Abstract This study aims to investigate the impact of taxation on Foreign Direct Investment (FDI) in the Balkan countries (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, North Macedonia, Romania, Serbia and Slovenia), for the period 2005-2018. Using the empirical analysis method, we find that FDI net inflows are influenced by the tax regime of the host countries.

Our empirical results suggest that a reduction in “corporate tax rate” and “total tax and contribution rate in % of profit”, would lead the increase in FDI net inflow in the Balkan countries. So, on the contrary, the higher the “corporate tax rate” and “total tax and contribution rate in % of profit”, are, the greater the reduced FDI net flow is. Our results also suggest that the increase of “real GDP rate” and “tax revenue in % of GDP” have a positive impact on the increase of FDI net inflow in the Balkan countries.

Keywords: Foreign Direct Investment, Corporate Taxation, Tax Revenue, Balkan Countries.

JEL Classification: H25, H87, F21, F23, F38, F47.

Introduction

Trade liberalization and mobility of factors of production create many challenges for fiscal policy and are among the most debated issues in the area of fiscal competitiveness. Globalization offers many opportunities to reduce taxes for companies and increase capital flows for countries with low fiscal pressure.

The increase of capital inflows due to tax reduction leads to an increase in fiscal revenues and generates more employment and prosperity for the country. This result would influence other countries in reducing taxes to be competitive in attracting capital. Therefore fiscal competitiveness is becoming a strategic process for each country, to increase investment (Moro, 2001) and to increase fiscal revenue (Ambrosanio and
Bordignon, 2000; Van Geenhuizen and Nijkamp 1998), thus increasing the country’s industrialization (Oman, 2000).

There are many empirical studies showing that the flow of foreign investment is influenced by fiscal pressure (Slemrod, 1990).

Devereux and Freeman (1995) in their study of five different countries in Europe, USA and Japan on the impact of taxation on FDI inflows affirm that low taxation positively influences FDI localization. Similar results are achieved by Simionescu (2016) or Davies et al., (2018) on European Union countries. But, there are also other studies showing the opposite, that the corporate tax rate has a significant negative impact on FDI inflows in Central and Eastern European countries (Eshgh et al., 2016). Industrial activities tend to focus on some regions depending on endogenous agglomeration forces and the level of transport costs (Baldwin and Krugman, 2004), as well as on the availability of natural resources, political and economic stability, and public administration (Tanzi and Zee, 2000). Given the above facts, we think that it is important to analyze the impact of different taxes on the increase in FDI inflows in the Balkan countries.

To achieve this objective, we begin this study with a review of existing empirical studies to see if the fiscal effects estimated in previous studies have taken into account other non-fiscal factors that may have an important impact in absorbing FDI. Under such conditions the effects of fiscal policy on increasing FDI inflows may be overestimated. In the following will proceed with the empirical analysis to highlight the real effects of fiscal policies on the absorption of FDI. To make this assessment will rely on the empirical analysis of a panel data with the eight Balkan countries (Albania, Bosnia, Bulgaria, Croatia, North Macedonia, Romania, Serbia and Slovenia) for the period 2005-2018.

We emphasize that this model includes not only direct taxes on companies such as “corporate tax rate” and “total tax contribution in % of profit” but also “tax revenue” to point out how FDI inflows respond to real economic growth or fiscal revenue. This serves as a measure of the degree to which the government controls the economy’s resources. The methodology used for conducting this study starts with a review of the main empirical literature on Tax-FDI correlation. Following, based on the official World Bank data, we analyze empirically the impact of different taxes and real GDP per capita growth on FDI. The study is based on the macroeconomic level of the panel data. The results of the study suggest that taxes play an important role in the flow of FDI. The empirical results also suggest that the real GDP growth per capita and the increase in fiscal revenue have a positive impact on the flow of foreign investment in these countries.

The structure of the study, following the synthetic introduction described above, continues with a brief review of the empirical literature on the impact of fiscal policy on FDI net inflow, the methodology used, the empirical analysis, and closing with some conclusions.

**Theoretical predictions and literature review**

Removing trade barriers, reducing transport costs and innovation in the field of telecommunications has led to the devaluation of borders between independent economic
systems and the free movement of capital to exploit advantages of the global economy. This increase in international exchanges of goods, services, technology, and capital flows is increasing the interdependence of the economic system and leads to the modification of the structure by moving from an autonomous national economy to a global economy (Alfano, 2003). All this influences in the loss of control over the economic dynamics needed to orient economic growth, in the determination of taxation and consequently the public spending financing. (Munnell, 1992).

Companies are influenced by the taxation level in different countries because they seek to reduce the total costs of production and maximize net profit (Buettner and Rof, 2005). This unification of markets according to Avi-Yonah (2000) may affect the change in the taxable basis and will consequently have a significant impact on the distribution of income in global level.

In such conditions the fiscal policies adopted by one state will be influenced by other states to be competitive even from fiscal pressure. Thus, fiscal competitiveness will be a strategic process for each state, to increase investment (Moro, 2001), to increase fiscal revenue (Ambrosanio and Bordignon, 2000; Van Geenhuizen and Nijkamp 1998), which will lead to an increase in the country’s industrialization (Oman, 2000) and the taxable basis. According to Tiebout’s model (1956), if individuals are able to move freely, different governments will apply low local taxes in order them to decide to stay within the territory of their country. However, this level of taxation should be sufficient to finance the desired level of local public goods in order to have a more efficient public expenditure (Keen and Marchard, 1997). Free movement without cost would generate equilibrium condition in the form of equal utility levels of residents (Wellish and Hulshorst, 2000).

Of course, reducing fiscal pressure can also lead to a decline in public revenues, and consequently, the government should reduce public spending. (Fourçans and Warin, 2001). Anyhow this will serve the policy-makers to grab the attention of electorate and to stop the “flow” of capital from the country (Alfano, 2003). Fiscal competitiveness can affect the flow of Foreign Direct Investment\(^1\) (FDI) in a given country (Muço et al., 2018; Morisset and Pirnia, 1999; Morisset, 2003; De Mooij and Ederveen, 2003) or given region (Phillips and Goss, 1995).

Devereux and Freeman (1995) using data on flows between seven countries (five top countries of EU and also USA and Japan), found that FDI is elastic to the fiscal pressure factor. Simionescu (2016) or Davies et al., (2018), in their studies, reach again a similar result on the relationship between FDI and effective tax rates in the European Union. The results do not change even if poor countries, such as Nigeria, are included in the study (Olaleye et al., 2016).

\(^1\) Nowadays most governments tend to encourage FDI inflows as they generate economic growth and employment (Aranda and Sauvant, 1996; Muço et al., 2018), salary increase and know-how (Lee, 2002; Lall, 2002 Kostevc et al. 2007; Pourarakis & Varsakelis, 2002; Cipollina et al. 2012), assist in technology transfer and managerial improvement (Grotte, 1966; Borenszttein et al., 1998; Findlay, 1978), generate positive externalities for national enterprises (Smarzynska, 2003), increase of productivity and competitiveness (Javoric, 2009; Hee Ng, 2006; Buckley et al., 2007), increase of institutional quality and macroeconomic stability (Kostevs et al., 2007), positive impact in creating capital and increasing domestic investment (Jones, 1996) and social welfare (Estrin and Uvalic, 2013). It should be affirmed, however, that FDI is not only influenced by the fiscal system but also by other factors such as labor costs (Vernon, 1966), competitiveness (Hymer, 1972; Knickerbockers, 1973), market dimensions, and so on.
However, there are other studies showing the opposite, which means that corporate tax rates have a significant negative impact on FDI inflows in Central and Eastern European countries (Eshgh et al., 2016). Baldwin and Krugman (2004) state that industrial activities are affirmed in some regions depending on the endogenous forces of agglomeration and the level of transport costs, so, not only by the level of capital taxation. While Tanzi and Zee (2000) point out that are other factors such as natural resource availability, political and economic stability and efficient public administration that stimulate the concentration of enterprises in a given area.

But beyond these affirmations, we can also add that tax reduction encourages consumption and economic growth (Muinelo and Sagalés, 2011; Castelló and Doménech, 2002), increases investment that generates employment, increases consumption and welfare (Engen and Skinner, 1996; Bonuccchi et al., 2015).

The lower a country’s taxes are, the more likely is it for foreign companies to invest. Given the role of fiscal competition in FDI and capital flows but not only, as well as the positive effects on economic growth, employment and welfare, but governments have also for years reduced the average tax rate on income. Sorensen (2000) points out that in the OECD countries this tax dropped from 51.1% in 1985 to 38.1% in 1999. But at the same time, these countries have taken measures to expand the tax basis. It is also noted that this decline in the complex fiscal burden has been reduced over time and has progressively fallen on the labor factor. The labor supply is considered fixed, while the capital tax is considered mobile.

So it is an optimal choice if capital income is not taxed, as it would not have fiscal competition (Grazzini and Petretto, 2004). All this makes sense only when exists the principle of withholding taxation, which means that wages are taxed were is produced regardless of where the investor is resident. The reducing capital gains would not be of much value, if the residence principle is applied, that means that capital gains are taxed exclusively in the country where the investor resides, regardless of where the wage is generated (Petretto, 2002).

There is a widespread debate about the effects of fiscal policy on a country’s economic growth; in particular, this affirmation is even stronger for developing countries. If we ask an economist about the factors that influence a country’s economic growth performance, he will for sure mention fiscal policy as one of the main factors that influence it.

The conviction that fiscal pressure, public investment, encouraging investments that generate employment and also other aspects of fiscal policy can contribute to economic growth, to attracting foreign investment, and to pulling a country out of an economic growth situation without development, is articulated in most models of economic growth in recent decades.

Other studies affirm that fiscal policy also affects income inequalities which indirectly generate poverty and emigration.

Data

In the Balkan countries EU integration is seen as the beginning of a new era as it would
generate economic and political stability and foreign direct investment (Muço et al., 2018). Due to the fact that foreign investors choose countries to invest on the basis of high profitability and low costs, the Balkan countries have always tried to pursue more stimulating and competitive fiscal policy for foreign investors.

It is for this reason that in this study we decided to empirically assess the impact of fiscal competitiveness on FDI absorption. Technically, the effects of taxation on FDI can be studied in two ways: using either the cross-section, where Grubert and Mutti (1991) evaluate the effects of tax rate on the distribution of production centers of manufacturing companies in 33 countries to see the adaptability of local tax rate investors; or through a panel of data as in the study of Gropp and Kostal (2000) who analyzed the link between FDI, “corporate taxation” and “corporate tax revenue” at the OECD countries. In this study will also include real economic growth, the same as in Gropp and Kostal’s (2000) study, as it is assumed that higher real economic growth makes FDI more attractive.

In this study we have not taken into account the exchange rate since generally in these countries it is very easy to pay in euro even though in some of them the euro is not an official currency.

In our study, we use the panel data analysis, because we alternate historical data for 8 different Balkan countries (Albania, Bulgaria, Bosnia, Croatia, North Macedonia, Romania, Serbia, and Slovenia). We have not included Turkey and Greece since both the historical and the economic situation are very different compared to other Balkan countries. We have also avoided Kosovo and Montenegro as states that are recently created and consequently, the data are only for the last few years.

In order to homogenize all the data used in this study, they are obtained from the same source, the World Bank.

To create a balanced panel data set we chose to study the period 2005-2018, because if we try to use earlier data, our sample of states would be significantly reduced for lack of them. Before proceeding with the econometric analysis it is necessary to give a description of the FDI trend. In this model, we prefer to consider only FDI inflows because FDI outflows from the countries considered are relatively low and inconsistent. The FDI trend in the countries we are studying has generally been on the rise. Interestingly is the fact that FDI inflows to countries such as Romania, Bulgaria, Croatia, and Slovenia have increased significantly just before EU membership, and this trend continues to be high even after that.

Another aspect is the fact that for all the countries under analysis there is a reduction in FDI for the period 2008-2010, which coincides with the period of economic and financial crisis. Serbia is the country with the highest decline for the period studied, moving from the $ 14 billion in 2008 to $ 6.4 billion in 2010, while North Macedonia is the country with the lowest decline for the same period.

FDI in these countries is also positively correlated with gross fixed capital formation (Muço et al., 2018).

Regarding the fiscal policies pursued by the surveyed countries, we have noticed that most countries outside the EU, which are aspiring to become part of it, have implemented a flat tax, while countries that are already part of the EU have taxes slightly higher, but
nevertheless fiscal pressure is very low compared to developed EU countries.

Table 1. Tax rates by country

<table>
<thead>
<tr>
<th>State</th>
<th>Corp. Inc. tax</th>
<th>Cap. gain tax</th>
<th>Bran. tax</th>
<th>Divid.</th>
<th>Interest</th>
<th>Royalties</th>
<th>Bran. remit. tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>0%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>0%</td>
<td>5%</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>Bosnia</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>5%</td>
<td>10%</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>Croatia</td>
<td>18%</td>
<td>12%/14%/36%</td>
<td>20%</td>
<td>12%</td>
<td>15%</td>
<td>15%</td>
<td>0%</td>
</tr>
<tr>
<td>Kosovo</td>
<td>10%</td>
<td>0%/4%/8%/10%</td>
<td>10%</td>
<td>0%</td>
<td>-</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td>Macedonia</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>Montenegro</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>0%</td>
</tr>
<tr>
<td>Romania</td>
<td>16%</td>
<td>0%/16%</td>
<td>16%</td>
<td>5%</td>
<td>16%</td>
<td>16%</td>
<td>0%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>19%</td>
<td>17%</td>
<td>19%</td>
<td>15%</td>
<td>15%</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Source: World tax, 2018

Empirical analysis

To test the impact of taxes on FDI flows we rely on the fact that both FDI inflows and outflows are influenced by taxes and macroeconomic variables. As the countries we have selected for the study are economically underdeveloped countries, they do not have significant FDI flows.

Based on the studies of Devereux and Freeman (1995); Gropp and Kostal (2000) and Alfano (2003), also in our study we will use FDI as a dependent variable.

In our model, we have preferred to remove lag as they cause a reduction in observations, although, from previous tests done by us, it has been observed that the results do not change much even when using lag.

Table 2. The impact of tax and GDP growth in FDI flows

<table>
<thead>
<tr>
<th>Dep. Var: FDI net inflow % of GDP</th>
<th>Fixet Effects</th>
<th>Random Effects (GLS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>Stan. Errors</td>
</tr>
<tr>
<td>const</td>
<td>-0.184621</td>
<td>0.0712159</td>
</tr>
<tr>
<td>Tax revenue in % of GDP</td>
<td>0.15302</td>
<td>0.357808</td>
</tr>
<tr>
<td>Corporate tax rate</td>
<td>-0.284071</td>
<td>0.147428</td>
</tr>
<tr>
<td>GDPr per capita growth</td>
<td>0.289858</td>
<td>0.119436</td>
</tr>
<tr>
<td>Total tax and contribution rate in % of profit</td>
<td>-0.158698</td>
<td>0.0516089</td>
</tr>
</tbody>
</table>

Observation (groups) 112 (8)
### Table 2: Summary Statistics

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0.510662</td>
<td>0.312576</td>
<td>0.16317</td>
<td>0.03887</td>
<td>9.487053</td>
<td>0.0000</td>
<td>-398,16</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

* Statistic Durbin-Watson: 0.928004
* F-stat (11, 100): 9.487053
* P.Crit: 0.0000
* Hannan-Quin: -398,16
* P.Crit: 0.0000

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In the above model we have chosen as dependent variables “FDI net inflow in % of GDP” while as explanatory variables: “tax revenue in % of GDP”, “corporate tax rate”, “real GDP per capita growth” and “total tax and contribution rate in % of profit”, to verify whether foreign investments are affected by fiscal pressure or not, or more precisely whether foreign enterprises choose or not countries with more competitive fiscal systems.

From the model we note that all the independent variables are significant in the FDI flow and the values of the coefficients of the independent variables used are relatively high. “Tax revenues in % of GDP” and “real GDP per capita growth” have a positive impact on the growth of FDI net inflow. The higher the real GDP growth rate, the more likely are foreign companies to invest in that country. This result is in line with the study of Gropp and Kostal (2000).

Moreover, the higher the “tax revenue in % of GDP”, the greater is the FDI net inflow. The independent variables used indicate the share of a country’s output that is collected by the government through taxes. It can be regarded as one measure of the degree to which the government controls the economy’s resources. Thus, the lower the fiscal evasion, the more the economy grows and the more it is considered by foreign investors, the same result as in the studies of Muço and Balliu, 2018; Muço et al., 2018).

Table 2 also shows that the variables “corporate tax rate” and “total tax and contribution rate in % of profit” have a negative impact on the increase of FDI net inflow. So, the higher the corporate tax rate” and “total tax and contribution rate in % of profit”, the more FDI net flow is reduced. Thus tax reduced plays an important role in increasing FDI net inflow. This result is in line with the result obtained in the study of Devereux and Freeman (1995) and Gropp and Kostal (2000).

Taking into consideration the importance of the empirical model as a whole, we can say that comparing the first column with the second one, we find that the coefficients of the variables and their signs are generally the same and consistent, this suggests that the model does not suffer from endogeneity. We also conclude that the model in the complex is robust with F stat, is significant and $R^2 = 0.3125$, that means that over 31% of the dependent variables are explained by the independent variables.

Certainly foreign companies do not choose countries only because of fiscal pressure, but above all they choose countries depending on the productivity and total cost per unit produced. We emphasize that the countries selected in this study have relatively low salaries. According to Eurostat data (2016) the average gross salary in Albania is only €
419, while the average gross salary of the countries surveyed is € 773, which is less than 1/3 of the average wage in developed countries such as Italy, France, Germany, etc.

Conclusions

In this study, we examined the impact of taxation on Foreign Direct Investment (FDI) in the Balkan countries, based on the widely accepted hypothesis that taxation is an essential factor in a country’s economic development and influences foreign investors in the localization of their activities.

We examined the effect of taxation using a panel data model, using fixed and random effect, choosing as independent variables: “tax revenue in % of GDP”, “corporate tax rate”, “real GDP per capita growth” and “total tax and contribution rate in % of profit”, to verify whether foreign investment is affected by fiscal pressure or not, or more precisely if foreign enterprises choose countries with a more competitive fiscal system. The empirical analysis confirmed the objective of this study expressed in its title that taxes stimulate FDI localization in a given country. It also confirmed that there is an inverse relationship between FDI and corporate taxation. The lower the corporate tax rate, the more likely companies are to position themselves there, ceteris paribus, as the corporate tax rate is certainly not the only determinant of FDI localization.

The empirical analysis also confirmed that “tax revenue in % of GDP” and “GDP real per capita growth” have a positive impact on the growth of FDI net inflow. This fact highlights the role of institutions in increasing FDI inflows in a given country. The lower the tax evasion, the more the economy grows and the more this country is taken into consideration by foreign investors. This conclusion is in line with various empirical studies on the role of institutions and corruption in economic growth.

Another important result of this paper is the fact that the “total tax and contribution rate in % of profit” has a negative impact on the increase in FDI net inflow, which means that the greater the increase in “total tax and contribution rate in % of profit” the more the FDI net flow is reduced. Thus, tax reductions play an important role in increasing FDI net inflow. This result is coherent with the result obtained in the study of Devereux and Freeman (1995) and Gropp and Kostal (2000).

Our study contributes to the debate on the role of fiscal competitiveness in increasing FDI inflows by showing particular attention to the Balkan countries. This contribution is twofold.

Firstly, it is a case study of the impact of taxation at the macro-level and is distinguished from other studies that are focused on the micro-level, or involving only developed countries that are part of the EU, without taking into considerations of both developed and developing countries that aspire to be part of this large family.

Secondly, this study seeks to identify the connection between low levels of taxation and high FDI inflows in Western Balkan countries, which by increasing capital flow, aim to increase employment, consumption, and welfare in order to accelerate the process of EU integration. The political implication of this paper is to stimulate tax reduction, because this will not lead to the reduction of fiscal revenues, but on the contrary, given
the increase in FDI flows, the effects on fiscal revenues would be very positive, as the taxable basis it would be increased.

References


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