TAX HAVENS IN THE EUROPEAN UNION, THEIR IDENTIFICATION AND USE BY THE MULTINATIONALS

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Abstract. Tax avoidance is currently an important topic and tax havens play a key role in it. Globalisation brings more possibilities of international tax planning therefore the importance of tax havens has increased even rapidly. Although they are called tax havens, the tax legislation is not the most important indicator of better taxation conditions. Multinationals can reach lower effective tax rate by separate agreement with governments therefore it is important to analyse also other indicators. This contribution focuses on the European Union and tax havens which are member countries of this organization. Data used as variables within selected method address disproportion of some economic indicators in tax havens. As a method, cluster analysis has been selected because it is able to separate the group of tax havens. Results show that there is significant difference between EU countries. Five EU countries are identified as tax havens: Luxembourg, Ireland, Netherlands, Malta and Cyprus. These countries report significantly larger flows of foreign direct investments and larger importance of intellectual property or financial sector in their economics. Especially the position of Luxembourg can be named as strong tax haven. On the other hand, the other EU countries have relatively close position to each other in terms of selected variables. Overall, tax havens report asymmetric in several economic indicators which address international profit shifting and investment activity.

Keywords: tax haven, tax competition, tax avoidance, European Union

JEL Classification: M41, H26, F23

1. Introduction

In these days, tax avoidance activities are very common especially for multinational groups. It is important to say that tax planning activities are fully legal in most of the times, so the company can take the opportunity of using tax havens and gain a competitive advantage. On the other hand, multinationals without use of tax planning can have worse position on the market. Globalisation causes increasing number of multinational companies and more possibilities in tax avoidance process.

When it comes to tax planning, needs of the groups can vary one from the other. The way, how the tax avoidance is implemented in company's structure, can be also different.

Therefore, the countries, which are active in tax competition and want to attract multinational companies, are focused on different aspects of legislation. It is obvious that tax planning scheme is influenced by home country of company, also the field and structure of assets is important. From this perspective it is important to know the position of countries in tax competition, respectively to know the role of tax havens.

This article aims the situation of tax havens in the EU. Next chapter is dedicated to the current state of knowledge related to this topic. The following part is focused on methods and data which are used within this contribution. Results are discussed after their presentation in the following chapter. The last part is dedicated to the conclusion.

2. Literature review

It is important to mention, that differences between countries in tax systems and level of taxation are based also on historical development and are understandable. On the other hand, there are a lot of countries which act differently. They want to attract multinational corporations to not only invest there but also use their legislation to reduce their tax liabilities. Several institutions deal with tax havens and try to convince their governments to change their behaviour. These actions come from conviction that the tax competition at the current level is harmful.

To understand tax competition, it is important to know what drive companies' location change or setting a special subsidiary for tax avoidance. Paper from Jones & Temouri (2016) is focused on the determinants of companies' tax planning activities which are connected with tax haven's subsidiaries. Their results show that the statutory tax rate in company's home country does not have significant effect on setting a new subsidiary in tax haven. One of the most important results indicates that companies with higher tendency to have tax haven subsidiary also belong to sectors with *"high technology manufacturing"* or *"sectors with high level of intangible assets"* (Jones & Temouri, 2016). This is an important fact for both sides: for governments of tax havens and for multinational organizations.

Tax haven utilization is also the subject of interest of study from Richardson & Taylor (2015). Results of their regression model, which is based on data from U.S. multinationals, show several important dependences related to tax havens. First of all, companies, which have a lot of multinational operations or use transfer pricing, utilize tax havens in broad scope (Richardson & Taylor, 2015). Another key finding can be described as importance of intangible assets because multinational companies with larger amounts of e.g. intellectual property tend to use the tax havens (Richardson & Taylor, 2015).

Study from Klassen et al. (2017) is focused on companies' activities in tax planning. Their study shows that companies focusing on minimizing tax liabilities have much lower (by more than six percentage points) effective tax rates than companies with adoption of tax compliance (Klassen et al., 2017). Greater tax savings are reported by companies with *"higher foreign income, tax haven use, and R&D activities"* (Klassen et al., 2017). This is another study, which mention intellectual property presence as a factor, which is important for tax planning activities.

German companies and their utilization of tax havens are in the centre of interest of Gumpert et al. (2016). Results of their study show that most of the German companies do not have a tax haven subsidiary (Gumpert et al., 2016). Overall, tax havens for tax avoidance are used especially by large multinationals often with extensive research activities, through which tax planning takes place (Gumpert et al., 2016). They also find difference between sectors. Manufacturing companies tend to invest in tax havens due to the level of their taxation. On the other hand, taxation does not have significant importance for the investment in tax havens by service firms (Gumpert et al., 2016).

Another study is focused on multinational companies with activities in India (Janský & Prats, 2015). Their results show that the companies with connection to tax havens have lower tax liabilities (Janský & Prats, 2015). Overall, profit shifting use companies which can lower their effective tax rate by this strategy. So, when it has been set up a link between tax haven subsidiary and non-tax haven one, the companies would utilize this connection. This study shows that presence of tax havens does not affect only countries in European Union or USA but also other countries, in this case India. Utilization of tax havens is not the topic only for big economies. It is also discussed e.g. in the Czech Republic. Novotný & Kruml (2015) highlight the increasing number of Czech companies with link to tax havens. They also point out the fact, that the outflow of capital from the Czech Republic belongs to one of the highest (Novotný & Kruml, 2015).

Study covering differences in utilization of tax havens between private and public listed companies is from Jaafar & Thornton (2015). Jaafar & Thornton (2015) show that both types of companies utilize tax havens to decrease their effective tax rates. On the other hand, these effects (lowering effective tax rates) are more extend in the case of private companies (Jaafar & Thornton, 2015). This is interesting problem because public become one of the most important stakeholders and its view on tax havens can affect corporate decision making. Dyreng et al. (2016) even mention public pressure and its relation to tax avoidance of companies. Their results show that publicly listed firms facing public pressure from stakeholders (Dyreng et al., 2016). Overall, opinion of public can influence the way and the extent how firms avoid paying taxes, especially when it comes to large multinational companies.

Identification of tax havens is complicated because every country, organization or company has different view on the attributes of tax havens. Therefore, there are many studies with different set of tax havens. Ireland is often included between EU tax havens (Chardonnet & Langerock, 2017). On the other hand, some authors discuss if Ireland is so rightly called. Tobin & Walsh (2013) show that there are several reasons for not calling Ireland a tax haven. They explain that there is no typical feature of tax haven like *"no or nominal tax, lack of transparency, unwillingness to exchange information*" (Tobin & Walsh, 2013).

There are also studies which are focused on Caribbean tax havens. One of them deals with Cayman Islands and their position in tax competition (Fichtner, 2016). For this study is important that he mentions specific position of Cayman Islands which is similar to the Luxembourg one (Fichtner, 2016). All that means that their governments tend to attract large financial institutions for which they offer reduction on their effective tax rates. Aubry and Dauphin (2017) show that Luxembourg is the most important EU tax haven for banks. Luxembourg looks like a tax haven with strong importance for financial sector.

One of the latest actions comes from the European Union, which creates a list of tax haven, known as blacklist (European Commission, 2018). In these days, there are only nine countries from the whole world on this list (European Commission, 2018). It is important to say that this list basically addresses third countries therefore none from the EU countries can appear on it. This fact is the subject of study made by organisation Oxfam (Chardonnet & Langerock, 2017). Their results show that four countries from the EU does not follow one of the basic assumptions of not to be a tax haven: *"Fair taxation"* (Chardonnet & Langerock, 2017). This group of countries consists of Ireland, Luxembourg, Malta and the Netherlands. This study shows that the problem of tax havens is much broader than the EU's blacklist presents. Another Oxfam study is from Berkhout (2016). This study also identifies world's tax havens based on information about legislation and economic indicators. Results of this study show that also the position of Cyprus is close to the other EU tax havens (Berkhout, 2016). Both Oxfam's studies use some economic attributes of the countries to identify if they are tax havens. FDI (Foreign Direct Investment) flows can be seen as one of the important indicators (Chardonnet & Langerock, 2017). Higher level of FDIs (with taking into account the size of the economy) shows excessive international activity connected with the country. These flows indicate fact that multinational companies use this country for international transaction in broader scope than it is assumed based on the size of its economy. Higher level of exports can be another factor of tax haven (Chardonnet & Langerock, 2017). Larger exports can indicate transfer pricing strategies because services and goods can be used for profit shifting.

As literature show, there are a lot of indicators which can be connected with tax havens. Some of them come from legislation, some of them from economic activity. The aim of this contribution is identification of EU tax havens based on other assumption than tax legislation.

3. Data and methodology

Cluster analysis is selected as a method used within this contribution. This analysis can identify groups of countries, for which are typical similar values in selected variables. In this case, clustering is selected for identification of tax havens. For the type of selected cluster analysis, Ward's method and Euclidean distance are used.

Table 1: Table description (TNR 10pt., italics)

Variable	Source
Inward FDI (% of GDP)	Eurostat (2018, B)
Outward FDI (% of GDP)	Eurostat (2018, C)
Receipts for the use of intellectual property (% of GDP)	Own calculations based on: The World Bank (2018, A); (2018, B)
Insurance and financial services (% of service exports)	The World Bank (2018, C)
Financial Secrecy Index (FSI)	Tax Justice Network (2018)
Export of goods and services (% of GDP)	Eurostat (2018, A)

Source: Authors

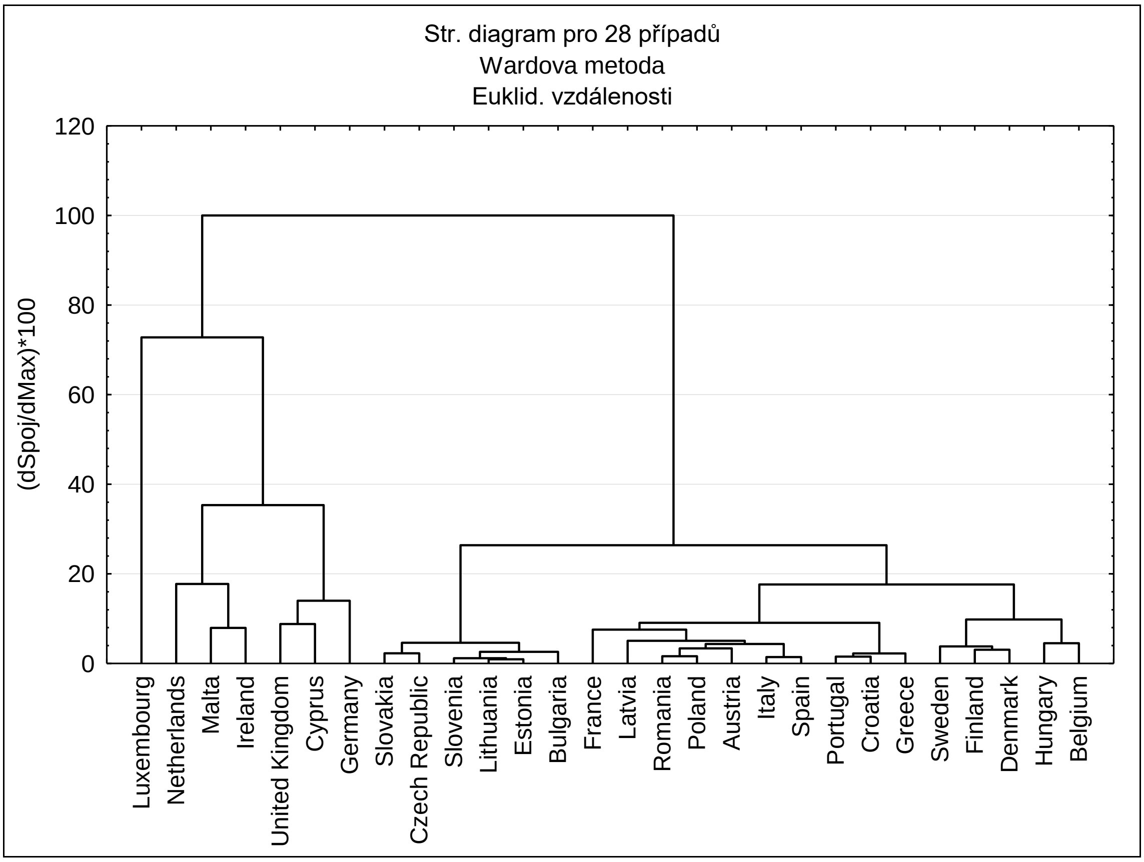
For the identification of tax havens in EU, it is used several variables based on the current research. Selected variables are presented in Table 1. As the cluster analysis requires, all data are standardized.

4. Results and discussion

Dendrogram is selected as a presentation form of cluster analysis' results and they are shown by Figure 1. Dendrogram indicates that there are 3 clusters in the half of clustering. The first one is represented by only one country: Luxembourg. Position of Luxembourg is very important because this country has high value in most of the selected variables.

Luxembourg can be identified as tax haven with very strong position. The second cluster is presented by countries with closer position to Luxembourg than to the other countries. These countries can be identified as tax havens with the exception of Germany. Values of the most of variables for Germany do not significantly differ from the other countries but the level of FSI is very high therefore this assignment to the cluster of tax havens. The position of the United Kingdom is also questionable but its values for financial sector indicates that the position in the financial market is closer to the tax havens than to the rest of the EU. The third cluster consists of the rest of the EU countries. These countries have very close values of variables with no significant disproportion.

Figure 1: Dendrogram with Luxembourg

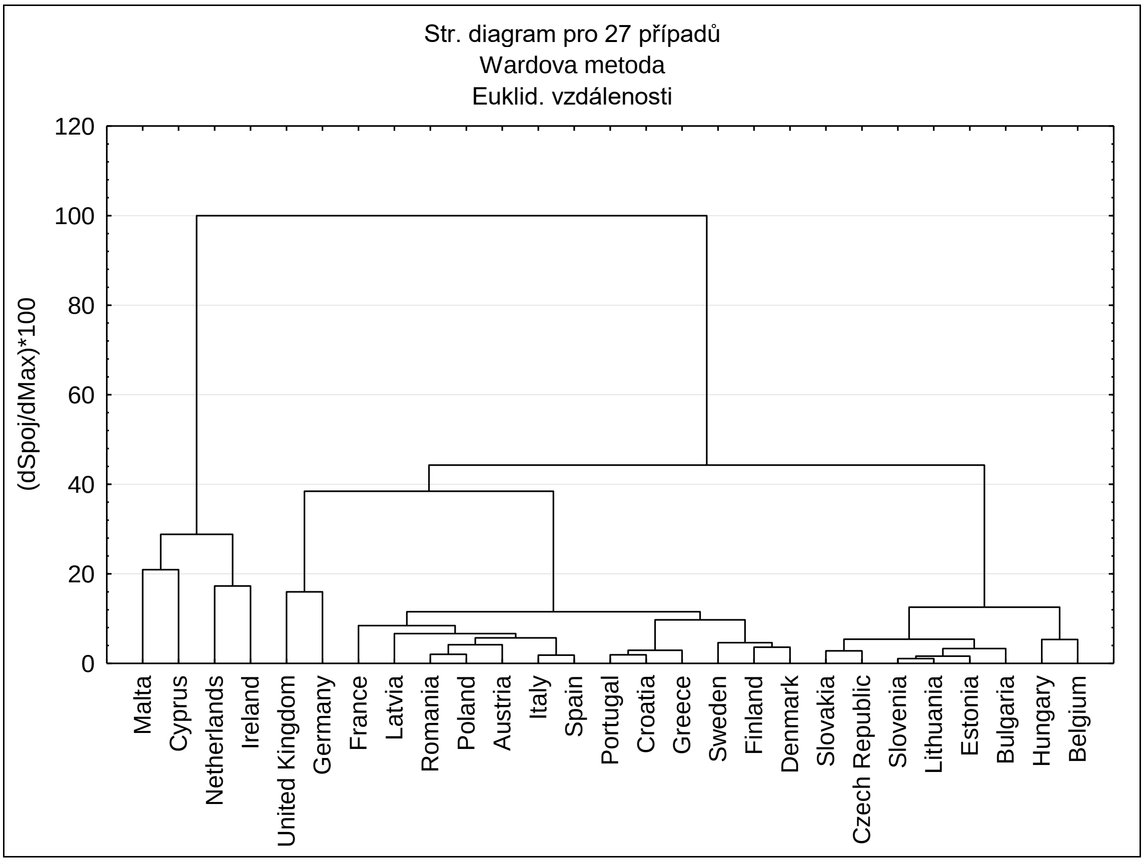


Source: authors

As the Luxembourg's values of variables report outliers the cluster analysis is run once more without Luxembourg. All other attributes of analysis are unchanged. The results are shown by the Figure 2. There are two clusters in the half of distance. The first one can be called tax havens and the second one non-tax havens. There are four countries which this second run of analysis classifies as tax havens: Malta, Cyprus, Netherlands and Ireland. The most important difference from the first analysis can be seen in not including the United Kingdom and Germany to the group of tax havens.

Results of cluster analyses correspond with the previous research. Clusters with higher values of variables, which are associated with tax havens, concentrate countries with some evidence of being tax havens. For the concrete EU countries, five of them can be called tax haven considering the results: Luxembourg, Ireland, Netherlands, Malta and Cyprus.

Figure 2: Second Dendrogram without Luxembourg



Source: authors

Studies mentioned in the literature review section show several important aspects of tax havens utilization. First, there is connection between tax planning and intellectual property (Jones & Temouri, 2016), (Richardson & Taylor, 2015). Results are consistent with these studies because cluster of tax havens generates high level of receipts for IP. Payments for the use of intellectual property are frequent way of transfer pricing therefore their level is an important indicator for tax havens identification. For the concrete values, all the tax havens report similar situation with one exception: Cyprus. Four other countries (Netherlands, Luxembourg, Ireland and Malta) have high share of receipts for the use of patents and other similar assets. This also corresponds with current research because companies use intangible assets in profit shifting activities.

High level of FDI flows are also connected with the tax havens. These flows are very high especially in Luxembourg. Overall, the values of indicators for this country have the greatest anomalies in the set of EU countries. FDI flows from and to Luxembourg are more than sixty times larger than its GDP (Eurostat, 2018, B), (Eurostat, 2018, C). For all other tax havens, the value of outward and inward FDI exceed their GDPs more than twice. This does not count for other EU countries. But the position of Luxembourg is not specific only because of FDI flows. Luxembourg is the country with the largest financial sector considering the size of economy. Large amounts of exports are also connected with the group of tax havens. Countries which are considered as open economies with significant export (e.g. the Czech Republic) has smaller amount of exports to GDP than countries like Luxembourg and Ireland. This factor shows that companies use tax havens as a place for profit shifting activities.

5. Conclusion

This paper shows the significance of EU tax havens. Countries like Luxembourg or Netherlands are heavily used by multinational companies and it has only one logical explanation: they are tax havens. Other EU countries with considering their size do not report so high level of international flows. This contribution also confirms the importance of intellectual property in tax havens' utilization.

The asymmetric of tax havens' economies is significant. Therefore, we can notice relatively strong results about the group of tax havens. Identification of tax havens is not only important for international organizations or tax authorities, but it also brings information about companies' behaviour. From this perspective, financial managers of companies tend to use legislation of identified tax havens to reduce companies' tax liabilities. Business environment of identified group of tax havens belongs to the most tax friendly in terms of international taxation.

On the other hand, this study relies on aggregated quantities and the situation at the bilateral level of relation between two countries can be more diverse. Further research should analyse this problem as a group of partial links at the bilateral level. This view should bring extended information about managers' decision making.

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