THE INFLUENCE OF THE CONNECTIONS OF ROMANIAN NON-LISTED FIRMS TO TAX HAVENS ON THEIR PROFITABILITY

Mihai-Bogdan AFRASINEI*
Iuliana Eugenia GEORGESCU**
Costel ISTRATE***

Abstract: The offshore entities have become one of the most efficient solutions for tax avoidance and are used by taxpayers almost all around the world. This paper investigates the influence of the connections (via subsidiaries or shareholders) of Romanian non-listed firms to tax havens on their profitability and effective tax rate. In this regard, we used a sample of 7,167 Romanian firms (3,370 with connections to tax havens and 3,797 without tax havens connections). For statistical analysis, we used the simple and multiple linear regression methods with dummy variables. Results have shown that the presence of Romanian non-listed firms in tax havens significantly influences their profitability and effective tax rate. The firms with connections to tax havens have a return on equity ratio higher, a return on assets ratio lower, a gross profit margin ratio lower, a total assets turnover ratio higher and an effective tax rate lower than companies without connections to such jurisdictions.

Keywords: tax havens; offshore companies; tax planning; tax optimization; tax avoidance; effective tax rate

JEL Classification: F21; F23; M40

Introduction

Considering that tax rates differ from one jurisdiction to another, companies (especially multinationals) have the opportunity to reduce their tax expenses (Desai et al., 2006; Dharmapala and Riedel, 2013; Fuest et al., 2013). Thus, many of them move their headquarters or open subsidiaries in other countries or territories with a more favorable tax regime and shift their taxable profit towards these jurisdictions (Sikka and Willmott, 2010; Johannesen, 2012; Kim and Li, 2014). This situation has generated a fierce international tax competition between countries and determined them to change their tax policies in the „run” for the international mobile financial capital (Dietsch and Rixen, 2014). For this purpose, some countries have developed special legislation, centered on attracting financial capital from other countries and do not levy any taxes or levy close to zero taxes for certain categories of income (Shaxson, 2012).

* Associate Assistant Professor, Alexandru Ioan Cuza University of Iasi, Romania, e-mail:bogdan.afrasinei@yahoo.com
** Professor, Alexandru Ioan Cuza University of Iasi, Romania, e-mail: iuliag@uaic.ro
*** Professor, Alexandru Ioan Cuza University of Iasi, Romania, e-mail: istrate@uaic.ro
With the intensification of economic globalization, tax havens and offshore companies have become more and more important and have proven to be one of the most efficient solutions in fighting taxation (Sikka, 2013). To this purpose, Palan et al. (1996) believe that offshore jurisdictions represent “nothing less than the cornerstone of the process of globalization”. In this context, “aggressive tax planning is a source of increasing concern for many countries” (OECD, 2011). Usually, this refers to the companies’ developing and using of financial techniques (transfer pricing, financial schemes to obtain numerous deductions or tax credits) in order to avoid paying taxes or considerably reduce their tax expenses (Both, 2015). Thus, tax havens are rarely absent from the tax optimization schemes of the large multinational companies. An analysis performed by ActionAid reveals that almost half of the large corporations’ investments in developing countries are directed from or through tax havens (ActionAid, 2013). An extremely important role in developing such tax optimization strategies is played by attorneys, financial intermediaries, major banks and accounting companies (Sikka and Willmott, 2013; Harari et al., 2012; Christensen and Murphy, 2004; Afrasinei and Georgescu, 2015).

Some of the researchers in this field observed that defining a tax haven is a relatively difficult task (Preuss, 2012; Palan et al., 2010; Kudrle, 2009; Palan, 1998), leading to the lack of a generally accepted definition of this concept to the present day (Slemrod and Wilson, 2006; Palan, 2009; ActionAid, 2011; Gravelle, 2015). Also, the current definitions in literature can be inevitably considered subjective (Palan et al., 2010). Nevertheless, we have noticed that one of the definitions most commonly used by scholars is the one issued by the OECD in 1998 (Johnson and Holub, 2004; Killian, 2006; Cobham, 2012; Gravelle, 2015). Under the Organization for Economic Co-operation and Development initiative regarding the Harmful Tax Competition (1998), tax havens can be identified based on four main criteria, respectively: (a) they are jurisdictions that do not levy tax or levy only a nominal tax; (b) they are jurisdictions that avoid exchanging information with tax authorities in other countries; (c) they are jurisdictions characterized by lack of transparency and (d) they are jurisdictions that harbor companies that do not perform substantial operations in the respective location.

The elimination of commercial barriers has created a multitude of benefits, but tax havens are regarded by some authors as a dark side of globalization, as William Brittain-Catlin (2006) has titled his well-known book (Offshore: The Dark Side of the Global Economy). In his opinion, „creating an onshore nation is the only way to restore financial sovereignty” (Brittain-Catlin, 2010). Also, Christensen (2011) believes that „tax havens encourage capital flight, exacerbate financial crises, and
impose economic costs in the form of reduced investment, slower economic growth and higher unemployment”. Moreover, Venckus and Gaidelys (2013) emphasize that operations performed through offshore financial centers have a harmful impact on the economies of countries that are not tax havens or offshore financial centers.

Nevertheless, other authors view the relationship between financial crises and tax havens as exaggerated and oftentimes misconstrued, and as tending to be promoted mostly in order to „discredit the international financial system” (Loomer and Maffini, 2009).

Although offshore companies represent a subject frequently analyzed by researchers, the complexity and spreading of this phenomenon still provides new research opportunities, especially at a microeconomic level. This subject, highly publicized internationally in the latter years (see for example the Panama Papers and Offshore Leaks), has been mostly approached from a macroeconomic perspective. Palan et al. (2010) outline that this situation was not created by a lack of interest by the researchers, but rather by the difficulty to find relevant data and by the fact that companies have the option to publish their consolidated accounts, where the operations performed through tax havens are concealed from the eyes of the stakeholders.

This paper tackles an under-researched subject on the case of Romania. So far, we have not found a study that investigated the effects of using tax havens on the financial statements of Romanian companies. Thus, in this study we intend to observe the influence of companies’ use of tax havens on their profitability and effective tax rate.

A Brief Review of Literature

The topic of tax havens is attractive both for practitioners and scholars. However, due to lack of access to data, few researches have been conducted to analyze the influence of the presence of companies in tax havens on their financial performance and effective tax rate. As literature shows, the use of tax havens is characterised by a high degree of secrecy: confidentiality, anonymity or bank secrecy (Antoine, 1999; Johannesen and Zucman, 2014; Slabinskiy, 2013). Usually, the companies with subsidiaries in tax havens try to maintain discretion in order not to draw attention to their activities because, oftentimes, tax havens are assimilated with immoral, socially irresponsible and even unlawful practices (Mitchell et al., 2002; Sikka, 2010; Otusanya, 2011; Schwarz, 2011). Sopková and Raskovská (2012) stated that „responsible businesses make an economic profit and social benefit by their commitment to ethical conduct and social responsibility, whereas irresponsible businesses steal the resources of the state and society.” In this respect, in Romania, information
regarding the shareholders, subsidiaries or other foreign affiliated entities registered in tax havens is limited and difficult to obtain.

Also, given the "delicate" character of this phenomenon, Romania's fiscal authorities are not willing to provide information or statistics on domestic companies that are using tax havens. However, if the names of shareholders may be obtained on request (fee-based) from the National Office of Trade Registry (2014), information on foreign subsidiaries or other foreign affiliated parties are extremely limited in the case of non-listed companies.

Having as a starting point the issue of tax avoidance and shifting profits from developing countries to tax havens (eroding public revenues and hindering economic development), Fuest and Riedel (2010) conducted a study on a sample of large companies from China, India, Indonesia, Malaysia, Pakistan, Philippines, Taiwan and Thailand. Through this study the authors tried to identify by comparison the differences regarding the taxes paid by domestic firms, firms belonging to a multinational group and firms belonging to a multinational group with connections to tax havens. The financial data of the companies were obtained from the Orbis database.

Results of the study show that firms belonging to a multinational group have obtained a lower ratio of return on assets than domestic firms. However, the firms belonging to a multinational group with related parties in tax havens have not obtained a return on assets ratio significantly lower than the national ones. Regarding the tax payments per total assets, the authors identified that firms belonging to a multinational group pay less (15%) compared to the national firms (18%). Also, in this case there are no significant differences between the results of national companies and those with connections to tax havens. However, there are considerable differences in the case of effective tax rate. While domestic firms have the highest effective tax rate (20%), the firms belonging to a multinational group have obtained an effective tax rate of 16.9% and those that are present in tax havens a rate of only 13.2%. Moreover, the firms that have a direct ownership link to tax havens (via a direct parent firm or subsidiary) obtain an average tax rate of only 11.2%. These results were confirmed by regression analysis.

In a subsequent study based on the same methodology (with some differences) and the same data source, Janský (2013) conducted a research on multinational companies operating in India. The author divided the companies into two main groups: multinational companies with no connections to tax havens and multinational companies with connections to tax havens. The results of this research emphasize that in 2010 the multinational companies with links to tax havens reported 1.5 percent less pre-tax profits per unit of assets, paid 17.4 percent less in taxes per unit of assets, paid 30.3 percent
less in taxes per unit of profit (effective tax rate) and had 11.4 percent higher debt ratios than multinational companies with no such connections. These results were confirmed through linear regression analysis. As a conclusion, Janský stated that these findings “strongly suggest that multinational companies with connections to tax havens engage in profit shifting more intensively than those multinational companies with no tax haven links.” Using a different approach, Dyreng and Lindsey (2009) identified that on average U.S. firms that disclosed material operations in tax havens have a worldwide tax burden on worldwide income 1.5 percentage points lower than firms without operations in such jurisdictions.

Going forward, we will present the methodology we applied in our study, respectively the goals of the research, hypotheses, data collection and sample.

**Research Methodology**

Using the studies conducted by Fuest and Riedel (2011) and by Janský (2013) as a starting point, the purpose of our research is to analyze the influences of the presence of Romanian non-listed firms in tax havens on their profitability and effective tax rate. In order to enable comparisons of the obtained results, we will use a sample structured in two categories: companies with connections to tax havens and companies without connections to tax havens.

We considered companies to have connections to tax havens (or to be present in tax havens) if they are owned by companies (which hold more than 50% of the share capital) or have subsidiaries (holding more than 50% of the share capital) registered in such jurisdictions. Companies without connections to tax havens are those which have Romanian shareholders (100% of the capital) and have at least one subsidiary registered in Romania. In other words, the criterion used for delimiting the sample was that of the exclusive control, involving the hold of a majority of voting interest. We chose that national companies have at least one subsidiary registered in Romania, in order to have a comparison for companies present in tax havens. Thus, both company categories are members of a group of firms.

In our paper we have used the tax havens list from the study „Addicted to tax havens: the secret life of the FTSE 100”, conducted by ActionAid (2011). In this study, the international organization ActionAid considered that Netherlands and the U.S. state Delaware should also be included. We concur with this view, as Delaware is considered one of the first tax havens in the world (Palan, 2009), offering tax exemptions to large companies starting with 1880 (Deneault, 2011). This jurisdiction still has the characteristics of a „genuine” tax haven. Moreover, according to the Financial Secrecy Index calculated by the Tax Justice Network in 2009, Delaware was on the first place (Tax Justice Network, 2015). It’s stated that if you register a company in Delaware, no one will ever know (Mathiason, 2009).

Netherlands is the country preferred by multinational companies as a bridge for directing foreign investments to other countries and for this reason some authors named it „the major conduit for foreign direct investment” (Galeza, 2011). For example, multinational companies directed through Netherlands approximately 1,600 billion Euros in 2009 only (Weyzig, 2013). Considering it is a member of the European Union and it has favorable international tax treaties, incorporating a holding company in Netherlands encourages the development of complex tax optimization strategies that facilitate a significant reduction of dividend taxes or interest taxes on intra-firm loans (Afrasinei, 2016). Moreover, Netherlands was included in the 2005 Tax Justice Network list of countries and territories that can be considered tax havens and offshore financial centers. Also, Richard Gordon noticed in his 1981 report for the Treasury of the United States that Netherlands was a tax haven starting with the XVIth century as, at the time, it applied „a minimum of restrictions and duties” (Gordon, 1981). Taking into account these arguments, and according to ActionAid opinion, we consider that Netherlands corresponds to the concept of „permissive tax jurisdiction” and can be considered a tax haven.

**Data, Target Population, Sample**

In order to identify the country of registration of shareholders and subsidiaries, as well as to obtain financial data of the companies, we have used the Orbis database. This is a database provided by the Bureau van Dijk (BvD) from Netherlands which contains financial information from over 160 million companies worldwide (Bureau Van Dijk, 2015). BvD is a company founded in 1991 having as main activity the provision of financial information about companies worldwide. Currently, it has offices in 24 countries and over 700 employees. The Orbis database can be accessed through an online
platform which offers the option to generate data for a number of companies by making queries based on certain criteria, such as country of registration of shareholders or subsidiaries (our current case) among many others. We obtained a database from Orbis with the courtesy of Bureau van Dijk, based on criteria set by us, but with a limited number of variables (turnover, total assets, profit/loss before tax, taxation, profit/loss after tax and ROE – calculated based on profit/loss before tax). This information is for the financial year ended on December 31, 2014.

In order to identify the companies with connections to tax havens, searches were carried out for the shareholders and subsidiaries registered in the following jurisdictions: Andorra (AD), Anguilla (AI), Antigua and Barbuda (AG), Aruba (AW), Bahamas (BS), Bahrain (BH), Barbados (BB), Belize (BZ), Bermuda (BM), Cayman Islands (KY), Costa Rica (CR), Curaçao (CW), Cyprus (CY), Dominica (DM), Gibraltar (GI), Grenada (GD), Hong Kong (HK), Ireland (IE), Jordan (JO), Latvia (LV), Lebanon (LB), Liberia (LR), Liechtenstein (LI), Luxembourg (LU), Macao (MO), Maldives (MV), Malta (MT), Marshall Islands (MH), Mauritius (MU), Monaco (MC), Nauru (NR), Netherlands (NL), Panama (PA), Saint Kitts and Nevis (KN), Saint Lucia (LC), Saint Vincent and the Grenadines (VC), Samoa (WS), San Marino (SM), Seychelles (SC), Singapore (SG), Sint Maarten (SX), Switzerland (CH), Vanuatu (VU), Virgin Islands (British) (VG). Although the list of tax havens that we considered in our approach comprises 52 jurisdictions, not all of them are found in Orbis database.

The initial sample comprised a total of 18,923 companies (according to statistics from the National Trade Register Office, in Romania there were 747,699 companies active in 2014), out of which we eliminated the following categories of firms:

- firms with a turnover of less than 65,000 Euros, in order to avoid confusion between the profit tax and the microenterprises income tax. According to art. 112 ^ 6 of the Law 571/2003 in conjunction with Gov. Decision 44/2004 regarding the Fiscal Code in Romania (although currently Law 227/2015 regarding the Fiscal Code of Romania is in force, information regarding the analyzed companies refers to the year 2014, for which Law 571/2003 was in force), a microenterprise paid tax on profit if it reported incomes over 65,000 Euro in a fiscal year;
- firms for which no information was available for the variables listed above;
- firms with a negative value of total assets;
- financial and banking firms;
- firms with the financial indicators extracted from consolidated statements.
Following this operation, the final sample consists of 7,167 companies (3,370 with connections to tax havens and 3,797 without connections to tax havens). For data analysis we used the simple and multiple linear regression method with dummy variables through the statistical tool SPSS.

**Research Hypotheses and Variables Used in Statistic Analysis**

Given the identified problem and purpose, our research approach is based on a series of hypotheses that we will describe below.

**H1. The connections to tax havens of Romanian non-listed firms significantly influence their profitability.**

The main reason for which companies perform operations through tax havens is tax avoidance. Conducting intra-group tax optimization transactions allows for the profit to be redirected to tax havens in order to reduce the tax base. By this means, the financial performance of the companies is influenced. Fuest and Riedel (2010) emphasize that companies profitability can show a measure of the income shifting to other jurisdictions. Although are several ways to measure the profitability of firms, return on assets ratio (ROA) and return on equity ratio (ROE) are key indicators in this regard (Strýcková, 2015; Choi *et al*., 2010). Also, our access to financial data allowed us to measure the profitability by gross profit margin ratio.

The validation of this fundamental research hypothesis can be accomplished by testing and confirmation of the following operational hypotheses:

- **H1.1.** the connections to tax havens of Romanian non-listed firms significantly influence their return on equity ratio;
- **H1.2.** the connections to tax havens of Romanian non-listed firms significantly influence their return on assets ratio;
- **H1.3.** the connections to tax havens of Romanian non-listed firms significantly influence their gross margin ratio.

**H2. The connections to tax havens of Romanian non-listed firms significantly influence their effective tax rate.**

Previous studies (Janský, 2013; Fuest and Riedel, 2012) have shown that companies with connections to tax havens report a lower effective tax rate than the ones without such connections.

**H3. In the context of the presence in tax havens of Romanian non-listed firms, the size of the companies significantly influences their profitability and effective tax rate.**
Previous papers (Krautheim and Schmidt-Eisenlohr, 2011; Sikka, 2010; GAO, 2008) have shown that large companies are the main users of tax havens, as they have the financial power to employ financial experts or contract the large tax consulting firms in order to develop complex tax optimization strategies.

Table no.1 presents a description of the variables used in statistical analysis, including their nature and attributes.

### Table 1 - Variables used in analysis

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable</th>
<th>Determination method</th>
<th>Statistical description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>D_CTH</td>
<td>We measure with a dummy variable that is “1” if companies have connections to tax havens and “0” otherwise.</td>
<td>Independent variable Dummy variable</td>
</tr>
<tr>
<td>2.</td>
<td>D_Size</td>
<td>Company size was determined by the size of turnover and total assets.(^1) We considered large those companies with a turnover of over EUR 40 million and the total assets value exceeding EUR 20 million.(^2) All other companies were considered small. We measure with a dummy variable that is “1” if companies are large and “0” otherwise.</td>
<td>Independent variable Dummy variable</td>
</tr>
<tr>
<td>3.</td>
<td>ROE(*)</td>
<td>(\text{ROE} = \frac{\text{profit/loss before tax}}{\text{equity}} \times 100)(^(*)\ this\ indicator\ has\ been\ retrieved\ calculated\ from\ Orbis\ database)</td>
<td>Dependent variable</td>
</tr>
<tr>
<td>4.</td>
<td>ROA</td>
<td>(\text{ROA} = \frac{\text{profit/loss before tax}}{\text{total assets}} \times 100)</td>
<td>Dependent variable</td>
</tr>
<tr>
<td>5.</td>
<td>GMR</td>
<td>(\text{GMR} = \frac{\text{profit/loss before tax}}{\text{turnover}})</td>
<td>Dependent variable</td>
</tr>
<tr>
<td>6.</td>
<td>ETR</td>
<td>(\text{ETR} = \frac{\text{tax expense}}{\text{profit/loss before tax}} \times 100)</td>
<td>Dependent variable</td>
</tr>
<tr>
<td>7.</td>
<td>TAT</td>
<td>(\text{TAT} = \frac{\text{turnover}}{\text{total assets}})</td>
<td>Dependent variable</td>
</tr>
</tbody>
</table>

**Variable definitions:**
- D_CTH = Connections to tax havens
- D_Size = Companies size
- ROE = Return on equity ratio
- ROA = Return on assets ratio
- GMR = Gross margin ratio
- ETR = Effective tax rate
- TAT = Total assets turnover ratio

**Notes:**
1. We did not have access to information regarding the average number of employees of these companies.
2. We set up these limits starting from the Directive No. 2013/34/EU of the European Parliament and Council of 26 June 2013 concerning annual and consolidated financial statements and other related reports of certain types of companies (European Parliament and European Council, 2013).

When analyzing the effective tax rate, there are certain difficulties regarding the treatment of companies that registered losses. Thus, some authors have removed from the sample the companies that have a negative or zero income before tax (Zimmerman, 1983; Omer et al., 1993; Richardson...
and Lanis, 2007; Donohoe, 2015), while others have included these companies (setting the effective
tax rate to zero) in order to reflect the influence of loss (Collins and Shackelford, 1995; Gupta and
Newberry, 1997; Janssen and Buijink, 2000; Adhikari et al., 2006; Lazar, 2013).

In our research context, we consider necessary to include in the analysis the companies that
report losses. Reporting a profit as low as possible (including negative) in order to reduce tax expenses
is a feature of companies that use tax havens. For this purpose, we used two versions for the
calculation of the effective tax rate. In the first version (ETR1) we excluded the companies that
registered losses or zero profit before tax, but we set the effective tax rate to zero for those companies
that have profit and do not report tax expenses. For the second version of effective tax rate (ETR2)
we included the companies with a negative or zero income before tax (setting the ETR to zero),
instead we excluded the companies which reported tax expenses, although they reported losses (in
order not to lead to a negative effective tax rate). The tax expenses reported by the companies refer
to the current tax because non-listed companies do not have the obligation to report deferred tax.

Next, we present the results of the research, respectively the descriptive statistics of the
companies in the sample and the results of the regression analysis.

**Research Results and Interpretations**

To shape an overview of the studied phenomenon, Table 2 shows the main descriptive statistics
individualizing the analyzed companies. The presence in tax havens divide the sample in two clusters:
the first cluster emphasizes the companies with connections to tax havens, while the second
emphasizes the companies without connections to such jurisdictions. The extreme values for each
variable analyzed were replaced with the 5 percentile value (minimum extreme values) and 95
percentile value (maximum extreme values) (Ghosh and Vogt, 2012).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total sample</th>
<th>Companies without connections to tax havens</th>
<th>Companies with connections to tax havens</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on equity - ROE</td>
<td>N</td>
<td>5460</td>
<td>3234</td>
<td>2226</td>
</tr>
<tr>
<td>Minimum</td>
<td>-35.0813</td>
<td>-35.0813</td>
<td>-35.0813</td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>118.8001</td>
<td>118.8001</td>
<td>118.8001</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>27.1046</td>
<td>25.6327</td>
<td>29.2430</td>
<td>14.0847%</td>
</tr>
<tr>
<td>Median</td>
<td>15.9175</td>
<td>15.2960</td>
<td>17.8015</td>
<td></td>
</tr>
</tbody>
</table>
Next we present the results of the regression analysis that emphasize the influence of the presence in tax havens of Romanian non-listed companies on their profitability and effective tax rate.

In this analysis, the independent variables are the "connections to tax havens" and "company size" and the dependent variables are return on equity ratio, return on assets ratio, gross margin ratio, effective tax rate and total assets turnover ratio. The results of the statistical processing through the
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SPSS software are shown in Table 3.

### Table 3 - Simple and multiple linear regression models

<table>
<thead>
<tr>
<th>No.</th>
<th>Equation model</th>
<th>Observations</th>
<th>Statistic test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>ROE = 25.633 + 3.610 D\textsubscript{CTH} \quad (0.000) \quad (0.001)</td>
<td>5460</td>
<td>SigM = 0.001</td>
</tr>
<tr>
<td>2.</td>
<td>ROE = 26.481 + 5.721 D\textsubscript{CTH} − 20.026 D\textsubscript{Size} \quad (0.000) \quad (0.000) \quad (0.000)</td>
<td>5460</td>
<td>SigM = 0.000</td>
</tr>
<tr>
<td>3.</td>
<td>ROA = 6.316 − 3.144 D\textsubscript{CTH} \quad (0.000) \quad (0.000)</td>
<td>7161</td>
<td>SigM = 0.000</td>
</tr>
<tr>
<td>4.</td>
<td>ROA = 6.413 − 2.930 D\textsubscript{CTH} − 2.516 D\textsubscript{Size} \quad (0.000) \quad (0.000) \quad (0.001)</td>
<td>7161</td>
<td>SigM = 0.000</td>
</tr>
<tr>
<td>5.</td>
<td>GMR = 4.251 − 8.673 D\textsubscript{CTH} \quad (0.000) \quad (0.000)</td>
<td>7166</td>
<td>SigM = 0.000</td>
</tr>
<tr>
<td>6.</td>
<td>GMR = 4.395 − 8.353 D\textsubscript{CTH} − 3.764 D\textsubscript{Size} \quad (0.000) \quad (0.000) \quad (0.001)</td>
<td>7166</td>
<td>SigM = 0.000</td>
</tr>
<tr>
<td>7.</td>
<td>ETR\textsubscript{1} = 18.100 − 1.136 D\textsubscript{CTH} \quad (0.000) \quad (0.002)</td>
<td>5114</td>
<td>SigM = 0.002</td>
</tr>
<tr>
<td>8.</td>
<td>ETR\textsubscript{1} = 18.139 − 1.048 D\textsubscript{CTH} − 1.106 D\textsubscript{Size} \quad (0.000) \quad (0.004) \quad (0.123)</td>
<td>5114</td>
<td>SigM = 0.002</td>
</tr>
<tr>
<td>9.</td>
<td>ETR\textsubscript{2} = 14.593 − 3.899 D\textsubscript{CTH} \quad (0.000) \quad (0.000)</td>
<td>6819</td>
<td>SigM = 0.000</td>
</tr>
<tr>
<td>10.</td>
<td>ETR\textsubscript{2} = 14.648 − 3.773 D\textsubscript{CTH} − 1.468 D\textsubscript{Size} \quad (0.000) \quad (0.000) \quad (0.008)</td>
<td>6819</td>
<td>SigM = 0.000</td>
</tr>
<tr>
<td>11.</td>
<td>TAT = 0.128 + 0.232 D\textsubscript{CTH} \quad (0.000) \quad (0.000)</td>
<td>7165</td>
<td>SigM = 0.000</td>
</tr>
<tr>
<td>12.</td>
<td>TAT = 0.129 + 0.261 D\textsubscript{CTH} − 0.341 D\textsubscript{Size} \quad (0.000) \quad (0.000) \quad (0.000)</td>
<td>7165</td>
<td>SigM = 0.000</td>
</tr>
</tbody>
</table>

**Variable definitions:**

- D\textsubscript{CTH} = Connections to tax havens
- D\textsubscript{Size} = Companies size
- ROE = Return on equity ratio
- ROA = Return on assets ratio
- GMR = Gross margin ratio
- ETR\textsubscript{1} = Effective tax rate (variant 1)
- ETR\textsubscript{2} = Effective tax rate (variant 2)
- TAT = Total assets turnover ratio

Note: the significance of the variables is represented by Sig values noted in parentheses.

From the data presented in Table 2, it can be noted that companies present in tax havens have a return on equity ratio 14.08% higher, on average, than companies without connections to tax havens. According to regression model no.1 from Table 3, the presence in tax havens results in a return on equity ratio 3.610 percentage points higher, which may suggest that within these companies the financing is made by loans rather than through equity or that higher dividends are paid. When including in the analysis the size of the entities, according to regression model no.2 we can observe...
that the large companies present in tax havens obtain a return on equity ratio 20.026 percentage points lower than the small companies. A possible explanation may be given by the fact that large companies have the financial and human resources needed to develop complex tax optimization strategies in order to reduce the net income and the tax base. Also, taking into account that the profit reinvested in technological equipment is exempt from tax since July 2014 and that there are limitations on the deductibility of interest expenses (Law 571/2003), financing is not performed so much through loans as in the case of small companies, but mostly through equity.

From the analysis of return on assets ratio, Table 2 highlights the fact that companies present in tax havens have an average rate of this indicator 49.77% lower than companies without connections to tax havens. Through statistical regression model no.3 we can observe that companies present in tax havens obtain a result 3.144 percentage points lower than other companies. This situation could be explained by the fact that companies present in tax havens have the opportunity to develop international tax optimization strategies, resulting in a decrease of their income before tax. Another feature that supports this idea is the fact that 80% of the companies not present in tax havens have profit, while only 61% of the companies with connections to tax havens have profit. Analyzing this indicator in conjunction with the return on equity, we can confirm the previous statement according to which financing through loans is much larger in the case of companies that are present in tax havens than in the case of companies without connections to tax havens (the numerator is the same in the calculation of both indicators, respectively the profit/loss before tax). According to regression model no.4, when present in tax havens, large companies obtain a return on assets ratio 2.516 percentage points lower than small companies. This may suggest that large companies have the possibility to develop complex tax optimization strategies through their foreign affiliates. The situation is also confirmed in the literature (Sikka, 2010; Mills et al., 1998).

Regarding the income before tax to turnover ratio (proxy for gross profit margin), we can notice a difference of 204% (negative) in the case of companies present in tax havens. According to regression model no.5, these companies report a gross margin ratio 8.673 percentage points lower than the entities without connections to tax havens. This could be explained by the fact that the companies with subsidiaries or shareholders in tax havens use aggressive tax avoidance techniques through intra-group transactions (transfer pricing), such as loans or purchases/sales of goods/services, that help reduce their income before taxes. Oftentimes, transactions between related companies are fictitious (or over-evaluated/under-evaluated), especially in the case of consultancy services, management services or staff delegation (Clausing, 2003; Lambsdorff, 2011; Sikka and Hampton, 2005). If we include in the analysis the entities size, regression model no. 6 points out that, when
present in tax havens, large companies have a gross margin ratio 3.764 percentage points lower than small companies. As we previously stated, large companies have the resources (financial and human) needed to minimize their tax base.

In order to analyze the effective tax rate we reported the income tax to the profit before tax. For this purpose, we used two versions of calculating this indicator. In the first version we did not consider the companies that had losses and those that had profits but their tax is negative, in order not to negatively influence the results. Thus, we note that companies present in tax havens obtain an effective tax rate on average 6.27% lower than companies without connections to tax havens. While it may seem relatively small, the difference of 6.27% between the two types of companies is significant given the fact that we excluded from the analysis the companies that reported losses (38% of companies present in tax havens). Regression model no.7 confirmed that the presence in tax havens determines an effective tax rate 1.136 percentage points lower. Including in the analysis the company size, regression model no. 8 emphasizes that, when present in tax havens, the large companies have an effective tax rate 1.106 percentage points lower than the small companies.

The second version we used to calculate the effective tax rate implies the inclusion in the analysis of companies that reported losses (setting the tax and hence the effective tax rate to zero) because, oftentimes, the aggressive tax optimization techniques applied through offshore companies lead to a negative income (which can provide a full tax avoidance). Moreover, this could be the main reason for which some companies are present in tax havens. In this respect, the results indicate that companies present in tax havens have an effective tax rate on average 26.71% lower than the companies without connections to tax havens. Also, through the regression model No.9 we can see that the presence in tax havens leads to a lowering of the effective tax rate by 3.899 percentage points. This can be explained by the fact that the companies present in tax havens are more concerned with taxation and, at the same time, they have a greater potential to get tax breaks or tax incentives when making foreign direct investments. The capital outflows from Romania to tax havens or offshore financial centers often returns in the form of foreign direct investments. Romanian investors prefer to invest through foreign companies (typically registered in tax havens) in order to take advantage of tax facilities and lower tax rates from double tax agreements (Afrasinei, 2016). This practice is known in the literature as the "round-tripping of capital". Given the reluctance of many tax havens to provide or even to obtain information about the real ownership or assets of certain types of offshore companies registered there, such as shell companies, the round-tripping of capital flows often can not be detected (ActionAid, 2013). For example, the balance of foreign direct investment in Romania at the end of
year 2014 show that about 38.8% of them were conducted through tax havens (own processing based on data from National Bank of Romania, 2015). Also, the companies present in tax havens could have non-taxable income, tax deductions or foreign tax credits. For example, Fuest and Riedel (2012) note that the mobility of the investments of these companies (with connections to tax havens) allows them to negotiate tax advantages with the governments of host countries.

Including in the analysis the size of entities, regression model No.10 shows that, when present in tax havens, large firms have an effective tax rate 1.468 percentage points lower than the small companies. In general, large companies benefit from significant financial resources which allow them to adopt advanced tax optimization strategies by resorting to tax advisory firms or by hiring financial experts (Sikka, 2010). Moreover, as the financial strength and size of these companies increase, the tax strategies adopted are diversifying and becoming more and more complex (Istrate, 2000). Also, these companies are defined, in general, by an increased productivity, allowing them to negotiate with the government for additional tax benefits. Professor Prem Sikka (2008) notes that some multinational companies have become so powerful and influential that they are putting pressure on governments and imposing special conditions regarding taxation, threatening with moving to other countries if the required conditions are not met.

In addition to the study of Fuest and Riedel, we considered relevant to analyze the turnover (used as a proxy for operating revenues) per total assets, and the income before tax per turnover. This information can complement the previously analyzed indicators and may provide further explanation in analyzing the phenomenon.

The data from Table 2 highlight the fact that companies present in tax havens have a value of turnover per total assets (indicator showing the turnover speed of the invested capital - used as a measure of efficiency) 17.40% higher compared to the companies without connections to tax havens. Regression model No.11 confirms that the presence in tax havens leads to an increase of the total assets turnover ratio by 0.232. This evidence may suggest the performing of many intra-group transactions, which contribute to an increased turnover (often artificially), but do not increase the assets in the same manner as intra-group receivables and payables are settled rapidly. Including in the analysis the size of entities we can note through regression model No. 12 that, in the context of the presence in tax havens, large firms have a total assets turnover ratio 0.341 lower than the small ones. This may suggest that large companies, characterized by higher productivity and greater financial resources, are investing more in assets than smaller ones.
In terms of statistics, the regression models presented are confirmed with a 95% degree of certainty (Sig is in the 0.000 – 0.002 range). In this respect, the hypotheses of this empirical study were validated.

Conclusions

This paper tackled a topic highly debated in the latter years, both in international media and scientific research. The importance and the actuality of the analyzed subject can be easily remarked, for example, from the international impact of the Panama Papers, the most recent financial scandal that shook the offshore business world. However, this was only one of many others throughout history involving offshore companies and tax havens (see, for example, the Offshore Leaks, HSBC, UBS, Parmalat, Enron, Bernard Madoff cases, etc.)

In the context of financial globalization, companies have the option to develop tax optimization strategies for redirecting profits towards tax havens, thus effectively avoiding tax payments in the countries where they obtained the income. These strategies are so complex, that most of the time they are perfectly legal or, at least, they fit in the limits of the law and cannot be contested by the tax authorities.

Although a frequently discussed subject, the majority of researches were limited mainly to presenting the tax avoidance techniques through the use of tax havens, without effectively analyzing the impact on the company's financial statements in an empirical study. In this regard, there were rather few researches. As far as we know, in Romania such a research was not conducted up to the present day, and neither was made concrete estimates highlighting the capital flows towards tax havens at a macroeconomic level. The only publicly available data for such an analysis are the statistics regarding direct foreign investments (inflows) and Romanian companies with foreign participations in their equity capital (number of companies and shareholders' equity amounts). In regard of these considerations, our research had the purpose of analyzing whether the connections to tax havens of the Romanian non-listed firms have an influence on their financial performance and effective tax rates.

The results we obtained in this study have led to attaining the research objectives and the validation of the fundamental and operational hypotheses. Based on these, we appreciate that the existence of the Romanian companies’ connections to tax havens has a significant influence on their
profitability and effective tax rates. The data obtained allowed us to analyze the profitability through the return on equity ratio (ROE), return on assets ratio (ROA) and gross margin ratio.

We have identified the fact that companies with connections to tax havens report a return on equity ratio 3.610 percentage points higher (14.08%), a return on assets ratio 2.516 percentage points lower (49.77%), a gross margin ratio 8.673 percentage points lower (204.04%) and an effective tax rate 1.136 percentage points lower (6.27% - ETR1 version), respectively 3.899 percentage points lower (26.71% - ETR2 version) compared to companies without connections to such jurisdictions. Also, notable is the fact that Romanian companies with connections to tax havens report a total assets turnover 0.232 higher (17.40%) than companies not present in tax havens.

The results of the research also highlight that the companies’ size significantly influences the profitability and effective tax rates of the Romanian non-listed companies with connections to tax havens. Thus, in the context of their presence in tax havens, large companies report a return on equity ratio 20.026 percentage points lower, a return on assets ratio 2.516 percentage points lower, a gross margin ratio 3.764 percentage points lower and an effective tax rate 1.106 percentage points lower (ETR1 version), respectively 1.468 percentage points lower (ETR2 version) when compared to smaller companies. Moreover, large companies with connections to tax havens report a total assets turnover 0.341 lower than smaller companies.

These results suggest that Romanian companies with connections to tax havens are financed in a higher degree through loans rather than equity, as opposed to companies without connections to such jurisdictions. Also, these companies seem more interested in their taxation and have probably used international tax optimization strategies, in order to reduce their income before tax and, implicitly, their tax expenses. Such strategies usually imply receiving loans from affiliated entities, performing intra-group acquisitions/sales of goods or contracting consulting, management and staff delegation services from companies registered in tax havens. Moreover, through the use of aggressive tax planning, the companies with connections to tax havens can derive non-taxable income or take advantage of various tax incentives from the government or foreign tax credits. Investors have found tax advantages in investing in Romania through companies registered in tax havens. In this regard, some of the Romanian firms were transformed into subsidiaries of companies registered in offshore jurisdictions or at least have significant shareholders in such jurisdictions.

Considering the above arguments, we appreciate that the existence of connections to tax havens is helping the companies to redirect part of their profits towards these jurisdictions and reduce their tax expenses. Tax avoidance through the use of tax havens is a common practice for companies almost all over the world and represents a reason of concern for governments, due to the erosion of their
budget revenues. The results of this study show that Romanian companies also use this opportunity, in order for the investors to safeguard their wealth and get a larger share of the revenues. Moreover, these companies can re-invest the capital that was saved through tax avoidance and have a competitive edge on the market when facing companies that do not resort to tax optimization.

Tax justice should be a priority in this globalized economy. In order to moderate the phenomenon of tax avoidance by multinational companies, the European Commission adopted in 2016 “Country-by-Country Reporting”, a solution promoted by experts in the field (Murphy, 2016; Shaxson, 2012; Picciotto, 2012; Murphy, 2012; Palan et al., 2010). In our opinion, “Country-by-Country Reporting” will have a positive impact on corporate tax transparency, but the large companies will find ways to still use tax havens as long as these jurisdictions will provide tax incentives for offshore entities.

References


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