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# A Legal and Economic Analysis of Austria's Double Tax Treaty Network with Developing Countries

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Research Papers

# A Legal and Economic Analysis of Austria's Double Tax Treaty Network with Developing Countries.

Julia Braun<sup>†</sup> and Daniel Fuentes<sup>‡</sup>

## Abstract

To what degree developing countries gain from signing double tax treaties is being hotly debated. In this paper, we analyze the Austrian tax treaty policy. Combining legal and economic perspectives, we find that developing countries are likely to expect both positive and negative impacts from signing a double tax treaty (DTT) with Austria. On the one hand, the results of our econometric analysis suggest that middle-income countries that sign a DTT with Austria may expect an increased number of foreign direct investment projects from Austrian companies. On the other hand, the signatory states may suffer from limited withholding taxation rights established in the DTTs for the source country, which could lead to reduced tax revenues in the developing countries.

**Keywords:** double tax treaties, international tax policy, developing countries, international location decisions

**JEL classification:** C25, F21, F23, F63, H25, H87, K34

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## 1. Introduction

In the past years, there has been an increasing awareness that governments are losing substantial tax revenues due to “aggressive” tax avoidance schemes. The G20 and the OECD strongly promote the Base Erosion and Profit Shifting initiative (BEPS), which aims at undermining aggressive tax planning structures used by multinational companies. The BEPS initiative claims that ‘fixing’ some individual problems of the current international tax rules suffices to solve the problems of tax avoidance.<sup>1</sup>

At the same time, there is a different discussion coming from the perspective of developing countries, calling for more fundamentally ‘rethinking’ the international tax system. The question is raised how the international tax system in general and Double Tax Treaties (DTTs) in particular impact developing countries. It is also being discussed whether developing countries at all benefit from the signature of DTTs under the current internationally accepted standards. It is not merely a theoretical discussion, but some developing countries have already terminated specific DTTs that they do not perceive as beneficial for themselves.<sup>2</sup>

Traditionally, DTTs are signed to avoid double taxation that results when two or more countries intend to tax the same income.<sup>3</sup> Moreover, it is often claimed that DTTs, which also provide mechanisms to exchange information between the tax authorities of the signatory states, can help to prevent tax avoidance and evasion. Additionally, countries may see DTTs as legally binding instruments that provide legal certainty for their resident companies, and may thus promote international business expansion. Further, developing countries may sign DTTs in order to signal to the international community their willingness to accept internationally accepted tax rules and their openness to attract foreign direct investment (FDI). However, objections are arising regarding the usefulness of DTTs for developing countries: their effectiveness in attracting new investment is put into question and fears of major tax revenue losses for developing countries are growing.

This ongoing debate motivates the present study, which analyses the Austrian DTT network with developing countries.<sup>4</sup> Austria’s 36 DTTs signed with various developing

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<sup>1</sup> OECD (2013), p.11: ...‘While actions to address BEPS – base erosion and profit shifting - will restore both source and residence taxation in a number of cases where cross-border income would otherwise go untaxed or would be taxed at very low rates, these actions are not directly aimed at changing the existing international standards on the allocation of taxing rights on cross-border income.’

<sup>2</sup> For instance, Mongolia has recently terminated its DTT with the Netherlands and in 2008 Argentina has terminated its DTT with Austria.

<sup>3</sup> Lang (2013), p. 29; Daurer (2013), p. 8.

<sup>4</sup> For the purpose of this study, we define developing countries as countries that received Official Development Assistance (ODA) in 2012/13. The list of ODA-recipients is taken from ÖFSE (2012), p. 123.

countries (see Table 3 in Section 5) are based on the internationally accepted standards, as embodied in the OECD Model Tax Convention on Income and on Capital (henceforth OECD Model). This study investigates in detail how these DTTs impact developing countries.

Our research builds on an interdisciplinary approach, combining both a legal and an economic perspective. The legal analysis (Section 2) explicates Austria's international tax policy with a main focus on its DTTs. In particular, the specific provisions regarding the allocation of taxing rights in the Austrian DTTs and their potential effect on developing countries are discussed. In the economic part (Section 3), we firstly give a brief overview on the Austrian FDI activity in developing countries and subsequently analyze econometrically to what degree DTTs contribute to encourage Austrian foreign direct investment (FDI) in developing countries.<sup>5</sup> Section 4 summarizes and concludes.

## **2. Austria's DTT Network with Developing Countries**

### **2.1. General Remarks on Austria's International Tax Policy**

Austria is a small Central European economy that depends on its international economic relations to prosper. As designing its own tax system is a pillar stone of every country's sovereignty,<sup>6</sup> Austria tailors its tax policy to achieve two main goals, to: (i) support the international expansion of its domestic firms and, (ii) make itself attractive as a business location for the headquarters of multinational enterprises (MNEs).

Since 2005, Austria has introduced a generous group taxation regime in its domestic law.<sup>7</sup> Under this regime, losses made by non-resident companies can be deducted and added to the tax liability of a group of related companies in Austria.<sup>8</sup> Moreover, Austria has also implemented provisions regarding the taxation of outbound payments of dividends and interest, aiming to attract regional headquarters to Austria. With regards to dividends, Austria has introduced a participation exemption scheme (*Schachtelprivileg*), in which outgoing dividends are exempt from taxation if the receiving company is an EU resident and holds at

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<sup>5</sup> DTTs cover taxes on income and capital and affect both individuals and corporations. Thus, our analysis deals with these types of taxes. While the legal analysis examines mainly the effects of DTTs on businesses, but also touches upon their effects on individuals, the economic analysis focuses on the effect of DTTs on multinational corporations.

<sup>6</sup> See Lang (2013), p. 27.

<sup>7</sup> See §9 KStG (Körperschaftsteuergesetz) for a definition of a group („Unternehmensgruppe“).

<sup>8</sup> The Tax Law Amendment Act 2014 revises the scope of the group taxation regime. From 1 March 2014, only non-Austrian resident companies, which are either resident in another EU country or in a non EU-country provided that Austria concluded a comprehensive mutual assistance agreement with such non-EU country, are eligible for the group tax regime. IBFD News, report on 17 January 2014.

least a 10% stake in the Austrian company.<sup>9</sup> Further, interest payments to non-residents are, under certain circumstances, not subject to withholding tax.<sup>10</sup>

Austria seems to be quite successful in attracting foreign investors. According to the Austrian Business Agency, about 300 foreign firms have established regional headquarters to serve the Central and Eastern European (CEE) markets and over 1,000 MNEs coordinate their CEE activities from a base in Austria.<sup>11</sup> Evidently, there are good economic reasons to invest in Austria, or to use Austria as a location for regional headquarters (see Section 3.3). Yet, Austria's favourable tax system may arguably also play a role in a company's decision to invest in Austria.

Austria also positions itself as an attractive location for Special Purpose Entities, or SPEs. These are entities with little economic activity in Austria, which are used to manage the flow of funds within a multinational group.<sup>12</sup> In 2011, SPEs made up about a third of Austria's outbound and inbound FDI stocks.<sup>13</sup> These structures seem to be successful in investing indirectly in other countries. Some SPEs might arguably also be used only for tax planning purposes "to channel investments and intra-group financing from one country to another through conduit structures".<sup>14</sup> Weyzig (2012), for instance, provides empirical evidence that such SPEs are used for treaty shopping via the Netherlands.<sup>15</sup>

Apart from the favorable features of the domestic tax system for MNEs, another essential factor of Austria's attractiveness as a business location is its large DTT network.<sup>16</sup> Austria, which has one of the longest traditions in settling DTTs,<sup>17</sup> has a large DTT network, which as of July 2014 consists of 86 DTTs, 36 of which are with developing countries.<sup>18</sup> Austria's DTT network reflects its policy focus of (re)negotiating treaties with countries with

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<sup>9</sup> see IBFD Tax Research Platform, Country Analysis, International Aspects "with effect from 1 January 2005, dividend distributions by resident subsidiaries to non-resident EU parent companies are exempt from withholding tax under the following conditions: (i) the parent company has a form listed in the Directive; (ii) the parent company is resident in another EU Member State; (iii) the parent company owns at least 10% of the capital in the subsidiary; and (iv) the shareholding has been held directly (or indirectly, with effect from 1 April 2012) and continuously for at least 1 year.

<sup>10</sup> The Tax Law Amendment Act 2014, effective as of 1 March 2014, also revises the taxation of interest. Non-resident tax-exempt interest payments now include any interest payment as defined in the Savings Directive.

<sup>11</sup> ABA (n.d.)

<sup>12</sup> OECD (2013), p.18. The OECD defines SPEs as "entities with no or few employees, little or no physical presence in the host economy, whose assets and liabilities represent investments in or from other countries, and whose core business consists of group financing or holding activities". Besides Austria, the Netherlands, Luxembourg and Hungary are other OECD countries that attract a large amount of SPEs.

<sup>13</sup> OeNB (2012), p. 10.

<sup>14</sup> OECD (2013), p.18.

<sup>15</sup> see Weyzig (2012).

<sup>16</sup> Loukota (1998).

<sup>17</sup> Freiherr von Roenne (2011), pp. 24-26.

<sup>18</sup> <https://www.bmf.gv.at/steuern/int-steuerrecht/oesterreichische-doppelbesteuerungsabkommen.html> (accessed on the 1st August 2014).

which it has close economic ties. Accordingly, Austria's DTT network with developing countries in Asia is quite narrow, but it has very few DTTs with African and Latin American countries.<sup>19</sup> Only five DTTs with countries in Latin America and one DTT with a sub-Saharan country (namely South Africa) are in place.<sup>20</sup>

While formerly, Austrian DTT negotiators primarily aimed to boost tax revenues for Austria,<sup>21</sup> increasing the attractiveness of Austria as a business location is now seen as the main function of its DTTs.<sup>22</sup> The Austrian Ministry of Finance strives to guarantee a "level playing field" for Austrian investors in the host countries where they operate. This means that Austrian MNEs – that includes both Austrian and foreign MNEs with established headquarters in Austria – should face a legal environment not less favourable than other MNEs.<sup>23</sup>

In order to ensure a uniform international tax policy in its DTT network, Austria has established a DTT Model that is very close to the OECD Model, which is – needless to say – designed by its members, which are primarily high-income countries.<sup>24</sup> Hence, the OECD Model reflects the international tax policy interests of its members.<sup>25</sup> As this Model favors the residence principle, which means that tax residents of a country are subject to tax on their worldwide income, generally speaking, it allocates a greater portion of taxation rights to a residence country.<sup>26</sup> This is either achieved by granting exclusive taxation rights to a residence country or by reducing taxation rights in a source country. The following section analyzes Austria's DTT policy more in detail.

## **2.2 Austria's International Tax Treaty Policy**

With its DTTs, Austria pursues four goals, namely to: (i) prevent international double taxation, (ii) foster bilateral economic relations, (iii) increase legal certainty, and (iv) prevent international tax avoidance and evasion.<sup>27</sup> From Austria's perspective, the main purpose of

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<sup>19</sup> See Roller (2012), p. 220, "less than four per cent of all Austrian exports and less than two per cent of all Austrian imports are with African and Latin American countries"; see also see Section 3.2.

<sup>20</sup> Roller (2012), p. 220.

<sup>21</sup> Loukota, Seitz, Toifl (2004), p. 364.

<sup>22</sup> Lang (2012), p. 116. This can also be observed in the Austrian Federal Economic Chamber, which is responsible for promoting good business, being closely involved in advising the government in the DTT negotiation process (Lang, 2012, p 125).

<sup>23</sup> Jirousek (2013a), p. 17.

<sup>24</sup> Currently, there are 34 OECD member countries. This list includes Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States.

<sup>25</sup> Rixen and Schwartz (2009), p. 446.

<sup>26</sup> Daurer (2013), p. 22.

<sup>27</sup> Loukota, Seitz, Toifl (2004), p. 364.

DTTs is to avoid double taxation.<sup>28</sup> Austria is a classical “exemption country”, i.e. it prefers to apply the exemption method as a mechanism to avoid double taxation.<sup>29</sup> Under the exemption method, a “residence country” (i.e., a country where a company or an individual is considered to be a tax resident) is obliged to exclude income arising abroad (the “source country”) from the taxable base to determine the tax due. Thereby, it ensures that a company or an individual investing abroad is subject to the same tax burden as a national competitor investing at home (this principle is known as Capital Import Neutrality).<sup>30</sup>

Many countries have managed to prevent double taxation through comprehensive domestic legislation by including the credit or the exemption method in their legislation.<sup>31</sup> Also Austria’s domestic tax law provides for double taxation relief, that is fairly similar to the relief provided under its DTTs. The exemption method under Austria’s domestic law applies to active income, such as income derived from businesses carried on through a permanent establishment (PE) situated abroad, subject to tax of at least 15%.<sup>32</sup>

The credit method, on the other hand, requires that a residence country firstly computes the tax due on their residents’ worldwide income, and subsequently the tax due is reduced by the taxes previously paid in a source country. As is standard with most exemption countries, Austria applies this method to passive income (i.e. dividends, interest and royalties). However, with no obvious differences between the methods to avoid double taxation under Austria’s DTTs and its domestic tax law, signing a DTT seems not to be necessary for Austrian tax residents to avoid international double taxation.<sup>33</sup>

For Austria, a second purpose of DTTs is fostering economic relations. In order to support the expansion of its domestic firms, it is crucial from the Austrian perspective to negotiate a DTT that reduces source taxation on passive income like dividends, interest and royalties as much as possible, even below the standards embodied in the OECD Model (see

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<sup>28</sup> Jirousek (2013a), p. 19.

<sup>29</sup> See IBFD Tax Research Platform, Country Analysis, International Aspects “The provisions on unilateral double taxation relief were issued on 17 December 2002 as a Decree of the Minister of Finance (Verordnung des Bundesministers für Finanzen betreffend die Vermeidung von Doppelbesteuerungen, BGBl II 2002/474) on the basis of the authority given in section 48 of the Federal Fiscal Code (BAO). These provisions are effective for tax years ending in the calendar year 2002 and later tax years. Previously, double taxation relief could be obtained as a concession of the Minister of Finance (section 48 of the BAO).

<sup>30</sup> See Lang (2013), p. 131.

<sup>31</sup> Daurer (2013), pp. 10-11. See also OECD (2014a), Public Discussion Draft – BEPS Action 6: Preventing the Granting of Treaty Benefits in Inappropriate Circumstances, p. 5. This draft recommends countries to take into account tax policy considerations before entering into a DTT by “... evaluating the extent to which the risk of double taxation actually exists in cross-border situations involving their residents. A large number of cases of residence-source juridical double taxation can be eliminated through domestic provisions for the relief of double taxation (ordinarily in the form of either the exemption or credit method) which operate without the need for tax treaties.”; also see Rixen and Schwartz (2009), p. 445.

<sup>32</sup> Not all DTTs, however, follow the exemption method. Austrian DTTs that follow the credit method are mostly with countries that used to be seen as tax havens, such as Bahrain, Barbados, or Belize (Lang, 2012, p. 22).

<sup>33</sup> Loukota, Seitz, Toifl (2004), p. 364.

Section 2.3.2). Usually, a source country is granted the primary, albeit reduced taxation right (except for royalties under Article 12 OECD Model), and a residence country taxes the remaining amount. Typically, a DTT stipulates a lower tax rate on passive income than a country's domestic law would establish. The domestic tax law of many countries stipulates source taxation for this type of income at a flat tax rate higher than 15%,<sup>34</sup> whereas DTTs typically reduce such tax rate to 15% or less.<sup>35</sup>

The third goal of Austrian DTTs is to provide legal certainty. DTTs set common rules applicable in both a residence and a source country, and thus provide legal certainty for investors and tax administrations.<sup>36</sup> From the perspective of a residence country, legal certainty is crucial to protect its residents investing abroad from international tax conflicts, giving rise to unsolved double taxation. From a source country's perspective, legal certainty would serve as an indicator that a foreign investor would be subject to comprehensive taxation rules.

In order to provide increased certainty, Austria tries to ensure that DTT provisions are interpreted in the same way in both the residence and the source country. Austria insists on including a provision in the DTT protocol stating that DTT provisions should be interpreted according to the OECD Commentaries, which are revised periodically.<sup>37</sup> Thus, Austria ensures that the latest version of the OECD Commentaries is legally binding and applicable for taxpayers, tax authorities and, even in the courts of signatory countries.<sup>38</sup>

Fourth, preventing international tax avoidance and evasion is a major concern for Austria and, for that matter, an increasingly important goal for many governments in recent years. Tax avoidance is not, per se, an illegal way to reduce taxes due, this term usually refers to "unacceptable" taxpayer behavior: although complying with the letter of the law (i.e. literal interpretation), a taxpayer deliberately acts against the spirit or the intention of the law with

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<sup>34</sup> See Vann (1998), p. 46.

<sup>35</sup> Under the OECD Model, a source country is entitled to the following withholding tax rate on passive income: for dividends 5% and 15% (depending on the stake in the company), for interest 10% and for royalties 0%. In contrast, the UN Model does not provide specific withholding tax rates, but recommends the signatory states to negotiate them.

<sup>36</sup> Bilateral Investment Treaties (BIT) are another way to achieve legal certainty, however discussion on such treaties is beyond the scope of this paper. The interested reader can for instance refer to Neumayer and Spess (2005) or Sauvart (2009).

<sup>37</sup> See Jirousek (2013b), pp. 478ff. "This principle of dynamic interpretation is explicitly stated in many of the Austrian protocols, although it could also be applied in the absence of specific treaty provisions on the basis of interpretation rules of Art. 31 of the Vienna Convention on the Law of Treaties and in the context of para. 35 of the Model Commentary in the Introduction of the OECD MC". Lang criticises this dynamic interpretation, because later versions of the OECD commentary which were not available at the time when a given DTT was negotiated should not be legally binding to DTT provisions, see also Lang and Brugger (2008), pp. 107-108.

<sup>38</sup> See Pistone (2012), p. 6.



the aim to reduce its tax liability.<sup>39</sup> To prevent international tax avoidance, some countries prefer to include anti-avoidance provisions, such as subject-to-tax clauses,<sup>40</sup> in their DTTs. Austria, however, prefers to apply anti-avoidance provisions in its domestic law, and not in its DTTs. Austria's argument is that specific anti-avoidance provisions in DTTs may stimulate creative tax planners to find ways to circumvent them and, therefore, it would be difficult for tax authorities to argue that there are possible abusive applications of DTTs.<sup>41</sup>

The exchange of information provisions in DTTs have proven to be useful tools to prevent not only tax avoidance, but also tax evasion, which – in contrast to tax avoidance – is an illegal way of avoiding paying taxes. All Austrian DTTs (except for the one with Luxembourg) provide for the exchange of information concerning tax matters. For a long time, Austria has had major information exchange clauses only with OECD countries. The major clause, in line with OECD standards, obliges signatory countries to exchange relevant information for the application of both DTT provisions and enforcement of domestic laws regarding taxes of every kind (income tax, valued added taxes, etc.).<sup>42</sup> In its DTTs with non-OECD countries, especially developing countries, Austria had only offered minor exchange clauses. A minor clause only allows exchanging information relevant for the application of DTT provisions (i.e. it does not cover exchange of information for enforcement of domestic laws or related to other taxes other than those covered by DTTs, i.e. income tax).

The official reason given to offer only minor exchange of information clause to non-OECD countries was that there is no certainty as to whether those countries would be able to secure privacy of exchanged data.<sup>43</sup> However, according to Lang (2012), another reason might be that offering “too much” administrative assistance, i.e., too much information to other tax authorities, may constitute a “competitive disadvantage” for Austria.<sup>44</sup>

Austria is known internationally for its strict bank secrecy rules, which undoubtedly impede on the exchange of information in connection with bank accounts of foreign residents held with Austrian banks. Generally speaking, as most tax systems around the world are based on the residence principle, i.e. taxation of their residents' worldwide income, the exchange of, for instance, financial information (e.g. bank accounts in a given country held by tax residents

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<sup>39</sup> IBFD Tax Research Platform, Glossary, tax avoidance.

<sup>40</sup> A subject-to-tax clause applies if a source country is allocated taxation rights but it does not exercise its taxation right (e.g. because the income is tax-exempt under domestic law). In such a situation, a subject-to-tax clause allows a residence country to override the DTT and tax the income under its own domestic law.

<sup>41</sup> See Loukota, Seitz, Toifl, (2004), p. 368.

<sup>42</sup> See Lang (2013), p. 157.

<sup>43</sup> See Loukota, Seitz, Toifl, (2004), p. 369.

<sup>44</sup> For the fear that illegal earnings might be reported, there is anecdotal evidence of major orders that were shifted from countries with a major information clause to other countries that do not have such a major information clause (see Lang, 2012, p. 109).

of other countries) is imperative for a country to effectively enforce taxation of income from foreign sources.<sup>45</sup> Without such a network of exchanging information, it is harder for tax authorities, to detect cases where its tax residents do not report all income derived from foreign sources. Therefore, a mechanism for the exchange of information, which may also be an effective instrument to frighten potential tax evaders,<sup>46</sup> would be crucial for both developed and developing countries to ensure they collect their tax revenues.

In 2005 the OECD introduced a new standard of information exchange in Article 26 of its DTT Model.<sup>47</sup> Still wanting to preserve its bank secrecy laws, Austria made a reservation and refused to implement this standard. Yet, due to international pressure of the G20, the OECD and the EU, in March 2009, Austria had to withdraw its objection to Article 26 of the OECD Model and started to endorse the OECD standards regarding transparency and administrative assistance in tax matters.<sup>48</sup> Since then, Austria has been, to some extent, adapting its DTT network. In the more recently negotiated DTTs and the renegotiations of existing DTTs, Austria is slowly implementing, to some extent, information exchange following OECD standards.<sup>49</sup> Although adjustments have been made in Austria, such as applying its strict bank secrecy rules only to domestic situations, the exchange of information with non-OECD countries occurs via the “on request” basis. This forces the requesting country to provide enough information to clearly identify the person under examination, limiting the power of this provision to only limited and specific cases.<sup>50</sup>

Tax authorities can exchange information in different forms. The OECD Model puts forward three types of information exchange: (i) exchange upon request (a request for information is made having in mind a specific case of potential avoidance/evasion), (ii) automatic exchange (a country systematically exchanges all information it has regarding business transactions of residents of another country gaining income within its territory) and (iii) spontaneous exchange of information (a country exchanges information without any request but it assumes the information may be of interest to the other country).<sup>51</sup> It is important to note that the OECD favours the automatic exchange of information, as it recently released a report on a standard for automatic exchange of financial account information in tax

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<sup>45</sup> See McGauran (2013), p. 15.

<sup>46</sup> See Alliance Sud (2005), p. 14.

<sup>47</sup> OECD Model (2010) Article 26 (4) and (5).

<sup>48</sup> At the same time, also Belgium, Switzerland, and Luxembourg accepted to change their policies in this regard and to endorse the OECD standards (Jirousek, 2014, p. 27).

<sup>49</sup> To date, more than 20 DTTs have already been revised (Jirousek, 2014, p. 29).

<sup>50</sup> Jirousek (2013b), p. 467.

<sup>51</sup> OECD Model (2010), Commentary on Article 26, Paragraph 9 and 9.1.

matters.<sup>52</sup> However, it is often the case that an automatic exchange of information is only available where DTTs between OECD countries are signed, but not in asymmetric DTTs agreed on between developed and developing countries.

Tax Information Exchange Agreements, or TIEAs, which are another bilateral tax agreement facilitating the exchange of information concerning tax affairs of individuals and companies alike.<sup>53</sup> TIEAs are concluded with a view to address tax avoidance and evasion. However, unlike DTTs, TIEAs do not include provisions concerning the allocation of taxation rights and avoidance of double taxation. In this regard, Austria prefers to negotiate DTTs with an exchange of information clause rather than negotiate TIEAs. To date Austria has only six TIEAs, none of them with developing countries.<sup>54</sup>

In the field of administrative cooperation for the recovery of tax claims, Austria has been slower to adapt international standards. Article 27 of the OECD Model, which allows signatory countries to assist each other in executing tax revenue claims, is included in Austrian DTTs only when requested by a signee country<sup>55</sup> and when Austria assumes that the partner country respects laws concerning confidentiality and the use of such information exclusively for tax matters.<sup>56</sup> Therefore, similar to the exchange of information issue, Austria prefers to include this provision in DTTs exclusively with OECD-countries and not with developing countries.

There is a global tendency to shift from bilateral to multilateral agreements. The OECD together with the Council of Europe and the strong political support of the G20<sup>57</sup> designed the Multilateral Convention on Mutual Administrative Assistance in Tax Matters (Mutual Assistance Convention). This Convention has served to push many countries to comply with the OECD standards, as otherwise they risk to be exposed as non-compliant

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<sup>52</sup> On July 21, 2014 the OECD issued its standard for automatic exchange of financial account information in tax matters, available at [http://www.keepeek.com/Digital-Asset-Management/oced/taxation/standard-for-automatic-exchange-of-financial-account-information-for-tax-matters\\_9789264216525-en#page1](http://www.keepeek.com/Digital-Asset-Management/oced/taxation/standard-for-automatic-exchange-of-financial-account-information-for-tax-matters_9789264216525-en#page1)

<sup>53</sup> The origin of TIEAs dates back to 2002, when the OECD issued its “Model Agreement on Exchange of Information”<sup>53</sup> that served as a starting point for bilateral negotiations of this nature. Since then it has been adopted as an internationally accepted standard.

<sup>54</sup> Austrian has concluded TIEAs with 6 countries. These are Andorra, Gibraltar, Jersey, Monaco, St. Vincent and the Grenadines and Guernsey (which is still not in force). Further, Austria is negotiating TIEAs with Uruguay and Cayman Islands.

<sup>55</sup> For instance, the DTTs with Mexico and Turkey contain such provisions (Lang, 2012, p. 128).

<sup>56</sup> See Lang (2012).

<sup>57</sup> Since 2009 the G20 has encouraged countries to sign the Multilateral Convention on Mutual Administrative Assistance in Tax Matters including most recently at the meeting of the G20 Leaders Summit in September 2013 where the Communiqué stated “We call on all countries to join the Multilateral Convention on Mutual Administrative Assistance in tax Matters without further delay.” See [www.oecd.org/tax/exchange-of-tax-information/conventiononmutualadministrativeassistanceintaxmatters.htm](http://www.oecd.org/tax/exchange-of-tax-information/conventiononmutualadministrativeassistanceintaxmatters.htm).

countries before the international community.<sup>58</sup> Such a transition to multilateral agreements could be beneficial for developing countries, if an important goal is to obtain legal means for exchanging information to counteract tax evasion and avoidance.

The Mutual Assistance Convention serves as a legal instrument to address tax avoidance and evasion without a need to sign a bilateral tax agreement like a DTT or a TIEA. This multilateral agreement is broader than a TIEA, as it provides additional tools to facilitate cooperation between tax administrations. This includes the exchange of information on request, on a spontaneous and an automatic basis, joint tax audits between tax authorities of signatory countries, assistance in recovery of taxes and the servicing of documents. As of August 2014 there were over 67 signatories of the Convention, including all G-20 countries, all BRIC countries, almost all OECD and EU countries and an increasing number of developing countries.<sup>59</sup> Austria signed the Mutual Assistance Convention on the 29<sup>th</sup> May, 2013, it ratified it on 28<sup>th</sup> August, 2014 and will enter into force on the 1<sup>st</sup> December, 2014.

### **2.3 The Allocation of Taxation Rights in Austria's DTTs and the Effects on Developing Countries**

In each of its DTTs, Austria tries to deviate as little as possible from the OECD Model. This extends from the way Austria interprets to how it applies its DTT provisions. As mentioned in Section 2.2, the regularly updated OECD Commentaries are legally binding in some Austrian DTTs.<sup>60</sup> Austria's view is that a DTT in line with the OECD Model becomes a valuable and attractive instrument for promoting business and bilateral relations.<sup>61</sup>

However, for a developing country (typically a source country), such an agreement would mean shifting some of its taxation rights (acquired by means of its domestic tax legislation) to Austria, as DTTs favour residence-based taxation. From a source country's perspective this may well be justified if a DTT attracts new investment; and thus the loss in tax revenues may be offset.

With regards to the DTT business profits provision, which is one of the most relevant rules allocating taxation rights in DTTs (Article 7 of the OECD Model), Austria tries to implement the OECD Model in its entirety. This provision stipulates that when a company

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<sup>58</sup> See Pistone (2014). The US is also pushing for a multilateral and automatic exchange of information through the implementation of the US FATCA regime (see Lang and Owens, 2013, p. 3).

<sup>59</sup> The list of signatory countries can be found at [http://www.oecd.org/ctp/exchange-of-tax-information/Status\\_of\\_convention.pdf](http://www.oecd.org/ctp/exchange-of-tax-information/Status_of_convention.pdf) (Access on 1st September, 2014).

<sup>60</sup> See, for example, DTT Austria-Cuba, point 7 of the Protocol; see also DTT Austria-Mexico, point 1 of the Protocol.

<sup>61</sup> Loukota, Seitz, Toifl (2004), p. 368.

resident in Austria generates business profits in another DTT partner country, the profits are only taxable in Austria. However, in the case where there is a PE (i.e. a substantial business presence through a fixed place of business or a dependent agent) in the other DTT country, the other country has the right to tax the profits attributable to that PE. As will be explained in more detail in Section 2.3.1, Austria seeks to impose the OECD Model with regards to both the definition of a PE and the method to compute how much profit is attributable to a PE.<sup>62</sup>

With regards to other tax allocation rules, Austria's DTT policy includes two main deviations from the OECD Model. These deviations concern taxes on dividends and interest. Here, Austria aims to reduce source taxation even beyond internationally accepted standards (see Sections 2.3.2). Such deviations are in line with Austria's domestic tax law and its goal to promote itself as an attractive business location.

### **2.3.1 Business Profits**

The definition of a PE and the method of computing business profits attributable to the PE are crucial. Unlike the OECD Model, domestic laws, especially those of developing countries, often provide for a wider definition of what a PE is as well as a broader approach to allocate profits to a PE. Thus, Austria's position to fully adopt the principles of the OECD Model in its DTTs can lead to a situation where certain activities, which may be regarded as a PE under the domestic law of the source country, are not regarded as a PE according to the definition in the DTT. As a result, the source country, where the PE is located, is granted less or no taxation rights.

Further, a delicate issue of DTTs with developing countries is the so-called "Service PE" provision, which Austria tends not to include in its DTTs, as it is not part of the OECD Model. Such clause provides that a company is deemed to own a PE in a source country if a foreign company renders services through employees and/or other personnel in the source country. This may include, for instance, management fees paid by a subsidiary located in another country to headquarters located in Austria, and may apply to SPEs located in Austria that manage subsidiaries belonging to the same business group. In the absence of this Service PE provision in Austrian DTTs, services rendered by Austrian SPEs would technically not constitute a PE in other countries. This may open the possibility of shifting taxable profits like management fees from a company located in a developing country to Austria; as management services would not create a PE, they would be treated as business profits to be exclusively taxed in the residence country (i.e. Austria).

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<sup>62</sup> The definitions and the method to compute the profits attributable to the PE differ in the UN and the OECD Model.

## 2.3.2 Passive Income

### *Royalties*

Austria follows the OECD Model and insists in DTT negotiations to exempt royalties from taxation at the source country.<sup>63</sup> As mentioned in section 2.2, withholding tax rates on passive income - including royalties - are usually higher under domestic law than under DTTs.

In cases where Austria negotiates a DTT that grants taxation rights over royalty income to a source country, Austria strives to keep the definition of royalties as close as possible to the definition provided in the OECD Model. The practical implication of this policy is that if a DTT allows for the taxation of royalties in a source country, the narrow definition of the term “royalties”, which often is narrower than the definition provided under domestic laws of developing countries, implies that some payments do not qualify as royalties but rather as business profits. In this case, the DTT provision regarding business profits patterned after the OECD Model stipulates exclusive taxation rights for the residence country (i.e. Austria).

### *Dividends*

Austria’s domestic tax law includes the so-called “international participation exemption law”, according to which foreign source dividends received by Austrian companies are exempt from taxation.<sup>64</sup> This legislation is derived from the EU Parent Subsidiary Directive, which standardizes tax exemption for internal company dividends within the EU. However, even beyond the intended scope of the EU Directive, Austrian DTTs extends the participation exemption regime to include non-EU countries.

Austria’s DTT policy favors the removing of taxation on the cross-border distribution of dividends. The reason to exempt intercompany dividends is to avoid economic double taxation. This means that, in practice, taxation is imposed only once in a money trail. Taxation occurs only when a company generates profits, and not a second time on shareholders, where dividends are distributed. To achieve this, Austria keeps source taxation on dividends as low as possible; in some cases taxation reaches zero. The scope of the EU participation exemption

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<sup>63</sup> Loukota, Seitz, Toifl (2004), p. 368; see also table 3, for the withholding tax rates on royalties with developing countries in Austrian DTTs.

<sup>64</sup> See IBFD Research Platform, Country Analyses, Austria, Corporate Taxation, International Aspects, p.57.

requirement is also extended to a minimum shareholder participation of 10% as stipulated in Austrian DTTs.<sup>65</sup>

In contrast to Austria's DTT policy, the OECD Model advocates a 5% withholding tax rate at the source for direct investments where a shareholder holds at least 25% of the capital of the company paying dividends,<sup>66</sup> and a 15% withholding tax rate for portfolio investment where a shareholder holds less than 25% of the capital of the company paying dividends.<sup>67</sup> From Austria's perspective, this deviation from the OECD Model is seen as a strategy to create an attractive legal environment in order to promote itself as an attractive business location. This is especially targeted at foreign companies that are willing to use Austria as a routing investment vehicle for investment in third countries.

### ***Interest***

Interest payments to non-residents are, generally speaking, not subject to taxation under Austrian tax law.<sup>68</sup> Similar to dividend taxation, Austria negotiates in its DTTs to reduce source taxation on interest to as low as possible (in some cases taxation can reach zero per cent).<sup>69</sup> Austria's argument for zero source taxation of interest payments is that as Austria does not tax interest payments made to non-residents, source taxation provided under DTTs would only benefit the other signatory country. Thus, Austria's argument is that there would be a unilateral revenue loss for Austria.<sup>70</sup>

However, if zero per cent taxation is not achieved, Austria accepts source taxation only when it is ensured that its DTT country partner does not grant third countries – especially neighboring countries – lower withholding tax rates.<sup>71</sup> This is usually negotiated in a “most favored nation clause” provision, stating that if a DTT country partner agrees on a lower withholding rate for passive income, or on exemption, in a DTT with any other country, this lower tax rate, or exemption, will automatically apply to the DTT with Austria.

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<sup>65</sup> Loukota, Seitz, Toifl (2004), p.367.

<sup>66</sup> OECD Model (2010) Article 10 (2) a).

<sup>67</sup> OECD Model (2010) Article 10 (2) b).

<sup>68</sup> See IBFD Research Platform, Country Analyses, Austria, Corporate Taxation, International Aspects, p.65; IBFD Research Platform, News, Austria, Ministry of Finance issues draft version of the Tax Law Amendment Act 2014 on January 17, 2014.

<sup>69</sup> Loukota, Seitz, Toifl (2004), p. 367.

<sup>70</sup> Loukota, Seitz, Toifl (2004), p.367

<sup>71</sup> “*Most favoured nation clauses have the effect of requiring one of the contracting states to grant similar tax benefits to residents of the other contracting state to the extent it grants such benefits (e.g. by way of a bilateral tax treaty) to residents of other countries and those benefits are more favourable (lower taxation at source) than those in the tax treaty between the two contracting states*” Jirousek (2013a); see IBFD Tax Research Platform, Glossary, most favoured nation clause; see also Hofbauer (2005), pp. 445-453 and Loukota, Seitz, Toifl (2004), p. 367.

If a source country potentially grants lower interest taxation in a DTT with another country, from Austria's perspective there would be a potential risk of treaty shopping for Austrian and other foreign companies working under their jurisdiction. These firms may be able to use the DTTs with other countries to reroute FDI to developing countries, thus harming Austria's intent to establish itself as a business location for routing investment in developing countries. However, most "favored nation clauses" increase the complexity of DTTs, especially for developing countries and their increasing DTT networks, creating a significant advantage for Austria as a competitive location for routing investment to third countries.

## **2.4 Summary**

Austria's international tax strategy has four main goals at its core, to: (i) prevent double taxation, (ii) foster bilateral economic relations, (iii) increase legal certainty, and (iv) prevent international tax avoidance and tax evasion. As regards to double taxation, this is already dealt with in a similar way under Austria's domestic law.

In Austria's view, the signing of DTTs fosters bilateral economic relations and increases legal certainty. Austria uses its own DTT Model, which is very similar to the OECD Model as a starting point for its DTT negotiations and includes provisions binding the latest version of the OECD Commentaries as a legal means for interpreting DTT provisions. The practical effect of these outcomes is to ensure reduced source taxation.

With regard to preventing tax avoidance, Austria prefers not to include specific anti-avoidance provision in its DTTs, but addresses this issue by applying anti-avoidance measures under its domestic tax laws. Therefore, it is arguable whether the signing of DTTs actually helps in preventing tax avoidance.

According to the OECD, the effective tools to fight international tax avoidance and evasion are the exchange of information and administrative cooperation between tax jurisdictions. In this respect, Austria's policy deviates from the OECD standards. While Austria has major exchange information clauses in DTTs with OECD countries, non-OECD countries are offered minor exchange information clauses. Further, Austria only offers exchange of information "on request" basis with non-OECD countries. However, there is the problem with information provided on request, as it is often difficult and cumbersome to access the required data. In addition, TIEAs, which are also an option to exchange information rather than negotiating a DTT, also deal with the exchange of information in tax matters. If countries wish to further benefit from assistance in tax matters, there is also the



Mutual Assistance Convention, which Austria recently ratified (see section 2.2). The Mutual Assistance Convention has the advantage of multilateralism, where predetermined rules set a consistent legal framework for all signatory countries to be implemented. In this respect, a country should thus be aware that it has several tools to achieve exchange of information and assistance in tax matters, and should weigh out which one suits its needs best.

To sum up, it could be conjectured that in its DTTs, Austria: (i) disproportionately allocates taxation rights to the residence country (which typically, in relation with developing countries, is Austria) thus inducing a loss in revenue for developing countries, and (ii) limits a developing country's access to satisfactory equal exchanges of information according to OECD standards. Therefore, developing countries that sign a DTT with Austria can only hope that revenue sacrificed is offset with the attraction of new FDI that a DTT may bring. In the analysis to follow, we investigate from an economic perspective whether Austrian DTTs with developing countries actually trigger an increase in FDI in developing countries.

### **3. Economic Analysis of the Effects of DTTs on Austrian OFDI in Developing Countries**

#### **3.1 Austria's FDI Position**

The Austrian economy is a "latecomer in FDI".<sup>72</sup> Until the mid-1990s, both outward and inward FDI stocks per GDP were below average when compared with other European countries.<sup>73</sup> During this time, Austrian firms largely confined their international activity to trade, and rarely ventured into international investment projects. In 1994, outward FDI stocks amounted to 7,671 million Euros, which corresponded to 5% of Austrian GDP.<sup>74</sup> Inward FDI stocks, which accounted for 7% of Austrian GDP, slightly surpassed the outward stocks.<sup>75</sup> Since 1995, the year of Austria's accession to the EU, Austrian outward foreign direct investment (OFDI) has soared (see Figure 1). The opening up of the Eastern European markets has accelerated the growth of Austrian OFDI to such a degree that Austria was among the 20 largest foreign investors globally in 2008.<sup>76</sup>

Traditionally being a capital-importer, Austria's investment position started to reverse in 2002, and the country became a net capital-exporter.<sup>77</sup> Since 2010, also Austria's OFDI

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<sup>72</sup> Bellak (2001), p. 108.

<sup>73</sup> For a detailed analysis of the patterns of Austrian FDI see Bellak (2001).

<sup>74</sup> BMWFJ (2012a).

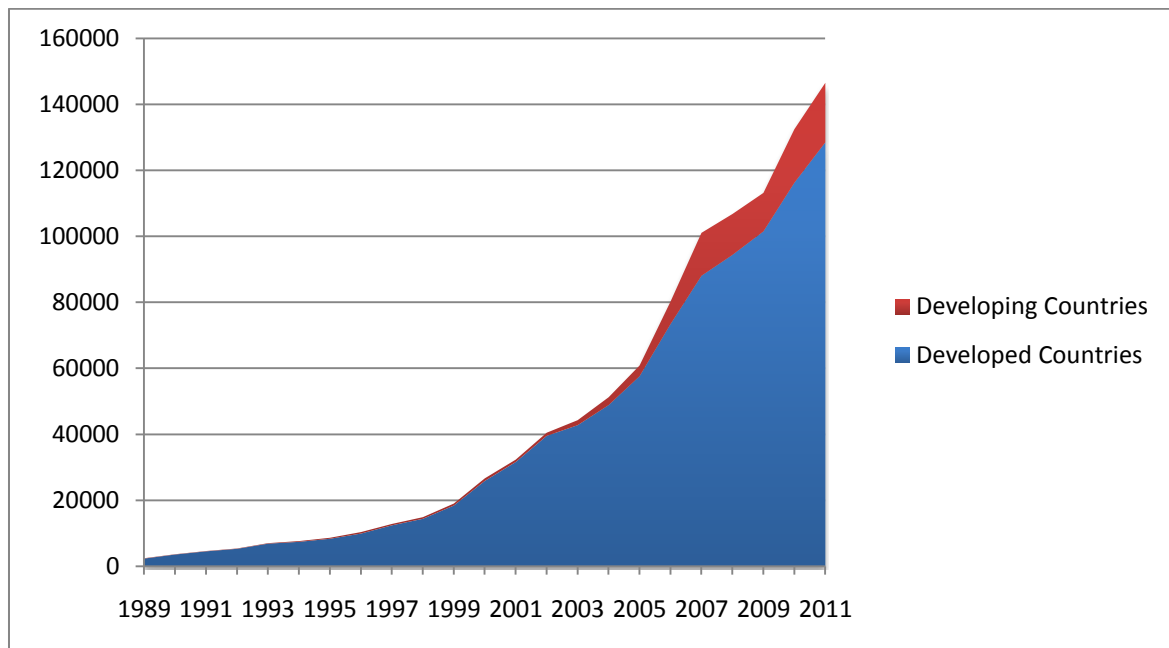
<sup>75</sup> BMWFJ, Österreichs Außenwirtschaft (2012a), p. 10.

<sup>76</sup> Bellak and Mayer (2010).

<sup>77</sup> Bellak (2001), p. 108; BMWFJ (2012b), p. 2.

stocks have been exceeding its inward FDI stocks. Albeit outgoing investments flows decreased considerably in the course of the current economic crisis,<sup>78</sup> OFDI stocks reached 167.3 billion Euros and accounted for about 51.9% of the Austrian GDP in 2013. Inward FDI stocks, on the other hand, accounted for 136.5 billion Euros, corresponding to 42.3% of GDP in 2013.<sup>79</sup>

Figure 1: Total amount of Austrian OFDI stocks in million Euros, 1989-2011



Data source: OeNB Statistische Sonderauswertung. Own illustration.

Austria has also positioned itself as an attractive hub for businesses (see also Section 2.1). A number of foreign companies have established affiliates in Austria, used to invest in third countries, especially in Central Eastern European Countries (CEEC). Of the Austrian OFDI in developing countries, about one third, both in terms of FDI projects and in terms of total capital invested, is attributed to foreign companies that invest in the respective developing countries via an Austrian subsidiary.

<sup>78</sup> BMWFJ (2012b).

<sup>79</sup> BMWFW (2014, p.9)

### 3.2 Geographical distribution of Austrian OFDI

Globally, FDI flows to developing countries have increased significantly in the last decade. In 2012, for the first time ever, developing countries attracted more FDI inflows than developed countries (52%).<sup>80</sup> Following this trend, Austrian FDI to developing countries has gained in importance since the year 2000 and, in 2011, 15.6% of all Austrian OFDI projects were located in developing countries.<sup>81</sup>

Austrian OFDI in developing countries is primarily focused in Europe and Asia. In 2011, about 45% of all Austrian OFDI that flowed to developing countries was allocated in Europe (see Table 1). 37% of the Austrian OFDI projects were located in Asia (esp. China, Turkey and India), 12.4% in Latin America (esp. Brazil and Mexico), and 4.4% in Africa (mainly South Africa).

On the country level, in 2011, Austrian firms were active in 50 of the 143 countries that receive official development assistance (ODA-recipient countries). Nevertheless, Austrian FDI activity in developing countries is quite concentrated. Ninety percent of all Austrian OFDI was invested in only 17 ODA-recipient countries. In 2011, the most important investment locations for Austrian firms among developing countries were Serbia, China, Ukraine, and Turkey (see Table 1).

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<sup>80</sup> UNCTAD, (2013), p. xii.

<sup>81</sup> Data source: OeNB Statistische Sonderauswertung.

Table 1: Geographical Distribution of Austrian FDI Projects in 2011

| <b>Region/Country</b>      | <b>Number of projects</b> | <b>in percentages</b> | <b>Country Rank</b> |
|----------------------------|---------------------------|-----------------------|---------------------|
| Developing countries total | 795                       | 100%                  |                     |
| <b>Europe</b>              | <b>364</b>                | <b>45.79%</b>         |                     |
| Serbia                     | 126                       | 15.85%                | 1                   |
| Ukraine                    | 95                        | 11.95%                | 3                   |
| Bosnia and Herzegovina     | 60                        | 7.55%                 | 5                   |
| Macedonia                  | 28                        | 3.52%                 | 8                   |
| Albania                    | 20                        | 2.52%                 | 9                   |
| Montenegro                 | 19                        | 2.39%                 | 10                  |
| Belarus                    | 11                        | 1.38%                 | 15                  |
| <b>Asia</b>                | <b>295</b>                | <b>37.11%</b>         |                     |
| China                      | 115                       | 14.47%                | 2                   |
| Turkey                     | 69                        | 8.68%                 | 4                   |
| India                      | 39                        | 4.91%                 | 7                   |
| Thailand                   | 15                        | 1.89%                 | 13                  |
| Malaysia                   | 14                        | 1.76%                 | 14                  |
| Kazakhstan                 | 9                         | 1.13%                 | 16                  |
| <b>Africa</b>              | <b>35</b>                 | <b>4.40%</b>          |                     |
| South Africa               | 18                        | 2.23%                 | 11                  |
| Tunisia                    | 5                         | 0.63%                 | 17                  |
| Algeria                    | 5                         | 0.63%                 | 17                  |
| <b>Latin America</b>       | <b>101</b>                | <b>12.70%</b>         |                     |
| Brazil                     | 47                        | 5.91%                 | 6                   |
| Mexico                     | 16                        | 2.01%                 | 12                  |
| Chile                      | 9                         | 1.13%                 | 16                  |
| Colombia                   | 9                         | 1.13%                 | 16                  |
| Argentina                  | 9                         | 1.13%                 | 16                  |
| Grenada                    | 5                         | 0.63%                 | 17                  |

Data source: OeNB, Statistische Sonderauswertung, own calculations.

### 3.3 DTTs and Inward FDI in Developing Countries

For developing countries, attracting FDI inflows is a main (though not the only) motivation to sign DTTs. Many of the other expected benefits, such as the exchange of information, or the prevention of tax avoidance and evasion are hard to quantify with concrete evidence. Although developing countries (typically in the position of a capital-importer and thus of a source country) may forego tax revenues when signing a DTT based on the OECD Model, the rationale behind this is to attract enough direct investment to offset immediate tax revenue losses. Additionally, Braun and Zagler (forthcoming) provide evidence that OECD countries may compensate developing countries for their loss of tax revenues due to a DTT through official development assistance. They find that an OECD and a developing country are more likely to sign a DTT the more official development assistance the developing country receives from the OECD country.

Further, evidence shows that a country's decision as of whether or not to sign a DTT may also be influenced by other countries' double tax treaty policies. Baistrocchi (2008) argues that "capital-importing countries are prompted to seek DTTs for fear of driving FDI away to competing countries if these other countries, with which the country competes for scarce foreign capital, have already signed DTTs"<sup>82</sup> Similarly, Barthel and Neumayer (2012) provide empirical evidence that capital-importing countries find themselves in a classical prisoners' dilemma when it comes to signing DTTs. Given asymmetric investment positions which may lead to reduced tax revenues in the capital-importing countries, these countries would collectively be better off cooperating with each other, that means, they would collectively be better off if they refused to sign DTTs with capital-exporting countries. However, as a DTT may make a country more attractive for international investments, every developing country individually benefits from signing DTTs in the sense that it secures the country a competitive advantage compared to other developing countries; or at least it prevents a competitive disadvantage vis-à-vis those countries that have already signed a DTT. This geographical interdependence may help to explain why developing countries are willing to sign DTTs even though they may not benefit from it as much as the capital-exporting counterparty.

Evidently, taxation is only one of many factors determining the location choice of international firms. Yet, it is undoubtedly an important tool policy makers have at their disposal. We thus focus in this section on one question, namely, whether or not DTTs trigger a boost of FDI in developing countries.

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<sup>82</sup> Barthel and Neumayer (2012), p. 645.

The influx of FDI is often viewed as highly attractive to many countries, as FDI inflows can spur economic growth.<sup>83</sup> FDI may boost capital accumulation, create job opportunities, increase the integration into the international economy, and contribute to the formalization of the host economy by extending value chains. As a result, also tax revenues may rise.<sup>84</sup> Moreover, affiliates of MNEs can enhance human capital in a host country and generate technological spillovers to local businesses, such as knowhow regarding new production techniques. This may increase productivity of local firms.<sup>85</sup> FDI can thus be an integral part of a country's strategy to foster economic development.<sup>86</sup> The theoretical basis for such positive effects is mainly provided by the "capital fundamentalism" approach, as well as the neoclassical and the endogenous growth theories.<sup>87</sup>

On the other hand, FDI inflows can also trigger considerable downsides. FDI may create economic enclaves that are not connected with the local economy, crowd out domestic investment, and/or curtail economic instability. Investments of foreign companies could contribute to environmental pollution and deterioration. MNEs may also be able to circumvent national regulations like those regarding labour laws.<sup>88</sup> The dependence theory moreover emphasizes that FDI influx may contribute to perpetuating the economic and political dependence of developing countries ("the periphery") on developed countries ("the centre"). As long as foreign affiliates located in the periphery are constrained to supplying developed countries with natural resources and inexpensive labour, while decision making functions remain in the headquarters in developed countries, the presence of MNEs in the periphery contributes to sustaining political and economic dependence. Additionally, by opening up markets in the periphery, MNEs from the centre are able to preserve and strengthen their dominating role in the international stage.<sup>89</sup>

To what degree potential benefits of FDI materialize largely depends on local political or institutional factors, as well as on the absorptive capacities of a host economy.<sup>90</sup> When a host country has a certain level of technological knowhow, of human capital stock, and when the infrastructure, including financial markets, are developed to a certain degree<sup>91</sup>, it is more

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<sup>83</sup> OECD (2002), pp. 16ff; UNCTAD (2012).

<sup>84</sup> OECD (2002), pp. 116ff.

<sup>85</sup> Goodspeed et al. (2011).

<sup>86</sup> Ibid.

<sup>87</sup> see Rostow (1961), Solow (1956), Romer (1990). For an overview see e.g. Todaro and Smith (2006), pp.102ff.

<sup>88</sup> For an in-depth discussion see e.g. Navaretti and Venables (2004).

<sup>89</sup> Todaro and Smith (2006), pp. 115ff.

<sup>90</sup> Crespo and Fontoura (2007); OECD, 2002.

<sup>91</sup> Hermes and Lensink (2003).

likely to reap the benefits from FDI inflows.<sup>92</sup> Generally, middle-income countries are thus found to benefit more from FDI than low-income countries.<sup>93</sup>

Clearly, a range of political and economic factors determines a country's attractiveness for FDI. Amongst others, geographical location, political stability, infrastructure, the size of the host market, labour cost, quality of the host country's institutions, and red tape of potential host countries all play a role in a MNE's decision where to set up a foreign affiliate.<sup>94</sup> Business surveys and econometric analyses also show that in addition to these determinants, tax factors – including the presence of double tax treaties – impact the location choice of MNEs.<sup>95</sup> From a policy perspective, DTTs are very appealing as an instrument to attract investment, as they can be implemented rather quickly in comparison to changing other factors such as the skill level of workers, which, for example, take a long time to show positive results.

### **3.4 Previous Economic Literature on the Effects of DTTs on FDI Activity**

A priori, it is not clear whether and how DTTs impact FDI activity. On the one hand, DTTs may have a positive effect on FDI. Developing countries entering into these agreements signal to the international community a spirit of openness and willingness to adopt internationally accepted tax standards. In addition, also the reduction of withholding tax rates on passive income and the relief from double taxation provided for in DTTs may encourage FDI.

On the other hand, DTTs may hamper FDI, as they also may allow the exchange of information between the tax authorities (also see Section 2.2). Furthermore, studies show that a comprehensive domestic legislation that provides an overall transparent, non-discriminatory and predictable tax environment may be more important for foreign investors than a DTT alone.<sup>96</sup> In fact, a clear relationship between domestic law and DTTs is important for an easier application of DTT provisions. This concerns (i) terms that are not explicitly defined in DTTs, (ii) procedures to apply the DTT provisions, such as mechanisms to withhold taxes on passive income and methods to avoid double taxation, as well as (iii) procedures to exchange tax information, among others.<sup>97</sup>

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<sup>92</sup> Borensztein et al. (1998); Crespo and Fontoura (2007), p. 420.

<sup>93</sup> Blomström et al., (1994); Narula and Zanfei (2005).

<sup>94</sup> see e.g. World Economic Forum (2013); OECD (2002), pp. 38ff.

<sup>95</sup> For a recent comprehensive survey see Feld and Heckemeyer (2011).

<sup>96</sup> See Pickering (2013), p. 19.

<sup>97</sup> Nakayama (2011), p. 4.

Hence, it is an empirical question as of whether or not DTTs help to attract FDI. The economic literature investigating in how far DTTs have an impact on FDI has produced mixed results. Some authors find that DTTs promote higher FDI activity.<sup>98</sup> Other studies find no or negative effects of DTTs on FDI.<sup>99</sup> While some authors like Baker (2012) argue that DTTs simply do not impact FDI decisions, others like Coupé et al. (2009) or Blonigen et al. (2014) attribute inconclusive findings to the conflicting single provisions in the DTTs.

Blonigen, Oldensky and Sly (2014) try to disentangle the opposing effects of DTTs and find indirect evidence for these countervailing effects, i.e. a negative effect of the exchange of information and a positive effect of lower withholding tax rates. Using micro-data on foreign subsidiaries of U.S. MNEs, the authors conclude that it depends on the specific type of firm affected by the DTT which of these effects prevails.

Regarding the extant literature, we would like to emphasize two issues. The first relates to the type of investment decision that is analysed, and the second to the sample of host countries that such analyses cover.

First, a firm's international location choice consists of two separate decisions. One, a firm decides as to whether or not to invest in a specific country, the so-called "extensive margin". Once this decision is made, a firm chooses how much capital to invest in a foreign affiliate, i.e. the firm decides on the "intensive margin of investment". Davies et al. (2010) and Egger and Merlo (2011) are, to our knowledge, the only studies explicitly analysing this decision at the so-called "extensive margin". Using Swedish and German firm-level data respectively, both studies find that when a DTT is in place between two countries, there is a positive effect on the likelihood of a firm to establish an affiliate in a given host country. Both studies argue that this positive effect may be explained by the tax certainty that DTTs signal.

Second, the samples of most existing studies include both developed and developing countries as potential host countries. Yet Blonigen and Wang (2005) claim that investment location decisions in developed and developing countries are likely to be determined by very different factors. Thus, the grouping of both types of countries in empirical analysis is considered to be problematic. In our analysis we only include developing countries as potential host countries.

Existing studies focusing on non-OECD countries as host countries do not produce clear-cut findings. On the one hand, Coupé et al. (2009) fail to find a consistent impact stemming from DTTs on FDI in transition economies, and Baker (2012) concludes that DTTs

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<sup>98</sup> e.g. Barthel, et al. (2010); Davies et al. (2010); Neumayer (2007).

<sup>99</sup> e.g. Baker (2012); Egger et al. (2006); Davies et al. (2010); Louie and Rousslang (2007); Millimet and Kumas (2007).



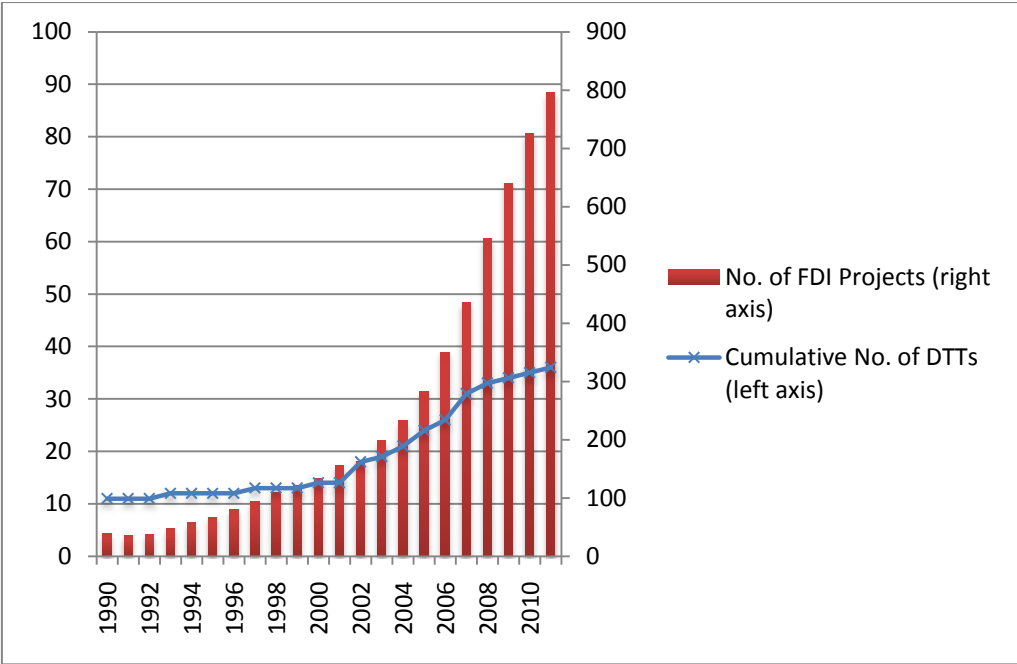
do not impact FDI location decisions in developing countries. On the other hand, Neumayer (2007) finds positive effects of DTTs on FDI in middle-income countries (but not in low income countries), and Barthel et al. (2010) find that DTTs encourage FDI in both middle- and low-income countries.

### 3.5 Method

#### 3.5.1 Sample

Austrian FDI activity in developing countries has increased significantly since 1990 (see Section 3.1) and also the number of DTTs that Austria has signed with developing countries has risen (see Figure 2).<sup>100</sup> As of December 2013, 36 Austrian DTTs with developing countries are in place.<sup>101</sup>

Figure 2: Austrian FDI and DTTs with Developing Countries, 1989-2011



Data sources: OeNB Statistische Sonderauswertung, Bundesministerium für Finanzen (2014). Own illustration.

For the following analysis of Austrian FDI projects in developing countries, the Austrian National Bank has kindly provided the FDI data on special request. We have constructed a panel data set that covers 104 potential host countries over the period from 1990 to 2011.<sup>102</sup>

<sup>100</sup> The data on FDI projects should include both subsidiaries and PEs. However, for practical difficulties of collecting the data on PEs, not all Austrian PEs abroad are recorded in the data.

<sup>101</sup> For a list see Table 3 in the Annex.

<sup>102</sup> Out of the 104 countries, there are some countries that do not have data available for all years.

### 3.5.2 Dependent Variable

As DTTs may impact international investment at both the extensive and the intensive margin, we study both effects. First, it is examined whether the existence of a DTT makes it more likely that an Austrian firm invests in a given host country. This effect of DTTs at the extensive margin of investments is analysed in a logistic regression model. As dependent variable, we use a dummy variable that takes the values one or zero, indicating whether or not Austrian FDI exists in a specific host country.

Second, we analyse whether having a DTT with Austria leads to an increase in the number of Austrian FDI projects in a developing country. This can be interpreted as the intensive margin.<sup>103</sup> The number of FDI projects in a given country in a given year is the dependent variable, and count data models are used.<sup>104</sup>

### 3.5.3 Explanatory Variables

The explanatory variable of main interest is a dummy variable indicating whether or not Austria has a DTT in place with a specific partner country. The economic literature gives several methods in which to measure this: some studies use the date when a DTT is signed; others use the date when a treaty becomes effective. We use the latter, as this is the date that is most relevant for international investors.<sup>105</sup> As a robustness test, we also run regressions with the date of signature, which leads to the same result.

Depending on how the value chain of a company is split geographically, the literature distinguishes between two types of FDI: horizontal and vertical FDI.<sup>106</sup> When a company transfers activities abroad, which are in the “same (horizontal) stage of the production process”<sup>107</sup>, this is known as horizontal FDI. Vertical FDI, on the other hand, refers to the international division of activities *along* the value chain.<sup>108</sup>

Horizontal FDI is assumed to be more likely in more alike countries. This idea is incorporated in our empirical framework through the similarity index, which indicates how similar a potential host country is to Austria in terms of GDP per capita (*similarity*).

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<sup>103</sup> This analysis is a bit of a hybrid, as it can arguably also be interpreted as an extensive-margin decision (see Egger and Merlo, 2011, p. 149).

<sup>104</sup> Due to confidentiality reasons, the amount in EUR of the individual investments is not available for research. Thus, regressions using the actual size of the investment in Euros are not possible.

<sup>105</sup> Also see Barthel et al., 2010, p. 372.

<sup>106</sup> See e.g. Navaretti and Venables (2004), pp. 24ff.

<sup>107</sup> Ibid at p. 25.

<sup>108</sup> Ibid at p. 27.

Alternatively, the GDP per capita (*gdppc*) is also used.<sup>109</sup> Trade costs, captured by variables such as distance or the trade barriers between two countries, are also seen as a major determinants of FDI. As our regressions include country fixed effects that account for factors that do not vary over time, the geographical distance between Austria and respective host countries is not included. Rather, we use the general openness of a country to trade, defined as total exports plus imports divided by GDP, as a control variable to represent the general openness of a country (*openness*). It is expected that a country that is generally more open to international economic activity also attracts more FDI.

As we are interested in the effects of international tax policy in general, and DTTs in particular, a measure of the corporate income tax rate is included in our analysis. Ideally, statutory and/or effective corporate tax rates of a host country as well as withholding tax rates on dividends, interest, and royalties that are paid to Austria would be included in our analysis. All these tax rates potentially play a role in a firm's location decision; however, for a large number of developing countries withholding tax rates are not readily available and are very difficult to compile. With this being considered, withholding tax rates have not been included in our empirical analysis. As corporate tax rates for many developing countries are also not available, we follow the lead of Egger et al. (2006) and Baker (2012), using general government final consumption expenditure as a percentage of GDP as a proxy for the corporate tax rate.<sup>110</sup> A higher tax rate is expected to make a country less attractive for foreign investors.<sup>111</sup>

As a further control variable, we incorporate the corruption index, made available by the Heritage Foundation (*corruption*). Empirical studies bring about mixed evidence as to

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<sup>109</sup> We also ran regressions that focus on dissimilarities between countries which drive vertical FDI. We used the percentage of persons that are enrolled in secondary schooling in a potential host country and compared this ratio to the Austrian enrolment ratio in secondary schooling (data from the World Development Indicators of the World Bank). We tested whether a higher difference in secondary enrolment ratios encourages or discourages Austrian FDI in a potential host country. The dissimilarity variable has a negative effect on FDI in the logit regressions, indicating that countries that are more similar to Austria in terms of secondary schooling are more likely to receive Austrian FDI. The count data regressions, on the other hand, suggest that countries that are more dissimilar to Austria receive a larger number of Austrian FDI projects. Also in these regressions, the DTT variable has a positive and significant effect on Austrian FDI activity.

<sup>110</sup> The regressions were also run using the statutory corporate tax rate of the host countries. For many specifications, the results remain unchanged, however the DTT-variable is not persistently significant. This is probably due to the smaller sample of countries, which excludes notably the CIS-countries, which still are important FDI locations for Austria firms, and most African countries. In this smaller sample of countries, the proxy used and the statutory corporate income tax rate exhibit very similar results. Results are not presented here but are available on request; tax data from Mintz and Weichenrieder (2010) and Braun and Weichenrieder (forthcoming).

<sup>111</sup> For a recent overview of the empirical evidence of the effect of taxation on FDI see Feld and Heckemeyer (2011).

whether corruption deters or encourages FDI.<sup>112</sup> Thus, it is not clear which sign to expect for the corruption variable in our regressions. Descriptive statistics for the variables are provided in Table 6 in the Annex, and Table 7 in the Annex gives an overview of the sources of each variable used in our analysis.

Additionally, the quality of the infrastructure of potential host countries is used as a control variable (*infrastructure*). The number of telephone lines per 100 persons serves as a proxy to measure the quality of a country's infrastructure. Countries with a better infrastructure are expected to also be more attractive for Austrian investors.

### 3.5.4 Estimation Technique

As mentioned above, logistic and count data regression models based on maximum likelihood estimators are the methods used for our analysis. The logistic model is a binary response model with the dependent variable being a dummy variable. A prime candidate for count data models is the Poisson specification. However, this model requires equidispersion in the data, i.e. the mean of the dependent variable should be equal to its variance. As our data shows overdispersion, we do not use a Poisson specification, but rather a negative binomial model.<sup>113</sup>

For both the logistic and the count data specifications, a fixed effects estimation including time and country dummy variables was implemented. Thereby, time trends and time-invariant country-specific effects such as geographical distance or cultural and historical ties are accounted for, which are not captured by our control variables.<sup>114</sup>

A problem with such regressions, which is hard to alleviate, is endogeneity due to reverse causality or omitted variables, that is, we cannot be sure to measure the effect of DTTs on FDI. It could as well be that the regressions actually capture the effect of FDI on DTTs, i.e., we actually measure that Austria is more likely to sign a DTT with a country where there is already a lot of Austrian FDI. In order to mitigate this problem, we lag all explanatory variables by one period. In addition, the fixed effects estimation method is used

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<sup>112</sup> Egger and Winner (2005), for instance, find a positive relation between corruption in the host country and FDI. Wei (2000) and Egger and Winner (2006), on the other hand, find that higher levels of corruption deter FDI.

<sup>113</sup> In some count data regressions the alpha-likelihood test indicates equidispersion in the data. In these cases, also the Poisson model was estimated. As the results do not change, we decided for the sake of uniformity to use the negative binomial model in all count data regressions shown here. Due to the large number of zeros in our dependent variable, also a zero-inflated negative binomial model was estimated. The results brought about by the zero-inflated negative binomial model do not differ from the results of the negative binomial model.

<sup>114</sup> also see Barthel et al. (2010).

in order to deal with potential endogeneity caused by omitted variables. Thereby, only within-variation in the data is taken into account and variation from across country-pairs is ignored.<sup>115</sup>

In addition, by using fixed effects estimation, countries with which DTTs are in place already before the sample period starts (i.e. before 1989) do not impact our estimation results, as there is no within-variation in the DTT variable. As countries are likely to sign DTTs with countries with which they have had close economic ties at an earlier stage and continue to do so, “older treaties are more likely to be correlated with unobserved variables and therefore [are more likely to be] endogenous”.<sup>116</sup> Thus, excluding old treaties helps to alleviate the problem of endogeneity.<sup>117</sup> Due to these problems, an upward bias for the DTT dummy in our regressions is expected.

### 3.6 Estimation Results

First, we investigate whether having a DTT with Austria makes it more likely that a host country receives Austrian FDI. The first two columns in Table 2 show the results of these binary choice models. All regressions include time and country fixed effects and a constant. The sample in Column (1) includes 38 host countries and covers the years 1990-2011. The regression in Column (2), which additionally includes the corruption index of a host country as a control variable, covers fewer countries (30) and a smaller time-span (1996-2011) due to the availability of the corruption data.<sup>118</sup>

Our main variable of interest, the dummy variable, stating whether there is a DTT in effect between Austria and a host country (*DTT\_e*), is significant and positive in these logit regressions. This suggests that potential host countries, which have a DTT with Austria in place, are more likely to attract Austrian investment than those that do not.<sup>119</sup>

The control variables, which are all lagged by one year, show the expected signs. Higher taxes in a host country decrease the likelihood that a developing country receives FDI from Austria.<sup>120</sup> The positive and statistically significant coefficient of the similarity variable indicates that: the more similar a potential host country is to Austria in terms of GDP per capita, the more likely it is that Austrian firms invest in that country. The quality of the

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<sup>115</sup> Blonigen and Davies (2002).

<sup>116</sup> Barthel et al. (2010), p. 373.

<sup>117</sup> See e.g. Blonigen and Davies, 2004.

<sup>118</sup> The number of countries is so low because there are many countries with no variation in the FDI variable. See Table 4 in the Annex for the list of host countries included in the binary choice models.

<sup>119</sup> It would also be desirable to quantify this effect. However, in logit regressions, only the sign, but not the magnitude of the covariates should be interpreted. For many types of logit regressions, marginal effects can be calculated, in order to measure the size of the effects. However, for the fixed-effects model, estimated with the maximum likelihood method that we implement, this is not possible (Wooldridge, 2010, p. 625).

<sup>120</sup> We also tested whether the effect of a DTT depends on the level of corporate taxation in the host country, but did not find any evidence for this.

infrastructure in the host country has the expected positive sign, but is only statistically significant in the regression covering the longer time period. Openness to trade of a country also has the expected positive sign, but is statistically not significant in the logit regressions. The corruption index, spanning from 0 to 100, where greater values indicate a lower level of corruption, is positive and statistically significant. This indicates that a lower level of corruption increases the likelihood that Austrian firms invest in a specific host country. The logistic estimation models thus suggest that having a DTT with Austria makes it more likely that a developing country receives Austrian FDI.

Second, we investigate whether or not DTTs also impact the number of Austrian FDI projects in developing countries. Columns (3) and (4) of Table 2 present the regression results for the negative binomial model. The sample in Column (3) covers the years 1990 to 2011 and includes 104 countries. In Column (4), the sample also includes the corruption index and spans the period 1996-2011, covering 101 countries.<sup>121</sup> The regressions again include time and country fixed effects as well as a constant.

As in the logit regressions, the main variable of interest is whether or not there is a DTT in place. The count data regressions suggest that developing countries that have a DTT in place with Austria are expected to have a 33.7% or 25.2% increase in the number of Austrian FDI projects, depending on the model used (see Columns (3) and (4) respectively). Evaluated at the mean number of FDI projects, this implies that these developing countries are expected to have 0.8 additional FDI projects. This is a sizable effect.<sup>122</sup>

The control variables in the count data models are similar to the ones in the logit regressions. A higher tax rate discourages Austrian investment. The similarity index and the openness of a country have a positive and statistically significant effect on the number of Austrian FDI projects in a country. The coefficient of the quality of the infrastructure variable is again positive and statistically significant in the larger sample (Column 3). The coefficient of the corruption variable indicates that lower levels of corruption cause a country to be more attractive for Austrian investors. The count data models thus suggest that developing countries with DTT attract more Austrian FDI projects than those without a DTT.

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<sup>121</sup> See Annex, Table 5, for the list of countries included in these regressions. In this sample, the number of countries is higher than in the logit regressions as the FDI variable in the count data models evidently exhibits more within-variation.

<sup>122</sup> Studies that analyse the impact of DTTs on FDI stocks in developing countries, measured in amounts of dollars, find similar results. For instance, Barthel et al. (2010) find that “DTTs increase the bilateral FDI stock between 27% and 31%” (p. 367). However, these results cannot be compared directly, because in our study, the dependent variable is the number of FDI projects, which are evidently of different sizes.

Table 2: Baseline Regression Results

|                       | logit               |                     | count data           |                     |
|-----------------------|---------------------|---------------------|----------------------|---------------------|
|                       | (1)                 | (2)                 | (3)                  | (4)                 |
| DTT_s                 | 2.877***<br>(3.45)  | 2.280***<br>(2.60)  | 0.337***<br>(4.95)   | 0.252***<br>(3.69)  |
| ln_ct                 | -1.259**<br>(-2.06) | -1.815**<br>(-2.09) | -0.599***<br>(-3.98) | -0.430**<br>(-2.02) |
| similarity            | 19.85***<br>(3.02)  | 32.51**<br>(2.50)   | 5.859***<br>(7.10)   | 4.612***<br>(5.39)  |
| infrastructure        | 0.0941**<br>(2.28)  | 0.0102<br>(0.15)    | 0.0133***<br>(2.61)  | 0.00718<br>(1.32)   |
| openness              | 0.790<br>(1.13)     | 0.397<br>(0.27)     | 0.821***<br>(4.27)   | 0.637***<br>(2.72)  |
| corruption            |                     | 0.0545***<br>(2.92) |                      | 0.0117***<br>(4.01) |
| constant              | 13.18<br>(0.03)     | 14.26<br>(0.02)     | 3.060***<br>(6.19)   | 2.833***<br>(4.20)  |
| year FE               | yes                 | yes                 | yes                  | yes                 |
| country FE            | yes                 | yes                 | yes                  | yes                 |
| period                | 1990-2011           | 1996-2011           | 1990-2011            | 1996-2011           |
| observations          | 816                 | 459                 | 2133                 | 1383                |
| no. of countries      | 38                  | 30                  | 104                  | 101                 |
| pseudo-R <sup>2</sup> | 0.46                | 0.45                | 0.53                 | 0.54                |
| log-likelihood        | -302.04             | -173.92             | -1370.48             | -985.41             |

Notes: in Columns (1) and (2) the dependent variable is binary variable indicating whether or not there is Austrian FDI in a given country; in Columns (3) and (4) the dependent variable is a count variable indicating the number of Austrian FDI projects in a host country. Columns denote coefficients rather than odd ratios. All control variables are lagged by one period and the natural logarithm of the corporate tax rate is taken. T-statistics in parentheses. Stars denote p-values: \*\*\* p<0.01; \*\* p<0.05; \* p<0.1.

### 3.7 Robustness Tests

In order to check the robustness of our results, a number of alternative specifications were run. The date of signature of a DTT (*DTT\_s*) was trialled instead of the date of effectiveness of a DTT (see Annex, Table 8). In place of the similarity index, data on the GDP per capita of the host countries (*ln\_gdppc*) was included (see Annex, Table 9). Moreover, the population (*ln\_pop*) of host countries was used as a proxy for the host country's potential market size (see Annex, Table 10). Against our expectations, we do not find a positive and

significant effect on FDI. The size of the host country population does not increase the number of Austrian FDI projects in a statistically significant way. A reason for this may be that relatively small countries like Serbia or Bosnia Herzegovina are among the countries that attract the most Austrian FDI.

For further testing the robustness, our sample was restricted in three different ways (see Annex, Tables 11 and 12). First, CEE countries<sup>123</sup> that historically attract a large part of Austrian OFDI and thus may bias our regressions results were excluded from the regression (Columns (1) to (4), Annex, Table 11). Second, B(R)IC countries<sup>124</sup>, which due to their market size and growth rates in the last decades have attracted a lot of FDI regardless of a DTT, were also left out (Column (5), Annex, Table 11). Third, our sample of host countries includes ten jurisdictions, which are or have been listed as tax havens or offshore centres by the OECD and/or the Bank for International Settlements: Antigua and Barbuda, Belize, Costa Rica, Dominica, Grenada, Lebanon, Liberia, Mauritius, Panama and Uruguay.<sup>125</sup> In the robustness tests, these countries are excluded from the sample of potential host countries, as investing in these countries may arguably be motivated by other factors when compared to investing in “normal” developing countries (Annex, Table 12). All these alternative specifications confirm the results of our baseline regressions, that there is a positive relationship between DTTs and Austrian investment projects in developing countries.

### 3.8 Discussion

The econometric analysis presented here suggests that DTTs significantly encourage Austrian FDI activity in developing countries. As Austria mainly has DTTs with middle-income countries<sup>126</sup> (except for Tajikistan and Nepal), our results are in line with Neumayer (2007), who also finds that the presence of DTTs triggers increased FDI in middle-income countries. Our results suggest that the number of Austrian investment projects in middle income countries increases by 25.2% to 33.7% when a DTT is in place.

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<sup>123</sup> The CEE countries in our sample are Albania, Bosnia and Herzegovina, Macedonia, Montenegro, and Serbia.

<sup>124</sup> Brazil, China, and India; Russia is not included in our sample of host countries.

<sup>125</sup> Costa Rica and Uruguay were in the OECD “List of Jurisdictions That Have Not Committed to the Internationally Agreed Tax Standards”. Antigua and Barbuda, Belize, Dominica, Grenada, Liberia, and Panama were included in the OECD “List of Jurisdictions That Have Committed to the Internationally Agreed Tax Standard, But Have Not Yet Substantially Implemented It”. Lebanon and Mauritius are in the list of offshore centres published by the Bank of International Settlements (see Hebous, 2014). Additionally, also Malaysia and the Philippines were in the OECD “List of Jurisdictions That Have Not Committed to the Internationally Agreed Tax Standards”, but these two countries are large countries, which may attract investment also for economic reasons; thus we decided to leave them in the sample.

<sup>126</sup> As of July 2013, according to the World Bank (2013), middle-income countries are defined as having a Gross National Income per capita of between 1,036 USD and 12,615 USD.



However, these figures should be taken with some caution. First, even though we tried to mitigate the concerns of endogeneity in the analysis, they are arguably not entirely solved. Thus, it is not totally clear, whether DTTs trigger more FDI or whether rather Austria signs DTTs with countries where Austrian firms are active. As we expect an upward bias due to these endogeneity problems, the actual effect may be smaller than the regression results suggest.

Second, the method used captures short term-effects only. In the long run, the impact of DTTs on FDI may be different. According to a recent study of the Netherlands Bureau for Economic Policy Analysis (CBP) DTTs only have a temporary positive effect. The CBP study suggests that “[t]he average effect of a new treaty reaches a peak at almost 35% higher bilateral FDI stocks after six years, but becomes insignificant after eleven years.”<sup>127</sup>

It should also be considered that about a third of Austrian FDI projects in developing countries are effectuated by companies that have a parent in a third countries. As seen in Section 3.1, international firms use their Austrian subsidiaries for investing in other countries, including developing countries. In the econometric analysis above, it is impossible to prove or discredit whether firms invest in a respective developing country via Austria are doing so simply because of a DTT between Austria and a respective developing country. That is, our results may capture some treaty shopping<sup>128</sup>, which could also lead to an overestimation of the effect of DTTs on FDIs originating in Austria.<sup>129</sup> The reader is advised to take all these matters into consideration when examining the results of this economic analysis.

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<sup>127</sup> Weyzig (2013), p. 62.

<sup>128</sup> IBFD Tax Research Platform Glossary defines treaty shopping as “as the situation where a person who is not entitled to the benefits of a tax treaty makes use – in the widest meaning of the word – of an individual or of a legal person in order to obtain those treaty benefits that are not available directly.

<sup>129</sup> Also see Weyzig (2013). There are studies that find empirical evidence that treaty shopping takes place (e.g. Mintz and Weichenrieder, 2008; Dreßler, 2012; Weyzig, 2012). We are, however, not aware of any evidence that the Austrian DTT network is used for treaty shopping purposes. Lang (2012) sees a risk that the inclusion of provisions regarding the waiving of the withholding taxation of residents in Austria’s tax treaties with countries that used to be considered as tax havens may provide incentives to shift profits out of Austria into third countries via these partner countries, that tax income at a very low rate or not at all (p. 115). Steiner (2013) provides anecdotal evidence that Austria is being used as a conduit country for routing profits generated in a multinational’s European affiliates overseas. According to Steiner, this routing via Austria takes place not because of the Austrian DTT network but because overall the Austrian tax system is so attractive for multinationals (also see Section 2.1).

## 4. Conclusions

This study investigates the effects developing countries may expect when signing a DTT with Austria. Our economic analysis suggests that the signature of a DTT with Austria encourages Austrian FDI activity in middle-income countries. This is achieved in a number of ways, as listed below.

Signing a DTT helps to avoid double taxation. However, as Austria's domestic tax law contains provisions which allow preventing double taxation unilaterally, this seems not to be the only (or main) impetus for increasing FDI activity. DTTs also signal legal certainty for potential investors. Legal certainty is, however, not achieved solely by signing a DTT, but through the interplay of a DTT with a comprehensive, transparent, and stable domestic tax system.

In addition, reduced withholding tax rates on passive income as compared with the domestic tax rates may contribute to attract FDI. Austria's policy goal is to reduce withholding tax rates as much as possible (even below the rates proposed by the OECD). Moreover, Austria's treaty policy also includes to propose a "most favoured nation clause", which may lead to further tax rate reductions in the future. However, such reduced withholding tax rates may also imply downsides for a source country. As withholding tax rates can help to mitigate profit shifting by MNEs,<sup>130</sup> having no or very low source taxation creates opportunities for tax avoidance. Additionally, capital-importing countries risk losing tax revenues, if the increased FDI inflows are not large enough to make up for revenue that is lost.

Curbing tax avoidance is also a frequently mentioned effect of DTTs. However, anti-abuse clauses in DTTs can only curb tax-planning possibilities to a certain point, namely those opportunities which are created by the application of the DTTs themselves. In any case, as Austria's policy is not to include anti-avoidance provisions in DTTs, but to apply anti-avoidance provisions contained in its domestic law, this point does not apply to the DTTs between Austria and developing countries.

Furthermore, DTTs help to mitigate tax evasion, as they provide for the exchange of information and administrative cooperation between tax administrations. However, by signing TIEAs and the Multilateral Convention, countries can often achieve the same purposes. For developing countries, these tax agreements may even be more beneficial alternatives to exchange information, as they do not shift taxation rights to the residence country. Moreover,

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<sup>130</sup> "In particular, withholding taxes on interest, royalties, and management fees form a barrier against profit shifting to low-tax affiliates by multinational firms" (Weyzig, 2013, p. 42).

the multilateral approach of the Mutual Assistance Convention is an advantage in the fight against tax avoidance and evasion, as it also provides, at least in theory, a “level playing field”. Similar rules apply to all signatory states and information can be exchanged with third countries. Austria has already ratified the Multilateral Convention. Once it will enter into force (as of December 2014) developing countries can also request assistance in the field of tax collection from Austria under this Convention without a need to sign a DTT.

On another note, the exchange of information on request (as established in DTTs) does not always alleviate the problem of tax evasion. For example, wealthy individuals can hide their money in bank accounts abroad, which is a problem for both developed and developing countries; however developing countries that have weaker tax administrations may arguably suffer more from this form of tax evasion.<sup>131</sup> Information being exchanged only on request requires countries to provide information to identify the taxpayer under examination. Acknowledging that this is a complicated task, we would argue that through the automatic exchange of information, could one curb the problem of tax evasion to a greater degree.<sup>132</sup>

From the arguments provided above, it becomes clear that signing a DTT with Austria entails both potential benefits and risks for developing countries. It would be advisable for developing countries to conduct DTT impact analyses in order to be able to estimate their potential effects. Such analyses could also shed light on which provisions to be included or adapted to achieve desired goals.

Also for Austria, the results of this study are relevant. The growing internationalization of the Austrian economy implies that its international tax policy impacts other countries. Like all member states of the European Union, Austria has subscribed to “policy coherence”: Austria commits to consider the goals and principles of its developmental policy in all policy areas that affect developing countries.<sup>133</sup> In the light of this “policy coherence” principle, Austria might, for example, need to re-examine how its DTT policy with regard to withholding tax rates affects resource mobilization in developing countries.

Finally, there is ample room for further research. Most economic studies, including the present one, assume all tax treaties to be identical. However, even though they may be very similar in structure, each DTT is different. It is surprising that still little is known about how

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<sup>131</sup> Anecdotal evidence suggests that such money is also in bank accounts in Austria, that has a very stable political environment and (used to) offer bank secrecy (see e.g. Skjönsberg (2012); Huter (2014); Höller (2014)).

<sup>132</sup> Also see McGauran (2012): “The inclusion of information exchange agreements does not ensure detection of evasion and avoidance. On-request information exchange (...) typically fails to detect tax avoidance and evasion because strong indications need to exist to be able request information from another tax authority” (p. 19).

<sup>133</sup> Austria has embraced the principle of policy coherence in its national law: §1 Zi 5 EZA-G “Der Bund berücksichtigt die Ziele und Prinzipien der Entwicklungspolitik bei den von ihm verfolgten Politikbereichen, welche die Entwicklungsländer berühren können.“

these different types of DTTs impact on FDI. In addition, as already indicated above, further empirical evidence on how DTTs affect tax revenues of signatory states is needed. Corporate taxes, as well as withholding taxes, can be a significant source of revenue for developing countries.<sup>134</sup> Also, case studies analysing the benefits and disadvantages of individual DTTs could be very insightful. However, not least because of the scarcity of available data, conducting such studies may be very challenging.

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<sup>134</sup> For instance, in 1997, withholding tax revenues made up 3% of GDP in Brazil, while corporate tax revenues excluding withholding taxes accounted for 3.7% (Weyzig, 2013, p. 40). McGauran (2013) undertook an effort to estimate the tax revenue losses due to DTTs signed between developing countries and the Netherlands.

## 5. Annex

Table 3: List of Effective Austrian DTTs with Developing Countries

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|                                  |                             |
|----------------------------------|-----------------------------|
| Albania (2009)                   | Mexico (2006)               |
| Algeria (2007)                   | Moldova, Republic of (2006) |
| Armenia (2005)                   | Mongolia (2005)             |
| Azerbaijan (2002)                | Morocco (2007)              |
| Belarus (2003)                   | Nepal (2003)                |
| Belize (2004)                    | Pakistan (1968)             |
| Bosnia and Herzegovina (2012)    | Philippines (1983)          |
| Brazil (1977)                    | Serbia, Republic of (2011)  |
| China (1993)                     | South Africa (1998)         |
| Cuba (2007)                      | Tajikistan* (1979)          |
| Egypt (1961)                     | Thailand (1987)             |
| Georgia (2007)                   | Tunisia (1979)              |
| India (2002)                     | Turkey (1974)               |
| Indonesia (1989)                 | Turkmenistan* (1979)        |
| Iran, Islamic Republic of (2005) | Ukraine (2000)              |
| Kazakhstan (2007)                | Uzbekistan (2002)           |
| Kyrgyzstan (2004)                | Venezuela (2008)            |
| Macedonia (2008)                 | Vietnam (2011)              |
| Malaysia (1988)                  |                             |

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Note: Years in parentheses depict years when DTT becomes applicable; \*old DTT with USSR applicable until new DTT signed (Tajikistan: new DTT signed in 2011, applicable as of 2013)

Source: Austrian Ministry of Finance

Table 4: Countries Included in Binary Choice Models

|                                  |                        |                       |
|----------------------------------|------------------------|-----------------------|
| Albania <sup>a</sup>             | Grenada <sup>a</sup>   | Mozambique            |
| Algeria                          | Guatemala              | Namibia <sup>a</sup>  |
| Antigua and Barbuda <sup>a</sup> | Honduras               | Nicaragua             |
| Armenia                          | Iran                   | Nigeria               |
| Azerbaijan                       | Jordan                 | Pakistan <sup>a</sup> |
| Belarus                          | Kazakhstan             | Panama                |
| Chile                            | Libya                  | Paraguay              |
| Costa Rica                       | Macedonia <sup>a</sup> | Peru <sup>a</sup>     |
| Cuba                             | Malaysia <sup>a</sup>  | Tunisia               |
| Ecuador                          | Mauritius              | Turkey                |
| Egypt                            | Mexico                 | Uzbekistan            |
| Georgia                          | Moldova                | Vietnam               |
| Ghana                            | Morocco                |                       |

Note: Countries marked with an <sup>a</sup> are not included in the corruption index

Table 5: Countries Included in Count Data Models

|                                  |                       |                 |                      |
|----------------------------------|-----------------------|-----------------|----------------------|
| Afghanistan <sup>a</sup>         | Congo, Rep. of        | Jamaica         | Pakistan             |
| Albania                          | Costa Rica            | Jordan          | Panama               |
| Algeria                          | Cuba                  | Kazakhstan      | Papua New Guinea     |
| Angola                           | Djibouti              | Kenya           | Paraguay             |
| Antigua and Barbuda <sup>a</sup> | Dominica <sup>a</sup> | Kyrgyz Republic | Peru                 |
| Argentina                        | Dominican Republic    | Lebanon         | Philippines          |
| Armenia                          | Ecuador               | Lesotho         | Rwanda               |
| Azerbaijan                       | Egypt                 | Liberia         | Senegal              |
| Bangladesh                       | El Salvador           | Libya           | Serbia               |
| Belarus                          | Equatorial Guinea     | Macedonia       | Sierra Leone         |
| Belize                           | Eritrea               | Malawi          | South Africa         |
| Benin                            | Ethiopia              | Malaysia        | Sudan                |
| Bhutan                           | Gabon                 | Mali            | Suriname             |
| Bolivia                          | Gambia                | Mauritania      | Syrian Arab Republic |
| Bosnia and Herzegovina           | Georgia               | Mauritius       | Tajikistan           |
| Botswana                         | Ghana                 | Mexico          | Thailand             |
| Brazil                           | Grenada <sup>a</sup>  | Moldova         | Tunisia              |
| Burkina Faso                     | Guatemala             | Mongolia        | Turkey               |
| Burundi                          | Guinea                | Montenegro      | Turkmenistan         |
| Cambodia                         | Guinea-Bissau         | Morocco         | Uganda               |
| Cameroon                         | Guyana                | Mozambique      | Ukraine              |
| Central African Republic         | Haiti                 | Namibia         | Uzbekistan           |
| Chad                             | Honduras              | Nepal           | Venezuela            |
| Chile                            | India                 | Nicaragua       | Vietnam              |
| China                            | Indonesia             | Niger           | Zambia               |
| Colombia                         | Iran                  | Nigeria         | Zimbabwe             |

Note: Countries marked with an <sup>a</sup> are not included in the models including the corruption index

Table 6: Summary Statistics

| Variable  | Mean  | Standard Deviation | Minumum | Maximum |
|---|-------|--------------------|---------|---------|
| <b>logit 1990-2011</b> (816 observations)       |       |                    |         |         |
| FDI_d   | 0.44  | 0.50               | 0       | 1       |
| DTT_e   | 0.24  | 0.43               | 0       | 1       |
| ln_ct   | 2.60  | 0.39               | 1.58    | 3.77    |
| similarity                                      | 0.09  | 0.07               | 0.004   | 0.42    |
| infrastructure                                  | 11.60 | 9.69               | 0.12    | 49.32   |
| openness  | 0.82  | 0.38               | 0.24    | 2.12    |
| <b>logit 1996-2011</b> (459 observations)       |       |                    |         |         |
| FDI_d   | 0.47  | 0.50               | 0       | 1       |
| DTT_e   | 0.27  | 0.45               | 0       | 1       |
| ln_ct   | 2.56  | 0.37               | 1.61    | 3.69    |
| similarity                                      | 0.08  | 0.06               | 0.007   | 0.31    |
| infrastructure                                  | 12.24 | 8.82               | 0.32    | 43.13   |
| openness  | 0.83  | 0.32               | 0.25    | 1.78    |
| corruption                                      | 31.42 | 15.19              | 7       | 79      |
| <b>count data 1990-2011</b> (2133 observations) |       |                    |         |         |
| FDI   | 2.42  | 9.82               | 0       | 126     |
| DTT_e   | 0.20  | 0.40               | 0       | 1       |
| ln_ct   | 2.60  | 0.45               | 0.72    | 4.24    |
| similarity                                      | 0.06  | 0.07               | 0.004   | 0.48    |
| infrastructure                                  | 7.84  | 8.84               | 0.017   | 49.32   |
| openness  | 0.76  | 0.39               | 0.04    | 2.89    |
| <b>count data 1996-2011</b> (1383 observations) |       |                    |         |         |
| FDI   | 3.18  | 11.19              | 0       | 126     |
| DTT_e   | 0.26  | 0.44               | 0       | 1       |
| ln_ct   | 2.55  | 0.42               | 0.72    | 3.75    |
| similarity                                      | 0.06  | 0.06               | 0.004   | 0.48    |
| infrastructure                                  | 8.52  | 8.37               | 0.06    | 43.13   |
| openness  | 0.77  | 0.37               | 0.08    | 2.12    |
| corruption                                      | 28.98 | 13.87              | 4       | 79      |

Table 7: Data Sources of the Variables Used in the Regression Analysis

| Variable           | Explanation   | Source   |
|--------------------|---|--|
| FDI                | Number of Austrian investments in a given country in a given year   | Austrian National Bank (OeNB Statistische Sonderauswertung)  |
| FDI_d              | Dummy of whether or not there is an Austrian investment in a given country in a given year  | Austrian National Bank (OeNB Statistische Sonderauswertung)  |
| DTT_s              | Dummy equal to 1 in the year a DTT is signed btw Austria and the respective partner country; also 1 in all subsequent years   | IBFD and Austrian Ministry of Finance  |
| DTT_e              | Dummy equal to 1 in the year a DTT btw Austria and the respective partner country becomes effective; also 1 in all subsequent years   | IBFD and Austrian Ministry of Finance  |
| similarity         | “Similarity is an index, defined as one minus the ratio of the absolute value of GDP per capita minus GDP per capita in [Austria], relative to the higher of both GDPs per capita” (Overesch and Wamser, 2009: 1670). | own calculation; based on UN GDP data  |
| infrastructure     | Telephone lines (per 100 people)  | World Bank, World Development Indicators, available at <a href="http://data.worldbank.org/data-catalog/world-development-indicators">http://data.worldbank.org/data-catalog/world-development-indicators</a> |
| corruption         | Index ranging from 0 to 100, where 0 means very corrupt and 100 very little corrupt   | Heritage Foundation, avail. at: <a href="http://www.heritage.org/index/explore?view=by-region-country-year">http://www.heritage.org/index/explore?view=by-region-country-year</a>                            |
| gdppc              | GDP per capita  | United Nations   |
| openness           | $(\text{Exports} + \text{imports})/\text{gdp}$  | Penn World Table 8.0 (Feenstra et al., 2013)   |
| corporate tax rate | Host country corporate tax rate; proxied by general government final consumption expenditure as a percentage of GDP   | World Bank, World Development Indicators, available at <a href="http://data.worldbank.org/data-catalog/world-development-indicators">http://data.worldbank.org/data-catalog/world-development-indicators</a> |



Table 8: Robustness Test 1. Date of signature of DTT

|                       | logit               |                     | count data           |                      |
|-----------------------|---------------------|---------------------|----------------------|----------------------|
|                       | (1)                 | (2)                 | (3)                  | (4)                  |
| DTT_s                 | 3.293***<br>(4.10)  | 4.106***<br>(4.07)  | 0.320***<br>(4.59)   | 0.256***<br>(3.27)   |
| ln_ct                 | -1.368**<br>(-2.19) | -2.215**<br>(-2.44) | -0.652***<br>(-4.36) | -0.520**<br>(-2.32)  |
| similarity            | 20.50***<br>(3.10)  | 21.69*<br>(1.75)    | 6.069***<br>(7.18)   | 4.702***<br>(5.20)   |
| infrastructure        | 0.0801*<br>(1.91)   | -0.0633<br>(-0.89)  | 0.0134**<br>(2.53)   | 0.00640<br>(1.16)    |
| openness              | 0.438<br>(0.61)     | -1.073<br>(-0.69)   | 0.891***<br>(4.60)   | 0.769***<br>(3.27)   |
| corruption            |                     | 0.0541***<br>(2.79) |                      | 0.00995***<br>(3.27) |
| constant              | 14.54<br>(0.02)     | 18.21<br>(0.02)     | 3.138***<br>(6.29)   | 3.074***<br>(4.51)   |
| year FE               | yes                 | yes                 | yes                  | yes                  |
| country FE            | yes                 | yes                 | yes                  | yes                  |
| period                | 1990-2011           | 1996-2011           | 1990-2011            | 1996-2011            |
| observations          | 816                 | 459                 | 2133                 | 1383                 |
| no. of countries      | 30                  | 38                  | 104                  | 101                  |
| pseudo-R <sup>2</sup> | 0.47                | 0.48                | 0.53                 | 0.55                 |
| log-likelihood        | -296.49             | -165.62             | -1371.58             | -986.64              |

Notes: dependent variable in columns (1) and (2) is a binary variable dependent variable indicating whether or not there is Austrian FDI in a host country; dependent variable in columns (3) and (4) is a count variable indicating the number of Austrian FDI projects in a host country; columns denote coefficients; all control variables are lagged by one period and the natural logarithm of the corporate tax rate is taken; t statistics in parentheses; stars denote p-values: \*\*\* p<0.01; \*\* p<0.05; \* p<0.1;

Table 9: Robustness Test 2. GDP per Capita

|                       | logit               |                     | count data           |                     |
|-----------------------|---------------------|---------------------|----------------------|---------------------|
|                       | (1)                 | (2)                 | (3)                  | (4)                 |
| DTT_e                 | 2.958***<br>(3.49)  | 2.313***<br>(2.65)  | 0.314***<br>(4.63)   | 0.240***<br>(3.40)  |
| ln_ct                 | -1.245**<br>(-1.99) | -1.884**<br>(-2.13) | -0.530***<br>(-3.38) | -0.379<br>(-1.61)   |
| ln_gdppc              | 1.272**<br>(2.38)   | 1.874**<br>(2.26)   | 0.609***<br>(6.47)   | 0.472***<br>(4.30)  |
| infrastructure        | 0.103**<br>(2.51)   | 0.0223<br>(0.34)    | 0.00394<br>(0.72)    | -0.00112<br>(-0.18) |
| openness              | 0.730<br>(1.04)     | 0.209<br>(0.14)     | 0.852***<br>(4.41)   | 0.681***<br>(2.76)  |
| corruption            |                     | 0.0606***<br>(3.22) |                      | 0.0109***<br>(3.71) |
| constant              | 4.020<br>(0.01)     | 2.339<br>(0.00)     | -1.294<br>(-1.28)    | -0.483<br>(-0.39)   |
| year FE               | yes                 | yes                 | yes                  | yes                 |
| country FE            | yes                 | yes                 | yes                  | yes                 |
| period                | 1990-2011           | 1996-2011           | 1990-2011            | 1996-2011           |
| observations          | 816                 | 459                 | 2133                 | 1383                |
| no. of countries      | 30                  | 38                  | 104                  | 101                 |
| pseudo-R <sup>2</sup> | 0.46                | 0.45                | 0.53                 | 0.55                |
| log-likelihood        | -303.94             | -174.89             | -1374.41             | -989.58             |

Notes: dependent variable in columns (1) and (2) is a binary variable indicating whether or not there is Austrian FDI in a host country; dependent variable in columns (3) and (4) is a count variable indicating the number of Austrian FDI projects in a host country; columns denote coefficients; all control variables are lagged by one period and the natural logarithm of the corporate tax rate is taken; t statistics in parentheses; stars denote p-values: \*\*\* p<0.01; \*\* p<0.05; \* p<0.1;

Table 10: Robustness Test 3. Inclusion of Population as Control Variable

|                       | logit               |                     | count data           |                      |
|-----------------------|---------------------|---------------------|----------------------|----------------------|
|                       | (1)                 | (2)                 | (3)                  | (4)                  |
| DTT_e                 | 2.896***<br>(3.39)  | 1.962**<br>(2.12)   | 0.222***<br>(3.29)   | 0.185***<br>(2.63)   |
| ln_ct                 | -1.261**<br>(-2.06) | -1.754**<br>(-2.00) | -0.560***<br>(-3.69) | -0.276<br>(-1.25)    |
| similarity            | 19.86***<br>(3.02)  | 30.36**<br>(2.33)   | 5.611***<br>(7.07)   | 4.567***<br>(5.34)   |
| ln_pop                | 0.219<br>(0.11)     | -4.287<br>(-1.00)   | -2.121***<br>(-4.76) | -2.202***<br>(-3.86) |
| infrastructure        | 0.0947**<br>(2.27)  | -0.00274<br>(-0.04) | 0.00209<br>(0.40)    | -0.00333<br>(-0.55)  |
| openness              | 0.791<br>(1.13)     | 0.221<br>(0.15)     | 0.853***<br>(4.49)   | 0.845***<br>(3.50)   |
| corruption            |                     | 0.0512***<br>(2.72) |                      | 0.0115***<br>(3.94)  |
| constant              | 9.676<br>(0.01)     | 93.13<br>(0.13)     | 41.76***<br>(5.13)   | 42.50***<br>(4.13)   |
| year FE               | yes                 | yes                 | yes                  | yes                  |
| country FE            | yes                 | yes                 | yes                  | yes                  |
| period                | 1990-2011           | 1996-2011           | 1990-2011            | 1996-2011            |
| observations          | 816                 | 459                 | 2111                 | 1377                 |
| no. of countries      | 30                  | 38                  | 103                  | 100                  |
| pseudo-R <sup>2</sup> | 0.46                | 0.45                | 0.53                 | 0.55                 |
| log-likelihood        | -302.03             | -173.41             | -1359.31             | -977.76              |

Notes: dependent variable in columns (1) and (2) is a binary variable indicating whether or not there is Austrian FDI in a host country; dependent variable in columns (3) and (4) is a count variable indicating the number of Austrian FDI projects in a host country; columns denote coefficients; all control variables are lagged by one period and the natural logarithm of the corporate tax rate is taken; t statistics in parentheses; stars denote p-values: \*\*\* p<0.01; \*\* p<0.05; \* p<0.1;

Table 11: Robustness Test 4. Exclusion of CEECs and the B(R)IC

|                       | no CEECs            |                     |                      |                     | no B(R)IC            |
|-----------------------|---------------------|---------------------|----------------------|---------------------|----------------------|
|                       | logit               |                     | count data           |                     | count data           |
|                       | (1)                 | (2)                 | (3)                  | (4)                 | (5)                  |
| DTT_e                 | 2.909***<br>(3.49)  | 2.280***<br>(2.60)  | 0.373***<br>(4.58)   | 0.256***<br>(2.87)  | 0.242***<br>(3.67)   |
| ln_ct                 | -1.462**<br>(-2.29) | -1.815**<br>(-2.09) | -0.555***<br>(-3.39) | -0.489**<br>(-1.99) | -0.548***<br>(-3.69) |
| similarity            | 19.85***<br>(3.03)  | 32.51**<br>(2.50)   | 5.731***<br>(6.50)   | 4.497***<br>(4.76)  | 8.915***<br>(10.04)  |
| infrastructure        | 0.0861**<br>(2.12)  | 0.0102<br>(0.15)    | 0.0201***<br>(3.55)  | 0.00814<br>(1.39)   |                      |
| openness              | 0.594<br>(0.83)     | 0.397<br>(0.27)     | 0.729***<br>(3.42)   | 0.475*<br>(1.83)    | 1.249***<br>(7.21)   |
| corruption            |                     | 0.0545***<br>(2.92) |                      | 0.0128***<br>(3.84) |                      |
| constant              | 14.46<br>(0.02)     | 14.26<br>(0.02)     | 2.785***<br>(5.18)   | 3.011***<br>(4.00)  | 2.678***<br>(5.64)   |
| year FE               | yes                 | yes                 | yes                  | yes                 | yes                  |
| country FE            | yes                 | yes                 | yes                  | yes                 | yes                  |
| period                | 1990-2011           | 1996-2011           | 1990-2011            | 1996-2011           | 1990-2011            |
| observations          | 773                 | 459                 | 2068                 | 1345                | 2093                 |
| no. of countries      | 36                  | 30                  | 99                   | 96                  | 101                  |
| pseudo-R <sup>2</sup> | 0.45                | 0.45                | 0.53                 | 0.55                | 0.53                 |
| log-likelihood        | -289.88             | -173.92             | -1222.81             | -896.91             | -1203.02             |

Notes: dependent variable in columns (1) and (2) is a binary variable indicating whether or not there is Austrian FDI in a host country; dependent variable in columns (3) to (5) is a count variable indicating the number of Austrian FDI projects in a host country; columns denote coefficients; all control variables are lagged by one period and the natural logarithm of the corporate tax rate is taken; t statistics in parentheses, stars denote p-values: \*\*\* p<0.01; \*\* p<0.05; \* p<0.1;

Table 12: Robustness Test 6. Exclusion of Tax Haven Countries

|                       | logit              |                     | count data           |                     |
|-----------------------|--------------------|---------------------|----------------------|---------------------|
|                       | (1)                | (2)                 | (3)                  | (4)                 |
| DTT_e                 | 3.351***<br>(3.87) | 2.146**<br>(2.39)   | 0.345***<br>(4.99)   | 0.251***<br>(3.69)  |
| ln_ct                 | -1.058*<br>(-1.67) | -1.856**<br>(-2.04) | -0.541***<br>(-3.52) | -0.437**<br>(-2.04) |
| similarity            | 26.72***<br>(3.20) | 59.84***<br>(3.46)  | 6.113***<br>(7.11)   | 4.679***<br>(5.45)  |
| infrastructure        | 0.0893<br>(1.56)   | 0.0231<br>(0.30)    | 0.0145***<br>(2.77)  | 0.00724<br>(1.32)   |
| openness              | 3.473***<br>(3.44) | 2.048<br>(1.18)     | 1.166***<br>(5.53)   | 0.641***<br>(2.70)  |
| corruption            |                    | 0.0633***<br>(3.13) |                      | 0.0116***<br>(3.95) |
| constant              | 10.71<br>(0.01)    | 10.46<br>(0.01)     | 2.644***<br>(5.14)   | 2.836***<br>(4.18)  |
| year FE               | yes                | yes                 | yes                  | yes                 |
| country FE            | yes                | yes                 | yes                  | yes                 |
| period                | 1990-2011          | 1996-2011           | 1990-2011            | 1996-2011           |
| observations          | 706                | 415                 | 1950                 | 1304                |
| no. of countries      | 33                 | 27                  | 95                   | 94                  |
| pseudo-R <sup>2</sup> | 0.49               | 0.49                | 0.54                 | 0.55                |
| log-likelihood        | -248.32            | -146.86             | -1263.21             | -947.37             |

Notes: dependent variable in columns (1) and (2) is a binary variable indicating whether or not there is Austrian FDI in a host country; dependent variable in columns (3) and (4) is a count variable indicating the number of Austrian FDI projects in a host country; columns denote coefficients; all control variables are lagged by one period and the natural logarithm of the corporate tax rate is taken; t statistics in parentheses; stars denote p-values: \*\*\* p<0.01; \*\* p<0.05; \* p<0.1;

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