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A model of aggressive tax optimization with the use of royalties

DOI: 10.22367/jem.2017.30.05

Accepted by Editor Ewa Ziemia | Received: May 7, 2017 | Revised: September 18, 2017; September 25, 2017 | Accepted: September 27, 2017.

Abstract

Aim/purpose – Today, international capital flows play a leading role in shaping global economic relations and directly impact the budgets of many states. What is of major importance in this process are the differences and legal loopholes in tax systems of individual states, which allow profits to be taxed at the minimum percentage rate. Tax avoidance is particularly popular among corporations operating in global markets, which use various mechanisms for this purpose. The main aim of this article is to present a model of aggressive tax optimization based on the flow of royalties in supranational groups.

Design/methodology/approach – The description of the model was preceded by a detailed analysis of transactions concluded between companies in connection with the current tax regulations effective in particular countries. The key tool was an analysis of case studies of tax optimization mechanisms used by the largest multinational corporations, mainly Google, Apple, Facebook and Microsoft. The main source of data consisted in the reports of OECD on this topic, the annual 10-K financial statements filed with the SEC by Google Inc. (Alphabet Inc.) and detailed legal regulations on taxing international transactions.

Findings – The popular mechanisms of tax avoidance include the skillful use of transfer pricing, fees for intangible services, royalty transfers, establishing offshore companies, the flow of loans and dividends. The most important of them are royalty transfers, which have been used by every company analyzed. The most effective model in this regard was established by Google. It is based on a network of subsidiaries registered mainly in Ireland and the Netherlands which apply preferential rules to tax such transactions.

Research implications/limitations – The exact identification of tax avoidance mechanisms used in practice allows gaps in tax law to be identified and hence charts the directions of the necessary legislation changes. It also allows the losses of the budgets of individual states to be assessed. However, one must be aware that the complete elimination of aggressive tax optimization is impossible. This is because it represents one of the basic areas of effective financial management at enterprises.

Originality/value/contribution – The scope of this article fills, to some extent, the research gap that exists in connection with publicizing tax avoidance mechanisms, the detailed presentation of transactions and the tax benefits resulting from them.

Keywords: royalties, tax avoidance, tax optimization, multinationals.

JEL Classification: F23, H21, H26, K34.

1. Introduction

The topic of aggressive tax optimization has given rise to many controversies for many years. This discussion is constantly stoked by the disclosure of new data about the scale and mechanisms used by these entities to avoid taxation. This topic has also been of interest to the governments of many states because some estimates indicate that the amount of losses for government budgets is huge. Preliminary OECD calculations [OECD 2015] suggest that the total losses amounted to between \$100 billion and \$240 billion per annum, which represents 4% to 10% of the global corporate income tax receipts. Other research clearly demonstrates that it is multinational corporations which intentionally create networks of ties that reap the greatest benefits from this. For example, an analysis of cumulative financial figures of the 50 largest US corporations for 2008-2014 has demonstrated that the effective income tax rate for at least 40 of them was way lower than the nominal tax rate of 35% [Oxfam America 2016]. The verification of 2014 figures of the largest *Fortune 500* corporations has shown that at least 358 of them had, as a minimum, one company established in tax havens. In some cases, these entities did not have many offshore companies, but the total income located in them was huge. The 50 corporations together had placed over \$1.5 billion in tax havens! The first place is taken by Apple, which in 2014, reported a gigantic amount transferred to offshore companies: over \$180 billion [CTJ 2015].

Researching this topic is not easy because it concerns information that is strictly protected by economic actors. The precise estimate of the scale of this phenomena and the resultant losses is certainly not possible. This problem is also noted by numerous scientists [Gravelle 2010; Fuest et al. 2013; Raczkowski 2015]. This also applies to a detailed catalogue of transaction types used by companies to avoid taxation. Partial knowledge of the subject is, of course,

gained from the regularly reported scandals initiated by leaks of confidential data. It is enough to mention the cases unearthed in just the last three years: Panama Papers (2016), Swiss Leaks (2015) and Lux Leaks (2014). Still, this is just fragmentary data [“The Guardian” 2016; ICIJ 2014, 2015].

In the context of the above considerations it is worth noting a particular lack of comprehensive analyses that would precisely describe the mechanisms and types of transactions used by multinationals as part of aggressive tax optimization. The most important include, among others, the skillful use of transfer pricing, fees for intangible services, royalty transfers, establishing offshore companies, the flow of loans and dividends. The fragmentary information revealed clearly indicates that the most popular mechanism in this regard is to build the appropriate structure of associated companies and circulate royalties between them. This mechanism has even gained a special name: the Double Irish or the Dutch Sandwich.

Further to the above, the main purpose of this article is the detailed analysis of transactions associated with aggressive tax optimization based on the flow of royalties within supranational groups and the development of a model presenting all transactions and tax benefits. The considerations start with the presentation of theoretical aspects of the problem being described: explaining the differences between tax optimization, tax avoidance and tax dodging as well as defining key terms. Then, general rules of royalty flows with the use of optimization techniques as well as a detailed model picturing the extensive structure implemented by Google and other multinationals are presented. The final part mentions the main controversies associated with this subject.

2. Theoretical background

Tax reduction methods can take many forms. Some of them are legal and raise no doubts, some are focused on searching for and taking advantage of loopholes in the law [Machan 2012]. Both groups can be classified into the tax optimization category, albeit more or less aggressive. Tax evasion, which is illegal, is a completely different story. The above division is also reflected in the literature of the subject [Gravelle 2010; Bank 2017; Chow et al. 2017; Maruf 2017].

In general, tax optimization may refer to all activities of entrepreneurs consisting in the use of various structures provided for by legal regulations to reduce the amount of the tax they pay. In this sense, optimizing means using a certain scope of the taxpayer's decision-making freedom to choose, e.g. the depreciation method and the rate, types of tax credits, methods of accounting for exchange

that an ideal tax law cannot be developed and adopted. In this regard, practice will always be one step ahead of legislation and will ruthlessly take advantage of any loopholes in it [Kutera 2016].

It should be mentioned that tax havens play a significant role in the majority of mechanisms used for aggressive tax optimization. A “tax haven” is widely used to refer to a group of countries or territories which provides particularly favorable conditions for foreign nationals to run business, mainly by exempting them from income tax or by levying income tax at only a symbolic rate. In 1998, the Organisation for Economic Co-operation and Development (OECD) formulated a widely used definition of a tax haven, which refers only to the tax system. According to it, a tax haven is “a place where the existing legal system allows non-residents to reduce taxes in their country of residence” [OECD 2009, pp. 11]. The main features of a tax haven are the lack of an income tax on its negligible rate, no effective exchange of tax information with other states, the lack of transparency and not taking significant action to introduce such cooperation and transparency.

As a rule, these countries have no resources or a developed real economy. They thus see their chance in developing a financial sector based on foreign capital, which becomes the main source of public revenue. For example, the Cayman Islands are one of the largest financial centres in the world today. The three tiny islands now house 140 trust funds, 780, insurance companies and 269 banks. The legal regulations governing economic activity on the territory of this haven are structured so as to provide maximum tax benefits, high confidentiality, minimal administrative duties and a flexible formula for running business [Gravelle 2010; Fuest & Riedel 2010; Ylönen 2017]. Such simplifications primarily include:

- no obligation to keep books of accounts;
- abolishing the duty to disclose financial statements and file them with public administrative bodies;
- the ability to appoint legal persons to the board;
- the board and shareholders can hold their meetings anywhere in the world;
- no duty to disclose the personal data of board members and/or owners in official registers;
- regulations that protect assets from creditors.

Non-existent or easy reporting duties mean that the administrative service of such entities is minimized and does not require maintaining any offices or any day-to-day contacts with the authorities. In simple terms, a company registered in a tax haven is frequently just a mailbox there and a ring binder of documents at the real offices of the entity.

In the context of further considerations, is also worth quoting the definition of royalties, as their scope often gives rise to doubts. Here, it is always necessary to refer to the provisions of double taxation treaties made between countries and based on the OECD Model Convention. According to article 12 of this Convention, the term “royalties” means “[...] payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films, any patent, trade mark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience” [OECD 2014].

3. Research methodology

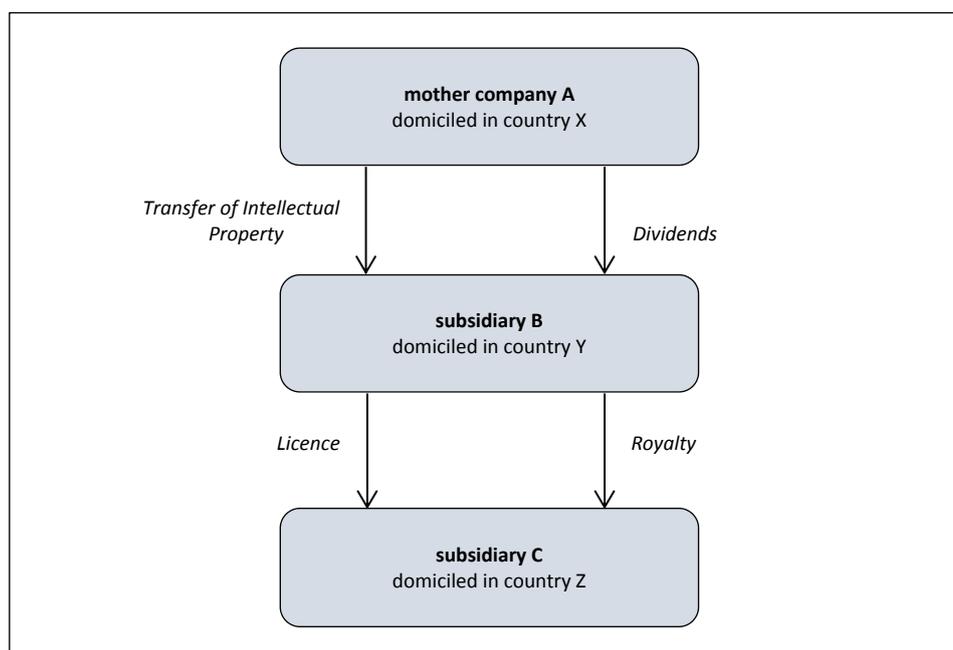
The main purpose of this article, presented in the introduction, has significantly influenced the choice of research methods. The key tool was an analysis of case studies of tax optimization mechanisms used by the largest multinational corporations, mainly Google, Apple, Facebook and Microsoft. The main source of data consisted in the reports of OECD on this topic, the annual 10-K financial statements filed with the SEC by Google Inc. (Alphabet Inc.), and detailed legal regulations on taxing international transactions (mainly in the territories of Ireland and the Netherlands).

4. Research findings and discussion

4.1. The essence of the mechanism of using royalties for an aggressive tax policy

The practice of multinational corporations demonstrates that they can skillfully use even the most recent legal regulations aimed at supporting technology development. A flagship example here is the patent box introduced in selected countries. This term denotes a set of special regulations on intellectual property. In order to encourage innovation and attract enterprises, European countries offer tax preferences for profit on patents [Ernst & Young LLP 2016]. This means that products – including patents and licenses for intellectual property rights – are taxed at a lower rate in those countries.

This is particularly obvious in the case of companies operating in the IT sector, where cash flows from licenses are huge [Sokatch 2011; Corkery et al. 2013; Fuest et al. 2013]. These rules were immediately used for the purposes of aggressive tax policy. The general mechanism of the transaction is presented in Figure 2.

Figure 2. General mechanism of royalty flows

Source: Based on European Commission [2015, pp. 41-42].

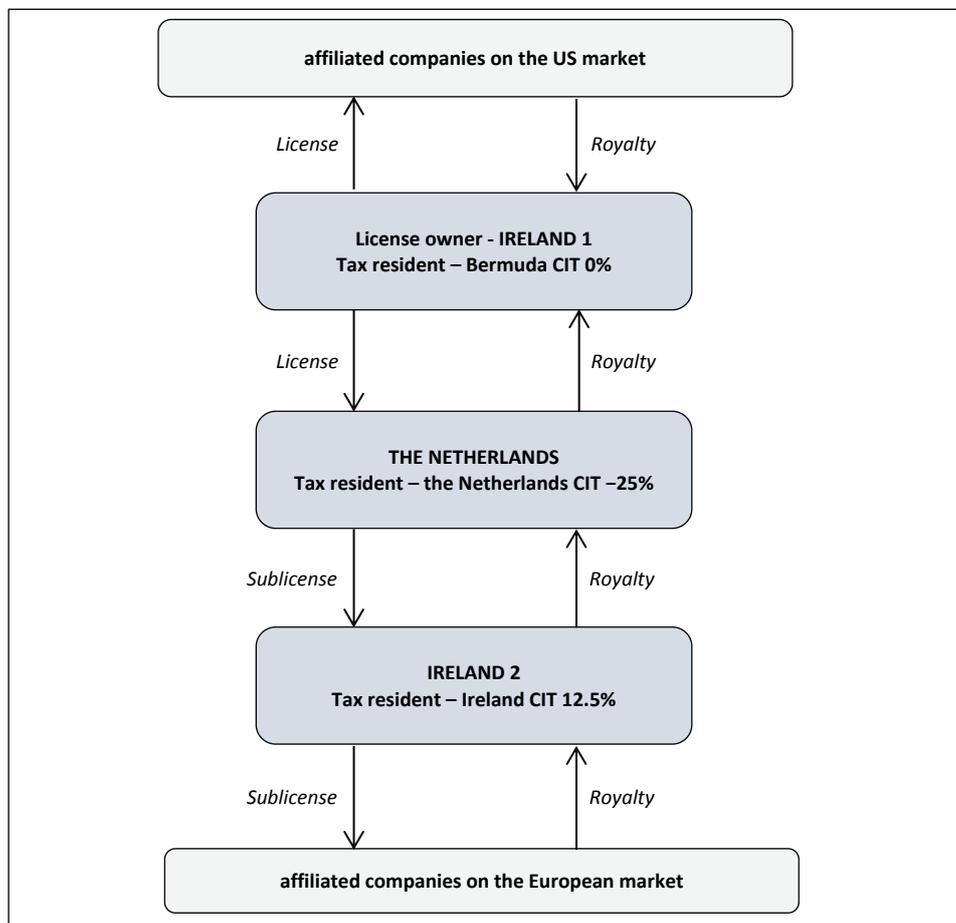
The mother company A domiciled in country X establishes a subsidiary B in country Y which applies a reduced tax rate to revenue from licenses, and the mother transfers all its intellectual rights to this subsidiary. Then, company B grants the property rights to another subsidiary C located in another country, which actually runs business based on the license. Under this agreement, company C regularly pays high royalties to company B. It thus overestimates its costs while at the same time underestimating its income tax base. In addition, it is under no obligation to withhold a tax because in most cases no tax is withheld if the royalties are paid to a company registered in another EU member state. Company B, in turn, has high revenues, but they are taxable at the preferential tax rate of country Y. Finally, the profit of company B is paid as dividends to mother company A. As part of this transaction, the tax withholding in country Y can often be avoided, as can the income tax in country X.

The mechanism described above makes it possible to avoid paying high amounts of income tax, which, in normal conditions, company A would have had to pay in its country (X) if it granted the license directly to company C. The model presented is just a general concept showing its nature. In practice, it is frequently extended: subsidiaries are established in tax havens and the network of ties is much greater.

4.2. Royalty flow model used by Google

The most effective structure of royalty flows has been implemented by Google [Sokatch 2011; Corkery et al. 2013; Fuest et al. 2013]. This mechanism soon became so popular that special names like the Double Irish or the Dutch Sandwich were coined for it and it has been implemented by the majority of multinational corporations, i.e. Apple, Google, Facebook, Microsoft, Oracle, Adobe and Starbucks [Fuest et al. 2013; Dharmapala & Riedel 2013; Kleinbard 2013]. The model is presented in Figure 3.

Figure 3. The model of tax avoidance with the use of royalties employed by Google



Google has spun off a separate entity to which all the rights to technologies connected with the search engine and ad display accrue – Google Ireland Holdings Ltd. registered in Ireland. In the graph, this entity is marked as Ireland 1.

The centre of management and control over this company is located in Bermuda. According to Irish tax regulations, companies are taxed in the country in which their head office is located, and not necessarily in the place where they are registered. According to this provision, Ireland 1 is a tax resident of Bermuda, where the corporate income tax rate is zero. With regards to the withholding tax in Ireland, this is charged on license royalties only when these royalties are transferred to countries outside the EU. Consequently, another company – Google Netherlands B.V. – was established in the Netherlands (marked as the Netherlands on the diagram), to which the Irish entity grants licenses. This way, Ireland 1 does not pay any withholding tax.

Then, the Netherlands grant a sublicense to the second company registered in Ireland, namely Google Ireland Limited (Ireland 2). The Dutch company has, on the one hand, the revenue on account of license royalties received from Ireland 2, and on the other hand, it incurs a cost by buying the license from Ireland 1. Corporate income tax amounts to 20-25% in the Netherlands. In order to cut its amount, the cost of the license fees paid to Ireland 1 amounts to 99.8% of the total revenue on account of the further transfer of these licenses. Hence the amount of tax is small. With regards to the withholding tax, the Netherlands, unlike Ireland, does not charge it on royalties transferred to non-EU countries either. Thus the only burden on this Dutch company is the small income tax on the minimal income amounting to 0.2% of the revenue.

Google Ireland Limited (Ireland 2), in turn, transfers sublicenses further to various companies located in all European countries. This company recognizes almost all of the revenue on advertising sales outside of the US market, and on the other hand, it incurs the cost in the form of the license royalties handed over to the Dutch entity. This company does have income, but the corporate income tax rate in Ireland is only 12.5%. Because of such low taxation, this Irish company receives about 90% of the revenues of the entire group generated outside the US market [Zucman 2014].

At the end, it is worth adding that this mechanism also allows tax optimization of the income Google generates on the US market. This is because the main company of the Google Inc. Group located there pays gigantic amounts to the Irish entity marked as Ireland 1 for management services, thus maximizing the level of its costs. The most interesting thing is that the Irish company Google Ireland Holdings Ltd. (Ireland 1), which plays a key role in this structure and records the revenue coming from all companies, does not have a single employee!

Rough estimates indicate that corporations using the above arrangements can reduce effective tax rates to 2%-3%. The media have widely reported Google financial figures portraying the scale of tax paid in EU member states. In

2011, in the UK, which is the second-largest market, this corporation generated revenues of around \$4 billion, but recorded a loss. The French branch of Google, in turn, had 68.7 million euro of revenue, but paid only 2 million euro of tax. In Poland, 139 million zlotys of revenue was recorded and 3.5 million of income tax was paid. UK authorities forced the company to pay additional tax of GBP130 million. However, specialists emphasize that this is clearly too little. Estimates for a longer time show that in 2005-2014, Google generated over GBP 24 billion of revenue on the UK market, earning about GBP 7.2 billion. On all of this, the company paid GBP 200 million of taxes, including the forced additional payment of 130 million mentioned above. This represents less than 3% of the estimated 10 year profits of Google in the country [Drucker 2010].

Similar accusations have been levelled at Starbucks, which reported only losses in the UK for 13 consecutive years. Since 1998, this corporation only paid GBP 8.6 million of tax there, while its turnover during the same period exceeded GBP 3 billion [Kleinbard 2013]. The “Double Irish” is also used by Facebook. In 2011, this Group made in excess of GBP 840 million outside of the US. Almost all these sales were recorded by an Irish company. At the tax rate there, this entity should have paid about GBP 105 million of income tax, but thanks to this arrangement, it actually paid less than GBP 3 million [“The Guardian” 2012].

4.3. Controversies about aggressive tax optimization

The tax avoidance structures presented above lead to many discussions. On the one hand many specialists believe that this phenomenon is negative and impermissible, mainly due to its macroeconomic consequences. On the other hand, it can be said to bear witness to the in-depth knowledge of international tax regulations among selected specialists who skillfully take advantage of them according to the rule that “everything which is not forbidden (by law) is allowed”.

This problem cannot be clearly assessed as bad or good, and this would be demeaning for many tax consultants and accountants. Adopting the right perspective is important when assessing it. From the point of view of the macroeconomy and the development of global economic relations, tax avoidance and moving income to tax havens has many negative consequences. The most important of them is directly driving the rising inequality between the rich and the poor: the rich increase their fortunes faster. Research shows that 1% of the richest people in the world now hold more assets than all the rest. Just 62 individuals together hold assets worth the same as 3.6 billion, i.e. half of all humanity. Their total wealth has increased by 45% over the last five years [Oxfam America

2016]. Tax avoidance also curtails stable economic growth in certain regions of the world. It is well known that tax receipts are the primary source financing the activities of the state as the institution providing protection to its citizens and satisfying their other needs. It would thus be just to follow the rule of paying taxes to the state in which the economic activity is carried out.

Another important consequence is the constant strengthening of the position of huge multinationals which already have a leading influence on the development of global economic, social and even political relations. Consequently, tax avoidance should be assessed as negative in this context as well. However, the question has to be asked who is responsible for this sphere. Is it the ordinary accountant, the tax adviser or the chief financial officer of a given company? Certainly not. This is mainly the remit of governments of individual states and international organizations dealing with social and economic problems. Ensuring systematic and appropriate revenue for the state budget is not and should not be a priority in the activities of the financial and accounting departments of enterprises.

The chief financial officer of a company is primarily responsible for the correct and effective management of this enterprise's finances, allowing it to maximize its profits and maintain its liquidity. Their job is to take care of the company's and its shareholders' interests. They have to know the law and comply with it. So if they have great knowledge of international tax law and can skillfully take advantage of it acting within the law or making use of its obvious loopholes, should this be seen as bad? Neither do their duties include adopting good law. Are they not acting in their company's best interest? Maybe even in the best interest of its employees who receive bonuses for its good results? They are a great chief financial officer, accountant or tax adviser. Of course, this can lead to certain problems from the CSR perspective [Huseynow & Klamm 2012]. Intentional tax avoidance is certainly within the realm of topics related to corporate social responsibility. It leads to a risk that the activities of the company may be criticized by the community (which happened in the case of Starbucks). However, these issues are connected with the general approach to CSR within the company board, which is the main body responsible for the entity's policy in this regard.

5. Conclusions

The aggressive tax optimization model using royalty flows between associated companies, presented in the article, clearly shows the large scale of financial benefits. This is confirmed by an analysis of individual stages of cash flows

in the model presented. It should be noted that it is particularly skillfully used by multinational corporations for whom the free flow of capital between different countries is the most affordable. This model can, therefore, be used effectively only within corporations trading in the global market. Of course, it requires a well thought-out strategy and the constant monitoring of changing legal regulations.

However, the scale of this phenomenon is now so serious that we are witnessing increased legislative efforts, both at the international and national levels, aimed at tightening tax systems in this area. This is mainly about improving the transparency of corporations' reporting of the size of their operations in different countries, eliminating the discretion of tax havens, jointly finding legal gaps at the international level and an efficient system of exchanging information about tax settlements. The last serious work to change regulations concerning international taxation was undertaken in 2013 by the OECD as part of the project entitled Base Erosion and Profit Shifting (BEPS). Its purpose was to initiate the activities of many states against multinationals evading taxation. At the EU level, this work led to the adoption of the new tax avoidance directive 2016/1164 of 12 July 2016. Member states should start applying the majority of these regulations no later than on 1 January 2019.

The greater the knowledge of the optimization transaction types used by international corporation, the more effectively can mechanisms preventing this practice be developed and implemented. This article deals exactly with this area. The presentation of one of the most popular optimization mechanisms in the model reveals the details of complex transactions which are usually strictly confidential. This, obviously, represents one of the greatest limitations of research work on the above subject. However, it is worth continuing such research. The directions of further research will, in particular, cover other optimization mechanisms used by enterprises, i.e. the skillful use of transfer pricing, establishing offshore companies, the flow of loans and dividends.

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