

CAN TAX INCENTIVES BE DETRIMENTAL TO FDI? THE ROLE OF INSTITUTIONS

Authors: *Carlos Garcimartín*⁽¹⁾

Marta Pérez Garrido⁽²⁾

Álvaro Anchuelo⁽³⁾

Universidad Rey Juan Carlos, Madrid

P.T. n.º 8/2011

(1) carlos.garcimartin@urjc.es

(2) Corresponding author: Facultad de Ciencias Jurídicas y Sociales, Universidad Rey Juan Carlos, Paseo de los Artilleros S/N, 28032 Madrid. e-mail: marta.perez.garrido@urjc.es

(3) alvaro.anchuelo@urjc.es



INSTITUTO DE
ESTUDIOS
FISCALES

N. B.: Las opiniones expresadas en este documento son de la exclusiva responsabilidad de los autores, pudiendo no coincidir con las del Instituto de Estudios Fiscales.

INDEX

1. INTRODUCTION
2. FDI DETERMINANTS. TAXATION AND INSTITUTIONS
3. TAXATION AND INSTITUTIONAL QUALITY
4. OVERALL IMPACT OF TAXATION ON FDI SHARE
5. CONCLUSIONS

APPENDIX: Variable definition and data source

REFERENCES

SÍNTESIS. Principales implicaciones de política económica

ABSTRACT

The aim of this research is to identify the impact of taxation on foreign direct investment (FDI) in the new Eastern European EU Member States. According to our findings, while a country's general level of taxation does have an impact on FDI, this is not the case with other partial dimensions of taxation commonly used in the literature, such as nominal or effective corporate income tax rates. However, given that institutional quality affects FDI and tax revenues influence institutional quality, the overall effect of taxation on FDI is ambiguous. For low-institutional quality countries, a tax reduction can hinder FDI, while the opposite is true for high-institutional quality countries.

Keywords: Foreign direct investment, taxation, institutional quality, transition economies.

JEL Classification Code: F21; H25; H32; O17; O50; P27.

1. INTRODUCTION

Although there is a significant amount of literature on the determinants of foreign direct investment (FDI), the empirical analyses are not conclusive. Among the potential determinants is taxation. In regards to the effects of taxation on FDI there is considerable disagreement as noted by de Mooij and Ederveen (2003 and 2005) and others. Beginning with the seminal work of Hartman (1984) on FDI in the U.S., which pointed to its weak sensitivity with regard to differences in taxation, initial research focused on case studies. Over time, the literature on taxation as a determinant of FDI has adopted different approaches and widened its geographic scope by providing more conclusive results about the relevance of tax issues. Part of this work is focused on decisions regarding the choice of location, as in Devereux and Griffith (1998 and 2003), who, examined the incidence of taxation on the location choices of U.S. multinationals in Europe. A different approach addresses the issue from the perspective of the intensity of FDI flows. For example, Benassy-Quéré *et al.* (2005) find a negative impact of tax burden on FDI in OECD countries, whereas Desai *et al.* (2004) reach this same conclusion for FDI in the US. Combining both approaches, the work of Razin *et al.* (2005) on FDI in OECD countries suggests that the home country's tax level is a relevant issue in deciding where to invest and the taxation of host countries affects the amount of investment. Opposite these findings, Wolff (2006) highlights the need to distinguish between the different financing components of FDI in his analysis of the European Union, which reveals that high taxes in the country of origin encourage FDI through reinvested earnings; however, no significant relationship with the investment financed through new equity is found. Apart from issues such as the different methods for measuring FDI, and the time period or country samples, the differences result largely from the variable that has been identified as the taxation level indicator. A common element in these works is that they often only take into account direct taxation on corporate income, either by taking the nominal rates (Wolff, 2006) or by calculating the effective ones (Slemrod, 1990; Devereux and Freeman, 1995; Devereux and Griffith, 2003). While various mechanisms to avoid double taxation have been incorporated into some models, including the calculation of bilateral effective tax rates on FDI flows (Devereux and Griffith, 2003, Egger *et al.*, 2009), few studies have considered other tax figures (Desai *et al.*, 2004). From our point of view, it could be more appropriate to use a global indicator as companies can be affected not only by direct corporate taxes but by the entire fiscal system, including direct taxation on personal income, indirect taxation and social contributions.

In addition to taxation, institutional quality is another determinant of FDI that has been recently considered. Empirical studies have generally focused on the corruption dimension, which has been identified not only as a condition of the penetration strategies in other markets but also as a major obstacle to FDI¹. The findings of Wei (1997a and 1997b) for OECD countries, and by Zhao *et al.* (2003), which highlight the harmful effects caused by the lack of transparency, support the relationship between institutional quality and FDI flows. Other authors have also examined the impact of institutional quality from a global perspective; the works of Benassy-Quéré *et al.* (2007) and Stein and Daude (2007) find some correlation between institutional quality and FDI inflows in developing countries and economies in transition, respectively.

However, the current literature on FDI has not taken into account that institutional quality may depend on tax revenue, since the availability of public revenue positively affects the functioning of institutions². In that case, taxation would affect FDI through two different mechanisms that generate opposite effects. The aim of this paper is to link these two issues in the case of Eastern European countries. This geographical framework was selected for several reasons: the availability of data, the use of tax incentives by these countries to attract foreign capital and the deep institutional change they have experienced.

The remainder of this paper is as follows. In section two we investigate the determinants of FDI inflows in the new EU partners, paying special attention to fiscal and institutional variables. Since our findings suggest that institutional quality conditions FDI, in section three we examine the determinants of institutional quality. According to our results, tax revenue affects institutional quality, and therefore, there is not only a direct effect of taxes on FDI but also an indirect effect via institutional quality. Because these two effects operate in opposite directions, the joint effect for each FDI recipient country is computed in Section

¹ Some authors link high levels of corruption in recipient countries with the establishment of joint ventures projects instead of 100 for 100 foreign capital, given the advantages that flow from having local partners in these environments (Smarzynska and Wei, 2000).

² See Alonso and Garcimartín (2008 and 2010).



four. The main conclusion is that for countries with low institutional quality, the use of tax incentives can be counterproductive with respect to FDI and can further erode the quality of their institutions.

2. FDI DETERMINANTS. TAXATION AND INSTITUTIONS

As noted, the empirical research on the tax-FDI nexus is not conclusive³. Since this is partially due to the use of different tax indicators, we have considered alternative tax variables to examine the effect of the tax framework on FDI in the new Central and Eastern Europe Member States. First, nominal tax rates on corporate income and effective bilateral tax rates on FDI flows, since they partially determine the tax burden of companies. Second, the use of exemptions as a mechanism to avoid double taxation may also be relevant because, since according to the literature (Yoo, 2003), this instrument is more favourable to FDI than tax credits (imputation system) and deductions when the host country has a lower tax level than the country of origin, as is the case in the new Member States with respect to the EU-15. Finally, in our opinion, total tax pressure can also influence business decisions, since companies are directly or indirectly affected by the whole fiscal system, including direct taxation on personal income, indirect taxation and social contributions.

Apart from fiscal variables, there are other potential determinants of FDI identified in the literature that must be taken into account. Thus, we have also considered institutional quality, gravity factors, human capital endowment and labour costs, privatization methods and transport infrastructure as potential determinants. To avoid collinearity problems, we have pursued a strategy of sequential estimation by first examining the impact of tax and gravity factors and then the rest of variables. The dependent variable is defined as the share of the total FDI outflows from country *i* received by country *j*. Using relative rather than absolute flows allows us to eliminate the influence of those factors that are beyond the scope of the host countries, such as the economic context of the home countries. The independent variables are therefore expressed in index numbers using the average value of the new EU partners as the base. The geographical scope of analysis extends over the EU-15 as home countries, and those of the Central and Eastern European countries joining the EU in 2004 (Slovakia, Slovenia, Estonia, Hungary, Latvia, Lithuania, Poland and the Czech Republic) together with Bulgaria, as host countries. The period of study covers the years 2000 through 2005.

In the first specification of the sequential strategy, we have examined the impact of tax factors, controlling for market size and bilateral distance. The most commonly used indicator, the nominal tax rate on corporate income, shows a positive coefficient but without individual significance (Table 1, column 1). This lack of significance is not surprising, given that this indicator is a partial measure of the level of taxation levied on multinationals; the nominal tax rate on corporate income contains no information about fiscal incentives and tax bases. In contrast, the coefficient of the effective bilateral tax rate shows a negative impact on inward FDI and, although its t-ratio increases, it is not significant either (Table 1, column 2). In our view, this may be because although the effective rates offer a more complete picture than the nominal rates, they still do not include all tax issues affecting a company. In fact, when we use the tax-GDP ratio (Table 1, column 3) the coefficient becomes significant (99 for 100) and shows the expected sign: a 1 for 100 reduction in this ratio in country *j* generates an increase in its FDI share of 0.4472 percentage points.

Dividend repatriation and double taxation are an additional factor whose effects on FDI have traditionally been considered. To calculate the effect of double taxation, we construct a dummy variable coded 1 for the home country applying the exemption system on repatriated earnings from the host country and 0 otherwise. According to the literature, this instrument is expected to be more favourable to FDI than other instruments, especially if the host country has a lower taxation level than the home country. However, estimation results show that this variable is not relevant (Table 1, column 4). Regarding privatization programmes, a dummy for the direct sale method has been included. Its coefficient is positive and significant (Table 1, column 5), indicating that direct selling provides more opportunities for FDI than other instruments (as pointed out by Holland and Pain, 1998). With respect to other variables, both GDP and bilateral distance are significant and show the expected sign.

³ With respect to Eastern Europe countries, see Carstesen and Toubal (2003), Javorcik (2004), Jakubiak and Markiewicz (2005), Bellak and Leibrecht (2005 and 2007), and Bellak *et al.* (2007).

Table 1
FDI ESTIMATES I (LS)

| | 1 | 2 | 3 | 4 | 5 |
|------------------------------|----------------------|----------------------|------------------------|----------------------|------------------------|
| GDP | 8.2571 (4.85)*** | 8.6304 (5.13)*** | 10.5580 (5.77)*** | 8.2656 (4.85)*** | 10.2317 (5.64)*** |
| Bilateral distance | -9.2401 (-2.16)** | -9.7398 (-2.21)** | -10.5985 (-2.43)** | -9.2852 (-2.08)** | -11.0740 (-2.47)** |
| Nominal tax rate | 4.2187 (0.64) | | | 4.2114 (0.63) | |
| Effective bilateral tax rate | | -3.3725 (-1.04) | | | |
| Tax revenue (% GDP) | | | -44.7269 (-4.14)*** | | -37.1883 (-3.54)*** |
| Exemption | | | | -0.5165 (-0.13) | |
| Direct selling | | | | | 5.8716 (2.47)** |
| Number of obs. | 135 | 135 | 135 | 135 | 135 |
| R-squared | 0.3428 | 0.3453 | 0.3916 | 0.3430 | 0.4149 |

Notes: t statistic between parentheses. * / ** / *** denote significance at 90 for 100, 95 for 100 and 99 for 100, respectively. Robust estimates.

A second group of variables that can affect FDI flows are related to the supply of factors of production and cost reduction strategies. In particular, we have incorporated labour costs, education (as a proxy for human capital), and infrastructures (proxied by transport infrastructure). The results for this second group of explanatory variables show that education, contrary to what one would expect, has a significant negative effect on the share of FDI (Table 2, column 1). In this regard, it must be noted that the number of years of schooling (Education) in the Eastern European countries is close to that of the more developed countries of the EU and there are no noteworthy differences among the new partners, with the exception of Slovenia, which is 25 for 100 below the average.

The coefficient of labour costs, although negative, is not significant, which causes further lack of significance in regards to tax revenue. This appears to be due to the high degree of correlation between the two variables (Table 2, column 2). Finally, transport infrastructure has a positive and significant effect on FDI share (Table 2, column 3).

Table 2
FDI ESTIMATES II (LS)

| | 1 | 2 | 3 |
|--------------------------|------------------------|-----------------------|------------------------|
| GDP | 12.4652 (5.66)*** | 10.5073 (6.23)*** | 7.4596 (4.01)*** |
| Bilateral distance | -12.0955 (-2.78)*** | -11.3956 (-2.37)** | -11.4327 (-2.75)*** |
| Tax revenue (% GDP) | -75.8740 (-3.52)*** | -29.6515 (-1.60) | -49.5424 (-4.47)*** |
| Education | -47.4775 (-2.62)** | | |
| Labour costs | | -3.0342 (-0.58) | |
| Transport infrastructure | | | 12.2203 (3.15)*** |
| Direct selling | 9.3087 (2.92)*** | 4.7545 (1.88)* | 9.4978 (4.06)*** |
| Number of obs. | 135 | 135 | 135 |
| R-squared | 0.4410 | 0.4184 | 0.4407 |

Notes: t statistic between parentheses. * / ** / *** denote significance at 90 for 100, 95 for 100 and 99 for 100, respectively. Robust estimates.

The last variable included as driver of FDI flows is institutional quality, which also can influence investment decisions because a solid institutional framework is essential not only to the proper performance of business activity (Daude and Stein, 2007) but also to economic growth and to the development of territories (Hall and Jones, 1999; Acemoglu, Johnson and Robinson, 2004). Although the incorporation of this factor into empirical research is problematic due to the lack of suitable indicators, we have considered that the World Bank Aggregate Governance Indicators (AGI) provide the best available proxies for institutional quality⁴. The results (Table 3) indicate that institutional quality does indeed have a positive impact on FDI; an increase of 1 for 100 in the AGI average generates an increase in inward FDI share of 0.3163 percentage points. It must be remarked that we also include a positive dummy for Bulgaria, whose coefficient suggests that this country receives a larger share of FDI than would be expected given its characteristics⁵.

Table 3
FDI ESTIMATES III (LS)

| | 1 |
|--------------------------|------------------------|
| GDP | 13.5474 (4.79)*** |
| Bilateral distance | -13.2369 (-2.97)*** |
| Tax revenue (% GDP) | -97.2382 (-4.94)*** |
| Transport infrastructure | 5.5817 (1.06) |
| Direct selling | 6.0978 (3.20)*** |
| AGI | 31.6346 (2.75)*** |
| Bulgaria | 51.2830 (3.20)*** |
| Number of obs. | 135 |
| R-squared | 0.4916 |

Notes: t statistic between parentheses. * / ** / *** denote significance at 90 for 100, 95 for 100 and 99 for 100, respectively. Robust estimates.

In sum, this analysis shows that the variables which seem to have influenced FDI inflows in Eastern European countries are tax revenues, market size, geographical distance, privatization through direct sales, infrastructure, and institutional quality. However, some of these variables may have problems of endogeneity. This is certainly the case with GDP and institutional quality. Regarding GDP, it is argued that FDI generates technology and management diffusion effects that contribute positively to the productivity and efficiency of local companies. And with respect to institutional quality, foreign capital makes the institutional system more open to external influences, fuelling a larger demand for good institutions and facilitating learning processes and the imitation of good practices from other countries experience. To avoid potential problems of endogeneity, instrumental variables were used. As instruments, we have used population for GDP, and GDP (PPP) per capita in 1995 and the AGI average for the period 1996 through 1999 for institutional quality. As shown in Table 4⁶, all variables remain significant and show the expected sign. Moreover, as in the initial estimates, tax revenue is the variable with the greatest impact on FDI. However, significant specificities were detected in bilateral investment flows, which are not explained by the common determinants. This is the case of flows between Greece

⁴ Regarding the weaknesses of Governance Indicators, see Alonso and Garcimartín (2008 and 2010).

⁵ We also included a dummy for Bulgaria in the previous specifications, but it did not turn out to be significant. This suggests that this country receives a greater share of FDI than it should given its institutional features, but not fiscal, geographic, country size or infrastructure provision.

⁶ Due to problems of data availability, it has not been possible to use panel data.

and Bulgaria, Sweden and Estonia, and Spain and the Czech Republic. As regards to the intensity of the flows between Greece and Bulgaria, the strong economic ties that exist between the two countries are certainly worth noting. The intense trade and significant penetration of Greek capital indicate that Bulgaria has taken advantage of low labour costs and geographical proximity. Moreover, the privatization of the Bulgarian telecommunications sector has also gained Greek investors attention. Regarding the second outlier, not only have the tight links between Sweden and Estonia been decisive, but Estonia has also played an important role for Nordic FDI flows, opening the door into the Baltics, particularly in the banking sector. In the third case, the operation conducted by Telefónica in the Czech telecommunications sector, through which Spain became the eighth investor in this country, seems to explain this anomaly. The inclusion of these outliers in the estimate (Greece–Bulgaria, Sweden –Estonia, and Spain– Czech Republic) improves significantly the explanatory power of the model: the R² increases from 47 for 100 to 70 for 100. Finally, it should be noted that the under and over-identification tests along with the endogeneity test indicate that the instruments used are appropriate.

Table 4
FDI ESTIMATES (IV)

| | 1 | 2 |
|---|-------------------------|-------------------------|
| GDP | 18.4348 (7.55)*** | 17.6794 (7.48)*** |
| Bilateral distance | -13.8511 (-3.23)*** | -8.6031 (-4.94)*** |
| Tax revenue (% GDP) | -140.7538 (-5.79)*** | -124.9615 (-5.83)*** |
| AGI | 64.3884 (5.66)*** | 56.2846 (6.14)*** |
| Direct selling | 5.0542 (2.38)*** | 5.3303 (3.07)*** |
| Bulgaria | 92.6042 (5.44)*** | 75.5280 (6.39)*** |
| Greece-Bulgaria | | 84.4294 (30.09)*** |
| Sweden-Estonia | | 32.7417 (12.70)*** |
| Spain-Czech Republic | | 44.4205 (26.21)*** |
| Number of obs. | 135 | 135 |
| Centered R ² | 0.4741 | 0.7002 |
| Underidentification test Kleibergen-P rk LM st. | 31.639 | 28.782 |
| χ ² (2)P-value | 0.0000 | 0.0000 |
| Overident. T. Hansen J statistic | 0.195 | 0.011 |
| χ ² (1)P-value | 0.6587 | 0.9177 |
| Endogeneity test: GDP | 8.373 | |
| χ ² (1) P-value | 0.0038 | |
| Endogeneity test: AGI | 8.494 | |
| χ ² (1) P-value | 0.0036 | |

Notes: statistic between parentheses. * / **/ *** denote significance at 90 for 100, 95 for 100 and 99 for 100, respectively. Robust estimates.

Endogenous: GDP and AGI. Instruments: Population (2000-2005), AGI (1996-1998) and GDP pc (1995).

3. TAXATION AND INSTITUTIONAL QUALITY

As noted in the previous section, both taxation and institutional quality affect FDI in Eastern European countries. It appears that a lower tax pressure and a higher institutional quality facilitate inward investment. However, if these two variables are related, then the effect of the tax measures aimed at attracting foreign investments would not be limited to the above direct results.

In this sense, the literature on institutional quality traditionally distinguishes between two types of explanatory factors. On the one hand, variables of a historical and geographical nature, such as the colonial origin of a country, its geographic location, the origin of its legal system, ethnic fragmentation and religion; on the other hand, we have those determinants related to development, such as income per head, income distribution, education and tax revenue. Although empirical research has provided some favourable evidence concerning the structural characteristics as identified above, several authors have noted that much of its significance disappears when controlling for per capita income. This does not happen with those determinants related to development, which indicates greater robustness (Alonso and Garcimartín, 2010; Alesina *et al.*, 2003; or Islam and Montenegro, 2002). Therefore, and given also the enormous similarities that Eastern European countries show in the first group of factors, we have focused on the second group of explanatory variables. Among them, one of the most important factors identified in the literature is the level of development itself. Its impact on institutional quality occurs as a result of mechanisms that operate from both the supply and the demand side. The impact of the level of development determines the availability of resources to generate quality institutions and generates more demanding societies. This positive relationship between the two variables has been confirmed by several studies (Alonso and Garcimartín, 2010; Chong and Zanforlin, 2000; Islam and Montenegro, 2002; or Rigobon and Rodrik, 2004, among others).

Another determinant to be considered is income distribution. As can be expected, a strong inequality generates divergent interests among various social groups, which, in turn, leads to conflict, political instability and insecurity. In addition, inequality makes it easier for institutions to remain in the hands of groups who attempt to achieve and protect their own interests rather than the interests of the common good. Finally, inequality undermines a disposition towards cooperative action and instead favours corruption and rent-seeking activities. This relationship has been supported by previous studies (Alonso and Garcimartín, 2010; Alesina and Rodrik, 1993; Alesina and Perotti, 1996; and Easterly, 2001).

Education is the fourth factor considered as a determinant in institutional quality. A more educated population demands more transparent and dynamic institutions, and makes possible their building. The empirical analyses show favourable evidence supporting a relationship between education and institutional quality; the higher the level of education of a society, the higher the quality of its institutions (Alonso and Garcimartín, 2010; Alesina and Perotti, 1996; Glaeser and Saks, 2006; Rauch and Evans, 2000).

Finally, Alonso and Garcimartín (2008 and 2010) have proposed another determinant of institutional quality: the tax revenue available to government. They argue that the availability of resources is crucial for governments to develop a high-quality institutional framework and that the existence of a sound fiscal system generates a more demanding relationship between the state and its citizens, favouring transparency and accountability (Tilly, 1992; Moore, 1998). It is important to indicate that this relationship is not triggered by public revenue from other sources, such as state-owned companies or natural resources.

Some of these determinants are potentially endogenous. This is clearly the case of GDP per capita, since better institutions contribute to increase income levels. Education is also potentially endogenous, since better institutions can generate a better education system. Finally, tax revenue can also be endogenous, since more efficient institutions help to reduce fraud and implement more efficient tax systems. Therefore, we have estimated the institutional quality equation by using instrumental variables, employing as instruments the lagged value of GDP per capita in 1995, the lagged value of education in 1990, tax revenue in 1995 and the urban population ratio (for tax revenue, since it positively affects tax revenue; Tanzi, 1992)⁷.

To make compatible our results with the previous estimates of FDI, the relative values of the variables have been used and therefore defined as index numbers. The sample covers both Eastern and Western European countries (FDI host and home countries), since otherwise the sample size would be too short for a proper estimation of the parameters. According to our results, GDP per capita, tax revenue and education are significant and have a positive effect on institutional quality. On the contrary, the Gini index is not significant, which can be due to the fact that most of the former

⁷ Educational attainment for the year 1995 is not used due to the lack of data, employing instead the values for 1990. Gini index is considered exogenous; the results are similar if it is included as endogenous.

centrally-planned economies included in our sample have a more egalitarian income distribution than that associated with their levels of development and institutional quality. Finally, note that the over and under-identification tests suggest that the instruments are appropriate.

Table 5
INSTITUTIONAL QUALITY ESTIMATES

| | 2SLS IV |
|--|-----------------------|
| Tax revenue (% GDP) | 123.1686 (2.22)** |
| GDP pc | 98.1330 (6.19)*** |
| Education | 167.4981 (2.69)*** |
| Gini Index | 14.0053 (0.34) |
| Portugal | 134.3936 (3.44)*** |
| Number of obs. | 25 |
| Centered R ² | 0.8659 |
| Under-identification test. LM Kleibergen-Paap rk st. | 9.389 |
| λ ² (2)P-value | 0.0091 |
| Over-identification test Hansen J statistic | 0.349 |
| λ ² (1)P-value | 0.5546 |

Notes: z statistic between parentheses. * / **/ *** denote significance at 90 for 100, 95 for 100 and 99 for 100, respectively. Robust estimates.

Endogenous: Tax revenue, GDP pc and education (2000). Instruments: Tax revenue (1995), urban population (%), GDP pc (1995) and education (1990). Outlier: Portugal.

To check the robustness of these results, we have performed the same estimation using panel data. Since Governance Indicators are available only from 1996, and changes in the institutional framework occur very slowly, the time period is insufficient to apply a dynamic technique. The results of both estimations by means of random effects (G2SLS estimator of Balestra and Varadharajan-Krishnakumar, and EC2SLS estimator of Baltagi) confirm that the explanatory variables (tax revenue, GDP per capita and education) have a positive impact on institutional quality (Table 6)⁸. The values of the coefficients are similar, but there exist small variations in the individual significance for both tax revenue and education.

Table 6
INSTITUTIONAL QUALITY ESTIMATES. DATA PANEL

| | EA G2SLS 1 | EA EC2SLS 2 |
|---------------------|-----------------------|------------------------|
| Tax revenue (% GDP) | 87.3303 (2.00)** | 79.9593 (1.88)* |
| GDP pc | 97.0015 (7.53)*** | 97.2396 (7.7)*** |
| Secondary education | 114.364 (1.77)* | 124.7569 (1.97)** |
| Italy | -87.619 (-3.94)*** | -86.2095 (-3.87)*** |
| Number of obs | 50 | 50 |
| Number of groups | 25 | 25 |

⁸ The method of random effects is applied considering the result of the Hausman test and the data structure, as the number of observation periods is relatively small and the use of fixed effects would generate problems in the number of parameters to be estimated because of the relationship between the number of individuals and the number of periods.



| | EA G2SLS 1 | EA EC2SLS 2 |
|-------------------|---------------|----------------|
| χ^2 | 221.28 | 219.44 |
| Prob > χ^2 | 0.0000 | 0.0000 |
| R-squared within | 0.3181 | 0.3131 |
| R-squared between | 0.8502 | 0.8499 |
| R-squared overall | 0.8357 | 0.8343 |

Notes: z statistic between parentheses. * / ** / *** denote significance at 90 for 100, 95 for 100 and 99 for 100, respectively. Robust estimates.

Endogenous: Tax revenue, GDP pc and Secondary education. Instruments: one-lag tax revenue, two-lags GDP pc and one-lag Secondary education.

4. OVERALL IMPACT OF TAXATION ON FDI SHARE

In view of the previous results, tax revenue exerts two effects on FDI. In the direct and negative effect, a lower level of taxes positively influences investment, while in the indirect and positive effect, reducing tax revenue decreases the quality of institutions, which in turn negatively affects the ability to attract investment. Therefore, the overall effect is ambiguous, and it depends on the value of the coefficients and the levels of the variables in each country. Specifically, the total effect is defined by:

$$dFDI_{ij} = [(\beta_3/\text{Tax revenue}_i) + [(\beta_4/AGI_i) * (\alpha_2/\text{Tax revenue}_i)]] * d\text{Tax revenue}_i \quad (1)$$

where β_3 and β_4 denote the tax revenue and institutional quality coefficients, respectively, in the FDI equation and α_2 stands for the tax revenue parameter in the institutional quality equation.

Using the values obtained above ($\beta_3 = -124.9615$, $\beta_4 = 56.2846$, and $\alpha_2 = 123.1686$), the total impact of tax revenue on FDI is shown in Table 7. A reduction of tax revenue by 1 for 100 generates a different variation of the share of FDI in every country, depending on its level of tax revenue and institutional quality. The total effect is positive in all the countries of Eastern Europe, with the exception of Bulgaria. Thus, whereas a cut in tax revenue by 1 for 100 results in an increase in the share of FDI of 0.7923, 0.6387 and 0.6253 percentage points in Estonia, Lithuania and Slovenia, respectively, Bulgaria's share is reduced by 1.0292 points. A detailed analysis reveals that these differences are more intense in terms of the negative impact via institutional quality than in terms of the direct effect. That is why the total value is negative in the case of Bulgaria. Institutional quality in this country is so low that when reducing tax revenue, the result is a loss of FDI. In fact, Bulgaria is by far the country with the lowest institutional quality of our sample. Although the impact of reducing tax revenue is reversed only in Bulgaria, the benefits in terms of FDI share decrease as institutional quality worsens (Estonia versus Poland).

The results allow us to draw several conclusions. Those countries that do not have a solid institutional system, lack the opportunity to use tax incentives to attract investment. Furthermore, only those who enjoy a stable institutional framework, at least when compared to their competitors for FDI, may benefit from tax cuts. This is an important conclusion that can be extended to other areas. Although it is a simple exercise that must be taken cautiously, we have used the estimated coefficients to calculate the direct and indirect effects for Romania and some Latin American countries. Thus, in the case of Romania, it would experience a reduction of 3.8747 percentage points in its share of FDI when the tax burden is decreased by 1 for 100. The shortcomings of its institutional system, with values well below even those of Bulgaria, are the root cause of the indirect effect (-5.3688) that, in turn, overcomes the direct impact (1.4941). With respect to Latin American countries, we observe big differences across countries: Costa Rica (0.7716) versus Dominican Republic (-7.9841), or Chile (1.4578) versus Argentina (-4.5292). It must be remarked that these differences are not the result of the direct effect (tax revenue) but are rather the result of the indirect effect (institutional quality) which varies widely across countries. In sum, countries with weak institutional systems should rethink tax incentives. Tax policies aimed at promoting foreign investment must not penalise institutional quality. Otherwise, the effect can be counterproductive.

Table 7
TOTAL EFFECT OF A TAX REVENUE CUT ON INWARD FDI SHARE

| NEMS9 | 1 for 100 Decrease | | | 1 Percentage point decrease | | |
|-----------|---------------------|-----------------------|--------------------|-----------------------------|-----------------------|--------------------|
| | Direct e. FDI share | Indirect e. FDI share | Total e. FDI share | Direct e. FDI share | Indirect e. FDI share | Total e. FDI share |
| | 1 | 2 | 3 = 1 + 2 | 4 | 5 | 6 = 4 + 5 |
| Bulgaria | 1.2743 | -2.3035 | -1.0292 | 3.9289 | -7.1021 | -3.1732 |
| Slovakia | 1.2693 | -0.7812 | 0.4881 | 3.8984 | -2.3992 | 1.4992 |
| Slovenia | 1.0698 | -0.4445 | 0.6253 | 2.7690 | -1.1505 | 1.6185 |
| Estonia | 1.3382 | -0.5459 | 0.7923 | 4.3332 | -1.7677 | 2.5654 |
| Hungary | 1.0910 | -0.4705 | 0.6205 | 2.8798 | -1.2419 | 1.6378 |
| Latvia | 1.4400 | -0.9067 | 0.5333 | 5.0175 | -3.1593 | 1.8582 |
| Lithuania | 1.4367 | -0.7980 | 0.6387 | 4.9943 | -2.7740 | 2.2203 |
| Poland | 1.2782 | -0.8408 | 0.4374 | 3.9532 | -2.6005 | 1.3527 |
| Czech R. | 1.1653 | -0.5948 | 0.5705 | 3.2856 | -1.6770 | 1.6086 |

Note: Own calculations from estimation results, the European Commission and the World Bank data.

5. CONCLUSIONS

Throughout this paper we have examined if tax incentives hinder or foster FDI. The results obtained by analyzing foreign direct investment between the EU-15 and the new Eastern Europe Member States allow us to draw some conclusions. First, in countries with similar characteristics, taxation can be detrimental to FDI. Second, foreign investment is positively related to a country's institutional quality. Third, institutional quality is conditioned by tax revenue. Given the negative direct effect and the positive indirect effect of taxes on FDI, the overall impact of tax incentives on FDI is ambiguous. In the case of the Central and Eastern European new EU Member States, this impact is positive with the exception of Bulgaria. Given the low institutional quality of this country, a tax reduction would be counterproductive in terms of FDI attraction. This result is important for low-institutional quality countries implementing tax cuts to attract FDI.

APPENDIX: variable definition and data source

All the variables are expressed in relative terms, except dummies. The dependent variable is in levels, while the explanatory variables are in logs.

FDI: Share of the total flows of FDI originating in country *i* and received by country *j*. 2000-2005. Source: WIIW, Database on Foreign Direct Investment. CD-ROM

GDP: Gross Domestic Product, 2000-2005. Source: Eurostat. Available from <http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/themes>

Bilateral distance: Physical distance between home country *i* and host country *j*. Source: CEPII. The dist cepii datasets. Available from <http://www.cepii.fr/anglaisgraph/bdd/distances.htm>

Tax revenue: Direct taxes, indirect taxes and social contributions to GDP, 2000-2005. Source: European Commission, Taxation Trends in the EU (2008).

Nominal tax rate: Nominal tax rate on business income, 2000-2005. Source: European Commission, Taxation Trends in the EU (2008).

Effective bilateral tax rate: Averaged bilateral effective tax rate on FDI considering investment undertaken in country *j* (host country) by a subsidiary of a parent company resident in country *i* (home country). As well as taking account of the domestic tax system, it therefore also incorporates taxes charged on the payment of dividends and interest between the subsidiary and the parent, and any further taxes levied by the country of residence of the parent company. 2000-2005. Source: Devereux *et al.* (2008).

Exemption: Dummy that assigns value 1 to country *j* when home country *i* use exemption system to avoid double taxation on the income coming from host country *j*. Source: Huizinga *et al.* (2008).

Labour cost: Labour costs per worked hour (Euros). 2000-2005. Source: Eurostat.

Education: Average years of school for the population aged over 25 years Source: Barro and Lee (1993 and 2000).

Direct selling: Dummy that assigns value 1 to host country *j* that uses the direct selling as main privatization method. Source: Holland and Pain (1998), World Bank (2002) and EBRD (2003).

Transport infrastructure: Ground transport infrastructure in terms of paved road kilometres and electrified railway lines per every 1000km². Source: Eurostat.

AGI: Host country *j* score in the Aggregate Governance Indicators. 2000-2005. Source: Kauffman *et al.* (2009) and Aggregate Governance Indicators (World Bank). Available from <http://info.worldbank.org/governance/wgi/index.asp>

Population: Average population for the period 2000-2005. Source: Eurostat.

GDP pc: GDP per capita at purchasing power parity in 1995 constant dollars. 2000-2005. Source: World Development Indicators (World Bank). Available from <http://data.worldbank.org/indicator>

Secondary education: School enrollment, secondary (% gross) defined as the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to secondary education. 2000-2005. Source: World Development Indicators (World Bank).

Gini Index: Latest year available, 2001/2002. Source: World Development Indicators (World Bank).

Urban population: Percentage of urban population. 2000-2005. Source: World Development Indicators (World Bank).

REFERENCES

- ACEMOGLU, D.; JOHNSON, S. and ROBINSON, J.A. (2004): "Institutions as the Fundamental Cause of Long-Run Growth," *CEPR Discussion Papers*, n.º 4458.
- ALESINA, A.; DEVLEESCHAUWER, A.; EASTERLY, W. and KURLAT, S. (2003): "Fractionalization", *Journal of Economic Growth*, vol. 8, n.º 2, pp. 155-94.
- ALESINA, A. and PEROTTI, R. (1996): "Income distribution, political instability and investment", *European Economic Review*, vol. 40, n.º 6, Amsterdam, Elsevier.
- ALESINA, A. and RODRIK, D. (1993): "Income distribution and economic growth: A simple theory and some empirical evidence", in A. Cukierman, Z. Hercovitz, L. Leiderman (eds.): *The political economy of business cycles and growth*, Cambridge MA, MIT Press.
- ALONSO, J.A. and GARCIMARTÍN, C.E. (2008): *Acción Colectiva y Desarrollo. El Papel de las Instituciones*, Complutense Editorial, Madrid.
- (2010): "The Determinants of Institutional Quality. More on the Debate", *Journal of International Development*, forthcoming.
- BARRO, R.J. and LEE, J-W. (1993): "International Comparisons of Educational Attainment", *Journal of Monetary Economics*, vol. 32(3), pp. 363-394.
- "International Data on Educational Attainment: Updates and Implications", *CID Working Paper*, n.º 42, April.
- BEAMISH, P. (1988): *Multinational Joint Ventures in developing Countries*, London Routledge.
- BELLAK, C. and LEIBRECHT, M. (2005): "Do low corporate income tax rates attract FDI? Evidence from Eight Central-and East European Countries," *Research Paper Series. Globalisation, Productivity and Technology*, 2005/43.
- (2007): "How to make FDI in Central and Eastern European countries sustainable?", en K. Liebscher, J. Christl, P. Mooslechner and D. Ritzberger-Grünwald eds., *European Economic Integration: The Changing Landscape of FDI in Europe*, Edward Elgar: London, pp. 226-236.
- BELLAK, C.; LEIBRECHT, M. and DAMIJAN, J.P. (2007): "Infrastructure endowment and corporate income taxes as determinants of Foreign Direct Investment in Central – and Eastern European Countries", *LICOS Discussion Papers Series*, 193/2007.
- BÉNASSY-QUÉRÉ, A.; COUPET, M. and MAYER, T. (2007): "Institutional Determinants of Foreign Direct Investment," *The World Economy, Blackwell Publishing*, vol. 30(5), pp. 764-782, 05.
- BÉNASSY-QUÉRÉ, A.; FONTAGNÉ, L. and LAHRÈCHE-RÉVIL, A. (2005): "How Does FDI React to Corporate Taxation?," *International Tax and Public Finance*, Springer, vol. 12(5), pp. 583-603, September.
- BÉNASSY-QUÉRÉ, A.; GOBALRAJA, N. and TRANNOY, A. (2005): "Tax Competition and Public Input", *Economics Working Papers* 040, European Network of Economic Policy Research Institutes.
- CARSTENSEN, K. and TOUBAL, F. (2003): "Foreign Direct Investment in Central and Eastern European Countries: A Dynamic Panel Analysis", *Kiel Working Paper*, n.º 1143, January.
- CHONG, A. and ZANFORLIN, L. (2000): "Law Tradition and Institutional Quality: Some Empirical Evidence", *Journal of International Development*, vol. 12 (8), pp. 1057-1068.
- DAGAN, T. (2000): "The Tax Treaties Myth", *Journal of International Law & Politics*, n.º 32, pp. 939-996.

- DAUDE, C. and STEIN, E. (2007): "The quality of institutions and foreign direct investment", *Economics and Politics*, Blackwell Publishing, vol. 19(3), pp. 317-344, November.
- DESAI, M.A.; FOLEY, C.F.; and HINES J.R. (2004): "Foreign direct investment in a world of multiple taxes", *Journal of Public Economics*, n.º 88, pp. 2727-2744.
- DEVEREUX, M.P.; ELSCHNER, C.; ENDRES, D.; HECKEMEYER, J.H.; OVERESCH, M.; SCHREIBER, U. and SPENGLER, CH. (2008): *Effective Levels of Company Taxation within an Enlarged EU, Final Report, Project for the EU Commission*, TAXUD/2005/DE/3 10, Mannheim and Oxford, September.
- DEVEREUX M.P. and FREEMAN, H. (1995): "The impact of tax on foreign direct investment: Empirical evidence and the implications for tax integration schemes", *International Tax and Public Finance*, Springer, vol. 2(1), pp. 85-106, February.
- DEVEREUX, M.P. and GRIFFITH, R. (1998): "Taxes and the location of production: evidence from a panel of US multinationals," *Journal of Public Economics*, Elsevier, vol. 68(3), pp. 335-367, June.
- (1999): "The Taxation of Discrete Investment Choices. Revision 2", *IFS Working Paper W98/16*.
- (2003): "Evaluating Tax Policy for Location Decisions", *International Tax and Public Finance*, 10(2), pp. 107-126.
- EASTERLY, W. (2001): "The Middle Class consensus and Economic Development", *Journal of Economic Growth*, vol. 6(4), pp. 317-335.
- EBRD (2003): Transition report 2003: *Integration and regional cooperation*, November.
- EGGER, P.; LORETZ, S.; PFAFFERMAYR, M. and WINNER, H. (2009): "Bilateral effective tax rates and foreign direct investment," *International Tax and Public Finance*, Springer, vol. 16(6), pp. 822-849, December.
- ENGERMAN, S.L. and SOKOLOFF, K.L. (1997): "Factor endowments: institutions and differential paths of growth among new world economies. A view from economic historians of the United States", en S. Haber, *How Latin America Fell Behind: Essays on the Economic Histories of Brazil and Mexico, 1800-1914*, Stanford, Stanford University Press.
- (2002): "Factor Endowments, Inequality, and Paths of Development among the New World Economies", *NBER Working Paper*, n.º 9259, Cambridge, Massachusetts, National Bureau of Economic Research.
- (2005): "Colonialism, Inequality, and Long-run Paths of Development", *NBER Working Paper*, n.º 11057, Cambridge, Massachusetts, National Bureau of Economic Research.
- EUROPEAN COMMISSION (2008): *Taxation Trends in the European Union*, 2008 edition.
- GLAESER, E. and SAKS, R. (2006): "Corruption in America," *Journal of Public Economics*, n.º 90, pp. 1053-1072.
- HALL, R.E. and JONES, C.I. (1999): "Why Do Some Countries Produce So Much More Output per Worker than Others?", *NBER Working Papers* 6564, National Bureau of Economic Research, Inc.
- HARTMAN, D.G. (1984): "Tax policy and foreign direct investment in the United States", *National Tax Journal*, n.º 37, pp. 475-488.
- HOLLAND, D. and PAIN, N. (1998): "The Diffusion of Innovations in Central and Eastern Europe: A Study of the Determinants and impact of Foreign Direct Investment", *National Institute of Economic and Social Research, NIESR Discussion Paper*, n.º 137.
- HUIZINGA, H.; VOGET, J. and WAGNER, W. (2008): "International Taxation and Takeover Premiums in Cross-Border M&As", *Oxford University Centre for Business Taxation WP 08/09*.
- ISLAM, R. and MONTENEGRO, C. (2002): "What determines the quality of institutions?", documento elaborado para el World Development Report: Building Institutions for Markets, Washington.
- JAKUBIAK, M. and MARKIEWICZ, M. (2005): "Capital mobility and tax competition in the EU after enlargement". *Second Euroframe Conference on Economic Policy Issues in the European Union: Trade, FDI, and relocation: challenges for employment and growth in the European Union*, June.

- JAVORCIK, B.S. (2004): "The composition of foreign direct investment and protection of intellectual property rights: evidence from transition economies", *European Economy Review*, n.º 48 (2004), pp. 39-62.
- KAUFMANN, D.; KRAAY, A. and MASTRUZZI, M. (2009): "Governance Matters VIII: Aggregate and Individual Governance Indicators 1996-2008", *Policy Research Working Paper World Bank*, n.º 4978.
- KING, M. and FULLERTON, D. (eds): *The taxation of income from capital, A Comparative Study of the United States, The United Kingdom and West Germany*. Chicago The University of Chicago Press.
- MOOIJ, R.A. DE, and EDERVEEN, S. (2003): Taxation and foreign direct investment: a synthesis of empirical research, *International Tax and Public Finance*, n.º 10, pp. 673-693.
- (2005): "Explaining the Variation in Empirical Estimates of Tax Elasticities of Foreign Direct Investment", *Tinbergen Institute Discussion Paper*, TI 2005-108/3.
- MOORE, M. (1998): "Death without Taxes: Democracy, State Capacity, and Aid Dependency in the Fourth World", en White G, Robinson M. (eds.), *Towards a Democratic Developmental State*. Oxford University Press.
- NORTH, D.C. (1981): *Structure and Change in Economic History*, Norton, New York.
- RAUCH, J. and EVANS, P. (2000): "Bureaucratic structure and performance in less developed countries", *Journal of Public Economics*, n.º 75 (1) pp. 49-72.
- RAZIN A.; RUBINSTEIN, Y. and SADKA, E. (2005): "Corporate Taxation and Bilateral FDI with Threshold Barriers," *NBER Working Papers* 11196, National Bureau of Economic Research, Inc.
- RIGOBON R. and RODRIK D. (2004): "Rule of Law, Democracy, Openness, and Income: Estimating the Interrelationships", *NBER Working Paper*, n.º 10750.
- SLEMROD, J. (1990): "The Impact of the Tax Reform Act of 1986 on Foreign Direct Investment to and from the United States," *NBER Working Papers* 3234, National Bureau of Economic Research, Inc.
- SMARZYNSKA, B.K. and WEI, S-J. (2000): "Corruption and Composition of Foreign Direct Investment: Firm-Level Evidence," *NBER Working Papers* 7969, National Bureau of Economic Research, Inc.
- TANZI, V. (1992): "Structural Factors and Tax Revenue in Developing Countries: A Decade of Evidence", in Goldin, I., and Winters, L. A. (eds.): *Open Economies: Structural Adjustment and Agriculture*, New York: Cambridge University Press.
- TILLY, C. (1992): *Coercion, Capital and European States, AD 990–1992*, Cambridge, MA and Oxford UK: Blackwell.
- WEI, S-W. (1997a): "Why is Corruption so Much More Taxing than Tax? Arbitrariness Kills", *National Bureau of Economic Research Working Paper*, n.º 6255.
- (1997b): "How Taxing is Corruption on International Investors?," *NBER Working Papers*, n.º 6030, National Bureau of Economic Research, Inc.
- (2000): "Natural Openness and Good Government", *National Bureau of Economic Research, Working Paper*, n.º 7765.
- WOLFF, G.B. (2006): "Foreign direct investment in the enlarged EU: do taxes matter and to what extent?," *Deutsche Bundest Bank Discussion Paper*, Series 1: Economic Studies, n.º 13/2006.
- WORLD BANK (2002): *Transition: the first ten years. Analysis and lessons for Eastern Europe and the former Soviet Union*, The World Bank, Washington DC.
- YOO, K-Y. (2003): "Corporate Taxation of Foreign Direct Investment Income: 1991-2001", *OCDE's Economics Department Working Papers*, n.º 365.
- ZHAO, J.H.; SEUNG, K.S. and JIANJUN, D. (2003): "The Impact of Corruption and Transparency on Foreign Direct Investment: An Empirical Analysis", *Management International Review*, vol. 43 n.º 1, pp. 41-59.

SÍNTESIS

PRINCIPALES IMPLICACIONES DE POLÍTICA ECONÓMICA

A pesar de la extensa literatura empírica sobre los determinantes de la IED, los resultados no son del todo concluyentes acerca del impacto de los mismos, lo que se pone de manifiesto especialmente en el análisis del impacto de la fiscalidad, aspecto éste en el que la falta de acuerdo es considerable. Al margen de cuestiones como las distintas formas de medir la IED, técnicas utilizadas, periodo temporal o muestra de países seleccionados, la diferencia de resultados obedece en buena medida a la variable que se haya tomado como indicador del nivel de fiscalidad. Un elemento común en estos trabajos es que suelen tener en cuenta únicamente la imposición directa sobre la renta de sociedades ya sea a través de los tipos impositivos nominales o efectivos. Sin embargo, son escasas las investigaciones que consideran además otras figuras impositivas. A nuestro juicio, frente al tratamiento que se ha venido dando a la fiscalidad, sería más adecuado emplear un indicador global de presión fiscal para capturar su influencia sobre la IED, puesto que las empresas se ven afectadas por el conjunto del sistema impositivo y no sólo por los impuestos que gravan específicamente los beneficios empresariales.

A parte de la fiscalidad, otro determinante de la IED más recientemente utilizado es la calidad institucional, encontrándose cierta correspondencia entre calidad institucional y entrada de IED en el contexto de las economías en transición y los países en desarrollo. Sin embargo, por el momento la literatura sobre IED no ha tenido en cuenta que, a su vez, la calidad institucional depende de la presión fiscal, puesto que la disponibilidad de ingresos públicos condiciona positivamente el buen funcionamiento de las instituciones. De este modo, la imposición afecta a la IED a través de dos mecanismos diferentes que generan impactos en sentidos opuestos, dado que se produce también un efecto indirecto positivo derivado del hecho de que parte de los recursos con los que los agentes privados contribuyen al sostenimiento del sector público, revierten positivamente sobre éstos al favorecer la calidad del sistema institucional. Precisamente, el objetivo de este trabajo ha sido enlazar ambas cuestiones. Para lo que se ha examinado la IED con destino los países de la Europa del Este procedente de la UE15.

Nuestros resultados muestran que, además de variables como el tamaño del mercado de destino, la distancia geográfica y la privatización, los ingresos impositivos y la calidad institucional parecen haber condicionado la cuota de IED reciba por los países de Europa del Este. Una menor presión fiscal y una mayor calidad de las instituciones facilitan la entrada de inversión; al menos, ha sido así en el caso analizado. Sin embargo, no es posible asociar un efecto desincentivador sobre los flujos de IED a los tipos impositivos nominales y efectivos sobre la renta de sociedades.

Ahora bien, si, como se ha señalado, ambas variables, fiscalidad y calidad institucional, están además relacionadas, entonces el efecto de las medidas impositivas encaminadas a atraer la inversión extranjera no se agota en los resultados directos anteriores, como corrobora el análisis de los determinantes de la calidad institucional que se ha efectuado para estos países. Además de confirmarse el impacto positivo que sobre la calidad institucional tienen el nivel de desarrollo y la educación, se constata también el efecto positivo de los ingresos impositivos de los que dispone un gobierno, en línea con las aportaciones más recientes de la literatura empírica sobre determinantes de la calidad institucional.

A la vista de los resultados obtenidos sobre los países de la Europa del Este, se puede afirmar que la presión fiscal ejerce dos efectos sobre la inversión extranjera. Uno directo y negativo: un menor nivel de impuestos afecta positivamente a la inversión. Otro indirecto y positivo: la reducción de la presión fiscal disminuye la calidad institucional, que a su vez incide negativamente en la capacidad de atraer inversión. Por tanto, el efecto global es ambiguo. Así, mientras que un recorte de la presión fiscal en un 1 for 100 tiene como consecuencia un incremento de la cuota de IED de 0,7923, 0,6387 y 0,6253 puntos porcentuales en Estonia, Lituania y Eslovenia, respectivamente, en Bulgaria se reduce en 1,0292 puntos.

Todo ello nos permite extraer algunas conclusiones. Aquellos países que no disponen de un sistema institucional sólido y de calidad carecen de margen para utilizar los incentivos fiscales con el objetivo

de atraer inversión, y únicamente los que gozan de un marco institucional estable podrán obtener alguna rentabilidad de este tipo de medidas en términos de atracción de capital exterior. Es decir, recortes en el nivel de imposición que afectan negativamente al volumen de ingresos públicos en países con baja calidad institucional, pueden tener efectos negativos sobre la atracción de IED que superen las ventajas de una menor presión fiscal. Se trata de una conclusión relevante y que puede aplicarse a otros países, como por ejemplo a los países en desarrollo, que han recurrido durante mucho tiempo a la competencia fiscal con el objetivo de atraer IED.