Discussion Paper No. 13-078

Profit Shifting and "Aggressive" Tax Planning by Multinational Firms: Issues and Options for Reform

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Non-technical Summary

Google, Apple and other highly profitable multinationals are able to drastically reduce their tax burden on worldwide income by shifting profits from high- to low-tax countries. Reports on these tax avoidance strategies have triggered an intense public debate, which has brought the issue to the top of the international policy agenda. Both the OECD and the EU-Commission are currently working on measures to fight tax avoidance and profit shifting by multinational firms and have already published first recommendations.

This paper contributes to the current debate in two ways: First, we provide background information for a better understanding of the issue. Second, we discuss different policy options to address tax avoidance and profit shifting by multinationals and derive recommendations for policy makers. As most companies currently accused of avoiding taxes use intra-group licensing to shift profits, we focus on IP-based profit shifting but do also elaborate on profit shifting in general.

Based on a detailed description of exemplary tax planning strategies of multinational firms, we reveal central flaws and loopholes in tax law. Moreover, we show that there is solid empirical evidence demonstrating that profit shifting is indeed taking place but little is known about the tax revenue consequences of profit shifting.

With respect to the policy options, we differentiate between four general approaches for tackling profit shifting and tax avoidance by multinational firms:

(1) Extension of residence taxation
(2) Extension of source taxation
(3) Fundamental reforms of corporate income taxation
(4) Stricter reporting and transparency requirements

We argue that strengthening residence taxation, for example by tightening CFC rules, is an effective reform option but has the disadvantage that some countries benefit from a weak residence taxation and, hence, might be reluctant to move in this direction. Enforcing source taxation, on the other hand, is more promising. In the short run, we especially recommend extending withholding taxes in an internationally coordinated way. This measure effectively tackles profit shifting without causing double taxation. Unilateral measures for strengthening source taxation, like for example deduction restriction rules for interest and license payments or a general anti-avoidance measures, are not recommended because the first are economically harmful and the second are presumably ineffective. For the longer perspective, we recommend the more fundamental reform options, like formula apportionment or a destination-based tax, to be further promoted. Stricter reporting and transparency requirements, like country-by-country reporting, do face serious legal constraints and it is questionable whether the benefit of such rules justifies the corresponding effort and costs.

Das Wichtigste in Kürze

Google, Apple und anderen hochprofitablen multinationalen Konzernen gelingt es, ihre weltweite Steuerbelastung durch die Verlagerung von Gewinnen in Niedrigsteuerländer drastisch zu senken. Berichte über diese Steuervermeidungspraktiken haben eine intensive öffentliche Debatte ausgelöst und die internationale Politik zum Handeln veranlasst. Sowohl die OECD als auch die EU-Kommission arbeiten derzeit an Maßnahmen zur Bekämpfung von Steuervermeidung und Gewinnverlagerung durch multinationale Unternehmen und haben bereits erste Empfehlungen veröffentlicht.

Dieses Diskussionspapier leistet in zweierlei Hinsicht einen Beitrag zur aktuellen Debatte: Zum einen geben wir Hintergrundinformationen, die zu einem besseren Verständnis der Problematik beitragen sollen. Zum anderen diskutieren wir verschiedene Maßnahmen zur Bekämpfung internationaler Gewinnverlagerung und geben Handlungsempfehlungen. Da die meisten der derzeit aufgrund ihrer Steuerplanungsstrategien in der Kritik stehenden Unternehmen Gewinne durch gruppeninterne Lizenzierungsgestaltungen verschieben, gehen wir insbesondere auf diese Form der Gewinnverlagerung ein.

Basierend auf einer detaillierten Beschreibung typischer Steuerplanungsstrategien multinationaler Konzerne decken wir die zentralen Schwachstellen und Schlupflöcher im bestehenden Steuersystem auf. Zudem zeigen wir, dass ein Gewinnverlagerungsverhalten multinationaler Unternehmen empirisch erwiesen ist, jedoch nur wenig über die Auswirkungen von Gewinnverlagerung auf das Steueraufkommen bekannt ist.

Bei der Diskussion der Handlungsalternativen unterscheiden wir zwischen vier grundlegenden Ansätzen zur Bekämpfung von Steuervermeidung und Gewinnverlagerung durch multinationale Konzerne:

(1) Ausweitung der Wohnsitzbesteuerung
(2) Ausweitung der Quellenbesteuerung
(3) Fundamentale Reformen der Körperschaftsteuer
(4) Strengere Berichts- und Transparenzanforderungen

Wir argumentieren, dass eine Stärkung der Wohnsitzbesteuerung, zum Beispiel durch eine Verschärfung von Regelungen zur Hinzurechnungsbesteuerung, eine effektive Reformoption darstellt, die jedoch nur schwer durchsetzbar sein dürfte, da einige Länder von einer schwachen Wohnsitzbesteuerung profitieren. Eine Stärkung der Quellenbesteuerung ist vielversprechender. Als kurzfristige Maßnahme empfehlen wir insbesondere eine international koordinierte Ausweitung der Erhebung von Quellensteuern. Diese Maßnahme bekämpft effektiv Gewinnverlagerung ohne eine Doppelbesteuerung auszulösen. Unilaterale Maßnahmen zur Stärkung der Quellenbesteuerung, wie Abzugsbeschränkungen für Zins- und Lizenzzahlungen oder generelle Anti-Missbrauchs Vorschriften, sind hingegen nicht empfehlenswert, da erstere ökonomisch schädlich und letztere nur wenig effektiv sind. Langfristig erachten wir es als sinnvoll, fundamentalere Reformmaßnahmen, wie z.B. eine formelhafte Gewinnaufteilung oder eine am Bestimmungsland anknüpfende Steuer, weiter voranzutreiben. Strengeren Berichts- und Transparenzanforderungen, wie z. B. country-by-country reporting, stehen rechtliche Beschränkungen entgegen und es ist fraglich, ob der Nutzen solcher Maßnahmen die dadurch entstehenden Kosten und den resultierenden Aufwand rechtfertigt.

Profit Shifting and “Aggressive” Tax Planning by Multinational Firms: Issues and Options for Reform

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Abstract: This paper discusses the issue of profit shifting and “aggressive” tax planning by multinational firms. The paper makes two contributions. First, it provides some background information to the debate by giving a brief overview of existing empirical studies on profit shifting and by describing arrangements for IP-based profit shifting which are used by the companies currently accused of avoiding taxes. We then show that preventing this type of tax avoidance is, in principle, straightforward. Second, we argue that, in the short term, policy makers should focus on extending withholding taxes in an internationally coordinated way. Other measures which are currently being discussed, in particular unilateral measures, like limitations on interest and license deduction, fundamental reforms of the international tax system and country-by-country reporting, are either economically harmful or need to be elaborated much further before their introduction can be considered.

JEL Classification: H20, H25, F23, K34

Keywords: tax avoidance; profit shifting; multinational firms; intellectual property; tax policy; tax reform

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1. Introduction

Recent media reports have drawn attention to the fact that some highly profitable multinational companies seem to pay almost no corporate income tax on host country income. The effective tax rates on foreign profits of Google Inc. and Apple Inc., for example, have been reported to be 3% and 1%, respectively.[1] This has triggered an intense public debate about profit shifting and tax avoidance by multinational firms. Given that many countries face high levels of debt and huge pressure to generate tax revenue, it is not surprising that this debate has brought the taxation of multinational firms to the top of the international policy agenda.

The G20 leaders stressed the need to take action against multinational profit shifting and tax avoidance at the Summit in Los Cabos in June 2012. On 12 February 2013 the OECD published its report "Addressing Base Erosion and Profit Shifting"[2], which summarizes the interim findings of the OECD´s ongoing work in this field and identifies key pressure areas. A subsequent global action plan of the OECD with 15 actions was released on 19 July 2013.[3] The deadlines for elaborating concrete recommendations on how to address these actions are September 2014, September 2015 and December 2015 respectively. The European Commission has also started to deal with the issue. On 6 December 2012 the Commission adopted an action plan[4] and two recommendations[5] to combat tax fraud, tax evasion and aggressive tax planning. Moreover, at the EU Summit on 22 May 2013, the European Council agreed to accelerate the work on recommendations against tax fraud, tax evasion and aggressive tax planning and announced to report back on progress on these topics by December 2013.[6] Finally, there is an ongoing academic[7] and political debate in many countries on how profit shifting and aggressive tax planning might be tackled.[8]

The fact that some multinationals are able to drastically reduce their tax liability by exploiting flaws and loopholes in existing tax rules does suggest that the taxation of multinational firms is in need of reform. It is the objective of this article to (1) explain how profit shifting in multinational companies works and (2) discuss policy options to address this issue. We do so

1 Sullivan (2012) p. 655.
2 OECD (2013a).
3 OECD (2013b).
4 European Commission (2012a).
5 European Commission (2012b); European Commission (2012c).
6 European Council (2013).
7 For tax reform proposals *see*, e.g., Mirrlees et al. (eds.) (2010); Kleinbard (2011a); Kleinbard (2011b).
8 *See*, e.g., in Germany: Fraktionen SPD und BÜNDNIS 90/DIE GRÜNEN (2013).

by focusing on profit shifting which involves the use of intellectual property (IP)[9] because this asset class has two important characteristics: Firstly, it is a driver of value creation in multinational firms. Secondly, IP is highly mobile. These characteristics imply that IP plays an important role in international profit shifting. It is no surprise that most of the companies currently accused of avoiding taxes have highly profitable and IP intensive business models. Of course, this does not mean that other channels like e.g. intra-group debt financing are unimportant. Therefore, the policy options discussed in the following address profit shifting in general and specific IP tax planning strategies in particular.

There are many ways in which policymakers can try to combat tax avoidance and profit shifting. For the following discussion it is helpful to distinguish four approaches:

(1) Extension of residence-based taxation for example by tightening CFC rules.

(2) Extension of source-based taxation. This can be achieved, firstly, through unilateral measures or, secondly, through measures requiring international coordination. The first approach includes, for instance, targeted measures like thin capitalization rules. An example for the second approach is the extension of withholding taxes on border crossing interest or royalty payments.

(3) Fundamental reform of corporate income taxation. This includes reform concepts like the introduction of worldwide formula apportionment or destination-based corporate taxation.

(4) A reform of the reporting and transparency rules in international taxation like the obligation for tax advisers to report tax avoidance schemes or country-by-country reporting of multinational investors.

Approach 1 can be effective but has the disadvantage that some countries benefit from certain forms of profit shifting and therefore may not be willing to extend their own residence-based taxation. In addition, from the perspective of an individual country extending residence-based taxation addresses tax avoidance related to foreign subsidiaries of domestic multinationals but not tax avoidance by domestic subsidiaries of foreign parent companies. With respect to approach 2, unilateral measures have the attractive feature that, by definition, no international

[9] In line with the OECD definition we denote by the term IP the rights to use industrial assets such as patents, trademarks, trade names, designs or models etc. Such commercial IP can be classified into trade IP and marketing IP. While trade IP (e.g. patents) often is created through costly and risky research and development (R&D) activities, marketing IP (e.g. trademarks) serves the commercial exploitation of a product or service, etc. *See* OECD (2010).

coordination is required. The drawback is that this will often lead to double taxation and is likely to undermine the consistency of the national as well as the international tax system. If multilateral measures are taken, approach 2 would be an effective way of pushing back tax avoidance. Of course, here again the challenge is that different countries may have very different interests. Approach 3, a fundamental reform of international corporate taxation, is desirable but clearly a long-term project. Approach 4 may help but raises a number of complicated issues.

The rest of this article is organized as follows: First, in section 2., we describe exemplary arrangements for IP-based profit shifting which are used in this or comparable forms by the companies currently accused of avoiding taxes. We do so to identify the distinct elements of taxation rendering such strategies possible. In section 3. we elaborate on the actual significance of the problem of profit shifting by providing an overview of empirical studies on the extent and forms of multinational profit shifting. Following this, in section 4., we briefly explain how we would like international taxation to work. In section 5. we discuss different policy options to address profit shifting and section 6. concludes.

2. Prominent Models for IP-Based Profit Shifting

The companies that are known to drastically reduce their tax liability all own firm-specific intellectual property and shift profits via intra-group licensing. Hence, we focus on IP-based profit shifting strategies here and do not elaborate on other profit shifting channels. However, the policy options discussed in section 5. also address certain other tax planning strategies. Although multinationals do not all use exactly the same techniques for shifting income via licensing, the strategies they apply follow similar patterns. In the following, we therefore present two exemplary IP-based tax planning strategies and identify the central flaws and loopholes in national and international tax law rendering these tax avoidance strategies possible.

2.1. "Double Irish Dutch Sandwich"

The tax planning technique that for example Google Inc. has been using to reduce its tax liability on non-US income has become known as "Double Irish Dutch Sandwich".[10] As its name implies, the "Double Irish Dutch Sandwich" involves two companies incorporated in Ireland, one IP-Holding and one Operating Company, and one Conduit Company incorporated in the Netherlands.[11] The IP-Holding Company is a direct subsidiary of the US Parent Company and the single owner of the Irish Operating Company and the Dutch Conduit Company. The IP-Holding is managed and controlled in Bermuda and therefore considered resident in Bermuda for Irish tax purposes. The United States, on the contrary, treats the company as an Irish corporation because tax residency is based on jurisdiction of incorporation according to US tax law.

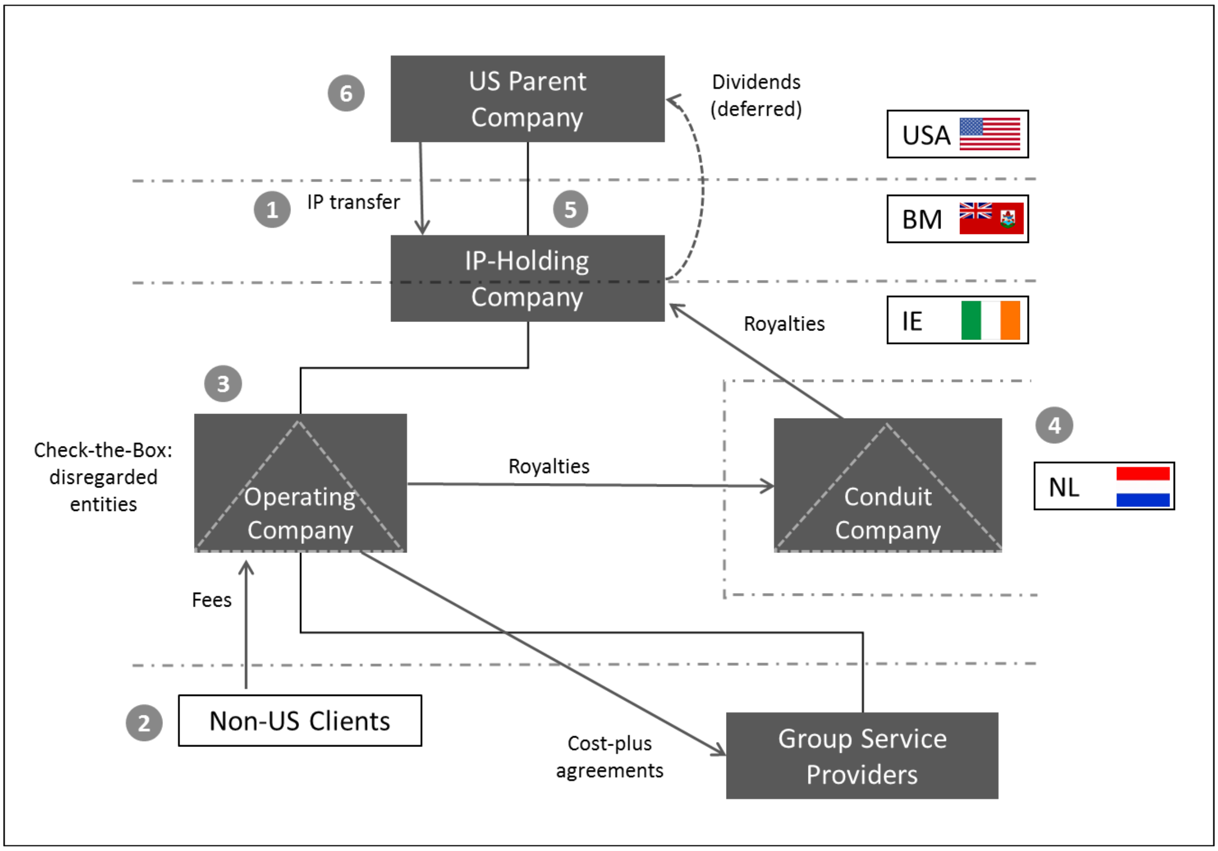

Figure 1: "Double Irish Dutch Sandwich"

[10] Google Inc. now seems to use a slightly different structure. However, the "Double Irish Dutch Sandwich" or single elements of it are used by other multinationals as well and the structure serves as a good example to illustrate important features of IP-based tax planning. For the statement on Google´s new strategy *see* House of Commons (2012).

[11] For a detailed description of the structure *see also* Kleinbard (2011a) pp. 707-714; Sandell (2012); Pinkernell (2012).

Figure 1 summarizes the structure. In the following the single steps and elements of the “Double Irish Dutch Sandwich” are explained in detail.

(1) Low tax payment on the initial IP transfer

To set up the structure, the US Parent Company first has to transfer the rights to use its IP outside the US to the IP-Holding Company. As transferring the full-fledged intangible would trigger taxation of hidden reserves and future income generated by the intangible according to the US super royalty rule,[12] the IP-Holding Company typically makes a buy-in payment and concludes a cost-sharing agreement on the future modification and enhancement of the IP with the US Parent Company. Consequently, the IP-Holding owns the non-US IP rights developed under the cost-sharing agreement and therefore no periodic license payments have to be made to the US Parent Company. Determining the arm´s length price for the buy-in payment is usually very difficult as the intangible is only partially developed at the time of transfer and risk is associated with future earnings. Hence, multinationals have considerable leeway in determining the price and are often able to avoid high exit taxes.[13]

(2) Almost no taxation in the country of final consumption

The Irish Operating Company exploits the IP and usually earns high revenues. In Google´s case the Operating Company provides advertising services and acts as the contractual partner of all non-US customers. Hence, no physical presence is created in the country of final consumption and the profits cannot be taxed there. The same holds also for other e-commerce businesses that use the “Double Irish Dutch Sandwich”.[14] Functions in the customers’ residence states like the delivery of products or marketing activities are usually assigned to low-risk group companies. These group service providers work on a cost-plus basis keeping the tax base in the country of final consumption low.

[12] According to this rule, transfer prices determined at the time of transfer that are not commensurate with the income attributable to the intangible may be adjusted later on.

[13] According to the US cost-sharing regulations, also buy-in payments can be adjusted if the profit of a participant in the cost-sharing agreement turns out to be too high relative to payments. However, there are exceptions to this and similar adjustment rules and their application seems to be avoidable.

[14] We particularly refer to e-commerce businesses here because e-commerce is an increasingly important form of mobile activity. However, to be clear, low taxation in the country of final consumption is not exclusively attributable to e-commerce. Also “on-the-ground” businesses like Starbucks are able to erode their tax base by using similar licensing structures as well as other profit shifting channels, for details *see,* e.g., Kleinbard (2013).

(3) Setting high royalty payments reduces taxation at the level of the Operating Company

The profits from customer sales earned by the Operating Company are subject to tax in Ireland. However, the tax base of the Operating Company is close to zero because it pays high tax-deductible royalties for the use of the IP held by the IP-Holding Company. As Ireland has only recently introduced transfer pricing rules and these rules do not apply to contracts and terms agreed on before July 2010, most companies using the "Double Irish Dutch Sandwich" are able to erode the tax base in Ireland by paying very high royalty payments.

(4) Interposition of Dutch Conduit Company to avoid withholding taxes on profits leaving the European Union

The royalties are not paid directly to the IP-Holding Company but are passed through a Conduit Company in the Netherlands, which sublicenses the IP. The Dutch Conduit Company does not perform any economic activity. It is interposed because the IP-Holding Company is a Bermuda resident for Irish tax purposes and Ireland levies withholding tax on royalty payments to Bermuda. By channeling the royalties through the Dutch Conduit Company, withholding taxes can be completely circumvented as royalties paid from Ireland to the Netherlands are tax-free under the EU Interest and Royalties Directive and the Netherlands does not impose withholding tax on any royalty payments, irrespective of the residence state of the receiving company. The tax liability of the Conduit Company in the Netherlands only consists of a small fee payable for the use of the Dutch tax system.

(5) IP-Holding Company untaxed in Ireland and Bermuda

The IP-Holding Company is neither subject to tax in Ireland nor in Bermuda since Ireland considers the company a non-resident and Bermuda does not impose income tax on corporations. Hence, the profits earned in the European Union leave the European Union virtually untaxed.

(6) US CFC rules are circumvented

The United States also does not tax the non-US income as long as it is not redistributed as dividends or qualified as Subpart F income. To avoid the latter, the Irish Operating Company and the Dutch Conduit Company file a check-the-box election with the consequence that both Irish subsidiaries and the Dutch Conduit Company are treated as one single Irish corporation and their incomes are combined for US tax purposes. The royalty payments between the companies thus are disregarded and only revenues from transactions with customers, which due to exceptions included in the Subpart F provisions typically do not constitute Subpart F income, are considered from a US perspective.

2.2. IP-Holding Structure Using an IP Box Regime

The "Double Irish Dutch Sandwich" is only one example for how IP-Holdings can be used to minimize taxes. Another possibility is to transfer the IP to an IP-Holding Company resident in a European country that offers a special IP Box Regime, like for example Luxembourg, Belgium or the United Kingdom. The Operating Company can generally be resident in any EU Member State. However, locating it in a country that does not strictly apply the arm´s length principle allows increasing the amount of profits shifted. As in the case of the "Double Irish Dutch Sandwich", the structure requires that no CFC rules in the residence country of the Parent Company apply and that the IP can be transferred without triggering high exit taxes.

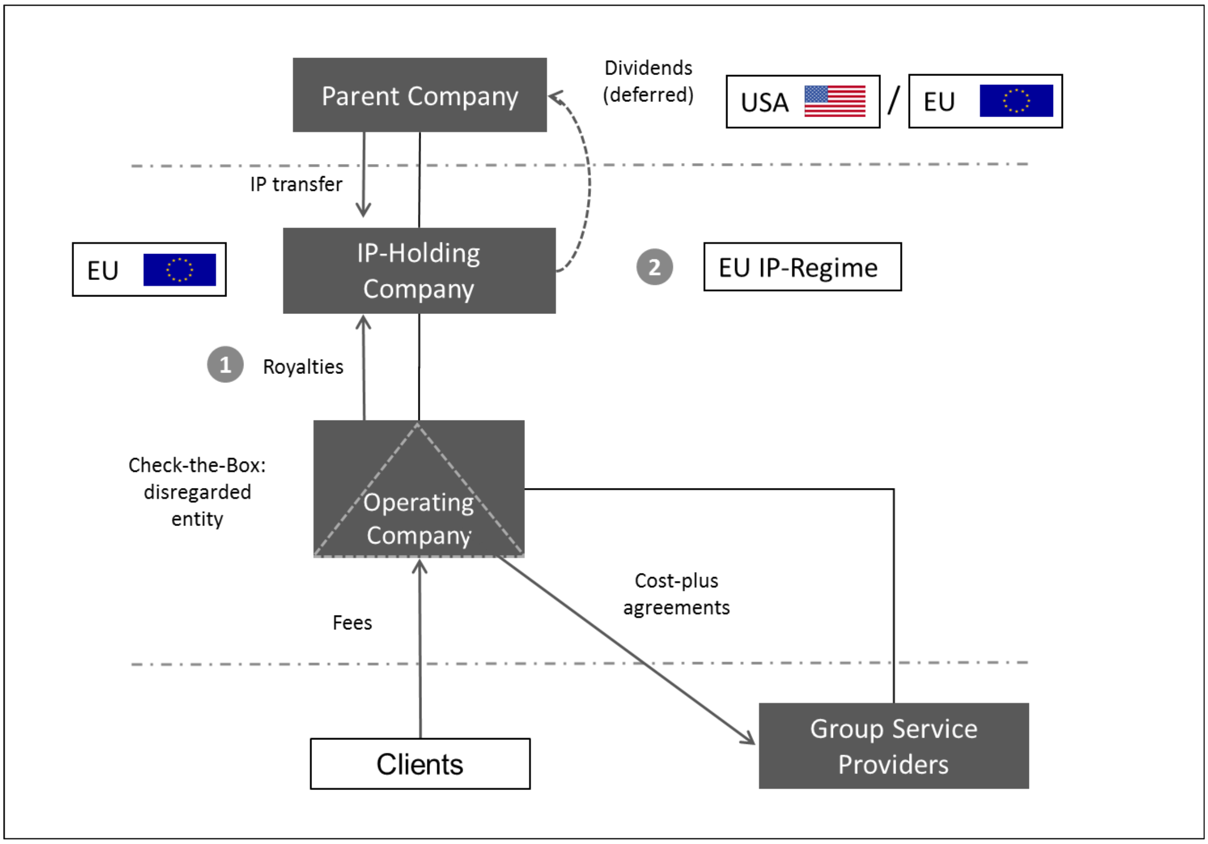

Figure 2: IP-Holding structure

Figure 2 summarizes the IP-Holding structure. The two main differences to the “Double Irish Dutch Sandwich” are described in the following paragraphs.

(1) Avoidance of withholding tax due to the EU Interest and Royalties Directive

The Operating Company pays royalties directly to the IP-Holding Company. No conduit company needs to be interposed to avoid withholding tax as the IP-Holding Company is located in an EU Member State and therefore the Interest and Royalties Directive applies.

(2) Low taxation of the royalties at the level of the IP-Holding Company

The royalties are not completely untaxed at the level of the IP-Holding Company. However, as IP Box Regimes either allow exempting a large share of royalty income from taxation or offer reduced tax rates for such income, the tax liability of the IP-Holding Company is very low.

2.3. Summarized Findings

The tax planning structures described in the preceding sections reveal substantial flaws in the existing national and international tax systems that can be summarized as follows:

(1) A de facto waiver of residence taxation due to:

- a) no or ineffective CFC rules;
- b) a conflicting definition of tax residence in different countries;
- c) low general tax rates and special tax regimes such as IP Boxes.

(2) No or little source taxation due to:

- a) the non-existence of withholding taxes on royalties both within the European Union and with respect to third countries;
- b) difficulties in the valuation of IP and relating royalty payments;
- c) a lacking taxable presence of multinationals doing business via the internet in customers’ residence countries.

3. How Significant Is the Problem?

Beyond anecdotal evidence for companies like Google Inc., Microsoft and others, several attempts have been made to clarify how relevant the problem of tax avoidance really is and to find a proxy for the scale of base erosion and profit shifting behavior.[15] Given that true profit margins (i.e. before any avoidance strategy that affects actually reported profits) are not observable by country, the clear identification of tax avoidance from available data is challenging and existing approaches differ fundamentally. To be very clear at the beginning: there exists evidence that profit shifting takes place. There is, however, no accurate estimate of the amount of profits shifted.

On the one hand, there are a small number of rather rough estimates which try to derive the volume of profit shifting from aggregate statistics or similar sources. Although these studies receive great attention in public debate, their results have to be treated with caution, as we will explain below. On the other hand, there is a broad strand of academic research investigating corporate tax avoidance. The main evidence provided by this strand of literature will be summarized in the second part of this section.

Starting with some stylized numbers from public debates, Richard Murphy (adviser to the Tax Justice Network and director of Trades Union Councils) claimed in his report "The Missing Billions" that GBP 12 billion of corporate income tax is lost each year due to tax avoidance by the 700 largest companies in the United Kingdom.[16] For developing countries Oxfam, a non-profit organization, attributes a revenue loss of USD 50 billion to tax avoidance of multinationals.[17] Although the question of how much revenue is lost due to profit shifting is highly interesting for the public, methodological flaws underlying the estimates prevent them from being very reliable. For instance, taxable income or respectively tax payments in absence of tax avoidance are approximated by using profits from financial accounts multiplied by the statutory tax rate[18] or foreign capital stocks multiplied by a deemed return and an average tax

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[15] Even if actual volumes and the dominant channels of profit shifting were known, it would still be difficult to draw the line between "acceptable" profit shifting activity and "aggressive" tax planning. Exploiting international tax differentials cannot be considered aggressive per se, as the underlying structures are not necessarily artificial. A definition provided by the OECD, that suggests that aggressive tax planning might not accord with the law (OECD (2008) p. 87) is misleading since the tax planning strategies described in section 2. are certainly in line with existing law.

[16] Murphy (2008).

[17] Oxfam (2000).

[18] This approach of Richard Murphy was discussed by the Oxford University Centre for Business Taxation in its report "The Tax Gap for Corporation Tax" pointing out that this approach rather captures differences between financial and tax accounting. *See* Oxford University Centre for Business Taxation (2012).

rate.[19] Comparing taxable profits with these inadequate benchmarks reveals conceptual differences between the underlying statistics rather than the scale of profit shifting activity.

Beyond these rough approximations of profit shifting volumes, a wealth of empirical research studies assesses the significance of corporate tax avoidance and its sensitivity with respect to international tax incentives. Turning now to this broad group of empirical approaches, two different strands of literature can be distinguished. The first strand of studies provides rather general evidence for profit shifting by asking how tax rate differentials affect reported pre-tax profits. In their seminal work, Grubert and Mutti as well as Hines and Rice show for the United States that there is indeed an empirical relationship between the profitability reported by US multinationals' foreign affiliates and respective host country tax rates.[20] Huizinga and Laeven provide evidence that reported profits of European subsidiaries depend on their specific tax incentives and profit shifting potential given the structure of the whole multinational group.[21] Also for Europe, Egger, Eggert and Winner directly compare tax payments of multinational firms and a group of domestic firms using propensity score matching and find that multinational firms pay substantially less taxes.[22] Dharmapala and Riedel use a novel identification strategy by asking how a shock in earnings at the parent's level transmits to group entities located in high- or low-tax countries.[23] Fuest, Hebous and Riedel study income shifting through debt. They find that financing structures of multinational entities in developing countries react more sensitively to tax differences than in developed countries, suggesting that developing countries with high taxes may be more vulnerable to tax planning.[24]

The findings of these studies strongly support the idea that multinational groups reallocate profits globally as to minimize the overall tax burden. Several other studies corroborate this conclusion although the estimated effect size differs according to the employed profit variable, the measure of the tax incentive and the econometric approaches. A recent quantitative survey of this literature is provided by Heckemeyer and Overesch.[25]

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[19] The shortcomings of this approach are discussed by Fuest and Riedel, who argue that, among other critical assumptions, the role of tax incentives and tax base regulations is neglected in these estimations. *See* Fuest/Riedel (2010).
[20] Grubert/Mutti (1991); Hines/Rice (1994).
[21] Huizinga/Laeven (2008).
[22] Egger/Eggert/Winner (2010).
[23] Dharmapala/Riedel (2013).
[24] Fuest/Hebous/Riedel (2011).
[25] Heckemeyer/Overesch (2013).

Given the general finding that profits are shifted within multinationals, the question arises which strategies to reallocate profits within the group can be identified empirically. This is the focus of the second strand of literature. In principle, profits earned in high-tax countries can be channeled to lower taxed group entities via debt financing or via non-financial strategies such as transfer pricing and licensing of IP. With respect to debt financing, Desai, Foley and Hines provide empirical evidence that multinationals use intra-company loans to mitigate tax payments of subsidiaries in high-tax locations.[26] Clausing shows that intra-firm transfer prices for intra-group transactions are sensitive to international tax rate differentials.[27] Furthermore, there is robust evidence that tax considerations are important for the intra-company allocation of intangible property.[28] Desai, Foley and Hines show that large international firms with extensive intra-firm trade and high R&D intensities are the most likely to use tax havens.[29]

Although there are good reasons to believe that transfer pricing and licensing of IP represent the predominant route used to shift profits abroad,[30] the empirical evidence is not clear cut. Evaluating the general evidence for profit shifting, Heckemeyer and Overesch indeed corroborate the expectation of non-financial profit shifting techniques to play the most important role. Results by Dharmapala and Riedel instead suggest a larger effect of debt financing whereas the results of Grubert point to equal shares.[31]

To conclude, empirical evidence on corporate tax avoidance is robust and significant. Moreover, it is clearly shown that both licensing and transfer pricing as well as group financing strategies are used to reallocate profits within the group. It is, however, less clear which strategy of tax avoidance is most relevant. Finally, very little is known on the actual revenue consequences of these strategies.

4. How Would We Like International Corporate Taxation to Work?

How we would like international corporate taxation to work depends on what we expect from the corporate income tax. On the one hand, corporate income taxes can be considered as a substitute for the personal income tax. The income tax is usually levied according to the

[26] Desai/Foley/Hines (2004).
[27] Clausing (2003).
[28] Dischinger/Riedel (2011); Karkinsky/Riedel (2012).
[29] Desai/Foley/Hines (2006).
[30] The interest rate on intra-group loans can be directly compared to the market interest rate, profit shifting thus being limited to it, whereas there is, in principle, more discretion in setting transfer prices on highly specific group transactions as pointed out by Overesch and Schreiber, *see* Overesch/Schreiber (2010).
[31] Grubert (2003).

residence principle. Theoretically, residence-based taxation of corporate income requires direct apportionment of profits to the owners of a company. In practice, this is difficult to achieve. Profits are therefore taxed at the corporate level. Residence-based corporate taxation would thus imply that multinational companies are liable to tax on their accrued worldwide income. Accordingly, foreign subsidiaries would be treated as transparent for tax purposes.

Alternatively, one could argue, that income tax is considered as an instrument to make firms pay for benefits they get from public services and other advantages provided by the country where they produce or sell their products. According to this concept of source taxation, resident corporations are not liable to tax on their worldwide income but only their domestic profits are subject to tax. Any foreign profits should instead be taxed where they have been generated.

The advantages and disadvantages of these concepts have been discussed extensively in the literature on international taxation. No consensus has so far been reached as to which of these concepts is superior. Against this background, our policy considerations in section 5. take the existing international income tax systems as a starting point, i.e. corporate taxation is based on income determined by separate accounting and includes elements of both residence and source principle. Given that, the following principles should find widespread support:

1. the international tax system should avoid double taxation of corporate profits;
2. the international tax system should avoid non-taxation of corporate profits.

These rules imply that source- and residence-based taxes can coexist, provided that taxes on income paid in the source country are credited in the residence country.[32] Tax avoidance typically implies that these rules are violated. In addition, tax avoidance may distort the capital allocation because it distorts competition between firms with different opportunities to avoid taxes.

5. Policies to Address Profit Shifting and "Aggressive" Tax Planning

For tackling profit shifting and "aggressive" tax planning it is useful to distinguish four approaches, as explained in the introduction:

(1) extension of residence taxation;

(2) extension of source taxation;

[32] Clearly, the notion that corporate income should be taxed once, rather than twice or not at all, raises the question whether taxation at a very low rate or even zero rating is acceptable.

(3) fundamental reforms of corporate income taxation; and

(4) stricter reporting and transparency requirements.

In this section we present specific policy options for each approach and analyse their potential to tackle profit shifting in general and IP-based tax planning structures as presented in section 2. in particular.

(1) Extension of residence taxation

To avoid profit shifting by strengthening residence taxation one option is to tighten CFC rules so that they effectively prevent sheltering low-taxed passive income from residence taxation. The European Commission and the OECD consider this option. Another policy option is to define rules that consistently determine tax residence across countries or that at least tackle double non-taxation resulting from qualification conflicts.

Both measures for strengthening residence taxation have the potential to reduce tax avoidance of multinationals. However, not all countries might be willing to implement them because while some countries lose as a result of profit shifting other countries gain. It might for example not be in the interest of the United States to tighten CFC rules or to change the rules for tax residence, because US multinational firms would then lose the competitive advantage of avoiding European corporate income taxes on foreign income. Also various European countries, among them Luxembourg, the Netherlands, Switzerland and the United Kingdom compete for tax bases and jobs by drastically reducing residence taxation on mobile income through IP Box Regimes. Hence, waiting for these countries to tighten residence taxation is not a realistic option.

However, pressure could be put on countries by establishing a set of rules which prevents them from operating specific tax incentives like IP Box Regimes. One possibility for this is the existing EU Code of Conduct for business taxation.[33] So far, the Code of Conduct has been successful since many Member States have withdrawn tax regimes considered as harmful in the past 15 years. However, the Code of Conduct is legally not binding and does not offer precise definitions of harmful tax regimes. It is therefore not clear whether the Code of Conduct covers IP Box Regimes. Another possibility is the application of State aid provisions by the European Commission to IP Box Regimes and its approval by the European Court of Justice. One has to

[33] European Communities (1998).

be aware, however, that even if IP Box Regimes were ruled out, other possibilities for profit shifting would remain.

(2) Extension of source taxation

One possibility to strengthen source taxation is the implementation of deduction restriction rules for payments on intra-group contractual relations such as interest and royalty payments. Many countries already apply so-called thin capitalization rules or earnings-stripping rules to counter profit shifting via intra-group or even third-party debt financing. To tackle profit shifting via licensing, comparable deduction restriction rules for intra-group royalty payments could be introduced. Both options are included as action no. 4 in the OECD's action plan adopted by the G20 in July 2013. However, the implementation of such rules has serious drawbacks. They do not only affect arrangements designed to avoid taxes but also arrangements which exist for good economic reasons. Moreover, deduction restriction rules reduce the consistency of the law and, in particular, often cause double taxation.[34] This is because the underlying payments although not deductible in the source country are still considered as taxable income in the residence country. There is strong evidence[35] that the extension of source taxation, which results in a definite tax burden at source, has a negative impact on investment.

Another unilateral measure for strengthening source taxation[36] is the implementation of a general anti-avoidance rule (so-called GAAR) into the tax code as proposed by the European Commission in December 2012.[37] GAAR would disallow the deductibility of payments such as royalties and interest to tax havens under certain conditions. This policy option is also not recommendable due to several reasons. First, it is difficult to draw the line between a wholly artificial structure and one that has economic substance. Hence, it might be quite easy for companies to circumvent the application of GAAR. Second, it has to be emphasized that tax planning, even if considered as aggressive, is not illegal. Third, the effectiveness of such a rule depends strongly on the interpretation by the national courts, which leads to considerable uncertainty in the application of tax law.

34 However, for a proposal that is supposed to avoid double taxation *see* Lodin (2011).
35 For surveys *see* de Mooij/Ederveen (2003); Feld/Heckemeyer (2011).
36 We define it as a source country tool because it is mostly used as such. However, properly employed it can also be applied to strengthen residence taxation.
37 European Commission (2012c).

A third possibility to particularly avoid profit shifting by licensing is to ensure an adequate valuation of intangible assets and relating royalty payments. With respect to the transfer of intangibles, this can be done by implementing an adjustment clause in the national tax code which provides tax authorities with the opportunity to levy additional exit taxes if the earnings potential turns out to be substantially higher than initially expected. Applying such a rule also to buy-in payments made under cost-sharing agreements and effectively ensuring its application could reduce the tax advantage stemming from IP tax planning strategies. Concerning the deductibility of royalty payments, countries need to strictly apply the arm´s length principle to avoid base erosion. However, as assessing arm´s length prices for intra-group royalties is very difficult, even a strict enforcement of the arm´s length standard does not ensure an objective valuation of transfer prices. Focusing on profit-based methods, like, for example, the profit split method to determine transfer prices might improve the arm´s length principle by making transfer prices more objective. As already mentioned with respect to measures for strengthening residence taxation, here again the problem occurs, that it might not be in the interest of all countries to strengthen source taxation. Ireland, for example, has few incentives to adapt its transfer pricing rules if companies using the existing rules create jobs for highly qualified employees in Ireland.

A promising way of tackling profit shifting could be the extension of source taxation by imposing withholding taxes on interest and royalty payments, which then would be creditable in the residence country. Raising withholding taxes on both royalties paid to EU Member States and royalties paid to third countries would render the IP-based tax planning strategies described in section 2. ineffective. Moreover, an internationally coordinated extension of source taxation would avoid double taxation. It thereby has to be stressed, that enhancing source taxation also requires that residence countries credit withholding taxes. Such a reform towards more source taxation at the international level requires a modification of bilateral tax treaties as well as the EU Interest and Royalties Directive. In addition, pressure has to be put on European countries that do not levy withholding tax on interest (e.g. Germany) or royalties (e.g. the Netherlands) respectively according to their national tax law. It is surprising for us that neither the European Commission nor the OECD considers this option. In our view the levy of withholding taxes by source countries and the obligation of resident countries to credit them is – given the ongoing public debate – an appropriate measure to ensure that multinationals pay a fair share of taxes in countries where they operate.

Withholding taxes are less helpful when it comes to companies that do not create a taxable presence in countries where they carry out functions and sell their products. This is for example true for multinationals selling their goods via the internet. If Ireland or the Netherlands levied a withholding tax on royalties, this would render the "Double Irish Dutch Sandwich" structure void, but multinationals with online sales could still keep their effective tax rates low by locating their operating company in a low-tax country like Ireland and thereby avoiding a nexus in all other countries. Another option to enhance source taxation, which could complement levying withholding taxes, is therefore to ensure the recognition of a taxable presence in the source country. This can for example be done by adapting the concept of permanent establishment (PE) to the digital economy. One possibility for this is to stipulate the creation of a PE in the customer´s residence state upon collection of customer data.[38] Another way of tackling the problem would be an effective collection of value added tax (VAT) in the digital economy as considered by the OECD (*see* action no. 1).

Due to the revenue redistribution that comes along with coordinated reforms to strengthen source taxation, both policy options described above might also face difficulties to find broad international approval. Apparently, this is because if source taxation is increased, residence countries will at the same time lose tax revenue due to a higher amount of creditable foreign taxes or exempt foreign income. As long as countries or regions have no clear indication about how much they will gain and lose in tax revenue due to the extension of source taxation on capital imports and the reduction of residence taxation of capital exports it is therefore not clear whether measures to prevent "aggressive" tax planning are actually desirable. Here, further research on the revenue implications is necessary.

(3) Fundamental reforms of corporate income taxation

Profit shifting can also be addressed by fundamental reforms of the international tax system. Currently, the separate entity principle based on transfer prices following the arm's length standard prevails. As described above, the enforcement of the arm´s length standard often fails due to the high specificity of intra-firm goods. Therefore, the European Commission proposed to replace the system of separate accounting by formula apportionment.[39] According to the Common Consolidated Corporate Tax Base (CCCTB), the income of a group is consolidated and split between tax authorities according to a formula that includes proportional assets,

[38] *See* Collin/Colin (2013).
[39] European Commission (2011).

payroll and sales. Within the European Union this concept makes determining transfer prices for tax purposes obsolete and avoids the related measurement problems. However, defining the elements of the formula as well as their respective weights is a controversial issue and the determination of transfer prices remains necessary for transactions at the boundaries of the European Union. Although formula apportionment will mitigate important shortcomings of separate accounting, it will, at the same time, create new distortions.[40] Beyond concerns against a formula apportionment from a theoretical point of view it has to be stressed, however, that in particular the sales factor in such a formula could turn out to be very robust against profit shifting since the consumer market of multinationals cannot be manipulated.[41]

An alternative approach would be to introduce a destination-based cash flow tax which ties taxation of corporations to the location of consumption.[42] Again, as for a CCCTB, the appeal of this concept is that consumption is likely to be less mobile and more difficult to manipulate for tax purposes than income.

Both fundamental reform options are promising and may solve central problems of the current tax system. However, the optimal design of such rules has to be elaborated further and there is currently no consensus between countries in sight about either of these reform options. Hence, the more fundamental approaches are not an appropriate measure to tackle profit shifting in the short-run. Rather, they would require a huge reform effort and need a considerable degree of international coordination and harmonization. It could even turn out that either a CCCTB or a destination-based cash flow tax has to be implemented on a worldwide basis. It is therefore not surprising that fundamental reforms of income taxation are not on the agenda of either the European Commission or the OECD.

(4) Stricter reporting and transparency requirements

As a fourth approach to tackle profit shifting and tax avoidance we should mention an entirely different policy option: a change in reporting and publicity rules regarding taxes paid by multinational companies. One proposal in this respect, the so-called country-by-country reporting, was initially brought forward by civil society organizations[43] and is now also

[40] *See* Devereux (2004); Altshuler/Grubert (2010); Hines (2010).
[41] For a proposal to adopt a formulary profit split using a sales only formula *see* Avi-Yonah/Clausing/Durst (2009). For a critical evaluation of destination sales formula apportionment *see* Morse (2010).
[42] *See* Bond/Devereux (2002); Auerbach/Devereux/Simpson (2010). For an evaluation of legal issues associated with this proposal *see also* generally Shay/Summers (1997).
[43] The idea was first developed by Richard Murphy, a former chartered accountant working for Tax Justice Network and other civil society organizations.

discussed in certain countries (e.g. Germany)[44] and at the level of the European Union.[45] Such a measure would require multinationals to publicly disclose data on the financial performance like sales, purchases, labour costs and number of employees, financing costs, pre-tax profits, nature and value of assets and the tax charge split between current and deferred tax to the public on a country-by-country basis. In this context it is important to distinguish between reporting to the tax authorities and public disclosure of tax information. The main objective of country-by-country reporting proposals is to achieve public disclosure.

Proponents of this approach essentially pursue two objectives. First, companies may be held accountable for the amount of tax they pay or fail to pay in individual countries. Second, governments and their tax administrations may be held accountable for the way in which they treat multinational investors. Whether public debate about taxes paid by multinationals in different countries can act as a substitute for legislation or whether it creates pressure for governments to improve tax legislation is an open question. Additional open issues are related to the objective and justification, legal aspects and the mechanism for disclosure of country-by-country reporting.[46]

Objective and justification

Country-by-country reporting was initially discussed as an option to increase transparency in the extractive industries (e.g. oil, gas and mining industries) for developing countries. Revenues from natural resources are an important source of income for these countries. The view here is that governments in developing countries find it extremely difficult to collect taxes from certain large companies. Transparency in this respect might be useful in combating corruption. Whether combating corruption justifies the extension of country-by-country reporting to other industry-sectors is a controversial issue. Profit shifting and tax planning – even if considered as aggressive – is not per se against the law. Moreover, there are certainly many taxpayers other than multinationals (in particular individuals) conducting tax planning and income shifting. To be consistent, countries would thus need to tighten transparency requirements also for these groups of taxpayers. Nonetheless, if there are unintended gaps or loopholes in the tax laws, then, above all, the legislator has to remove them. As pointed out in section 2. and discussed above, many gaps and loopholes as well as the measures for closing them are well known.

[44] *See* Fraktionen SPD und BÜNDNIS 90/DIE GRÜNEN, note 8, suggesting a country-by-country reporting for multinational investors in Germany.
[45] Brunsden (2013).
[46] For a detailed discussion of county-by-country reporting *see* Oxford University Centre for Business Taxation (2011).

Legal aspects

Country-by-country reporting has to consider legal restrictions. Here, first of all, the confidentiality of tax returns in most countries around the globe has to be mentioned. Moreover, the competitive position of multinationals could be jeopardized if country-by-country reporting is not a universal standard. In addition, it could be possible that such information is misinterpreted and, hence, increases the reputational risk of multinationals.

Mechanism for disclosure

Advocates of country-by-country reporting propose as an instrument for disclosure the consolidated financial accounts of multinationals, possibly by an extension of the segmental reporting requirements laid down in the International Financial Reporting Standards (IFRS). Again, here, several concerns arise. First, it is doubtful that consolidated financial accounts are the proper instrument for country-by-country reporting since these accounts are supposed to provide decision useful information about the group of companies as a whole single entity. Second, like other accounting standards such as US-GAAP, IFRS follow a forward-looking approach, while country-by-country tax reporting is strictly backward-looking. This is relevant for example if deferred taxes are required to be reported. This part of the total tax charge is based on reliable expectations about the future. Third, accounting standards already prescribe considerable reporting requirements such as segmental reporting and the tax reconciliation. This is done by a regional or product-based reporting. There is, however, no obligation to report about the tax charge in such a detail as proposed by country-by-country reporting. This aspect relates to the legal restrictions mentioned above. Therefore, a special disclosure form separate from financial accounts seems to be more adequate. Again, legal concerns remain if this information was made available to the public.

To summarize, the objectives and the justification of stricter reporting and transparency requirements for multinationals are vague. Moreover, depending on how the reporting requirements are implemented, there may be a trade-off between the administrative effort and cost of country-by-country reporting and the potential benefit in terms of improved tax compliance. A potentially more efficient way to push back tax avoidance by collecting more information on tax planning strategies would be to implement a "disclosure of tax avoidance schemes-regime" as already exists in the United Kingdom[47] and some other countries and which requires tax advisers to disclose the tax planning structures they sell to their customers.

[47] The regime was introduced in 2004, for details *see* HM Revenue & Customs (2013).

6. Concluding Remarks

This article contributes to the recent debate on tackling profit shifting and tax avoidance and aggressive tax planning strategies by multinational firms.

Profit shifting and tax planning – even if considered as aggressive – are not violations of the law, even if they are in conflict with what was intended. As described for prominent IP-based profit shifting models, multinational investors benefit from gaps or loopholes in the tax laws. Many gaps and loopholes are well known. It is up to tax legislators to remove them.

There is solid empirical evidence demonstrating that profit shifting does indeed take place. The scale of profit shifting and the impact on tax revenue are difficult to measure, but it is plausible that the tax revenue losses are significant, as are the competitive distortions between firms which, due to their particular characteristics, differ in the opportunities to avoid taxes.

As a guideline for policies against tax avoidance by multinational firms, we suggest that the international tax system should at the same time avoid double taxation and non-taxation of corporate profits.

Measures directed against profit shifting which are currently discussed, including the measures suggested by the European Commission and the OECD, can be summarized under the following four headings:

(1) extension of residence taxation;

(2) extension of source taxation;

(3) fundamental reforms of corporate income taxation; and

(4) stricter reporting and transparency requirements.

Our findings suggest that the enforcement of residence taxation is a difficult task, mainly because some countries are likely to be reluctant to move into this direction and unilateral action can only address certain forms of income shifting.

The extension of source taxation seems to be more promising. Here, anti-avoidance measures, like deduction restriction rules for interest and royalty payments or a general anti-avoidance rule (GAAR) are not recommended, as the first may cause double taxation and the second is likely to be ineffective.

In the short-run, we especially recommend to impose new or to extend existing withholding taxes on interest and royalty payments. This measure effectively tackles currently used tax planning structures and does not distort investment decisions as long as withholding taxes are credited in the residence country. Surprisingly, such a proposal is neither on the current agenda of the European Commission nor of the OECD. Since the redistribution of tax revenues between countries will be affected by imposing withholding taxes, it is, however, not clear whether this measure is desirable and whether countries are actually willing to crowd back tax avoidance. Here, further research on the revenue implications is necessary.

For the longer perspective, we recommend to investigate the more fundamental approaches such as the destination-based cash flow tax or the CCCTB with regard to changes of the international system of income taxation, the allocation of taxing rights as well as the enforcement of the tax and the resulting revenue implications in greater detail.

Whether stricter reporting and transparency requirements for multinational companies are a promising way forward is not clear. The objectives are still vague. Moreover, in particular a country-by-country reporting faces considerable legal constraints and a mechanism for disclosure has to be elaborated before conclusions can be drawn about the impact of this proposal on the taxation of multinational firms.

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