.11.2003:** up to ARS 450,000 (~USD 150,000) for noncompliance					
Brazil	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	late interest	75-150% of unpaid tax; late interest (federal interest rate)							

Country		National Regulations on Transfer Pricing Penalties								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
	Documentation	n/a	112.5-225% of unpaid tax if no documentation						112.5-225% of unpaid tax if no documentation ; 5% of transaction price for incorrect or omitted information; 0.02% of net revenue per day for failure to submit online	
Canada	TP Penalty	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Adjustment	10% of TP adjustment if certain threshold is exceeded (CAD 5mio. or 10% of gross revenue); late interest								
	Documentation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Chile	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	up to 30% of unpaid tax; up to 300% in case of fraud; late interest (1.5% per month)								
	Documentation	-	-	-	-	-	-	-	-	-
Colombia	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	n/a	n/a	up to 160% of unpaid tax						
	Documentation	n/a	n/a	n/a	n/a	**1.1.2005:** 1% of total value of transaction or 0,5% of net worth for wrong or late documentation (max. 30,000 TU) and for no filing of documentation (max. 40,000 TU)				
Ecuador	TP Penalty	no	no	no	no	no	no	no	**30.12.2007:** yes	yes
	Adjustment	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Documentation	-	-	-	-	-	-	-	**30.12.2007:** up to USD 15,000 for incorrect or late filing of tax return	
Mexico	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	50-100% of unpaid tax; late interest							50-75% of unpaid tax; late interest	
	Documentation	~MXN 47,640-95,820 (~USD 4,100-8,300) for failure to file tax return								
Peru	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	n/a	up to 50% of unpaid tax							

Country		National Regulations on Transfer Pricing Penalties								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
	Documentation	n/a	n/a	n/a	up to 30 TU (~USD 30,000) for noncompliance				up to 0.6% of net income for noncompliance (max up to 25 TU (~USD 27,500))	
United States	TP Penalty	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Adjustment	20-40% of unpaid tax								
	Documentation	-	-	-	-	-	-	-	-	-
Vene-zuela	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	n/a	25-200% of unpaid tax; late interest; imprisonment							
	Documentation	n/a	**28.12.2001:** 300-500 TU for failure to submit documentation; 10-50 TU for failure to file return (1 TU=~USD 16)							
ASIA/AUSTRALIA										
Australia	TP Penalty	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Adjustment	10-25% of unpaid tax; 50% of unpaid tax in case of fraud; late interest								
	Documentation	-	-	-	-	-	-	-	-	-
China	TP Penalty	no	no	no	no	no	no	no	**1.1.2008:** yes	yes
	Adjustment	late interest (0.2% per day)	**1.5.2002:** late interest (0.05% per day); up to 500% of unpaid tax in case of fraud						**1.1.2008:** additional special interest levy: federal interest rate + 5% on tax adjustment; late interest (0.05% per day); up to 500% of unpaid tax in case of fraud	
	Documentation	up to CNY 10,000 for late filing of tax return; up to CNY 50,000 for serious offense								
India	TP Penalty	**1.4.2001:** yes	yes	yes	yes	yes	yes	yes	yes	yes
	Adjustment	**1.4.2001:** 100-300% of unpaid tax								
	Documentation	**1.4.2001:** 2% of aggregate value of international transactions for incorrect documentation; INR 100,000 (~USD 2,200) for failure to submit accountant's report								
Indo-nesia	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	late interest (2% per month, up to 48% of unpaid tax); 200-400% of unpaid tax in case of fraud; imprisonment								
	Documentation	-	-	-	-	-	-	-	-	-
Japan	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	10-15% of unpaid tax; 35% of unpaid tax in case of fraud; late interest (max. 7.3% per year)								
	Documentation	-	-	-	-	-	-	-	-	-

Country		National Regulations on Transfer Pricing Penalties								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
Malaysia	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	70-100% of unpaid tax; up to 300% of unpaid tax in case of fraud; imprisonment								**1.1.2009**: up to 45% of unpaid tax
	Documentation	15-70% of unpaid tax for incorrect return						**1.1.2007:** 15-45% of unpaid tax for incorrect return		
Philip-pines	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	n/a	n/a	n/a	n/a	25% surcharge on unpaid tax; 50% surcharge in case of fraud; late interest (20% per year)				
	Documentation	-	-	-	-	-	-	-	-	-
Thailand	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	up to 200% of unpaid tax; late interest (1.5% per month (max. 100% of unpaid tax))								
	Documentation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Vietnam	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	up to 500% of unpaid tax in case of fraud; late interest (0.1% per day)						n/a	10% of unpaid tax; 100-300% of unpaid tax in case of fraud; late interest (0.05% per day)	
	Documentation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EUROPE										
Austria	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	2% of unpaid tax; late interest (2% above federal interest rate)								
	Documentation	-	-	-	-	-	-	-	-	-
Belgium	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	late interest (7% per year)								
	Documentation	10-200% of unpaid tax for failure to file (correct) tax return								
Czech Republic	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	0,05-0,2% of unpaid tax per day for first 500 days; afterwards late interest (140% of federal interest rate)						**1.1.2007:** 20% of unpaid tax; late interest (federal interest rate +14%)		
	Documentation	up to CZK 2 mio. for non-financial obligations that are not fulfilled			n/a	n/a	n/a	n/a	n/a	n/a
Denmark	TP Penalty	no	no	no	no	no	**2.4.2006:** yes	yes	yes	yes

Country		National Regulations on Transfer Pricing Penalties								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
	Adjustment	up to 200% of unpaid tax; 10% surcharge on unpaid tax; late interest (0.6% per month); imprisonment			surcharge on unpaid tax (5.7% in 2004, 5.4% in 2005, 5.3% in 2006, 5.8% in 2007, 6.3% in 2008, 6.1% in 2009); late interest (0.6% per month in 2004, 0.5% in 2005-2006, 0.6% in 2007-2009); imprisonment					
	Documentation	n/a	n/a	n/a	n/a	n/a	**2.4.2006:** 200% of costs saved; minimum fine is increased by 10% of TP adjustment if applicable			
Finland	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	5-30% of TP adjustment; late interest (market rate)								
	Documentation	n/a	n/a	n/a	n/a	n/a	n/a	up to EUR 25,000 for noncompliance		
France	TP Penalty	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Adjustment	40% of unpaid tax; 80% of unpaid tax in case of fraud; late interest (0.75% per month, 0.4% per month starting 2007)								
	Documentation	EUR 7,500 per year for insufficient documentation					**1.1.2006:** EUR 10,000 per year for insufficient documentation			
Germany	TP Penalty	no	no	no	**1.1.2004:** yes	yes	yes	yes	yes	yes
	Adjustment	late interest (0.5% per month)								
	Documentation	-	-	-	**1.1.2004:** 5-10% of TP adjustment if failure to submit documentation, min. EUR 5,000; late submission: EUR 100 per day, max. EUR 1 mio.					
Greece	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	10% of TP adjustment								
	Documentation	n/a	n/a	n/a	n/a	n/a	n/a	2% of unpaid tax per day for inaccurate return (max. 200% of unpaid tax)		**18.12.2008:** 10% of the value of the transaction for not filing documentation; 2% per day for inaccurate return (max. 200% of unpaid tax)
Hungary	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	50% of unpaid tax; late interest (200% of federal interest rate)								
	Documentation	n/a	n/a	n/a	**1.1.2004:** up to HUF 2 mio. (~USD 10,000) per transaction for noncompliance					

Country		National Regulations on Transfer Pricing Penalties								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
Ireland	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	late interest		**1.8.2002:** 20-100% of unpaid tax; late interest (11.75% per year, 9.96% per year in 2009)						
	Documentation	-	-	-	-	-	-	-	-	-
Italy	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	100-240% of unpaid tax; late interest; **15.4.2000:** imprisonment								
	Documentation	-	-	-	-	-	-	-	-	-
Luxem-bourg	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	n/a	n/a	n/a	n/a	n/a	n/a	late interest (0.6% per month)		
	Documentation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Nether-lands	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment		25-100% of unpaid tax; late interest							
	Documentation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Norway	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	n/a	up to 60% of unpaid tax; late interest (7% per year)							
	Documentation	-	-	-	-	-	-	-	-	-
Poland	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	TP adjustment is taxed at 50%; late interest (200% of federal interest rate)								
	Documentation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Portugal	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	20-100% of unpaid tax, up to 200% in case of fraud (max. EUR 30,000, fraud: EUR 110,000); late interest (7% per year in 2002-2004, 4% per year since 2005)								
	Documentation	n/a	n/a	n/a	up to EUR 100,000 for noncompliance					
Romania	TP Penalty	no	no	no	no	no	no	no	**8.2.2008:** yes	yes
	Adjustment	**1.9.2000:** late interest (0.15% per day)	**1.10.2001:** 0.5% of unpaid tax per month; **30.10.2001:** late interest (0.06% per day)				**1.1.2006:** 0.1% per day on unpaid tax			
	Documentation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**8.2.2008:** up to RON 14,000 (~EUR 3,900) for no documen-tation	
Russia	TP Penalty	no	no	no	no	no	no	no	no	no

Country		National Regulations on Transfer Pricing Penalties								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
	Adjustment	20% of unpaid tax in case of fraud; late interest (1/300 of federal interest rate per day)								
	Documentation	-	-	-	-	-	-	-	-	-
Slovak Republic	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	n/a	n/a	n/a	**1.1.2004:** late interest (300% of federal interest rate)					**31.12.2008:** late interest (300% of ECB interest rate)
	Documentation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovenia	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Documentation	n/a	n/a	n/a	n/a	n/a	n/a	up to SIT 6mio. (~EUR 24,000) for wrong or late documentation		
Spain	TP Penalty	no	no	no	no	no	no	no	no	**19.2.2009:** yes
	Adjustment	50-150% of unpaid tax; late interest								**19.2.2009:** 15% of TP adjustment
	Documentation	-	-	-	-	-	-	-	-	**19.2.2009:** EUR 1,500 per missing information
Sweden	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment		10-40% of unpaid tax							
	Documentation	-	-	-	-	-	-	-	-	-
Switzerland	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	late interest		100-300% of unpaid tax in case of fraud; late interest						
	Documentation	-	-	-	-	-	-	-	-	-
Ukraine	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	n/a	n/a	n/a	n/a	n/a	n/a	up to 100% of unpaid tax		
	Documentation	-	-	-	-	-	-	-	-	-
United Kingdom	TP Penalty	no	no	no	no	no	no	no	no	no
	Adjustment	late interest (market rate)			**1.1.2004-31.3.2006:** no penalties are imposed			late interest (market rate)		

Country		National Regulations on Transfer Pricing Penalties								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
	Documentation	up to 100% of unpaid tax for incorrect tax return						up to 100% of unpaid tax for incorrect tax return		
Underlined countries are OECD member countries; information as of 1 July of the respective year TU: tax unit										

Source: own collection.

Table A8: Statute of Limitations

Country	National Regulations on Statute of Limitations								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
NORTH AND SOUTH AMERICA									
Argentina	n/a	5 years from filing year end							
Brazil	n/a	5 years from filing date							
Canada	n/a	7 years from filing date							
Chile	n/a	n/a	n/a	n/a	n/a	3 years from filing date			
Colombia	2 years from filing date; 5 years if not filed								
Ecuador	n/a	n/a	n/a	n/a	n/a	3 years from filing date; 6 years if not filed			
Mexico	5 years from filing date								
Peru	n/a	n/a	4 years from filing year end; 6 years if not filed						
United States	n/a	up to 6 years from filing date; unlimited in case of fraud							
Venezuela	n/a	n/a	4 years from filing date; 6 years if noncompliance						
ASIA/AUSTRALIA									
Australia	n/a	unlimited							
China	n/a	up to 10 years from tax year end							
India	n/a	3 years from tax year end					n/a	45 months from tax year end	
Indonesia	10 years from tax year end							**1.1.2008:** 5 years from tax year end; unlimited in case of fraud	
Japan	n/a	6 years from filing date							
Malaysia	n/a	n/a	6 years from tax year end; unlimited in case of fraud						

Country	National Regulations on Statute of Limitations								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
Philippines	n/a	n/a	3 years from filing date; 10 years in case of fraud						
Thailand	n/a	up to 5 years from filing date; 10 years if not filed							
Vietnam	n/a	n/a	n/a	n/a	n/a	up to 5 years from tax year end			
EUROPE									
Austria	up to 15 years from tax year end				**1.1.2005**: up to 10 years from tax year end				
Belgium	n/a	3 years from tax year end; 5 years in case of fraud							**1.1.2009:** 3 years from tax year end; 7 years in case of fraud
Czech Republic	up to 17 years from filing year end			**1.1.2004:** up to 15 years from filing year end					
Denmark	n/a	5 years and 4 months from tax year end							
Finland	n/a	n/a	6 years from tax year end						
France	3 years from tax year end; 10 years in case of fraud								
Germany	4 years from filing year end; 10 years in case of fraud								
Greece	n/a	n/a	n/a	n/a	n/a	n/a	4 years from filing year end; 10 years in case of fraud		
Hungary	5 years from filing year end								
Ireland	n/a	6 years from tax year end			**1.1.2005:** 4 years from filing year end				
Italy	4 years from filing year end; 8 years in case of fraud								
Luxembourg	n/a	n/a	n/a	n/a	5 years from filing date; 10 years in case of fraud				
Netherlands	n/a	5 years from tax year end; 12 years if foreign income							
Norway	n/a	10 years from tax year end							
Poland	n/a	n/a	5 years from filing year end						
Portugal	n/a	4 years from tax year end							
Romania	n/a	5 years from filing date; 10 years in case of fraud							
Russia	n/a	3 years from tax year end							
Slovak Republic	n/a	n/a	n/a	n/a	up to 10 years from filing year end				
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	up to 10 years from tax year end		

Country	National Regulations on Statute of Limitations								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
Spain	n/a	4 years from filing date							
Sweden	n/a	6 years from tax year end							
Switzerland	up to 15 years from filing year end								
Ukraine	n/a	n/a	n/a	n/a	3 years from tax year end; unlimited in case of fraud				
United Kingdom	n/a	n/a	6 years from tax year end; 21 years in case of fraud						
Underlined countries are OECD member countries; information as of 1 July of the respective year									

Source: own collection

Table A9: Advance Pricing Agreements

Country	National Regulations on Advance Pricing Agreements								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
NORTH AND SOUTH AMERICA									
Argentina	not available	not available	not available	not available	not available	not available	not available	not available	not available
Brazil	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral
Canada	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
Chile	not available	not available	not available	not available	not available	not available	not available	not available	not available
Colombia	n/a	n/a	n/a	n/a	unilateral	**5.1.2006:** unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
Ecuador	not available	not available	not available	not available	not available	not available	not available	**30.12.2007:** unilateral	unilateral
Mexico	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
Peru	not available	not available	not available	not available	not available	not available	unilateral	unilateral	unilateral
United States	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral

Country	National Regulations on Advance Pricing Agreements								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
Venezuela	not available	**28.12.2001:** unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
ASIA/AUSTRALIA									
Australia	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
China	unilateral	unilateral	unilateral	unilateral	**3.9.2004:** unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
India	not available	not available	not available	not available	not available	not available	not available	not available	not available
Indonesia	not available	not available	not available	not available	not available	not available	not available	not available	not available
Japan	**1.6.2001:** unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
Malaysia	not available	not available	not available	not available	not available	not available	not available	not available	**1.1.2009:** unilateral, bilateral
Philippines	not available	not available	not available	not available	not available	not available	not available	not available	not available
Thailand	n/a	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
Vietnam	n/a	n/a	n/a	n/a	n/a	unilateral	unilateral	unilateral	unilateral
EUROPE									
Austria	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral
Belgium	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral
Czech Republic	not available	not available	not available	not available	not available	**1.1.2006:** unilateral	unilateral	unilateral	unilateral
Denmark	n/a	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
Finland	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral
France	bilateral	bilateral	bilateral	**1.1.2004:** unilateral bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral

Country	National Regulations on Advance Pricing Agreements								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
Germany	not available	not available	not available	not available	not available	**5.6.2006:** bilateral	bilateral	bilateral	bilateral
Greece	not available	not available	not available	not available	not available	not available	not available	not available	not available
Hungary	not available	not available	not available	not available	not available	not available	**1.1.2007:** unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
Ireland	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral
Italy	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral
Luxembourg	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral
Netherlands	**1.4.2001:** unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
Norway	not available	not available	not available	not available	not available	not available	not available	not available	not available
Poland	not available	not available	not available	not available	**1.1.2005:** unilateral	**1.1.2006:** unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
Portugal	not available	not available	not available	not available	not available	not available	not available	not available	**17.7.2008:** unilateral, bilateral
Romania	not available	not available	not available	not available	not available	not available	**12.6.2007:** unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
Russia	not available	not available	not available	not available	not available	not available	not available	not available	not available
Slovak Republic	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral	unilateral
Slovenia	not available	not available	not available	not available	not available	not available	not available	not available	not available
Spain	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral
Sweden	not available	not available	not available	not available	not available	not available	not available	not available	not available
Switzerland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	unilateral	unilateral	unilateral
United Kingdom	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral	unilateral, bilateral

Country	National Regulations on Advance Pricing Agreements								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
Underlined countries are OECD member countries; information as of 1 July of the respective year not available: no kind of advance pricing agreement is available, an exception might exist under a double tax treaty unilateral: an advance ruling by the domestic tax authorities is available bilateral: an advance pricing agreement between two jurisdictions is available (can be extended to a multilateral agreement)									

Source: own collection.

Table A10: Thin/Fat Capitalization Rules

Thin/Fat-Capitalization Rules											
Country		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
NORTH AND SOUTH AMERICA											
Argentina	interest	**1.1.1999:** interest on loans taken out by domestic financial entities, on loans granted by foreign banks approved by the Central Bank, on loans for imported assets, on investments in domestic financial entities					**22.10.2003:** interest to foreign controlling entities				
	safe haven	**1.1.1999:** 40% of interest always deductible, 60% only if 2,5:1 debt-to-equity ratio (overall) and interest <50% of income before deduction of interest					**22.10.2003:** 2:1 debt-to-equity ratio				
	consequence	**1.1.1999:** non-deductible, but excess can be carried forward					**22.10.2003:** excess interest treated as dividends				
Brazil		no thin-capitalization rules									
<u>Canada</u>	interest	interest to foreign controlling entities (>25%)									
	safe haven	3:1 debt-to-equity ratio		**1.1.2001:** 2:1 debt-to-equity ratio							
	consequence	excess interest is non-deductible									
Chile	interest	no thin-capitalization rules		**19.6.2001:** interest to non-residents, exception: foreign bank approved by Central Bank							
	safe haven	-		**19.6.2001:** 3:1 debt-to-equity ratio							
	consequence	-		**19.6.2001:** excess interest is taxed at 35% (CIT: 16%)							
Colombia		no thin-capitalization rules									

Thin/Fat-Capitalization Rules											
Country		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Ecuador	interest	no thin-capitalization rules									**28.12.2007:** interest to foreign related entities
	safe haven	-									**28.12.2007:** 3:1 foreign debt-to-equity ratio
	consequence	-									**28.12.2007:** excess interest is non-deductible
Mexico	interest	no thin-capitalization rules						**1.1.2005:** interest to all related entities and foreign unrelated entities, except on bank loans		**1.1.2007:** interest to foreign related entities and all unrelated entities	
	safe haven	-						**1.1.2005:** 3:1 debt-to-equity ratio			
	consequence	-						**1.1.2005:** excess interest is non-deductible			
Peru	interest	no thin-capitalization rules			interest to related entities						
	safe haven	-			3:1 debt-to-equity ratio						
	consequence	-			excess interest is non-deductible						
United States	interest	ThinCap: interest to related entities; Earnings Stripping Rules: interest to foreign related entities									
	safe haven	ThinCap: no specific ratio, but 3:1 debt-to-equity ratio is assumed to be acceptable; Earnings Stripping Rules:1,5:1 debt-to-equity ratio and net interest expense in excess of 50% of the adjusted taxable income, then excess interest expense is not deductible									
	consequence	ThinCap: interest is treated as dividends; Earnings Stripping Rules: excess interest can be carried forward									
Venezuela	interest	no thin-capitalization rules								**16.4.2007:** interest to related entities	
	safe haven	-								**16.4.2007:** 1:1 debt-to-equity ratio	
	consequence	-								**16.4.2007:** excess interest treated as dividends	
ASIA/AUSTRALIA											
Australia	interest	interest to foreign related entities, if >15% foreign ownership		**1.7.2001:** interest to foreign related entities, if controlled by foreign entities (>50%) or if controlling foreign entities (>50%)							

Thin/Fat-Capitalization Rules											
Country		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	safe haven	2:1 foreign debt-to-foreign equity ratio		**1.7.2001:** 3:1 debt-to-equity ratio							
	consequence	n/a		excess interest is non-deductible							
China	interest	no thin-capitalization rules									**1.1.2008:** interest to related parties
	safe haven	-									**1.1.2008:** 2:1 debt-to-equity ratio
	consequence	-									**1.1.2008**: excess interest is non-deductible
India		no thin-capitalization rules									
Indonesia		the Director of General Taxation may reclassify loans as equity if tax advantages are provided									
Japan	interest	interest to foreign related entities									
	safe haven	3:1 debt-to-equity ratio									
	consequence	n/a									
Malaysia		no thin-capitalization rules									
Philippines		no thin-capitalization rules									
Thailand		no thin-capitalization rules									
Vietnam		no thin-capitalization rules, but certain requirements for minimum equity in case of foreign investment									
EUROPE											
Austria	interest	interest to controlling entities									
	safe haven	rather liberal guidelines to determine whether debt-equity ratio is adequate									
	consequence	excess interest treated as dividends									
Belgium	interest	interest to controlling entities and directors									
	safe haven	1:1 debt-to-equity ratio									
	consequence	excess interest treated as dividends									
Bulgaria	interest	**1.1.1999:** all interest			**1.1.2002:** all interest, except bank loans	**1.1.2003:** all interest, bank loans only if related					
	safe haven	**1.1.1999:** 1:1 debt-to-equity ratio, then			2:1 debt-to-equity ratio, then interest deduction is limited to in-					**1.1.2007:** 3:1 debt-to-equity ratio,	

Thin/Fat-Capitalization Rules											
Country		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
		interest deduction is limited to interest income + 50% of positive financial result			terest income + 75% of positive financial result					then interest deduction is limited to interest income +75% of positive financial result	
	consequence	n/a				excess interest can be carried forward for three years				**1.1.2007:** excess interest can be carried forward for five years	
Croatia	interest	no thin-capitalization rules						**1.1.2005:** interest to all controlling entities (>25%)			
	safe haven	-						**1.1.2005:** 4:1 debt-to-equity ratio			
	consequence	-						n/a			
Czech Republic	interest	interest to foreign controlling entities						**1.1.2005:** interest to all related entities			**1.1.2008:** all interest
	safe haven	4:1 debt-to-equity ratio									**1.1.2008:** 2:1 debt-to-equity ratio for interest to related entities, 6:1 debt-to-equity ratio for all other interest
	consequence	excess interest is treated as dividends									
Denmark	interest	**1.1.1999:** interest to foreign related entities					**1.1.2004:** interest to all related entities				
	safe haven	**1.1.1999:** 4:1 debt-to-equity ratio					**1.1.2004:** 4:1 debt-to-equity ratio and controlled debt exceeds DKK10million				
	consequence	**1.1.1999:** excess interest is non-deductible									
Estonia		no thin-capitalization rules									
Finland		no thin-capitalization rules									
France	interest	interest to foreign controlling entities (>50%)					interest to foreign non-EU controlling entities (>50%)			**1.1.2007:** interest to related entities	
	safe haven	1,5:1 debt-to-equity ratio								**1.1.2007:** the highest is the limit: a) 1,5:1 debt-to-equity ratio, b) 25% of total income, c) interest income	
	consequence	excess interest is non-deductible								**1.1.2007:** excess interest can be carried forward; deduction is reduced by 5% annually starting the	

Thin/Fat-Capitalization Rules

Country		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
										2nd year	
Germany	interest	interest to foreign controlling entities (>25%)					**1.1.2004:** interest to all controlling entities (>25%)				**1.1.2008:** all interest
	safe haven	3:1 debt-to-equity ratio		**1.1.2001:** 1,5:1 debt-to-equity ratio			**1.1.2004:** 1,5:1 debt-to-equity ratio if interest >EUR 250,000				**1.1.2008:** 30% of EBITDA, net interest expense up to EUR 3 mio.
	consequence	excess interest treated as dividends									**1.1.2008:** excess interest can be carried forward
Greece		no thin-capitalization rules									
Hungary	interest	interest to related entities		**1.1.2001:** all interest, except bank loans							
	safe haven	4:1 debt-to-equity ratio		**1.1.2001:** 3:1 debt-to-equity ratio							
	consequence	excess interest is non-deductible									
Ireland	interest	interest to foreign controlling entities (>75%)			**1.1.2002:** interest to controlling entities outside EU (>75%)						
	safe haven	no fixed ratio									
	consequence	excess interest is treated as dividends									
Italy	interest	no thin-capitalization rules					**1.1.2004:** interest to related entities				
	safe haven	-					**1.1.2004:** 5:1 debt-to-equity ratio; turnover exceeds EUR 5,164,568.99	**1.1.2005:** 4:1 debt-to-equity ratio; turnover exceeds EUR 5,164,568.99		**1.1.2007:** 4:1 debt-to-equity ratio, turnover exceeds EUR 7.5 mio.	**1.1.2008:** 30% of EBITDA
	consequence	-					**1.1.2004:** excess interest is treated as dividends				**1.1.2008:** excess interest can be carried forward for 5 years
Latvia	interest	no thin-capitalization rules				**1.1.2003:** all interest except bank loans				**1.1.2007:** foreign interest except bank loans	

Thin/Fat-Capitalization Rules

Country		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	safe haven	-				**1.1.2003:** 4:1 debt-to-equity ratio				**1.1.2007**: deduction is limited to the lesser of: a) 4:1 debt-to-equity ratio, b) 1.2 times the average short-term credit rate on debt	
	consequence	-				**1.1.2003:** excess interest is non-deductible					
Lithuania	interest	no thin-capitalization rules					**1.1.2004:** interest to controlling entities (>50%)				
	safe haven	-					**1.1.2004:** 4:1 debt-to-equity ratio				
	consequence	-					**1.1.2004:** excess interest is non-deductible				
Luxem-bourg		no thin-capitalization rules									
Moldova		no thin-capitalization rules									
Montenegro		no thin-capitalization rules									
Netherlands	interest	no thin-capitalization rules					**1.1.2004:** interest to related entities				
	safe haven	-					**1.1.2004:** 3:1 debt-to-equity ratio + EUR500,000				
	consequence	-					**1.1.2004:** excess interest treated as dividends				
Norway		no thin-capitalization rules									
Poland	interest	**1.1.1999:** interest to all related entities		**1.1.2001**: interest to foreign related entities				**1.1.2005:** interest to all related entities			
	safe haven	**1.1.1999:** 3:1 debt-to-equity ratio									
	consequence	n/a									
Portugal	interest	interest to related entities							**1.1.2006:** interest to non-EU related entities		
	safe haven	2:1 debt-to-equity ratio									
	consequence	excess interest treated as dividends									
Romania	interest	no thin-capitalization rules			n/a			all interest, except on bank loans			
	safe haven	-			**1.7.2002:** 1:1 debt-to-equity ratio, then interest deduction is limited to interest income +10% of other income			**1.1.2005:** 3:1 debt-to-equity ratio			
	consequence	-			**1.7.2002:** excess interest can be carried forward						
Russia	interest	no thin-capitalization rules			**1.1.2002:** interest to foreign controlling entities						
	safe haven	-			**1.1.2002:** 3:1 debt-to-equity ratio						
	consequence	-			**1.1.2002:** excess interest is treated as dividends						

Thin/Fat-Capitalization Rules											
Country		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Serbia	interest	no thin-capitalization rules		**1.7.2001:** interest to related entities							
	safe haven	-		**1.7.2001:** interest deduction is limited to 4 times the equity multiplied by 110% of the National Bank interest rate; for foreign loans, interest rate of the other country is used							
	consequence	-		**1.7.2001**: excess interest can be carried forward one year							
Slovak Republic	interest	all interest	n/a	interest to related entities			**1.1.2004:** no thin-capitalization rules				
	safe haven	4:1 debt-to-equity ratio for related entities; 35:1 debt-to-equity ratio for unrelated entities	n/a	4:1 debt-to-equity ratio for related entities			-				
	consequence	n/a					-				
Slovenia	interest	no thin-capitalization rules						**1.1.2005:** interest to controlling entities (>25%)			
	safe haven	-						**1.1.2005:** 8:1 debt-to-equity ratio			**1.1.2008:** 6:1 debt-to-equity ratio
	consequence	-						n/a			
Spain	interest	interest to foreign related entities					**1.1.2004:** interest to non-EU foreign related entities				
	safe haven	3:1 debt-to-equity ratio									
	consequence	excess interest treated as dividends									
Sweden		no thin-capitalization rules									
Switzerland	interest	interest to related entities on a loan with the character of equity									
	safe haven	list indicates the maximum amount of debt in relation to certain assets									
	consequence	excess interest treated as dividends									
Turkey	interest	interest to related entities									
	safe haven	no fixed ratio, but has to be higher in comparison with similar enterprises							**1.1.2006:** 3:1 debt-to-equity ratio		
	consequence	excess interest treated as dividends									

<table>
<tr><th colspan="12">Thin/Fat-Capitalization Rules</th></tr>
<tr><th>Country</th><th></th><th>1999</th><th>2000</th><th>2001</th><th>2002</th><th>2003</th><th>2004</th><th>2005</th><th>2006</th><th>2007</th><th>2008</th></tr>
<tr><td rowspan="3">Ukraine</td><td>interest</td><td colspan="6">all interest (only if >50% foreign investment)</td><td colspan="4">interest to foreign controlling entities (only if >50% foreign investment)</td></tr>
<tr><td>safe haven</td><td colspan="10">interest deduction is limited to interest income +50% of taxable profit</td></tr>
<tr><td>consequence</td><td colspan="10">excess interest can be carried forward</td></tr>
<tr><td rowspan="3"><u>United Kingdom</u></td><td>interest</td><td colspan="5">interest to foreign related entities</td><td colspan="5">1.4.2004: thin-capitalization rules integrated into transfer pricing regime</td></tr>
<tr><td>safe haven</td><td colspan="5">1:1 debt-to-equity ratio</td><td colspan="5">-</td></tr>
<tr><td>consequence</td><td colspan="5">excess treated as dividends</td><td colspan="5">-</td></tr>
<tr><td colspan="12">Underlined countries are OECD member countries; information as of 1 July of the respective year</td></tr>
</table>

Source: own composition.

Table A11: Transfer Pricing Categories I

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Austria	.	.	2	2	2	2	2	2	2	2	2
Belgium	2	2	2	2	2	2	2	2	2	2	2
Bulgaria	1	1	1	1	1	1	1	1	.	.	2
Croatia	1	1	1	1	1	1	.	.	.	.	3
Czech Republic	.	.	2	2	2	2	2	2	2	2	2
Denmark	.	.	3	3	3	3	3	3	3	3	3
Estonia	.	.	.	.	.	.	.	.	3	3	3
Finland	.	.	.	.	2	2	2	2	3	3	3
France	.	.	2	2	2	2	2	2	2	2	2
Germany	.	.	2	2	3	3	3	3	3	3	3
Hungary	.	.	2	2	3	3	3	3	3	3	3
Ireland	1	1	1	1	1	1	1	1	1	1	1
Italy	.	.	2	2	2	2	2	2	2	2	2
Latvia	.	.	.	.	.	.	.	.	2	2	2
Luxembourg	.	.	.	.	.	.	2	2	2	2	2
Netherlands	1	1	1	3	3	3	3	3	3	3	3
Norway	.	.	.	.	.	2	2	2	2	3	3
Poland	.	.	3	3	3	3	3	3	3	3	3
Portugal	1	1	1	3	3	3	3	3	3	3	3
Romania	.	.	.	.	2	2	2	2	3	3	3
Slovak Republic	.	.	.	.	.	.	2	2	2	2	3
Spain	.	.	2	2	2	2	2	2	3	3	3
Sweden	.	.	2	2	2	2	2	2	3	3	3
Switzerland	.	.	2	2	2	2	2	2	2	2	2
Ukraine	1	1	1	1	1	1	1	1	1	1	1
United Kingdom	3	3	3	3	3	3	3	3	3	3	3

Source: own composition.

Table A12: Possibility to Enter into a Bilateral Advance Pricing Agreements

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Austria	0	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	0	0	0	0	0	0	0	0	0
Bulgaria	0	0	0	0	0	0	0	0	0	0	0
Croatia	0	0	0	0	0	0	0	0	0	0	0
Czech Republic	0	0	0	0	0	0	0	0	0	0	0
Denmark	.	.	.	1	1	1	1	1	1	1	1
Estonia	0	0	0	0	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0	0	0	0	0
France	.	.	1	1	1	1	1	1	1	1	1
Germany	0	0	0	0	0	0	0	1	1	1	1
Hungary	0	0	0	0	0	0	0	0	1	1	1
Ireland	0	0	0	0	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0	0	0	0	0
Latvia	0	0	0	0	0	0	0	0	0	0	0
Luxembourg	0	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	1	1	1	1	1	1	1	1	1
Norway	0	0	0	0	0	0	0	0	0	0	0
Poland	0	0	0	0	0	0	0	1	1	1	1
Portugal	0	0	0	0	0	0	0	0	0	0	1

Romania	0	0	0	0	0	0	0	0	1	1	1
Slovak Republic	0	0	0	0	0	0	0	0	0	0	0
Spain	.	.	1	1	1	1	1	1	1	1	1
Sweden	0	0	0	0	0	0	0	0	0	0	0
Switzerland	.	.	.	.	.	.	.	.	.	.	.
Ukraine	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	.	.	1	1	1	1	1	1	1	1	1

Source: own composition.

Table A13: Existence of Thin Capitalization Rules

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Argentina	1	1	1	1	1	1	1	1	1	1
Brazil	0	0	0	0	0	0	0	0	0	0
Chile	0	0	1	1	1	1	1	1	1	1
China	0	0	0	0	0	0	0	0	0	1
Colombia	0	0	0	0	0	0	0	0	0	0
Ecuador	0	0	0	0	0	0	0	0	0	1
Indonesia	0	0	0	0	0	0	0	0	0	0
India	0	0	0	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	0	1	1	1	1
Moldova	0	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0	0	0	0	0
Peru	0	0	0	1	1	1	1	1	1	1
Philippines	0	0	0	0	0	0	0	0	0	0
Russia	0	0	0	1	1	1	1	1	1	1
Thailand	0	0	0	0	0	0	0	0	0	0
Ukraine	1	1	1	1	1	1	1	1	1	1
Venezuela	0	0	0	0	0	0	0	0	1	1

Source: own composition.

Table A14: Transfer Pricing Categories II

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Argentina	2	2	2	2	2	2	2	2	2	2
Brazil	2	2	2	2	2	2	2	2	2	2
Chile	1	1	1	1	1	1	1	1	1	1
China	.	.	2	2	2	2	2	2	2	2
Colombia	.	.	1	1	1	2	2	2	2	2
Ecuador	0	0	0	0	0	0	2	2	2	2
Indonesia	.	.	1	2	2	2	2	2	2	2
India	.	.	2	2	2	2	2	2	2	2
Mexico	2	2	2	2	2	2	2	2	2	2
Malaysia	.	.	2	2	2	2	2	2	2	2
Peru	0	0	2	2	2	2	2	2	2	2
Philippines	.	.	.	.	.	.	.	.	1	1
Russia	.	.	1	1	1	1	1	1	1	1
Ukraine	1	1	1	1	1	1	1	1	1	1
Venezuela	1	1	1	2	2	2	2	2	2	2

Source: own composition.

References of Appendix

The tables on transfer pricing regulations are based on the following references:

Bernstein (1999), Cauwenbergh/Hinnekens (2008), Curiel/Cruz/Gonzalez-Bendiksen/Gonzalez-Bendiksen (2007), Dehnen/Bacht (2005), Deloitte & Touche (2002, 2003, 2004, 2006, 2007, 2008, 2009), Diaz Tong/Arenas Alvarado (2010), Diaz Tong/Castro Jurado (2008), Doets/van Dam (2006), Eichelberger/Levey/Tao (2005), Erjavsek (2007), Ernst & Young (2001, 2005, 2006, 2008, 2010), Gibbins/Blazejová (2008), Govind (2003), IBFD, Tax Research Platform, Country Analyses, KPMG (2007, 2009, 2011), Kurucz-Váradi/Tóth (2001), Li (2000), Li/Huang (2008), OECD, Transfer Pricing Country Profiles, Okada (2001), PricewaterhouseCoopers (2002, 2003, 2006, 2008, 2009, 2010, 2011), Simons/Thaidamri (2007), Spoelder/Bosch (2004), Thanneermalai/Singh/Soosaipillai (2007), Wilkie (2009)

The tables on thin capitalization rules are based on the following references:

Degesys (2005), Ernst & Young (2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008), Földes (2000), Gencs (2007), Gouthière (2000), Hickson (2005), IBFD (1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008), IBFD, Tax Research Platform, Country Analyses, Kronbergs (2003), Kronbergs (2005), Zorman (2006)

8 References

Agúndez García, A. (2006): *The Delineation and Apportionment of an EU Consolidated Tax Base for Multi-jurisdictional Corporate Income Taxation: A Review of Issues and Options*, European Commission Taxation Papers, Working Paper No. 9/2006

Allingham, M.G./Sandmo, A. (1972): Income tax evasion: a theoretical analysis, in: *Journal of Public Economics 1*, p. 323-338

Altshuler, R./Grubert, H. (2003): Taxes, repatriation strategies and multinational financial policy, in: *Journal of Public Economics 87*, p. 73-107

Altshuler, R./Grubert, H./Newlon, T.S. (2001): Has U.S. Investment Abroad Become More Sensitive to Tax Rates?, in: Hines, J.R., *International Taxation and Multinational Activity*, Chicago 2001

Anderson, P. (2003): PATA Transfer Pricing Documentation Package, in: *Asia-Pacific Tax Bulletin 9*, p. 199-203

Arndt, H.-W./Fischer, K./Fetzer, T. (2010): *Europarecht*, 10th ed., Heidelberg 2010

Ault, H./Sasseville, J. (2009): 2008 OECD Model: The New Arbitration Provision, in: *Bulletin for International Taxation 63*, p. 208-215

Avery Jones, J.F. (2012): Avoiding Double Taxation: Credit versus Exemption – The Origins, in: *Bulletin for International Taxation 66*, p. 67-76

Avi-Yonah, R.S. (2000): Globalization, Tax Competition, and the Fiscal Crisis of the Welfare State, in: *Harvard Law Review 114*, p. 1575-1676

Avi-Yonah, R.S. (2010): Between Formulary Apportionment and the OECD Guidelines: A Proposal for Reconciliation, in: *World Tax Journal 2*, p. 3-18

Avi-Yonah, R.S./Clausing, K.A./Durst, M.C. (2009): Allocating Business Profits for Tax Purposes: A Proposal to Adopt a Formulary Profit Split, in: *Florida Tax Review 9*, p. 497-553

Aymé, N./Ehlermann, C. (2012): *"Green Book" on tax convergence published; German ruling coalition announces plan for further business tax reform*, Deloitte France-Germany Tax Alert, 15 February 2012

Baker, P. (1994): *Double Taxation Conventions and International Tax Law – a Manual on the OECD Model Tax Convention on Income and on Capital of 1992*, London 1994

Baker, P./Czakert, E./van Eijsden, A./Grau Ruiz, M.A./Kana, L. (2011): International Assistance in the Collection of Taxes, in: *Bulletin for International Taxation 65*, p. 281-287

Baker, R. (2005): *Capitalism's Achilles Heel: Dirty Money and How to Renew the Free-Market System*, Hoboken 2005

Banoun, B. (2002): Tax Avoidance Rules in Scandinavian and Anglo-American Law, in: *Bulletin for International Fiscal Documentation 56*, p. 485-492

Bärsch, S.-E. (2012): Hybrid Financial Instruments and the Remuneration Derived Therefrom in an International and Cross-Border Context – Issues and Options for Reform, Mannheim 2012

Bartelsman, E.J./Beetsma, R.M.W.J. (2003): Why pay more? Corporate tax avoidance through transfer pricing in OECD countries, in: *Journal of Public Economics 87*, p. 2225-2252

Becker, J./Fuest, C. (2010): Taxing Foreign Profits with International Mergers and Acquisitions, in: *International Economic Review 51*, p. 171-186

Bernstein, J. (1999): Transfer Pricing in Canada, in: *Bulletin for International Fiscal Documentation 53*, p. 570-581

Beuselinck, C./Deloof, M./Vanstraelen, A. (2009): *Multinational Income Shifting, Tax Enforcement and Firm Value*, Working Paper, October 2009

Blanluet, G./Durand, P.J. (2011): General Report, in: IFA Cahiers 2011, Volume 96B, Key practical issues to eliminate double taxation of business income, *Cahiers de Droit Fiscale International*, p. 17-57

Bird, R. (1988): Shaping a New International Tax Order, in: *Bulletin for International Fiscal Documentation 42*, p. 292-299

Bogaerts, R. (2002): Corporate Tax Reform Influences Luxembourg's International Competitiveness as Holding Company Location, in: *European Taxation 42*, p. 380-388

Borkowski, S.C. (2010): Transfer pricing practice of transnational corporations in PATA countries, in: *Journal of International Accounting, Auditing and Taxation 19*, p. 35-54

Bricker, M.P. (1998): Arbitration Procedures in Tax Treaties – A First Israeli Tax Treaty Includes an Arbitration Clause – But Do Such Clauses Really Matter?, in: *Intertax 26*, p. 97-108

Brosens, L. (2004): Thin capitalization rules and EU law, in: *EC Tax Review 13*, p. 188-213

Buettner, T./Overesch, M./Schreiber, U./Wamser, G. (2012): The Impact of Thin-Capitalization Rules on the Capital Structure of Multinational Firms, in: *Journal of Public Economics*, forthcoming

Buettner, T./Wamser, G. (2012): Intercompany Loans and Profit Shifting? Evidence from Company-Level Data, in: *National Tax Journal*, forthcoming

Cagan, P. (1958): The Demand for Currency Relative to the Total Money Supply, in: *Journal of Political Economy 66*, p. 302-328

Calderón, J.M. (2005): European Transfer Pricing Trends at the Crossroads: Caught Between Globalization, Tax Competition and EC Law, in: *Intertax 33*, p. 103-116

Calderón, J.M. (2007): The OECD Transfer Pricing Guidelines as a Source of Tax Law: Is Globalization Reaching the Tax Law?, in: *Intertax 35*, p. 4-29

Casley, A./Kritikides, A. (2003): Transactional Net Margin Method, Comparable Profits Method and the Arm's Length Principle, in: *International Transfer Pricing Journal 10*, p. 162-168

Cauwenbergh, P./Hinnekens, L. (2008): Transfer Pricing in Belgium – Rulings and Practice, in: *Bulletin for International Taxation 62*, p. 384-395

Chetcuti, J.-P. (2001): *The EU Tax Arbitration Convention*, 2001, http://www.chetcuticauchi.com/jpc/research/eu-tax-arbitration-convention.htm

Christian Aid (2009): *False Profits: robbing the poor to keep the rich tax free*, A Christian Aid Report, March 2009

Clausing, K.A. (2003): Tax-motivated transfer pricing and US intrafirm trade prices, in: *Journal of Public Economics 87*, p. 2207-2223

Code of Conduct Group (1999): *Code of Conduct (Business Taxation)*, Primarolo Report, SN 4901/99, Brussels, 23 November 1999

Cordewener, A. (2003): Company Taxation, Cross-Border Financing and Thin Capitalization in the EU Internal Market: Some Comments on Lankhorst-Hohorst GmbH, in: *European Taxation 43*, p. 102-113

Council of Europe (1978): Cooperation between Member States against International Tax Avoidance and Evasion I, in: *Intertax 6*, p. 251-260

CTJ (2011): *Corporate Taxpayers & Corporate Tax Dodgers 2008-2010*, November 2011

CTJ (2012): *General Electric's Ten Year Tax Rate Only Two Percent*, Press Release, http://www.ctj.org/taxjusticedigest/archive/2012/02/press_release_general_electric.php

Curiel, M./Cruz, F./Gonzalez-Bendiksen, C./Gonzalez-Bendiksen, D. (2007): *Advance Pricing Agreement Law and Practice in Colombia, Mexico, Peru, and Venezuela*, Tax Management Transfer Pricing Report, 27.06.2007, p. 165

Czakert, E. (2009): Der Vorschlag der Kommission zur Revision der Zinsrichtlinie, in: *Internationales Steuerrecht 18*, p. 164-167

Czakert, E. (2010): Seminar I: Der internationale Informationsaustausch bei der Festsetzung und Beitreibung von Steuern, in: *Internationales Steuerrecht 19*, p. 567-570

Dash, S.K./Krishnan, S. (2010): Transfer Pricing Regulations – A Comparative Study on the Confluence and Conflict between India, the OECD and Other Countries, in: *Asia-Pacific Tax Bulletin 16*, p. 24-35

De Broe, L./Goyette, N./Martin, P./Rohatgi, R./van Weeghel, S./West, P. (2011): Tax Treaties and Tax Avoidance: Application of Anti-Avoidance Provisions, in: *Bulletin for International Taxation 65*, p. 375-389

Degesys, R. (2005): A comparative study of the thin capitalization rules in the member states of the European Union and certain other states: Lithuania, in: *European Taxation 45*, p. 410-413

Dehnen, P.H./Bacht, S. (2005): New Developments Regarding Transfer Pricing Documentation in Germany, in: *Bulletin for International Fiscal Documentation 59*, p. 185-190

Deloitte & Touche: *Strategy Matrix for Global Transfer Pricing* 2002, 2003, 2004, 2006, 2007, 2008, 2009

De Ruiter, M. (2008): Supplementary Dispute Resolution, in: *European Taxation 48*, p. 493-499

Desai, M.A./Hines, J.R. (2004): Old Rules and New Realities: Corporate Tax Policy in a Global Setting, in: *National Tax Journal 57*, p. 937-960

Devereux, M.P./Loretz, S. (2008): The Impact of Formula Apportionment on Corporate Tax Revenues, in: *Fiscal Studies 29*, p. 1-33

Devereux, M.P./Maffini, G. (2007): *The Impact of Taxation on the Location of Capital, Firms and Profit: A Survey of Empirical Evidence*, Oxford University Centre for Business Taxation, WP 07/02

Diaz Tong, E./Arenas Alvarado, K. (2010): New Transfer Pricing Regulations, Ecuador, in: *International Transfer Pricing Journal 17*, p. 219-221

Diaz Tong, E./Castro Jurado, S. (2008): New Transfer Pricing Provisions: Key Aspects and Future Prospects, Ecuador, in: *International Transfer Pricing Journal 15*, p. 220-224

Dischinger, M./Riedel, N. (2011): Corporate taxes and the location of intangible assets within multinational firms, in: *Journal of Public Economics 95*, p. 691-707

Doets, M./van Dam, H. (2006): Transfer Pricing in the Netherlands – The “Rules of the Road”, in: *Bulletin for International Taxation 60*, p. 344-350

Dorenkamp, C. (2012): Konvergenzinitiative Körperschaftsteuer Deutschland Frankreich – Anlegung eines steuersystematischen Kompasses, in: *Die Unternehmensbesteuerung 5*, p. 421-430

Drucker, J. (2010): Google 2.4% Rate Shows How $60 Billion Lost To Tax Loopholes, http://www.bloomberg.com/news/2010-10-21/google-2-4-rate-shows-how-60-billion-u-s-revenue-lost-to-tax-loopholes.html

DStV (2008): *Stellungnahme zum Referentenentwurf für ein Gesetz zur Modernisierung und Entbürokratisierung des Steuerverfahrens (Steuerbürokratieabbaugesetz)*, Deutscher Steuerberaterverband e.V., Berlin 2008

Easson, A. (1999): The Tax Competition Controversy, in: *Tax Notes International*, 25 January 1999, p. 371-390

Easson, A. (2004): Harmful Tax Competition: An Evaluation of the OECD Initiative, in: *Tax Notes International*, Special Reports, 7 June 2004, p. 1037-1077

ECOFIN (1998): *Council Conclusions of the ECOFIN Council Meeting on 1 December 1997 concerning taxation policy*, in: OJ 6.1.1998, C 2/1-6

Eden, L. (1998*): Taxing Multinationals: Transfer Pricing and Corporate Income Taxation in North America*, Toronto 1998

Eichelberger, J./Levey, M.M./Tao, P. (2005): Structuring an Appropriate Transfer Pricing Policy, in: *Asia-Pacific Tax Bulletin 11*, p. 477-484

Eicke, R. (2009): *Repatriierungsstrategien für U.S.-Investoren in Deutschland – Steuerplanung mit Holdinggesellschaften*, Baden-Baden 2009

Eigelshoven, A. (2008): Artikel 9. Verbundene Unternehmen, in: Vogel, K./Lehner, M. (2008), *Doppelbesteuerungsabkommen*, 5th ed., Munich 2008

Eilers, S. (1988): Der Streit um den internationalen Auskunftsverkehr in Steuersachen, in: *Computer und Recht 4*, p. 901-908

Ellis, M.J. (2000): The Code of Conduct in 2000: Cracking the Code or Coating the Crack?, in: *European Taxation 40*, p. 414-416

Elschner, C./Heckemeyer, J.H./Spengel, C. (2011): Besteuerungsprinzipien und effektive Unternehmenssteuerbelastungen in der Europäischen Union: Regelt sich die EU-weite Steuerharmonisierung von selbst?, in: *Perspektiven der Wirtschaftspolitik 12*, p. 47-71

Endres, D./Fuest, C./Spengel, C. (2010): *Company Taxation in the Asia-Pacific Region, India, and Russia*, Heidelberg 2010

Erjavsek, K. (2007): New Transfer Pricing Rules and Documentation Regulations, Slovenia, in: *International Transfer Pricing Journal 14*, p. 64-71

Ernst & Young: *Transfer Pricing Global Reference Guide* 2001, 2005, 2006, 2008, 2010

Ernst & Young: *Worldwide Corporate Tax Guide* 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009

Ernst & Young (2003): *Transfer Pricing 2003 Global Survey – Practices, Perceptions and Trends in 22 Countries plus Tax Authority Approaches in 44 Countries*, 2003

Ernst & Young (2010): *2010 Global Transfer Pricing Survey - Addressing the challenges of globalization*, 2010

Ernst & Young (2012): *India opposes UN use of OECD Transfer Pricing Guidelines for developing countries*, International Tax Alert, 16 March 2012

European Commission (1976): *Proposal for a Council Directive on the elimination of double taxation in connection with the adjustment of transfers of profits between associated enterprises (arbitration procedure)*, in: OJ 21.12.1976, C 301/4-7

European Commission (1996): *Taxation in the European Union – Report on the Development of Tax Systems*, COM(96) 546 final, Brussels, 22.10.1996

European Commission (2001): *Company Taxation in the Internal Market*, COM(2001) 582 final, Brussels, 23.10.2001

European Commission (2002): *Summary Record of the first Meeting of the EU Joint Transfer Pricing Forum held in Brussels on 3rd October 2002*, JTPF/004/2002/EN, Brussels, 30.10.2002

European Commission (2004): *Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee on the work of the EU Joint Transfer Pricing Forum in the field of business taxation from October 2002 to December 2003 and on a proposal for a Code of Conduct for the effective implementation of the Arbitration Convention (90/436/EEC of 23 July 1990),* COM(2004) 297 final, Brussels, 23.4.2004

European Commission (2005): *Report on the Activities of the EU Joint Transfer Pricing Forum in the Field of Documentation Requirements*, Report prepared by the EU Joint Transfer Pricing Forum, SEC(2005) 1477, Brussels, 11.11.2005

European Commission (2006): *Report from the Commission to the Council and the European Parliament on the Use of the Provisions on Mutual Assistance for the Recovery of Claims Relating to Certain Levies, Duties, Taxes and other Measures*, COM(2006) 43 final, Brussels, 8.2.2006

European Commission (2007a): *Commission Decision of 22 December 2006 setting up an expert group on transfer pricing (2007/75/EC)*, in: OJ 6.2.2007, L 32/189-191

European Commission (2007b): *Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee on the work of the EU Joint Transfer Pricing Forum in the field of dispute avoidance and resolution procedures and on Guidelines for Advance Pricing Agreements within the EU,* COM(2007) 71 final, Brussels, 26.2.2007

European Commission (2008): *Proposal for a Council Directive amending Directive 2003/48/EC on taxation of savings income in the form of interest payments*, COM(2008) 727 final, Brussels, 13.11.2008

European Commission (2009a): *Proposal for a Council Directive concerning mutual assistance for the recovery of claims relating to taxes, duties and other measures,* COM(2009) 28 final, Brussels, 2.2.2009

European Commission (2009b): *Report from the Commission to the Council and the European Parliament on the Use of the Provisions on Mutual Assistance for the Recovery of Claims Relating to Certain Levies, Duties, Taxes and other Measures in 2005-2008*, COM(2009) 451 final, Brussels, 4.9.2009

European Commission (2011a): *Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee on the work of the EU Joint Transfer Pricing Forum in the period April 2009 to June 2010 and related proposals 1. Guidelines on low value adding intra-group services and 2. Potential approaches to non-EU triangular cases*, COM(2011) 16 final, Brussels, 25.1.2011

European Commission (2011b): *Commission Decision of 25 January 2011 setting up the EU Joint Transfer Pricing Forum expert group (2011/C 24/03)*, in: OJ 26.1.2011, C 24/3-4

European Commission (2011c): *Proposal for a Council Directive on a Common Consolidated Corporate Tax Base (CCCTB)*, COM(2011) 121/4, Brussels, 16.3.2011

European Commission (2011d): *EU Joint Transfer Pricing Forum, JTPF work programme 2011-2015*, JTPF/016/2011/EN, Brussels, June 2011

European Council (2000): *Fight against tax fraud*, Report from the Ad hoc Working Party on Tax Fraud to COREPER / ECOFIN Council, Doc. No. 8668/00, Brussels, 22 May 2000

European Council (2004): *Cooperation Agreement between the European Community and its Member States, of the one part, and the Swiss Confederation, of the other part, to combat fraud and any other illegal activity to the detriment of their financial interests*, in: OJ 17.2.2009, L 46/8-35

European Council (2006): *Resolution of the Council and of the representatives of the governments of the Member States*, meeting within the Council, of 27 June 2006 on a code of conduct on transfer pricing documentation for associated enterprises in the European Union (EU TPD), in: OJ 28.7.2006, C 176/1-7

Falcao, T. (2010): Contributing a Developing Country's Perspective to International Taxation: United Nations Tender for Development of a Transfer Pricing Manual, in: *Intertax 38*, p. 502-508

Falcao, T. (2011): Exchanging Information with the Developing World: A Digression on the Global Forum Exchange of Information's Interaction with Developing Economies, in: *Intertax 39*, p. 603-612

Farmer, P./Lyal, R. (1994): *EC Tax Law*, Oxford 1994

Fehling, D. (2012): Das Global Forum on Transparency and Exchange of Information for Tax Purposes und die weltweite Akzeptanz des steuerlichen Informationsaustauschs – eine Zwischenbilanz, in: *Internationales Steuerrecht 21*, p. 353-357

Feld, L./Heckemeyer, J.H. (2011): FDI and Taxation: A Meta-Study, in: *Journal of Economic Surveys 25*, p. 233-272

Földes, G. (2000): General Anti-Avoidance Rules in the Tax Legislation of Hungary, in: *Bulletin of International Fiscal Documentation 54*, p. 558-564

Förster, H. (2009): Der Entwurf zur Aktualisierung der Kapitel I und III der OECD-Verrechnungspreisleitlinien, in: *Internationales Steuerrecht 18,* p. 720-727

Francescucci, D.L.P. (2004): The Arm's Length Principle and Group Dynamics – Part 1: The Conceptual Shortcomings, in: *International Transfer Pricing Journal 11*, p. 55-75

Francke, J. (1998): The 1998 OECD Report on Harmful Tax Competition: Just Right, in: *Tax Notes International*, 28 September 1998, p. 979-981

Freedman, J. (2012): GAAR as a process and the process of discussing the GAAR, in: *British Tax Review 57*, p. 22-27

Friedman, E./Johnson, S./Kaufmann, D./Zoido-Lobaton, P. (2000): Dodging the grabbing hand: the determinants of unofficial activity in 69 countries, in: *Journal of Public Economics 76*, p. 459-493

Fuest, C. (2008): The European Commission's proposal for a common consolidated corporate tax base, in: *Oxford Review of Economic Policy 24*, p. 720-739

Fuest, C./Hebous, S./Riedel, N. (2011): International Profit Shifting and Multinational Firms in Developing Economies, in: *Economics Letters 113*, p. 135-138

Fuest, C./Hemmelgarn, T./Ramb, F. (2007): How would the Introduction of an EU-wide Formula Apportionment Affect the Size and the Distribution of the Corporate Tax Base? An Analysis Based on German Multinationals, in: *International Tax and Public Finance 14*, p. 605-629

Fuest, C./Riedel, N. (2009): *Tax evasion, tax avoidance and tax expenditures in developing countries: A review of the literature*, Report prepared for the UK Department for International Development (DFID), Oxford, 19 June 2009

Fuest, C./Riedel, N. (2010): Tax Evasion and Tax Avoidance in Developing Countries: The Role of International Profit Shifting, Oxford University Centre for Business Taxation, WP 10/12

Führich, G. (2007): Ist die geplante Zinsschranke europarechtskonform?, in: *Internationales Steuerrecht 16*, p. 341-345

Gabert, I. (2011): Council Directive 2011/16/EU on Administrative Cooperation in the Field of Taxation, in: *European Taxation 51*, p. 342-347

Gaffney, M. (1999): Competition: More harm than good?, in: *International Tax Review 10*, p. 46-49

Gahleitner, G./Hristov, D. (2010): Loosening of the Banking Secrecy and Legalization of Undeclared Foreign Income, in: *European Taxation 50*, p. 265-269

Gaoua, N. (2012): *Second Financial Amending Law for 2012 adopted*, IBFD News, 1 August 2012

García Prats, F.A. (1999): Exchange of Information under Article 26 of the UN Model Tax Convention, in: *Bulletin for International Fiscal Documentation 53*, p. 541-548

Gencs, V. (2007): Recent International Income Tax Changes in Latvia, in: *European Taxation 47*, p. 306-307

Gibbins, M./Blazejová, Z. (2008), Changes to Slovak Tax Legislation, Slovak Republic, in: *European Taxation 48*, p. 272-275

Global Financial Integrity (2011): *Illicit Financial Flows from Developing Countries: 2000-2009*, Update with a Focus on Asia, Global Financial Integrity Executive Report, Washington, January 2011

Gnaedinger, C. (2008): CCCTB Opponents Stake Out Positions, in: *Tax Notes International*, 21 November 2008, p. 694-696

Gouthière, B. (2000): Fundamental freedoms for citizens, fundamental restrictions on national tax law?: France, in: *European Taxation 40*, p. 44-47

Govind, H. (2003): Transfer Pricing, India, in: *Asia-Pacific Tax Bulletin 9*, p. 14-21

Graetz, M.J. (2003): *Foundations of International Income Taxation*, New Haven 2003

Griffith, R./Hines, J./Sorensen, P.B. (2010): International Capital Taxation, in: Mirrlees, J.A., *Dimensions of Tax Design: The Mirrlees Review*, Oxford 2010, p. 914-989

Grimes, L./Maguire, T. (2005): Ireland Becomes an Even More Attractive Prospect for Corporate Entities, in: *European Taxation 45*, p. 148-154

Grubert, H. (1998): Taxes and the division of foreign operating income among royalties, interest, dividends and retained earnings, in: *Journal of Public Economics 68*, p. 269-290

Grubert, H. (2003): Intangible income, intercompany transactions, income shifting, and the choice of location, in: *National Tax Journal 56*, p. 221-242

Grubert, H./Mutti, J. (1991): Taxes, Tariffs and Transfer Pricing in Multinational Corporate Decision Making, in: *The Review of Economics and Statistics 17*, p. 285-293

Guttentag, J.H./Misback, A.E. (1986): Resolving Tax Treaty Issues: A Novel Solution, in: *Bulletin for International Fiscal Documentation 40*, p. 350-357

Gyöngyi Végh, P. (2002): Towards a Better Exchange of Information, in: *European Taxation 42*, p. 394-400

Gyöngyi Végh, P. (2003): The 2003 OECD Model, in: *European Taxation 43*, p. 244-249

Harris, P.A. (1996): *Corporate/Shareholder Income Taxation – and Allocating Taxing Rights between Countries*, Amsterdam 1996

Haufler, A./Schjelderup, G. (2000): Corporate tax systems and cross country profit shifting, in: *Oxford Economic Papers 52*, p. 306-325

Heinemann, F./Overesch, M./Rincke, J. (2010): Rate-Cutting Tax Reforms and Corporate Tax Competition in Europe, in: *Economics & Politics 22*, p. 498-518

Helminen, M. (2009): *EU Tax Law – Direct Taxation*, Amsterdam 2009

Hendricks, B. (2000): A View on Tax Harmonization and the Code of Conduct, in: *European Taxation 40*, p. 413-414

Hessisches Finanzministerium (1972): *Entwurf eines Gesetzes zur Einführung der Selbstveranlagung und Vollverzinsung*, Wiesbaden 1972

Heuberger, R./Oesterhelt, S. (2010): Switzerland to Adopt OECD Standard on Exchange of Information, in: *European Taxation 50*, p. 55-64

Hickson, J.H. (2005): A comparative study of the thin capitalization rules in the member states of the European Union and certain other states: Ireland, in: *European Taxation 45*, p. 402-404

Hines, J.R. (1999): Lessons from Behavioral Responses to International Taxation, in: *National Tax Journal 52*, p. 305-322

Hines, J.R./Rice, E.M. (1994): Fiscal paradise: foreign tax havens and American business, in: *Quarterly Journal of Economics 109*, p. 149-182

Hinnekens, L. (1992): The Tax Arbitration Convention. Its Significance for the EC Based Enterprise, the EC Itself, and for Belgian and International Tax Law, in: *EC Tax Review 1*, p. 70-105

Hinny, P. (2008): General Report, in: IFA Cahiers 2008, Volume 93B, New tendencies in tax treatment of cross-border interest of corporations, *Cahiers de Droit Fiscale International*, p. 15-50

Huizinga, H./Laeven, L. (2008): International profit shifting within multinationals: A multi-country perspective, in: *Journal of Public Economics 92*, p. 1164-1182

Huizinga, H./Laeven, L./Nicodeme, G. (2008): Capital structure and international debt shifting, in: *Journal of Financial Economics 88*, p. 80-118

Hummer, M. (2009): Dokumentation von Verrechnungspreisen im internationalen Geschäftsverkehr, in: *Steuer und Wirtschaft International 19*, p. 119-125

IBFD, *Tax Research Platform*, Country Analyses

IBFD, *European Tax Handbook*, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008

ICC (1987): ICC statement on the OECD/Council of Europe draft "Multilateral Convention on Mutual Administrative Assistance in Tax Matters" (ICC Doc. No. 180/261 Rev.), in: *Bulletin for International Fiscal Documentation 41*, p. 411-413

ICC (1995): ICC Comments on OECD Transfer Pricing Guidelines for MNEs and Tax Administrations – Discussion Draft of Part I, in: *Intertax 23*, p. 39-44

Internal Revenue Service (2004): *Pacific Association of Tax Administrators Issues Guidance on the Mutual Agreement Procedure and Bilateral Advance Pricing Arrangement Processes,* News Release IR-2004-83, June 25, 2004

Internal Revenue Service (2012): *Tax Gap for Tax Year 2006*, Overview, http://www.irs.gov/pub/newsroom/overview_tax_gap_2006.pdf

Ismer, R./Sailer, N. (2003): Der neue Art. 27 OECD-MA: Amtshilfe bei der Beitreibung und Sicherung von Steueransprüchen, in: *Internationales Steuerrecht 12*, p. 622-632

Jacobs, O.H. (2011): *Internationale Unternehmensbesteuerung*, 7th ed., Munich 2011

Jost, S.P./Pfaffermayr, M./Stoeckl, M./Winner, H. (2011): *Profit Shifting within Multinational Firms: The Role of Entity Characterization Profiles*, Working Paper, February 2011

Kahler, B. (2012): Kompendium der 50 Urteile des EuGH zur direkten Besteuerung in Deutschland, in: *Internationale Wirtschaftsbriefe 59*, p. 253-261 (part 1), p. 294-304 (part 2)

Kalloe, V. (2011): Corporate Tax Treatment of Interest: EU State Aid and the EU Code of Conduct as a Means of Combating Harmful Tax Competition, in: *European Taxation 51*, p. 504-514

Kamphuis, E./Oosterhoff, D. (2003): Global Transfer Pricing Update by Ernst & Young, The Netherlands, in: *Tax Notes International*, 3 November 2003, p. 338-340

Kanbur, R./Keen, M. (1993): Jeux Sans Frontières: Tax Competition and Tax Coordination When Countries Differ in Size, in: *The American Economic Review 83*, p. 877-892

Katsushima, T. (1995): Perspective: OECD Draft Transfer Pricing Guidelines, in: *Intertax 23*, p. 273-274

Kauffman, D./Kaliberda, A. (1996): Integrating the Unofficial Economy into the Dynamics of Post Socialist Economies: A Framework of Analyses and Evidence, in: Kaminski, B., *Economic Transition in Russia and the New States of Eurasia*, London 1996

Keen, M./Simone, A. (2004): Is Tax Competition Harming Developing Countries More Than Developed?, in: *Tax Notes International*, 28 June 2004, Special Supplement, p. 1317-1325

Kessler, W./Obser, R. (2004): Überblick zur Gesellschafter-Fremdfinanzierung in den Mitgliedstaaten der Europäischen Union, in: *Internationales Steuerrecht 13*, p. 187-191

King, E. (2009): *Transfer Pricing and Corporate Taxation – Problems, Practical Implications and Proposed Solutions*, New York 2009

Klaver, J.A.M./Timmermans, A.J.M. (1999): EU taxation: policy competition or policy coordination?, in: *EC Tax Review 8*, p. 185-191

Klemm, A./van Parys, S. (2012): Empirical evidence on the effects of tax incentives, in: *International Tax and Public Finance 19*, p. 393-423

Kobetsky, M. (2008): Transfer Pricing Measures and Emerging Developing Economies, International, in: *Asia-Pacific Tax Bulletin 14*, p. 363-377

Kofler, G. (2012): Indirect Credit versus Exemption: Double Taxation Relief for Intercompany Distributions, in: *Bulletin for International Taxation 66*, p. 77-89

Körner, A. (2003): The ECJ's Lankhorst-Hohorst Judgment – Incompatibility of Thin Capitalization Rules with European Law and Further Consequences, in: *Intertax 31*, p. 162-168

Kosters, B. (2004): The United Nations Model Tax Convention and Its Recent Developments, in: *Asia-Pacific Tax Bulletin 10*, p. 4-11

KPMG, *Global Transfer Pricing Review* 2007, 2009, 2011

Kronbergs, Z.G. (2003): EU Accession and the Latvian Tax System, in: *European Taxation 43*, p. 236-243

Kronbergs, Z.G. (2005): A comparative study of the thin capitalization rules in the member states of the European Union and certain other states: Latvia, in: *European Taxation 45*, p. 407-410

Kurucz-Váradi, K./Tóth, K. (2001), Recent Changes in Corporate Taxation in Hungary, in: *Bulletin for International Fiscal Documentation 55*, p. 193-199

Lang, M. (1997): Later Commentaries of the OECD Committee on Fiscal Affairs, Not to Affect the Interpretation of Previously Concluded Tax Treaties, in: *Intertax 25*, p. 7-9

Lang, M. (2005): Quellenprinzip, in: Endres, D./Oestreicher, A./Scheffler, W./Schreiber, U./Spengel, C., *Die internationale Unternehmensbesteuerung im Wandel*, Munich 2005, p. 28-43

La Porta, R./Shleifer, A. (2008): The Unofficial Economy and Economic Development, in: *Brookings Papers on Economic Activity Fall 2008*, p. 275-363

Law, S.B. (2012): Anti-Avoidance Rules in Recent Tax Treaties, in: *Bulletin for International Taxation 66*, p. 319-322

Lebovitz, M./van Herksen, M./Kirschenbaum, R.S./Nijhof, M.G. (2003): Achieving transfer pricing com-pata-bility, in: *Journal of International Taxation 14*, p. 14-20

Lennard, M. (2009): The UN Model Tax Convention as Compared with the OECD Model Tax Convention – Current Points of Difference and Recent Developments, in: *Asia-Pacific Tax Bulletin 15*, p. 4-11

Lennard, M. (2012): Update of the United Nations Model Tax Convention, in: *Asia-Pacific Tax Bulletin 18*, p. 96-100

Lenz, M./Dörfler, O. (2010): Die Zinsschranke im internationalen Vergleich, in: *Der Betrieb 63*, p. 18-24

Lethaby, H. (2012): Aaronson's GAAR, in: *British Tax Review 57*, p. 27-40

Li, J. (2000): Transfer Pricing in China, in: *Bulletin for International Fiscal Documentation 54*, p. 565-576

Li, J./Huang, H. (2008): Transformation of the Enterprise Income Tax in China: Internationalization and Chinese Innovations, China, in: *Bulletin for International Taxation 62*, p. 275-288

Lindencrona, G./Mattson, N. (1981): *Arbitration in Taxation*, Deventer 1981

Linn, A. (2010): Germany, in: IFA Cahiers 2010, Volume 95A, Tax treaties and tax avoidance : application of anti-avoidance provisions, *Cahiers de Droit Fiscale International*, p. 295-317

Lohse, T./Riedel, N. (2012a): *The Impact of Transfer Pricing Regulations on Profit Shifting within European Multinationals*, FZID Discussion Paper 61-2012

Lohse, T./Riedel, N. (2012b): *Closing the Tax Gap: The Impact of Anti-Avoidance Legislation on International Profit Shifting in Developing Countries*, mimeo

Lohse, T./Riedel, N./Spengel, C. (2012): *The Increasing Importance of Transfer Pricing Regulations – a Worldwide Overview*, Oxford University Centre for Business Taxation, Working Paper 12/27

Malliou, A./Savvaidou, K. (2007): Greece, in: IFA Cahiers 2007, Volume 92A, Transfer Pricing and Intangibles, *Cahiers de Droit Fiscale International*, p. 333-354

Markham, M. (2004): Complying with Australian and PATA Transfer Pricing Documentation Rules – A Sisyphean Task?, in: *Revenue Law Journal 14*, p. 151-177

Martín Jiménez, A. (2006): Loopholes in the EU Savings Tax Directive, in: *Bulletin for International Taxation 60*, p. 480-494

McLure, C.E. (1986): Tax Competition: Is What's Good for the Private Goose also Good for the Public Gander?, in: *National Tax Journal 39*, p. 341-348

Merks, P. (2006): Tax Evasion, Tax Avoidance and Tax Planning, in: *Intertax 34*, p. 272-281

Miller, A./Oats, L. (2009): *Principles of International Taxation*, 2nd ed., Haywards Heath 2009

Mogensen, G.V./Kvist, H.K./Körmendi, E./Pedersen, S. (1995): *The Shadow Economy in Denmark 1994 – Measurement and Results*, Copenhagen 1995

Mullins, P. (2006): *Moving to Territoriality? Implications for the United States and the Rest of the World*, IMF Working Paper, WP/06/161

Musgrave, P.B. (2002): Interjurisdictional Equity in Company Taxation: Principles and Applications to the European Union, in: Cnossen, S., *Taxing Capital Income in the European Union*, New York 2002, p. 46-77

Musgrave, P.B./Musgrave, R.A. (1990): Fiscal Coordination and Competition in an International Setting, in: *Influence of Tax Differentials on International Competitiveness*, Proceedings of the VIIIth Munich Symposium on International Taxation, Deventer 1990

Nijkamp, H. (2002): European Commission Turns Up Heat on Harmful Tax Competition, in: *Tax Notes International*, 25 March 2002, p. 1263-1267

Oberson, X. (2003): The OECD Model Agreement on Exchange of Information – a Shift to the Applicant State, in: *Bulletin for International Fiscal Documentation 57*, p. 14-17

OECD (1963): *Draft Double Taxation Convention on Income and Capital*, Report of the OECD Fiscal Committee, Paris 1963

OECD (1977): *Model Double Taxation Convention on Income and on Capital*, Report of the OECD Committee on Fiscal Affairs, Paris 1977

OECD (1979): *Transfer pricing and multinational enterprises: report of the OECD Committee on Fiscal Affairs*, Paris 1979

OECD (1984): *Transfer Prices and Multinational Enterprises: Three Taxation Issues*, Paris 1984

OECD (1987a): *International Tax Avoidance and Evasion – Four Related Studies*, Paris 1987

OECD (1987b): *Thin Capitalisation*, Issues in International Taxation No. 2, Paris 1987

OECD (1991): *Taxing Profits in a Global Economy – Domestic and International Issues*, Paris 1991

OECD (1994): *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations*, Discussion Draft Part I, Paris 1994

OECD (1995a): Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations, Discussion Draft Part II, in: *Intertax 23*, p. 312-365

OECD (1995b): *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations 1995/96/97*, Paris 1997

OECD (1998): *Harmful Tax Competition – An Emerging Global Issue*, Paris 1998

OECD (2000): *Towards Global Tax Co-operation: Progress in Identifying and Eliminating Harmful Tax Practices*, Paris 2000

OECD (2001a): *The OECD's Project on Harmful Tax Practices: The 2001 Progress Report*, Paris 2001

OECD (2001b): *Recommendation of the Council on the Use of the OECD Model Memorandum of Understanding on Automatic Exchange of Information for Tax Purposes*, C(2001)28/FINAL, Paris, 21 October 2002

OECD (2002): Transfer pricing: Keeping it at arm's length, in: *OECD Observer*, April 2002

OECD (2004a): *The OECD's Project on Harmful Tax Practices: The 2004 Progress Report*, Paris 2004

OECD (2004b): *Improving the Process for Resolving International Tax Disputes*, Version released for public comment on 27 July 2004, Paris 2004

OECD (2006a): *Proposals for Improving Mechanisms for the Resolution of Tax Treaty Disputes*, Public Discussion Draft, Paris, February 2006

OECD (2006b): *The OECD's Project on Harmful Tax Practices: 2006 Update on Progress in Member Countries*, Paris 2006

OECD (2007): *Improving the Resolution of Tax Treaty Disputes*, Report adopted by the Committee on Fiscal Affairs on 30 January 2007, Paris, February 2007

OECD (2009): *Tax Administration in OECD and Selected non-OECD Countries: Comparative Information Series (2008)*, prepared by the Forum on Tax Administration, Paris, 28 January 2009

OECD (2010a): *2010 Report on the Attribution of Profits to Permanent Establishments*, Paris, 22 July 2010

OECD (2010b): *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations*, Paris, 22 July 2010

OECD (2010c): *Tax Co-operation 2010 – Towards a Level Playing Field*, Paris 2010

OECD (2010d): *Model Tax Convention on Income and on Capital*, Condensed Version, Paris, July 2010

OECD (2012a): *The Global Forum on Transparency and Exchange of Information for Tax Purposes – Information Brief*, Paris, 27 June 2012

OECD (2012b): *Dealing Effectively with the Challenges of Transfer Pricing*, Paris 2012

OECD (2012c): *Revision of the Special Considerations for Intangibles in Chapter VI of the OECD Transfer Pricing Guidelines and Related Provisions – Discussion Draft*, Paris, 6 June 2012

OECD, Transfer Pricing Country Profiles, http://www.oecd.org/document/25/0,3746,en_2649_33753_37837401_1_1_1_1,00.html

Oestreicher, A. (2011): Valuation Issues in Transfer Pricing of Intangibles: Comments on the Scoping of an OECD Project, in: *Intertax 39*, p. 126-131

Oestreicher, A./Koch, R. (2011): The Revenue Consequences of Using a Common Consolidated Corporate Tax Base to Determine Taxable Income in the EU Member States, in: *FinanzArchiv 67*, p. 64-102

Okada, Y. (2001): The New Transfer Pricing Regulations in Japan, in: *Bulletin for International Fiscal Documentation 55*, p. 170-184

Orange, M. (2011): How Total escaped tax on 10 bln euros in profit, http://www.mediapart.fr/journal/france/190411/how-total-escaped-tax-10-bln-euros-profit

Osterweil, E. (1998): In Defense of the OECD Report on Harmful Tax Competition, in: *Tax Notes International*, 21 September 1998, p. 895-896

Osterweil, E. (1999): OECD Report on Harmful Tax Competition and European Union Code of Conduct Compared, in: *European Taxation 39*, p. 198-202

Owens, J./Sanelli, A. (2008): Fiscal Havens in Latin America and the Caribbean, in: Bernardi, L./Barreix, A./ Marenzi, A./Profeta, P., *Tax Systems and Tax Reforms in Latin America*, Milton Park 2008

Oxfam (2000): *Tax Havens: Releasing the Hidden Billions for Poverty Eradication*, Oxfam GB Policy Paper

Pak, S.J. (2007): Chapter 11: Capital Flight and Tax Avoidance through Abnormal Pricing in International Trade – the issue and the solution, in: Tax Justice Network, *Closing the Floodgates - Collecting Tax to Pay for Development*, Commissioned by the Norwegian Ministry of Foreign Affairs and Tax Justice Network, London 2007

Petrick, K.A. (2002): *Corporate Profits – Profits Before Tax, Profits Tax Liability, and Dividends: Methodology Paper*, September 2002

Pinto, C. (1998): EU and OECD to Fight Harmful Tax Competition: Has the Right Path Been Undertaken?, in: *Intertax 26*, p. 386-410

Pinto, C. (1999): EC State Aid Rules and Tax Incentives: A U-Turn in Commission Policy?, in: *European Taxation 39*, p. 295-309 (Part I), p. 343-354 (Part II)

PricewaterhouseCoopers, *International Transfer Pricing* 2002, 2003, 2006, 2008, 2009, 2010, 2011

PricewaterhouseCoopers (2011): *Transfer pricing and developing countries*, Final Report, June 2011

Prinz, U. (2012): Zinsschranke unter "partiellem Verfassungsverdacht", in: *Finanzrundschau 94*, p. 541-543

Pross, A./Russo, R. (2012): The Amended Convention on Mutual Administrative Assistance in Tax Matters: A Powerful Tool to Counter Tax Avoidance and Evasion, in: *Bulletin for International Taxation 66*, p. 361-365

Rasch, S./Feistle, A. (2009): OECD-Entwurf der überarbeiteten Verrechnungspreisrichtlinien, in: *Internationale Wirtschaftsbriefe 56*, p. 982-984

Rätke, B. (2012): § 117: Zwischenstaatliche Rechts- und Amtshilfe in Steuersachen, in: Klein, F., *Abgabenordnung – einschließlich Steuerstrafrecht*, 11th ed., Munich 2012

Razin, A./Sadka, E. (1991): International tax competition and gains from tax harmonization, in: *Economics Letters 37*, p. 69-76

Reimer, E. (2011): Permanent Establishment in the OECD Model Tax Convention, in: Reimer, E./Urban, N./Schmid, S., *Permanent Establishment – A Domestic Taxation, Bilateral Tax Treaty and OECD Perspective*, Alphen aan den Rijn 2011, p. 3-189

Ribes Ribes, A. (2002): Compulsory Arbitration as a Last Resort in Resolving Tax Treaty Interpretation Problems, in: *European Taxation 42*, p. 400-404

Rienstra, J. (2003): PATA: Agreement on Standard Transfer Pricing Documentation Package, in: *Asia-Pacific Tax Bulletin 9*, p. 194

Röder, E. (2012): Proposal for an Enhanced CCTB as Alternative to a CCCTB with Formulary Apportionment, in: *World Tax Journal 4*, p. 125-150

Rohatgi, R. (2002): *Basic International Taxation*, London 2002

Ruf, M./Weichenrieder, A. (2012): The Taxation of Passive Foreign Investment – Lessons from German Experience, in: *Canadian Journal of Economics*, forthcoming

Russo, R. (2007): *The Fundamentals of International Tax Planning*, Amsterdam 2007

Sato, M./Bird, R.M. (1975): International Aspects of the Taxation of Corporations and Shareholders, in: *Staff Papers – International Monetary Fund 22*, p. 384-455

Sawyer, A.J. (2004): Advance Pricing Agreements: A Primer and Summary of Developments in Australia and New Zealand, in: *Bulletin for International Fiscal Documentation 58*, p. 556-565

Schelpe, D. (1995): The Arbitration Convention: Its Origin, Its Opportunities and Its Weaknesses, in: *EC Tax Review 1*, p. 68-77

Schneider, F./Buehn, A. (2007): Shadow Economies and Corruption All Over the World: Revised Estimates for 120 Countries, Economics, The Open-Access, *Open-Assessment E-Journal*, No. 2007-9, Version 2, 27 October 2009

Schneider, F./Enste, D. (2000): *Shadow Economies Around the World: Size, Causes, and Consequences*, IMF Working Paper WP/00/26, February 2000

Schnorberger, S./Gerdes, I./van Herksen, M. (2006c): Transfer Pricing Documentation: The EU Code of Conduct Compared with Member State Rules (Part 3), in: *Intertax 34*, p. 514-519

Schnorberger, S./Rosenkranz, J./Garcia, M. (2006a): Transfer Pricing Documentation: The EU Code of Conduct Compared with Member State Rules, in: *Intertax 34*, p. 305-313

Schnorberger, S./Rosenkranz, J./Mkrtchyan, T./Bourtourault, P.-Y./Maucour, C./Polacco, G./Della Valle, E./Fletcher, R./Pantelidaki, S. (2006b): Transfer Pricing Documentation: The EU Code of Conduct Compared with Member State Rules (Part 2), in: *Intertax 34*, p. 406-417

Schön, W. (2003): Tax Competition in Europe – General Report, in: Schön, W., *Tax Competition in Europe*, Amsterdam 2003

Schön, W. (2009): International Tax Coordination for a Second-Best World (Part I), in: *World Tax Journal 1*, p. 67-114

Schwarz, P. (2006): Schwachstellen der EU-Zinsrichtlinie, in: *Internationales Steuerrecht 15*, p. 83-86

Schwarzenhofer, R.M. (2005): Dual Resident Companies in International Tax Law, in: Aigner, H.-J./Loukota, W., *Source Versus Residence in International Tax Law*, Vienna 2005

Seer, R./Gabert, I. (2010): Der internationale Auskunftsverkehr in Steuersachen, in: *Steuer und Wirtschaft 87*, p. 3-23

Simons, S./Thaidamri, S. (2007): Structuring an Appropriate Transfer Pricing Policy, Thailand, in: *Asia-Pacific Tax Bulletin 13*, p. 472-477

Skaar, A.A. (1992): The Legal Nature of Mutual Agreement under Tax Treaties, in: *Tax Notes International*, 21 December 1992, p. 1441-1450

Slemrod, J. (2004): The Economics of Corporate Tax Selfishness, in: *National Tax Journal 57*, p. 877-899

Slemrod, J. (2007): Cheating Ourselves: The Economics of Tax Evasion, in: *Journal of Economic Perspectives 21*, p. 25-48

Slemrod, J./Yitzhaki, S. (2002): Tax Avoidance, Evasion, and Administration, in: Auerbach, A.J./Feldstein, M., *Handbook of Public Economics*, Amsterdam 2002

Spengel, C./Zinn, B. (2011): Non-profit Taxation on Corporations in the EU: Lessons from Corporate Tax Reforms in Germany and Tax Implications of the Global Economic Crisis, in: *Intertax 39*, p. 494-520

Spengel, C./Zöllkau, Y. (2012): *Common Corporate Tax Base (CC(C)TB) and Determination of Taxable Income – An International Comparison*, Heidelberg 2012

Spoelder, E.-J./Bosch, M. (2004): Transfer Pricing Developments in the Netherlands, in: *Bulletin for International Fiscal Documentation 58*, p. 158-164

Stadler, R./Bindl, E. (2010): The German Economic Growth Acceleration Act: Main Changes and Opportunities for Taxpayers, in: *European Taxation 50*, p. 141-148

Swedish Tax Agency (2004): *Taxes in Sweden 2004 – An English summary of Tax Statistical Yearbook of Sweden*, 2004

Swedish Tax Agency (2008): *Tax Gap Map for Sweden – How was it created and how can it be used?*, Report 2008:1 B, 2008

Swenson, D. (2001): Tax Reforms and Evidence of Transfer Pricing, in: *National Tax Journal 54*, p. 7-25

Tadmore, N. (2007): Source Taxation of Cross-Border Intellectual Supplies - Concepts, History and Evolution into the Digital Age, in: *Bulletin for International Taxation 61*, p. 2-16

Tanzi, V. (1983): The Underground Economy in the United States: Annual Estimates, 1930-1980, in: *Staff Papers - International Monetary Fund 30*, p. 283-305

Tanzi, V./Zee, H.H. (2000): Taxation in a Borderless World: The Role of Information Exchange, in: *Intertax 28*, p. 58-63

Tax Justice Network (2007): *Closing the Floodgates - Collecting Tax to Pay for Development*, Commissioned by the Norwegian Ministry of Foreign Affairs and Tax Justice Network, London 2007

Terra, B.J.M./Wattel, P.J. (2008): *European Tax Law*, 5th ed., Aalphen an den Rijn 2008

Thanneermalai, S.M./Singh, J./Soosaipillai, A. (2007): Structuring an Appropriate Transfer Pricing Policy, Malaysia, in: *Asia-Pacific Tax Bulletin 13*, p. 80-86

Tillinghast, D.R. (1993): The choice of issues to be submitted to arbitration under income tax conventions, in: Alpert, H., *Essays on International Taxation*, Deventer 1993

Timberlake, J./Schneider, P./Dong Terry, S. (2009): China: Still Manufacturing's Shining Star?, in: *Deloitte Review 2009*, p. 105-119

Troup, E./Hale, P. (1998): EU Initiatives on Tax Harmonization: Do as I Say, Not as I Do?, in: *Tax Notes International*, 12 October 1998, p. 1081-1084

Uckmar, V. (1983): General Report, in: IFA Cahiers 1983, Volume 68A, Tax Avoidance/Tax Evasion, *Cahiers de Droit Fiscale International*, p. 15-53

UN (1980): *Model Double Taxation Convention between Developed and Developing Countries*, New York 1980

UN (2001): *Model Double Taxation Convention between Developed and Developing Countries*, New York 2001

UN (2009): *Transfer Pricing Practical Manual for Developing Countries*, Note by the Secretariat, Committee of Experts on International Cooperation in Tax Matters, Fifth Session, Geneva, 19-23 October 2009, E/C.18/2009/5

UN (2010): *Practical Manual on Transfer Pricing for Developing Countries*, Committee of Experts on International Cooperation in Tax Matters, Sixth Session, Geneva, 18-22 October 2010, E/C.18/2010/CRP.4

UN (2011a): *Model Double Taxation Convention between Developed and Developing Countries*, New York 2011

UN (2011b): *Report on the informal meeting on practical transfer pricing issues for developing countries*, Note by the Secretariat, Committee of Experts on International Cooperation in Tax Matters, Seventh Session, Geneva, 24-28 October 2011, E/C.18/2011/5

UNCTAD (2000): *Tax Incentives and Foreign Direct Investment – A Global Survey*, ASIT Advisory Studies No. 16, New York 2000

UNCTAD (2010): *World Investment Report 2010*, New York 2010

US General Accounting Office (2003): *Challenges Remain in Combating Abusive Tax Shelters*, Testimony Before the Committee on Finance, US Senate, 21 October 2003

Valente, P./Raventos-Calvo, S. (2010): *2010 CFE Questionnaire on Transfer Pricing Documentation*, Confédération Fiscale Européenne, Brussels 2010

van den Berg van Saparoea, A. (2009): Optimizing the Interest Deduction Rules – A Never-Ending Story, in: *European Taxation 49*, p. 3-10

van der Bruggen, E. (2002): A Preliminary Look at the New UN Model Tax Convention, in: *British Tax Review 47*, p. 119-134 van Herksen, M. (2008): How the Arbitration Convention Lost its Lustre: the Threat of Triangular Cases, in: *Intertax 36*, p. 332-345

van Thiel, S. (2008): Justifications in Community Law for Income Tax Restrictions on Free Movement: Acte Clair Rules That Can Be Readily Applied by National Courts, in: *European Taxation 48*, p. 279-290 (part 1), p. 339-350 (part 2)

van Weeghel, S. (2010): General Report, in: IFA Cahiers 2010, Volume 95A, Tax treaties and tax avoidance: application of anti-avoidance provisions, *Cahiers de Droit Fiscale International*, p. 17-55

Variychuk, E. (2011): In Search of Effective Regulation: Draft Bill on Transfer Pricing, Russia, in: *Bulletin for International Taxation 65*, p. 107-112

Vascega, M./van Thiel, S. (2010): Council Adopts New Directive on Mutual Assistance in Recovery of Tax and Similar Claims, in: *European Taxation 50*, p. 231-237

Vascega, M./van Thiel, S. (2011): Assessment of Taxes in Cross-Border Situations: The New EU Directive on Administrative Cooperation in the Field of Taxation, in: *EC Tax Review 20*, p. 148-154

Verdoner, L. (2009): The Coherence Principle under EC Tax Law, in: *European Taxation 49*, p. 274-282

Verlage, H.C. (1982): Transfer Pricing by Multinational Enterprises; Issues and Developments, in: *Intertax 10*, p. 285-293

Vögele, A./Borstell, T./Engler, G. (2011): *Verrechnungspreise – Betriebswirtschaft, Steuerrecht*, Munich 2011

Ward, J. (1995): Judicial Responses to Tax Avoidance, in: *European Taxation 35*, p. 2-13

Weichenrieder, A. (2009): Profit shifting in the EU: evidence from Germany, in: *International Tax and Public Finance 16*, p. 281-297

Weiner, J.M./Ault, H.J. (1998): The OECD’s Report on Harmful Tax Competition, in: *National Tax Journal 51*, p. 601-308

Wilkie, J.S. (2009): Canada's Place in the Contemporary Transfer Pricing World, in: *Bulletin for International Taxation 63*, p. 395-404

Wilkie, T.D./O'Grady, E. (2001): EU Commission Approves Investigation of 11 'Harmful' Corporate Tax Regimes, Termination of 4 Others, in: *Tax Notes International*, 23 July 2001, p. 420-421

Wilkins, W.J./Gideon, K.W. (1994): Memorandum to Congress: You Wouldn't Like Worldwide Formula Apportionment, in: *Tax Notes*, 5 December 1994, p. 1259-1264

Willson Jr., P./Coffill, E.J. (1993): Federal Formulary Apportionment as an Alternative to Arm's Length Pricing: From the Frying Pan to the Fire?, in: *Tax Notes*, 24 May 1993, p. 1103-1117

Wouters, J. (1999): The principle of non-discrimination in European Community law, in: *EC Tax Review 8*, p. 98-106

Wright, A.W. (1998): Review: OECD Harmful Tax Competition Report Falls Short, in: *Tax Notes International*, 17 August 1998, p. 461-463

Yitzhaki, S. (1974): A note on "income tax evasion: a theoretical analysis", in: *Journal of Public Economics 3*, p. 201-202

Zach, E. (2002): Joint Transfer Pricing Forum Sets Agenda, in: *Tax Notes International*, 21 October 2002, p. 231-232

Zielke, R. (2010): Shareholder Debt Financing and Double Taxation in the OECD: An Empirical Survey with Recommendations for the Further Development of the OECD Model and International Tax Planning, in: *Intertax 38*, p. 62-92

Zorman, G. (2006): The New Slovenian Corporate Income Tax Act 2005, in: *European Taxation 46*, p. 49-51

European Treaties

Treaty of Lisbon Amending the Treaty on European Union and the Treaty Establishing the European Community (2007/C 306/01), in: OJ 17.12.2007, C 306/1-229

Consolidated Versions of the Treaty on European Union and the Treaty on the Functioning of the European Union (2010/C 83/01), in: OJ 30.3.2010, C 83/1-388

European Regulations and Directives

Council Directive 76/308/EEC of 15 March 1976 on mutual assistance for the recovery of claims resulting from operations forming part of the system of financing the European Agricultural Guidance and Guarantee Fund, and of agricultural levies and customs duties, in: OJ 19.3.1976, L 73/18-23

Council Directive 77/799/EEC of 19 December 1977 concerning mutual assistance by the competent authorities of the Member States in the field of direct taxation, in: OJ 27.12.1977, L 336/15-20

Council Directive 90/434/EEC of 23 July 1990 on the common system of taxation of applicable mergers, divisions, transfers of assets and exchanges of shares concerning companies of different Member States, in: OJ 20.8.1990, L 225/1-5

Council Directive 90/435/EEC of 23 July 1990 on the common system of taxation applicable in the case of parent companies and subsidiaries of different Member States, in: OJ 20.8.1990, L 225/6-9

Council Directive 2001/44/EC of 15 June 2001 amending Directive 76/308/EEC on mutual assistance for the recovery of claims resulting from operations forming part of the system of financing the European Agricultural Guidance and Guarantee Fund, and of agricultural levies and customs duties and in respect of value added tax and certain excise duties, in: OJ 28.6.2001, L 175/17-20

Council Directive 2003/48/EC of 3 June 2003 on taxation of savings income in the form of interest payments, in: OJ 26.6.2003, L 157/38-48

Council Directive 2003/49/EC of 3 June 2003 on a common system of taxation applicable to interest and royalty payments made between associated companies of different Member States, in: OJ 26.6.2003, L 157/49-54

Council Regulation (EC) No 1798/2003 of 7 October 2003 on administrative cooperation in the field of value added tax and repealing Regulation (EEC) No 218/92, in: OJ 15.10.2003, L 264/1-11

Council Directive 2004/56/EC of 21 April 2004 amending Directive 77/799/EEC concerning mutual assistance by the competent authorities of the Member States in the field of direct taxation, certain excise duties and taxation of insurance premiums, in: OJ 29.4.2004, L 127/70-72

Council Directive 2005/19/EC of 17 February 2005 amending Directive 90/434/EEC 1990 on the common system of taxation applicable to mergers, divisions, transfers of assets and exchanges of shares concerning companies of different Member States, in: OJ 4.3.2005, L 58/19-27

Council Directive 2010/24/EU of 16 March 2010 concerning mutual assistance for the recovery of claims relating to taxes, duties and other measures, in: OJ 31.3.2010, L 84/1-12

Council Directive 2011/16/EU of 15 February 2011 on administrative cooperation in the field of taxation and repealing Directive 77/799/EEC, in: OJ 11.3.2011, L 64/1-12

European Conventions

Convention on the elimination of double taxation in connection with the adjustment of associated enterprises (90/436/EEC), in: OJ 20.8.1990, L 225/10-24

European Court of Justice: Decisions

20.02.79	120/78	Cassis de Dijon	ECR 1979, 00649
13.12.84	106/83	Sermide	ECR 1984, 04209

28.01.86	270/83	Avoir Fiscal	ECR 1986, 00273
28.01.92	C-204/90	Bachmann	ECR 1992, I-00250
14.02.95	C-279/93	Schumacker	ECR 1995, I-00225
30.11.95	C-55/94	Gebhard	ECR 1995, I-04165
15.05.97	C-250/95	Futura	ECR 1997, I-02471
07.05.98	C-350/96	Clean Car Autoservice	ECR 1998, I-02521
16.07.98	C-264/96	ICI	ECR 1998, I-04695
09.03.99	C-212/97	Centros	ECR 1999, I-01459
21.09.99	C-307/97	Saint-Gobain	ECR 1999, I-06161
26.10.99	C-294/97	Eurowings	ECR 1999, I-07447
08.03.01	C-397/98	Hoechst, Metallgesellschaft	ECR 2001, I-01727
12.12.02	C-324/00	Lankhorst-Hohorst	ECR 2002, I-11779
26.06.03	C-422/01	Skandia and Ramstedt	ECR 2003, I-06817
18.09.03	C-168/01	Bosal Holding	ECR 2003, I-09409
07.09.04	C-319/02	Manninen	ECR 2004, I-07477
21.02.06	C-255/02 C-419/02 C-233/03	Halifax BUPA Hospitals University of Huddersfield	ECR 2006, I-01609
12.09.06	C-196/04	Cadbury Schweppes	ECR 2006, I-07995
13.07.07	C-524/04	Thin Cap Group Litigation	ECR 2007, I-2107

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