



universität
wien



WIRTSCHAFTS
UNIVERSITÄT
WIEN VIENNA
UNIVERSITY OF
ECONOMICS
AND BUSINESS

WU International Taxation Research Paper Series

No. 2017 - 02

International Taxation and the Role of Organizational Form Choices for Group Structures Multinationals

Harald Amberger
Saskia Kohlhase

Editors:

Eva Eberhartinger, Michael Lang, Rupert Sausgruber and Martin Zagler (Vienna University of Economics and Business), and Erich Kirchler (University of Vienna)

Electronic copy available at: <https://ssrn.com/abstract=2929347>

Research Papers

International Taxation and the Role of Organizational Form Choices for Group Structures of Multinationals

Harald Amberger
Vienna University of Economics and Business
Department of Finance, Accounting and Statistics
Tax Management Group
harald.amberger@wu.ac.at

Saskia Kohlhase*
Erasmus University Rotterdam
Rotterdam School of Management
Department of Accounting and Control
kohlhase@rsm.nl

March 2017

We are grateful to the Research Data and Service Centre (RDSC) of the *Deutsche Bundesbank* for granting access to the MiDi database. We appreciate helpful comments from Dan Collins, Eva Eberhartinger, Ursa Kosi, Adrian Kubata, Kevin Markle, Jon Medrano, Heeijin Ohn, Benjamin Osswald, Jochen Pierk, Thorsten Sellhorn, and Steve Utke, participants at the 6th Conference on Current Research in Taxation in Bonn and seminar participants at the University of Mannheim, Vienna University of Economics and Business, the Westfälische Wilhelms-Universität Münster, the University of Iowa, and the Erasmus University Rotterdam. Harald Amberger gratefully acknowledges financial support from the Austrian Science Fund (FWF): W 1235-G16.

* Corresponding Author: Saskia Kohlhase (Erasmus University Rotterdam, Rotterdam, The Netherlands, E-Mail: kohlhase@rsm.nl, Phone: +31/10/4082153).

International Taxation and the Role of Organizational Form Choices for Group Structures of Multinationals

Abstract

We examine whether, when, and to what extent international taxation affects group structures of multinationals by way of organizational form choices. Analyzing micro-level data on inbound foreign direct investment relations in Germany, we find that multinationals are tax-sensitive when choosing an organizational form for a foreign affiliate. We document that a one standard deviation increase in the tax burden difference between a corporate (i.e. subsidiary) and a non-corporate (i.e. flow-through) organizational form is associated with a 3.57 percentage point higher probability of establishing a flow-through. This effect, which predominantly results from differences in repatriation taxes between organizational forms, is economically meaningful and comparable to the effects of non-tax determinants. In cross-sectional tests, we find that income-shifting opportunities, limited liability, group structure adjustment costs, and host-country experience moderate the tax-sensitivity. Taken together, our findings suggest that international taxation has far-reaching implications for group structures of multinationals.

JEL-Classification: M41, H25, H73, K34

Keywords: Organizational Form Choice, Group Structures, International Taxation

I. INTRODUCTION

In recent years, group structures of multinationals have caught the attention of the general public, policy makers, and academic scholars. Group structures with affiliates in several countries enable multinationals to shift income into tax havens and to exploit loopholes in tax systems.¹ Despite the implications of this topic, evidence on how the taxation of cross-border economic activities (i.e. international taxation) shapes group structures is limited to the location of affiliates (Mintz and Weichenrieder 2010, Dyreng, Lindsey, Markle, and Shackelford 2015), internal ownership chains (Lewellen and Robinson 2013), and the decision to maintain separate taxation of affiliates for income-shifting purposes (Buettner, Riedel, and Runkel 2011).² Moreover, these studies exclusively examine corporate affiliates as one organizational form multinationals might select for their affiliates. Our study takes a broader perspective in analyzing group structures, as we examine the sensitivity of multinationals to international taxation when choosing an organizational form for a newly established foreign affiliate (i.e. organizational form choices). Thus, we inquire whether, when, and to what extent international taxation affects organizational form choices.

The lack of evidence for the effect of international taxation on the organizational form choices of multinationals is surprising, as organizational forms have been on the tax-policy agenda for several years due to qualification conflicts between tax systems resulting in double taxation or double non-taxation of foreign profit (OECD 1999). Moreover, recent anecdotes suggest that multinationals establish non-corporate affiliates for tax-avoidance purposes (ICIJ 2014).³ Thus, the lack of knowledge regarding the drivers of organizational

¹ Recent reports from Dutch regulatory filings suggest that Google saved \$3.6 billion in worldwide taxes in the year 2015 through a group structure known as “Double Irish and a Dutch Sandwich” (Wood 2016). This group structure has reportedly been used by several other multinationals (e.g., Apple). Particularities of tax systems combined with the fundamental freedoms of the European Union enable multinationals to shift taxable income into tax havens (e.g., via tax-deductible royalty payments) diminishing effective tax rates.

² International taxation summarizes all taxes levied on foreign profit (Huizinga, Laeven, and Nicodème 2008, Huizinga and Voget 2009, Barrios, Huizinga, Laeven, and Nicodème 2012; see Section 2.1).

³ The group structure of Amazon includes a tax-exempt limited partnership in Luxembourg, which enables Amazon to generate tax-deductible royalty payments that reduce the Luxembourgian tax base (ICIJ 2014).

form choices hinders informed tax-policy debates and makes it difficult to assess the relevance of organizational forms for tax avoidance.

In our setting, we analyze an investing entity that is part of a multinational. The investing entity is located in a home country and establishes a new affiliate in a host country (Figure 1).⁴ The available organizational forms are divided into two categories: (1) a corporate (i.e. subsidiary) and (2) a non-corporate (i.e. flow-through) form. Each category exhibits distinct characteristics that shape their tax and non-tax costs and benefits. International taxation determines the tax effects of organizational forms and the tax burden on foreign profit earned in the host country. In case the investing entity establishes the new affiliate as a subsidiary, this organizational form induces a higher tax burden on foreign profit and thus a tax disadvantage. This tax-burden difference results from dividend-withholding taxes levied on a subsidiary's dividend distributions in the host country by way of a repatriation tax. A flow-through avoids dividend-withholding taxes but the home country taxes foreign profit when earned. With regard to non-tax cost and benefits, a subsidiary offers limited liability (Gordon and MacKie-Mason 1994, Ayers, Cloyd and Robinson 1996) but induces higher compliance costs due to more extensive regulatory and financial reporting requirements (Demirguc-Kunt, Love, and Maksimovic 2006, Cerutti, Dell'Araccia, and Martinez Peria 2007).

When establishing a new affiliate in the host country, the investing entity faces a trade-off between tax and non-tax costs and benefits, and selects the organizational form with the best cost-benefit relation (Hodder, McAnally, and Weaver 2003, Scholes, Wolfson, Erickson, Hanlon, Maydew, and Shevlin 2014). This suggests that investing entities are sensitive to the tax disadvantage of a subsidiary in organizational form choices. Thus, we

⁴ The investing entity is located in either the same country as the ultimate parent of the multinational (direct investment) or in a different country (indirect investment). Due to missing data on the entire group structure, we limit our analysis to the effects of international taxation on organizational form choices of the investing entity. However, we separately examine direct and indirect investment in Section 5.3.

hypothesize that a larger tax-burden difference between a subsidiary and a flow-through increases the probability of establishing the new affiliate as a flow-through.

Notwithstanding our hypothesis, several arguments suggest that we might not find the expected effect. First, multinationals might mitigate the tax disadvantage of a subsidiary by deferring the repatriation of foreign profit (Foley, Hartzell, Titman, and Twite 2007, Blouin and Krull 2009). This strategy is beneficial if home country corporate income tax rates or dividend-withholding tax rates vary over time (e.g., through tax holidays or new double tax treaties). Second, multinationals might repatriate foreign profit without triggering the effects of international taxation. Common strategies include income shifting (e.g., via tax-deductible payments; see Hines and Rice 1994, Collins and Shackelford 1997, Collins, Kemsley, and Lang 1998, Klassen and Laplante 2012) or treaty shopping where multinationals engage in indirect investment to exploit beneficial double tax treaties (Mintz and Weichenrieder 2010, Dyreng et al. 2015). Third, non-tax aspects (e.g., limited liability) might affect organizational form choices (Demirguc-Kunt et al 2006, Cerutti et al. 2007) and mitigate the tax-sensitivity of investing entities. Based on these arguments, we contend that it is an empirical question whether, when, and to what extent international taxation affects organizational form choices.

To test our hypothesis, we use the Microdatabase Direct Investment (MiDi) of the Deutsche Bundesbank. The MiDi database provides anonymized micro-level data on the stock of in- and outbound foreign direct investment (FDI) relations in Germany and contains information on the organizational form of these investments. Our sample covers inbound FDI relations that result in a new affiliate in Germany between 2005-2013.⁵ We observe 2,182 organizational form choices of investing entities that are part of multinationals located in 59 home countries. These home countries include major economies (e.g., the United

⁵ Limiting our analysis to one host country does not affect the generalizability of our results. First, organizational form choices occur in one regulatory environment mitigating the effect of host country characteristics. Second, although tax systems differ in details, international taxation applies to most country combinations (Huizinga et al. 2008, Huizinga and Voget 2009, Barrios et al. 2012). Third, Germany is a high-tax country and the fourth largest economy (IMF 2016), where economic rather than tax-avoidance motives drive investment.

States, the United Kingdom, and Japan) and account for more than 99 percent of all inbound FDI relations recorded in the MiDi database. Due to variations in tax rates and tax systems across home countries and over time, our setting is unique to identify and estimate the effect of international taxation on organizational form choices of multinationals.

Descriptive statistics indicate that 24.43 percent of the organizational form choices in our sample result in a flow-through. This result underlines the relevance of flow-throughs for group structures of multinationals. Results from our first set of tests suggest that investing entities are tax-sensitive in organizational form choices. The tax burden difference between a subsidiary and a flow-through, which predominantly results from differences in repatriation taxes, has an economically meaningful effect: a one standard deviation increase in the tax disadvantage of a subsidiary is associated with a 3.57 percentage point higher probability of establishing a flow-through. We find comparable effects for non-tax determinants. A one standard deviation increase in the profitability of the new affiliate, for instance, reduces the probability of establishing a flow-through by 5 percentage points.

Our second set of tests examines whether income-shifting opportunities decrease the tax-sensitivity. We find that investing entities are less tax-sensitive if the new affiliate has high internal debt or is established in an industry with high intangible-asset intensity (Hall, Helmers, Rogers, and Sena 2014). These results suggest that repatriation strategies that do not trigger the effects of international taxation (e.g., income shifting) decrease the tax-sensitivity in organizational form choices. Deferring the repatriation of foreign profit, however, does not affect the tax-sensitivity.

The third set of tests exploits cross-sectional variation in the relevance of non-tax aspects associated with organizational form choices. First, we examine new affiliates established in capital-intensive industries raising the benefit of limited liability (Liu 2014). Consistent with this argument, we find that investing entities are less tax-sensitive in these industries. Second, we compare genuine investment (i.e. greenfield investment) with mergers

or acquisitions (i.e. M&A). M&A enables multinationals to adapt a pre-existing group structure to international taxation at low cost (Huizinga and Voget 2009). Thus, we predict and find that investing entities are more tax-sensitive in organizational form choices for M&A. Third, we examine the effect of host-country experience. Since experienced investing entities exhibit knowledge on tax-efficient group structures (Feller and Schanz 2017), we find a higher tax-sensitivity for these investing entities. These results suggest that non-tax aspects, in the form of limited liability, group structure adjustment costs, and host-country experience, moderate the tax-sensitivity of investing entities in organizational form choices.

In our fourth set of tests, we assess the robustness of our results. First, we replace the tax burden difference with the dividend-withholding tax rate and find consistent results. Second, we add the tax burden difference on capital gains from selling the new affiliate. Including this additional tax determinant does not alter our results. Third, we examine the legal origin of the home-country legal system (LaPorta, Lopez-de-Silanes, and Shleifer 2008) and find that institutional similarities between countries do not drive our results. Fourth, we compare new affiliates that belong to a subgroup in Germany with those that do not hold shares in another German affiliate. We find that international taxation affects group structures irrespective of whether the new affiliate belongs to a subgroup or not. Lastly, we modify our sample and show that our results are insensitive to excluding observations from regulated industries or observations with a tax burden difference equal to zero, and to excluding investing entities located in a tax haven (Gravelle 2009).

The final set of tests provides further evidence for the effect of international taxation on organizational form choices of multinationals. First, we subdivide flow-throughs into partnerships and branches. Some types of partnerships induce limited liability but retain a lower tax burden. Thus, we expect and find that investing entities are tax-sensitive when deciding between a subsidiary and a partnership while the benefit of limited liability dominates the choice between a subsidiary and a branch. Second, we examine treaty

shopping as a potential strategy to mitigate the tax disadvantage of a subsidiary. We find that the tax-sensitivity does not differ between direct and indirect investment. Thus, treaty shopping does not affect our main results.

Our study makes several contributions to the literature. First, our findings increase the understanding of how international taxation shapes group structures of multinationals. International taxation has far-reaching implications for the structure multinationals adopt for their cross-border economic activities as it not only affects the location of affiliates (Mintz and Weichenrieder 2010, Dyreng et al. 2015) but also their organizational forms. This finding is relevant as each organizational form induces distinct tax and non-tax costs and benefits. Moreover, the relevance of flow-throughs indicates that prior studies that examine corporate affiliates seem to have overlooked significant parts of existing group structures.

Second, our results add to research on the effects of taxation on organizational form choices where prior studies have mainly examined stand-alone firms (Gordon and MacKie-Mason 1994, Ayers et al. 1996). We extend these findings by investigating organizational form choices in a cross-border setting.⁶ In this regard, we identify distinct drivers of cross-sectional variation in the effect of taxation (i.e. income-shifting opportunities, group structure adjustment costs, host-country experience) that differ from domestic settings. Moreover, the relevance of flow-throughs suggests that multinationals might use organizational forms as part of a broader tax-avoidance strategy.

Lastly, our study informs current tax-policy initiatives to curb tax avoidance and income shifting (e.g., OECD Action Plan on Base Erosion and Profit Shifting). These initiatives aim to ensure profit taxation in the host country and thus increase the relevance of host country taxation and repatriation taxes (e.g., dividend-withholding taxes). Our results suggest that legislation leading to an asymmetric taxation of subsidiaries and flow-throughs

⁶ Petroni and Shackelford (1995) and Goolsbee (2004) are noteworthy exceptions. Both studies, however, examine group structures in a purely domestic U.S. setting.

increases the probability that multinationals select a flow-through for cross-border economic activities.

The remainder of this study is organized as follows. Section 2 discusses the theoretical background and derives our hypotheses. Section 3 describes our sample and the research design. Section 4 presents our main results. Supplementary analyses are presented in Section 5. Section 6 summarizes our main results and concludes.

II. THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

International Taxation and Tax Effects of Organizational Forms

Figure 1 outlines our setting of an investing entity that selects an organizational form for a new affiliate in Germany, the host country in our study. The investing entity is part of a multinational and is located in the same country as the ultimate parent of the multinational (e.g., the United States: direct investment) or in a different country (e.g., Luxembourg: indirect investment). We define two categories of organizational forms: (1) subsidiaries and (2) flow-throughs.⁷ Subsidiaries are legally independent corporate forms while flow-throughs comprise non-corporate forms (e.g., partnerships, branches, and permanent establishments) that belong to the investing entity. Profit earned in a foreign subsidiary or flow-through is subject to three layers of taxation that shape the tax effects of organizational forms. These three layers are (i) host country corporate income tax, (ii) dividend-withholding tax levied on a subsidiary's dividend distributions, and (iii) corporate income tax levied in the home country of the investing entity (e.g., Huizinga et al. 2008).

INSERT FIGURE 1 HERE

The first layer of international taxation is the host country corporate income tax τ_c^{host} (Layer 1 in Figure 1). A subsidiary exhibits unlimited tax liability while the investing entity is

⁷ In supplementary tests, we subdivide flow-throughs into (i) partnerships and (ii) branches. As these sub-groups exhibit similar tax effects, and to increase the generalizability of our findings, we limit our main analysis to two categories of organizational forms (i.e. subsidiaries and flow-throughs).

subject to limited tax liability in the host country when choosing a flow-through. Nonetheless, the host country taxes profit earned in both organizational forms at τ_c^{host} (e.g., Article 7 OECD Model Tax Convention, OECD 2014). For Germany, τ_c^{host} equals to 44.38 percent for the first sample years but reduces to 29.83 percent after the year 2007.⁸

The second layer of international taxation is the dividend-withholding tax τ_w levied on a subsidiary's dividend distributions in the host country (Layer 2 in Figure 1). This tax is deferred until foreign profit is repatriated to the investing entity (Foley et al. 2007, Blouin and Krull 2009). Thus, τ_w has the character of a shareholder-level tax (Scholes et al. 2014, Utke 2016) and a repatriation tax (Desai, Foley, and Hines 2001). The German tax rate on dividend distributions to non-EU countries and to countries without a double tax treaty was 26.38 percent but was reduced to 15.83 percent after the year 2008. The Parent-Subsidiary Directive abolishes τ_w for dividend distributions to EU countries.

The Parent - Subsidiary Directive requires the investing entity to hold at least 10 percent in the shares of a subsidiary

. As we limit our analysis to investing entities that hold at least 25 percent in the shares of a new affiliate - withholding tax rate for investing entities located in EU countries equals zero.

⁹For home countries that have a double tax treaty with Germany, τ_w depends on the treaty and ranges from 5 percent to 15 percent. A flow-through fully avoids the second layer of international taxation.¹⁰

The third layer of international taxation is the home country corporate income tax τ_c^{home} (Layer 3 in Figure 1). To mitigate double taxation, the home country either exempts

⁸ These tax rates include a solidarity surcharge and the local business tax (*Gewerbesteuer*) administered by German municipalities. We present average tax rates as municipalities enjoy (limited) leeway in setting tax rates.

⁹ The Parent-Subsidiary Directive requires the investing entity to hold at least 10 percent in the shares of a subsidiary. As we limit our analysis to investing entities that hold at least 25 percent in the shares of a new affiliate (see Section 3.2), in our sample the dividend-withholding tax rate for investing entities located in EU countries equals zero.

¹⁰ Some countries levy a tax on the profit distributions of a branch to achieve an equal taxation of a subsidiary and a branch. An example is the 30 percent U.S. Branch Profit Tax levied on distributions of U.S. branches to non-resident shareholders (IRC §884(a)). The tax rate equals τ_w and may be reduced through a double tax treaty.

foreign profit from τ_c^{home} (territorial tax system) or taxes foreign profit at τ_c^{home} while granting a tax credit for τ_w and τ_c^{host} (worldwide tax system).

Territorial tax systems differ in the extent to which foreign profit is exempt from τ_c^{home} . Home countries either fully exempt foreign profit or tax a fraction w at τ_c^{home} . If $w > 0$, the investing entity is subject to home country corporate income tax notwithstanding an existing territorial tax system.¹¹ As a result, for an investing entity located in a home country with a territorial tax system, the tax burden on foreign profit earned in a subsidiary T_S or a flow-through T_F is given by

$$T_S = \tau_c^{host} + (1 - \tau_c^{host}) * \tau_w + (1 - \tau_c^{host}) * w * \tau_c^{home},$$

$$T_F = \tau_c^{host} + (1 - \tau_c^{host}) * w * \tau_c^{home}.$$

Under a worldwide tax system, the home country taxes foreign profit earned in a subsidiary when repatriated to the investing entity.¹² To mitigate double taxation, the home country grants a direct or indirect tax credit, which is limited to τ_c^{home} in both cases.¹³ If the home country grants a direct tax credit, τ_w is credited and the investing entity is subject to home country corporate income tax in excess of $(1 - \tau_c^{host}) * \tau_w$. An indirect tax credit additionally includes τ_c^{host} , and the investing entity is subject to home country corporate income tax in excess of $\tau_c^{host} + (1 - \tau_c^{host}) * \tau_w$. When choosing a flow-through, the home country taxes foreign profit when earned and grants a tax credit for τ_c^{host} . Thus, the investing entity is subject to home country corporate income tax in excess of τ_c^{host} . As a result, for an

¹¹ Belgium and Italy, for instance, operate a territorial tax system and exempt 95 percent of foreign profit. Thus, 5 percent of foreign profit remains taxable at τ_c^{home} .

¹² This feature enables multinationals to defer the repatriation of foreign profit and to benefit from variation in τ_c^{home} or τ_w over time (e.g., through tax holidays or new double tax treaties).

¹³ The United States operate a worldwide tax system with deferral and an indirect tax credit. Similar tax systems were in place in the United Kingdom and Japan prior to the year 2009 (Markle 2016).

investing entity located in a home country with a worldwide tax system, the tax burden on foreign profit earned in a subsidiary T_S or a flow-through T_F is given by

$$T_S = \max\{\tau_c^{host} + (1 - \tau_c^{host}) * \tau_w; \tau_c^{host} + (1 - \tau_c^{host}) * \tau_c^{home}\}, \text{ (direct tax credit)}$$

$$T_S = \max\{\tau_c^{host} + (1 - \tau_c^{host}) * \tau_w; \tau_c^{home}\}, \text{ (indirect tax credit)}$$

$$T_F = \max\{\tau_c^{host}; \tau_c^{home}\}.$$

Some home countries neither exempt foreign profit from τ_c^{home} nor grant a tax credit for τ_w and τ_c^{host} , which results in double taxation. As a result, for an investing entity located in a home country that does not grant any relief from double taxation, the tax burden on foreign profit earned in a subsidiary T_S or a flow-through T_F is given by

$$T_S = \tau_c^{host} + (1 - \tau_c^{host}) * \tau_w + \tau_c^{home},$$

$$T_F = \tau_c^{host} + \tau_c^{home}.$$

In Table 1, we derive the tax burden difference between a subsidiary and a flow-through for each tax system. In contrast to a flow-through, a subsidiary induces a tax disadvantage if the investing entity is located in a home country with a territorial tax system or in a home country that does not grant any relief from double taxation. This is due to dividend-withholding taxes, which are not offset by a tax credit in the home country. If the investing entity is located in a home country with a worldwide tax system, the tax disadvantage depends on host and home country corporate income tax rates and the extent of tax credit.¹⁴

INSERT TABLE 1 HERE

¹⁴ The tax burden difference might be negative if the investing entity is located in a home country that operates a worldwide tax system for flow-throughs and a territorial system for subsidiaries. Most home countries in our sample, however, operate a uniform tax system for foreign profit earned in either organizational form.

Hypothesis Development

The standard model to analyze organizational form choices was developed by MacKie-Mason and Gordon (1997) and extended by Goolsbee (1998, 2004). These studies examine the decisions of sole entrepreneurs (i.e. stand-alone firms) to incorporate or not in a domestic setting. While tax and non-tax determinants of organizational form choices of multinationals seem to differ from those documented for stand-alone firms, Luna and Murray (2010) argue that the economic framework and its implications are equally valid in a cross-border setting. Thus, when choosing an organizational form for a new affiliate in the host country, the investing entity faces a trade-off between tax and non-tax costs and benefits and selects the organizational form with the best-cost benefit relation.

With respect to tax costs and benefits of organizational forms, the theoretical analysis above suggests that a subsidiary exhibits a tax disadvantage. This predominantly results from higher repatriation taxes in the form of dividend-withholding taxes.¹⁵ Hartman (1985) theoretically analyzes the economic effects of repatriation taxes and demonstrates that these taxes do not affect the repatriation decision of multinationals. Although assuming a subsidiary in the host country, this result nonetheless questions the decision relevance of differences in repatriation taxes (i.e. the tax disadvantage of a subsidiary) for organizational form choices.¹⁶

Hartman (1985), however, relies on the restrictive assumptions that repatriation taxes are unavoidable (e.g., through income shifting; see Altshuler and Grubert 2003) and that tax rates are constant over time. These assumptions are unlikely to hold in practice. Tax holidays or new double tax treaties, for instance, lower home country corporate income tax rates and dividend-withholding tax rates.¹⁷ As a result, multinationals face tax-rate uncertainty and the

¹⁵ Further tax costs and benefits concern special tax regimes (Elschner 2013), tax loss rules, or tax base effects. With respect to these aspects, the German tax system does not differentiate between organizational forms.

¹⁶ Hines and Rice (1994) and Weichenrieder (1996) extend this finding and show that multinationals may reinvest foreign profit in risk-free financial assets. This strategy allows a costless deferral of repatriation taxes.

¹⁷ During sample years 2005-2013, Germany reduced the dividend-withholding tax rate from 26.38 percent to 15.83 percent and signed and/or renewed ten double tax treaties with Argentina, Azerbaijan, Belarus, Croatia, Georgia, Ghana, Kyrgyzstan, Singapore, Syria, and Tajikistan. Moreover, the Parent-Subsidiary Directive became effective for dividend distributions to Bulgaria, Croatia, and Romania as these countries joined the European

investing entity becomes sensitive to the tax disadvantages of a subsidiary. Several empirical findings support these arguments. Foley et al. (2007) and Graham, Hanlon, and Shevlin (2011) analyze the U.S. tax system and find that repatriation taxes diminish incentives to repatriate foreign profit while increasing (re-)investment in the host country (Hanlon, Lester, and Verdi 2015, Edwards, Kravet, and Wilson 2016). As an increase in the tax disadvantage of a subsidiary raises the tax benefit of a flow-through, we formulate the following hypothesis for the effect of international taxation on organizational form choices:

H1: The tax disadvantage of a subsidiary in comparison to a flow-through is positively associated with the probability of establishing a flow-through.

The theoretical analysis of international taxation suggests that the tax effects of organizational forms arise if multinationals repatriate foreign profit through dividend distributions. Thus, repatriation strategies that do not trigger the effects of international taxation might mitigate the tax-sensitivity in organizational form choices. Income shifting is an example of such a repatriation strategy where multinationals shift foreign profit earned in the host country into low-tax countries or tax havens (Hines and Rice 1994, Collins and Shackelford 1997, Collins et al. 1998, Dyreng and Markle 2016). This behavior avoids the host country corporate income tax and might additionally result in lower dividend-withholding taxes.¹⁸ Common income shifting schemes exploit discretion in setting arm's-length transfer prices for intermediate inputs (Klassen and Laplante 2012), cost-sharing arrangements (De Simone and Sansing 2016), and tax-deductible payments between affiliates (e.g., interest or royalty payments). By reducing the amount of foreign profit repatriated through dividend distributions, income shifting mitigates the tax disadvantage of a subsidiary and the investing entity is expected to become less sensitive to international taxation. Thus,

Union. Lastly, the double tax treaty with Brazil was terminated raising the dividend withholding tax rate from 15 percent to 26.38 percent.

¹⁸ Income shifting induces costs that are either fixed or vary with the amount of income shifted (Huizinga and Laeven 2008). These costs include initial setup costs (e.g., for foreign affiliates), compliance costs (e.g., for the transfer pricing system), and administrative costs (e.g., coordination or agency costs; Dyreng and Markle 2016).

we formulate the following cross-sectional hypothesis for the effect of income-shifting opportunities on the tax-sensitivity in organizational form choices:

H2: The association between the tax disadvantage of a subsidiary and the probability of establishing a flow-through decreases with income shifting opportunities.

Non-tax costs and benefits of organizational forms mainly result from their legal characteristics and are likely to affect the tax-sensitivity of investing entities. A subsidiary offers limited liability (Gordon and MacKie-Mason 1994, Ayers et al. 1996) and reduces risk by limiting the potential loss of the investing entity to the equity stake in the new affiliate.¹⁹ At the same time, a subsidiary induces higher compliance costs due to more extensive regulatory and financial reporting requirements (Demirguc-Kunt et al. 2006) and higher coordination costs due to its legal independence (Goolsbee and Maydew 2002). When choosing a flow-through, the potential loss of the investing entity is unlimited and includes all obligations of the new affiliate. Compliance costs of a flow-through, however, are lower, as multinationals might enter the host country through licenses granted to a pre-existing affiliate (Cerutti et al. 2007).²⁰

The outlined benefit of limited liability seems particularly valuable in capital-intensive industries (e.g., manufacturing or wholesale) characterized by the high importance of tangible assets. Investment in tangible assets increases the potential loss of the investing entity and raises the benefit of limited liability (Liu 2014). This suggests that an investing entity in a capital-intensive industry attributes more weight to the benefit of limited liability resulting in a lower tax-sensitivity. Thus, we formulate the following cross-sectional hypothesis for the effect of limited liability on the tax-sensitivity in organizational form choices:

¹⁹ The capital requirement to establish a subsidiary in Germany as a limited liability company (*Gesellschaft mit beschränkter Haftung*) equals EUR 25,000. Thus, without additional guarantees (MacKie-Mason and Gordon 1997) the potential loss of the investing entity is limited to this amount.

²⁰ Other non-tax costs and benefits of organizational forms are less relevant for multinationals. Capital market access, for instance, is a relevant aspect for stand-alone firms (Gordon and MacKie-Mason 1994, Scholes et al. 2014) while multinationals may raise equity or debt capital globally and finance foreign activities through internal capital markets (Desai, Foley, and Hines 2004).

H3a: The association between the tax disadvantage of a subsidiary and the probability of establishing a flow-through decreases with the importance of limited liability.

Aside from limited liability, further non-tax aspects may affect the tax-sensitivity in organizational form choices. For instance, investing entities might select an organizational form for either a newly founded affiliate (i.e. greenfield investment) or an existing firm that is acquired (i.e. M&A). While non-tax decisions (e.g., financing or investment) dominate organizational form choices for greenfield investment, M&A enables multinationals to adapt a pre-existing group structure to international taxation at low cost (Huizinga and Voget 2009). This suggests that the investing entity attributes more weight to the tax disadvantage of a subsidiary in organizational form choices for M&A resulting in a higher tax-sensitivity. Thus, we formulate the following cross-sectional hypothesis for the effect of group structure adjustment costs on the tax-sensitivity in organizational form choices:

H3b: The association between the tax disadvantage of a subsidiary and the probability of establishing a flow-through increases in organizational form choices for M&A.

Establishing a new affiliate may also involve a market entry in the host country. In contrast to an initial market entry, multinationals with host-country experience exhibit knowledge of tax-efficient group structures (Feller and Schanz 2017). This suggests that an experienced investing entity attributes more weight to the tax disadvantage of a subsidiary resulting in a higher tax-sensitivity. Thus, we formulate the following cross-sectional hypothesis for the effect of host-country experience on the tax-sensitivity in organizational form choices:

H3c: The association between the tax disadvantage of a subsidiary and the probability of establishing a flow-through increases with host country experience.

III. DATA AND RESEARCH DESIGN

MiDi Database and Supplementary Data Sources

As our main data source, we use data on inbound FDI relations provided by the MiDi database of the Deutsche Bundesbank.²¹ This database includes anonymized micro-level data on the stock of in- and outbound FDI relations in Germany starting in the year 1999. As the German Foreign Trade and Payments Regulation (*Außenwirtschaftsverordnung*) mandates annual reports on FDI relations, data availability is independent of financial reporting requirements. Penalties and data appraisal techniques ensure high data quality (Lipponer 2011, Schild and Walter 2015) making the MiDi database superior over most commercial data sources.

An inbound FDI relation has to be reported to the Deutsche Bundesbank if an investing entity holds at least 10 percent in the shares or voting rights of a subsidiary or a partnership with a balance sheet total of more than EUR 3 million. A branch and a permanent establishment has to be reported if the business assets amount to EUR 3 million and over (Lipponer 2011, Schild and Walter 2015).

The MiDi database provides detailed information on the affiliate associated with the inbound FDI relation including an identifier for its organizational form. Data on the investing entity and the ultimate parent of a multinational is limited to an identifier for the investing entity, the ultimate parent, and the respective home countries. Thus, we are able to disentangle direct investment from indirect investment (Figure 1). We supplement data from the MiDi database with information on dividend-withholding tax rates, home and host country corporate income tax rates, tax base determinants, and the tax system in the home country. We hand-collect this data from public sources (e.g., Ernst & Young Worldwide Corporate Tax Guides, Ernst & Young 2005-2013).

²¹ DOI: 10.12757/Bbk.MiDi.9913.01.01.

Sample Selection

To construct a sample of organizational form choices, we identify the first observation of an inbound FDI relation in Germany for the period 1999-2013 (18,265 observations).²² First, we drop observations prior to the year 2005 as the information to differentiate between new affiliates and pre-existing affiliates is unavailable (12,206 observations). Second, we drop observations where the investing entity holds less than 25 percent of the shares of a new affiliate (360 observations). This threshold ensures that the investing entity is able to influence the organizational form choice.²³ For a new affiliate with multiple investing entities, we keep the observation for the main investor. Third, we delete observations where the investing entity is located in a home country without tax information (19 observations). Lastly, we drop observations of pre-existing affiliates, as the first observation in the MiDi database results from passing the reporting threshold and does not involve an organizational form choice (3,498 observations). For sample years 2005-2013, these restrictions result in a sample of 2,182 organizational form choices. The new affiliates in our sample are either established through greenfield investment (1,051 observations) or M&A (1,131 observations). Table 2 summarizes the sample selection.

INSERT TABLE 2 HERE

The investing entities facing an organizational form choice in our sample are located in 59 home countries. These countries account for more than 99 percent of all inbound FDI relations recorded in the MiDi database. 45 countries exhibit a double tax treaty with Germany while 14 countries have sizeable inbound FDI relations without a double tax treaty. For each home-country year, we apply the formulas in Table 1 to compute the tax burden

²² We analyze inbound FDI relations of investing entities because the tax burden difference between a subsidiary and a flow-through does not exist in a domestic setting. Thus, we disregard observations where the investing entity establishes a subsidiary or a flow-through indirectly through another German affiliate.

²³ We derive this threshold from German corporate law. Strategic decisions require the consent of more than 75 percent of the shareholders (*Sperrminorität*). Thus, an investing entity holding at least 25 percent of the shares of a new affiliate is able to influence strategic decisions (e.g., organizational form choices). Our inferences are unchanged when requiring a threshold of 50, 75 percent, or 100 percent.

difference between a subsidiary and a flow-through. Differences between home countries and changes over time imply variation in tax rates and tax systems. Thus, we observe variation in the tax burden difference (Table 3) and in dividend-withholding tax rates (Table 4).

INSERT TABLE 3 HERE

INSERT TABLE 4 HERE

Research Design

To model an organizational form choice and to test our hypotheses, we estimate the following logistic regression model:²⁴

$$\ln \frac{P_{FLOW-THROUGHijt}}{1 - P_{FLOW-THROUGHijt}} = \beta_0 + \beta_1 TAXWEDGE_t + \sum \beta X + YEAR + INDUSTRY + \varepsilon^{(1)}$$

$$P_{FLOW-THROUGHijt} = \frac{e^{(\beta_0 + \beta_1 TAXWEDGE_t + \sum \beta X)}}{1 + e^{(\beta_0 + \beta_1 TAXWEDGE_t + \sum \beta X)}}$$

and is the probability that the

investing entity j establishes the new affiliate i as a flow-through. Unless indicated otherwise, we measure all variables in year t , which is the year of the organizational form choice. The dependent variable *FLOW-THROUGH* is an indicator variable with the value of one if the new affiliate is established as a flow-through, and zero otherwise (i.e. as a subsidiary).

TAXWEDGE is the tax-burden difference between a subsidiary and a flow-through on foreign profit earned in the host country, and captures the tax disadvantage of a subsidiary. Consistent with H1 and the argument that investing entities are sensitive to international taxation in organizational form choices, a larger tax burden difference raises the tax benefit of a flow-through. Thus, we expect a positive coefficient on β_1 .

Vector X includes variables to control for additional determinants of organizational form choices. First, we include affiliate-level controls. We add $LN(EMPLOY)$ as the logarithm of total employees and $LN(ASSETS)$ as the logarithm of total assets to proxy for size. Large

²⁴ We define variables in the appendix.

affiliates increase the potential loss of the investing entity (Liu 2014) which raises the benefit of limited liability induced by a subsidiary. Thus, we expect for both variables a negative effect on *FLOW-THROUGH*. *LOSSYEAR* is an indicator variable with the value of one if the new affiliate reports a loss in year t .²⁵ We again expect a negative effect as losses indicate risk, raising the benefit of limited liability (Ayers et al. 1996).

Furthermore, we add *LEVERAGE* as the debt ratio. Debtholders demand financial statement information (Armstrong, Guay, and Weber 2010), which is more extensive for a subsidiary. Thus, we expect that *LEVERAGE* reduces the probability of establishing a flow-through. We also include *ROA* as net profit over total assets to control for profitability but do not make a directional prediction for the effect on *FLOW-THROUGH*. We include *BROWNFIELD* as an indicator variable with the value of one if the new affiliate is established through M&A, and zero otherwise (i.e. greenfield investment). We expect a negative effect for *BROWNFIELD*, as shares in a subsidiary are more readily transferable than shares in a flow-through making M&A for a subsidiary less costly.

To control for the repatriation of foreign profit, we add *DISTRIBUTION* as an indicator variable with the value of one if the new affiliate distributes foreign profit in year $t+1$. As dividend-withholding taxes are levied on a subsidiary's dividend distributions making the repatriation of foreign profit more costly for this organizational form (Foley et al. 2007, Blouin and Krull 2009), we expect a positive effect of *DISTRIBUTION* on *FLOW-THROUGH*. We add *INTERNDEBT* and *INTANGIBLES* to control for income-shifting opportunities. *INTERNDEBT* is the ratio of related-party debt to total assets and *INTANGIBLES* an indicator variable with the value of one if the new affiliate is established in an industry with high intangible-asset intensity (e.g., pharmaceuticals or chemicals; Hall et al. 2014). Income shifting via tax-deductible payments enables multinationals to repatriate

²⁵ In untabulated tests, we extend *LOSSYEAR* to two years and three years of consecutive losses. These tests result in a smaller sample size but our main inferences are unchanged.

foreign profit without triggering the effects of international taxation. This mitigates the tax disadvantage of a subsidiary and we expect for both variables a negative effect on *FLOW-THROUGH*.

Second, we control for characteristics of the investing entity. We add *NUMINV* as the number of inbound FDI relations of the investing entity in Germany. A high number of inbound FDI relations indicates that risk is spread across several affiliates, reducing the benefit of limited liability in the new affiliate. Thus, we expect a positive effect on *FLOW-THROUGH*. We include *HOLDINGS* as the percentage of shares held by the investing entity in the new affiliate to capture cooperation among investing entities. As cooperation requires trust and commitment (e.g., through unlimited liability), the probability of establishing a flow-through is expected to decrease in *HOLDINGS*. We add *DIRECTFDI* as an indicator variable with the value of one if the investing entity engages in direct investment, and zero otherwise (i.e. indirect investment). We do not make a directional prediction as multinationals engage in indirect investment to benefit from double tax treaties (Mintz and Weichenrieder 2010, Wamser 2011) or to exploit regulatory differences between countries (Cerutti et al. 2007). The first strategy requires a subsidiary to obtain tax treaty entitlement, while the second strategy involves a flow-through operating through licenses granted to a pre-existing affiliate.

Third, we control for characteristics of the home country of the investing entity. We add $LN(DIST)$ as the natural logarithm of the distance between the capital city of the home country and Germany to control for coordination costs of the new affiliate. As a flow-through implies lower coordination costs than a subsidiary (Goolsbee and Maydew 2002), we expect a positive effect of $LN(DIST)$ on *FLOW-THROUGH*. Lastly, we add *YEAR* and *INDUSTRY* as fixed effects to capture year shocks and time-invariant industry characteristics that may affect organizational form choices. We estimate heteroscedasticity-robust standard errors clustered at the investing-entity level to account for serial correlation in the data (Petersen 2009).²⁶

²⁶ Our main inferences are unchanged when using alternative clusters (industry, year, home country of the investing

To test our cross-sectional hypotheses, we modify Equation (1) and include interaction variables that partition our sample into subsamples in which theory predicts differences in the tax-sensitivity of investing entities. We explain these tests in more detail below.

IV. RESULTS

Descriptive Statistics

Our sample of organizational form choices includes 1,649 subsidiaries and 533 flow-throughs. Thus, the unconditional probability of establishing a flow-through is 24.43 percent (533/2,182). Table 5, Panel A shows descriptive statistics for the full sample and for subsamples of subsidiaries and flow-throughs. A t-test indicates that the mean tax burden difference in the flow-through subsample is higher than in the subsidiary subsample (*TAXWEDGE*, $p < 0.01$). This result is consistent with H1 and the argument that investing entities are tax-sensitive in organizational form choices.

As we observe more subsidiaries than flow-throughs, further determinants affect organizational form choices. Flow-throughs have fewer employees (*LN(EMPLOY)*, $p < 0.01$), a lower profitability (*ROA*, $p < 0.01$), and a lower ratio of related-party debt to total assets (*INTERNDEBT*, $p < 0.01$). In addition, flow-throughs are less likely to report a loss (*LOSSYEAR*, $p < 0.01$) and to be established through M&A (*BROWNFIELD*, $p = 0.06$) or in an industry with high intangible-asset intensity (*INTANGIBLES*, $p < 0.01$). In contrast, flow-throughs are more likely to distribute foreign profit (*DISTRIBUTION*, $p < 0.01$). An investing entity that establishes a flow-through has a higher number of inbound FDI relations (*NUMINV*, $p < 0.01$), holds a lower percentage of shares in the new affiliate (*HOLDINGS*, $p < 0.01$), is less likely to engage in direct investment (*DIRECTFDI*, $p < 0.01$), and is located in a less distant home country (*LN(DIST)*, $p < 0.01$). Total assets (*LN(ASSETS)*, $p = 0.15$) and the debt ratio (*LEVERAGE*, $p = 0.77$), however, do not differ between subsamples.

entity, and home country of ultimate parent).

Panel B presents organizational form choices per sample year. The number of new affiliates increases in sample years 2005-2007 and after the year 2010. We observe a lower number of new affiliates for sample years 2008-2010, which is likely due to the global financial crisis. The proportion of flow-throughs varies over time with the relevance of flow-throughs increasing in sample years 2007-2009 and again after the year 2010.

Panel C presents organizational form choices per industry.²⁷ We observe the highest number of new affiliates in the financial services industry, and the lowest in the transportation industry. The number of flow-throughs is highest in the energy supply and construction industries, and lowest in the wholesale and manufacturing industries. These differences suggest that industry-level determinants affect organizational form choices.

Panel D presents organizational form choices per home country of the investing entity.²⁸ We observe the highest number of new affiliates for investing entities located in neighboring countries (Luxembourg, the Netherlands) and major economies (the United States, the United Kingdom). Consistent with variation in the tax burden difference, the relevance of each organizational form varies across home countries.

INSERT TABLE 5 HERE

Table 6 presents Pearson correlation coefficients for univariate correlations between dependent and independent variables. *TAXWEDGE* exhibits a positive correlation with *FLOW-THROUGH* ($p < 0.01$), which is in line with H1. Correlations between the remaining independent variables and *FLOW-THROUGH* are largely consistent with our expectations. As most variables are correlated, we draw our inferences from multivariate tests below.

INSERT TABLE 6 HERE

²⁷ We aggregate observations based on one-digit NACE Rev. 2 codes to ensure a meaningful analysis.

²⁸ We present home countries with at least three observations per organizational form that result from three distinct investing entities. Our sample includes another 32 home countries that do not fulfill this confidentiality requirement.

Baseline Regression Results: Tax-Sensitivity in Organizational Form Choices

We begin by testing H1, which predicts that the probability of establishing a flow-through increases with the tax disadvantage of a subsidiary. Table 7 presents regression results based on Equation (1).²⁹ In column 1, the coefficient on *TAXWEDGE* is positive and significant ($p < 0.01$), which indicates that the probability of establishing a flow-through increases in the tax burden difference between a subsidiary and a flow-through. In column 3, including control variables in the regression leads to similar inferences.³⁰

Results for further determinants are generally consistent with our expectations. The probability of establishing a flow-through decreases if the new affiliate reports a loss (*LOSSYEAR*, $p < 0.01$). Moreover, the probability decreases with the profitability of the new affiliate (*ROA*, $p = 0.05$) and with the percentage of shares held by the investing entity (*HOLDINGS*, $p < 0.01$). Flow-throughs are less likely to be established in case of M&A (*BROWNFIELD*, $p < 0.01$), in case of industries with high intangible-asset intensity (*INTANGIBLES*, $p < 0.01$), and in case the investing entity engages in direct investment (*DIRECTFDI*, $p < 0.01$). In contrast, the probability of establishing a flow-through is positively associated with the repatriation of foreign profit (*DISTRIBUTION*, $p = 0.02$) and the number of inbound FDI relations (*NUMINV*, $p = 0.08$). In column 5, excluding *TAXWEDGE* does not alter our results.

In columns 2, 4, and 6, we report marginal effects to assess the economic significance of our results. A one standard deviation increase in *TAXWEDGE* is associated with a 3.57 percentage point higher probability of establishing a flow-through (column 4). As the unconditional probability of establishing a flow-through is 24.43 percent, this effect suggests a 14.55 percent (3.57 percent/24.43 percent) increase in the proportion of flow-throughs. In

²⁹ To facilitate a meaningful comparison of variables, we standardize independent variables to have a mean of zero and a standard deviation of one prior to estimating regressions.

³⁰ The area under the receiver operating characteristic curve (ROC curve) suggests that our regressions exhibit acceptable predictive power (Hosmer, Lemeshow, and Sturdivant 2013). The regression in column 3, for instance, correctly predicts the organizational form for 78 percent of our observations.

comparison, a one standard deviation increase in *ROA* is associated with a 5 percentage point lower probability of establishing a flow-through. Thus, the economic effect of *TAXWEDGE* on *FLOW-THROUGH* is comparable to the effect of non-tax determinants. As corroborating evidence, we conduct a likelihood ratio test which suggests that adding *TAXWEDGE* as an explanatory variable increases the model fit of our regressions ($\chi^2 = 14.65$, $p < 0.01$). Overall, these results support H1: The tax disadvantage of a subsidiary in comparison to a flow-through affects group structures of multinationals by way of organizational form choices.

INSERT TABLE 7 HERE

Cross-Sectional Regression Results: Income-Shifting Opportunities and Tax-Sensitivity

H2 predicts that income-shifting opportunities decrease the tax-sensitivity of investing entities. To test this, we modify Equation (1) and present results in Table 8. First, we interact *TAXWEDGE* with *HIGH_INTDEBT*, which is an indicator variable with the value of one if the ratio of related-party debt provided by foreign affiliates to total assets of the new affiliate is above the sample median. Income shifting, for instance via interest payments, enables multinationals to repatriate foreign profit without triggering the effects of international taxation. Thus, we expect and find a lower tax-sensitivity for new affiliates with high related-party debt indicated by a negative and significant coefficient on *TAXWEDGE#HIGH_INTDEBT* (column 1, $p < 0.01$).³¹ An F-test suggests that the effect of *TAXWEDGE* on *FLOW-THROUGH* for new affiliates with high related-party debt ($\beta_1 + \beta_3$) is indistinguishable from zero ($p = 0.79$).

Second, we interact *TAXWEDGE* with *INTANGIBLES* to proxy for royalty payments on intangible assets. Consistent with the previous test, we expect and find a lower tax-sensitivity for new affiliates established in an industry with high intangible-asset intensity

³¹ In untabulated tests, we define *HIGH_INTDEBT* based on total related-party debt including debt provided by domestic affiliates in Germany. As total related-party debt is a less direct proxy for income-shifting opportunities than related-party debt provided by foreign affiliates, the coefficient on *TAXWEDGE#HIGH_INTDEBT* is negative but only marginally significant ($p = 0.10$). The effect of *TAXWEDGE* on *FLOW-THROUGH* for new affiliates with a high ratio of total related-party debt to total assets ($\beta_1 + \beta_3$) is different from zero ($p = 0.07$).

indicated by a negative and significant coefficient on *TAXWEDGE#INTANGIBLES* (column 3, $p = 0.09$). An F-test suggests that the effect of *TAXWEDGE* on *FLOW-THROUGH* for new affiliates established in an industry with high intangible-asset intensity ($\beta_1 + \beta_5$) is indistinguishable from zero ($p = 0.39$). Taken together, these results support H2: Repatriation strategies that do not trigger the effects of international taxation (e.g., income shifting) eliminate the tax-sensitivity of investing entities in organizational form choices.

We further examine whether the immediate repatriation of foreign profit affects the tax-sensitivity of investing entities. As deferring the repatriation of foreign profit reduces the tax disadvantage of a subsidiary, the tax-sensitivity might depend on whether investing entities anticipate the timing of profit repatriation in organizational form choices. To provide a formal test, we interact *TAXWEDGE* with *DISTRIBUTION*. In column 5, the coefficient on *TAXWEDGE#DISTRIBUTION* is insignificant ($p = 0.18$).³² This result suggests that investing entities are sensitive to the tax disadvantage of a subsidiary independent of whether or not the repatriation of foreign profit is deferred.

INSERT TABLE 8 HERE

Cross-Sectional Regression Results: Non-Tax Aspects and Tax-Sensitivity

H3a, H3b, and H3c predict that variation in the relevance of non-tax aspects associated with organizational form choices moderates the tax-sensitivity. To test these hypotheses, we modify Equation (1) and interact *TAXWEDGE* with indicator variables for non-tax aspects. We present results in Table 9. First, we examine the benefit of limited liability and interact *TAXWEDGE* with *MANU_WHS*, which is an indicator variable with the value of one if the new affiliate is established in the manufacturing or wholesale industry. As the importance of tangible assets increases the benefit of limited liability in these industries, we expect and find a lower tax-sensitivity for new affiliates established in the manufacturing or wholesale

³² An F-test suggests that the effect of *TAXWEDGE* on *FLOW-THROUGH* for new affiliates that distribute foreign profit to the investing entity ($\beta_1 + \beta_7$) is larger than zero ($p < 0.01$).

industry, indicated by a negative and significant coefficient on *TAXWEDGE#MANU_WHS* (column 1, $p = 0.09$).³³ An F-test suggests that the effect of *TAXWEDGE* on *FLOW-THROUGH* for new affiliates in these industries ($\beta_1 + \beta_3$) is indistinguishable from zero ($p = 0.24$). These results support H3a: The benefit of limited liability eliminates the tax-sensitivity of investing entities in capital-intensive industries.

Second, we examine group structure adjustment costs and interact *TAXWEDGE* with *BROWNFIELD*, which is an indicator variable with the value of one if the new affiliate is established through M&A. M&A enables multinationals to adapt a pre-existing group structure to international taxation at low cost. Thus, we expect and find a higher tax-sensitivity in organizational form choices for M&A, indicated by a positive and significant coefficient on *TAXWEDGE#BROWNFIELD* (column 3, $p = 0.06$). These results support H3b: Low group-structure adjustment costs increase the tax-sensitivity of investing entities in organizational form choices for M&A.³⁴ The insignificant coefficient on *TAXWEDGE* ($p = 0.17$) suggests that non-tax decisions (e.g., financing or investment) dominate organizational form choices for greenfield investment.

Third, we examine host-country experience and interact *TAXWEDGE* with *MSUBS*, which is an indicator variable with the value of one if the investing entity has at least one additional inbound FDI relation in Germany. An experienced investing entity has knowledge of tax-efficient group structures. Thus, we expect and find a higher tax-sensitivity for experienced investing entities, indicated by a positive and significant coefficient on *TAXWEDGE#MSUBS* (column 5, $p = 0.03$).³⁵ These results support H3c: Host-country experience increases the tax-sensitivity of investing entities. The insignificant coefficient on

³³ We drop observations from regulated industries (energy supply, financial services, information and communication) due to distinct non-tax benefits of organizational forms in these industries (Demirguc-Kunt et al. 2006, Cerutti et al. 2007).

³⁴ An F-test suggests that the effect of *TAXWEDGE* on *FLOW-THROUGH* in organizational form choices for M&A ($\beta_1 + \beta_5$) is larger than zero ($p < 0.01$).

³⁵ An F-test suggests that the effect of *TAXWEDGE* on *FLOW-THROUGH* for experienced investing entities ($\beta_1 + \beta_7$) is larger than zero ($p < 0.01$).

TAXWEDGE ($p = 0.10$) suggests that non-tax aspects dominate organizational form choices of inexperienced investing entities.

INSERT TABLE 9 HERE

The above tests suggest that non-tax decisions dominate organizational form choices for greenfield investment, while the tax-sensitivity of investing entities increases with host-country experience. To further examine these effects, we form subsamples for greenfield investment and M&A and re-estimate the previous regression for each subsample. We present the results in Table 10. In column 1, the coefficient on *TAXWEDGE#MSUBS* is positive and significant for greenfield investment ($p = 0.01$). An F-test suggests that the effect of *TAXWEDGE* on *FLOW-THROUGH* for experienced investing entities ($\beta_1 + \beta_3$) is close to significance ($p = 0.10$). In column 3, the coefficient on *TAXWEDGE#MSUBS* is insignificant for M&A ($p = 0.19$).³⁶ These results suggest that host-country experience increases the tax-sensitivity in organizational form choices for greenfield investment while investing entities are tax-sensitive in organizational form choices for M&A independent of host-country experience.

INSERT TABLE 10 HERE

V. ROBUSTNESS TESTS AND SUPPLEMENTARY ANALYSIS

Robustness Tests

We conduct several tests to assess the robustness of our results. First, we include additional tax variables and home-country controls. In Table 11, column 1 we replace *TAXWEDGE* with *WHT*, which is the dividend-withholding tax rate levied on a subsidiary's dividend distributions and simultaneously the main driver of the tax burden difference. In line with our main results, the coefficient on *WHT* is positive and significant ($p < 0.01$). Moreover, the economic effect of *WHT* in column 2 is similar to the effect of *TAXWEDGE* in our main

³⁶ An F-test suggests that the effect of *TAXWEDGE* on *FLOW-THROUGH* for experienced investing entities ($\beta_1 + \beta_3$) is larger than zero ($p < 0.01$).

tests (Table 7, column 4). In column 3, we add *CAPWEDGE*, which is the tax burden difference between a subsidiary and a flow-through on capital gains from selling the new affiliate. The coefficient on *CAPWEDGE* is insignificant ($p = 0.38$), while the coefficient on *TAXWEDGE* remains positive and significant ($p < 0.01$). Thus, international capital gains taxation is not a tax determinant for organizational form choices.³⁷ In column 5, we control for the legal origin of the home-country legal system to rule out that institutional similarities between countries induce non-tax preferences for organizational forms (LaPorta et al. 2008). The coefficient on *TAXWEDGE* remains positive and significant ($p < 0.01$). Thus, home-country legal systems do not affect our results.³⁸

INSERT TABLE 11 HERE

Second, we modify our sample and present results in Table 12. In column 1, we interact *TAXWEDGE* with *STANDALONE*, which is an indicator variable with the value of one if the new affiliate does not hold shares in another German affiliate. The coefficient on *TAXWEDGE* is positive and significant ($p < 0.01$), while the coefficient on *TAXWEDGE#STANDALONE* is insignificant ($p = 0.65$). This indicates that international taxation affects group structures of multinationals irrespective of whether the new affiliate belongs to a subgroup in the host country or not. In column 3, we drop regulated industries due to the distinct non-tax benefits of organizational forms in these industries (Demirguc-Kunt et al. 2006, Cerutti et al. 2007). Our results are unchanged. In column 5, we drop observations with a tax burden difference equal to zero.³⁹ Although reducing our sample size, we still find a positive and significant coefficient on *TAXWEDGE* ($p = 0.06$). To address the concern that our results are driven by observations from tax havens and do not generalize to other settings, we drop organizational form choices if the investing entity is located in a tax

³⁷ This result is consistent with the argument that the investing entity engages in the host country with a long-term perspective (i.e. going concern).

³⁸ In untabulated tests, we control for the legal origin of the home-country legal system of the ultimate parent. Our main inferences are unchanged.

³⁹ This mainly concerns observations from the European Union where the Parent-Subsidiary-Directive eliminates the dividend withholding tax on a subsidiary's dividend distributions.

haven according to Gravelle (2009).⁴⁰ In column 7, the coefficient on *TAXWEDGE* is positive and significant ($p < 0.01$). Thus, observations from tax havens do not affect our results.

INSERT TABLE 12 HERE

Third, we alter our regression model and re-estimate Equation (1). In untabulated tests, we exclude industry and year-fixed effects to address econometric concerns raised by Greene (2004). In addition, we replace the logistic regression with a probit regression and a linear probability model. We continue to find positive and significant coefficients on *TAXWEDGE*. Taken together, these robustness tests corroborate our main results.

Heterogeneity in Flow-Throughs and Tax-Sensitivity

Thus far, we have treated flow-throughs as a uniform category of organizational forms. The MiDi database enables us to subdivide flow-throughs into partnerships and branches, which differ in the degree of liability.⁴¹ Some types of partnerships induce limited liability for the investing entity while retaining tax and non-tax benefits of a flow-through (e.g., lower tax burden, less extensive financial reporting requirements).⁴² Branches, in contrast, necessarily induce unlimited liability. Thus, the benefit of limited liability might be less relevant when choosing between a subsidiary and a partnership as an organizational form for the new affiliate but gains relevance when choosing between a subsidiary and a branch.

To test this, we modify Equation (1) and present results in Table 13. We estimate a multinomial logistic regression with *PARTNERSHIP-BRANCH* as a dependent variable. This categorical variable has the value of zero if the new affiliate is established as a subsidiary, one if established as a partnership, and two if established as a branch.⁴³ The regression includes

⁴⁰ From the home countries in Table 3, we drop observations of investing entities located in the British Virgin Islands, Cyprus, Jersey, Liechtenstein, Luxembourg, Mauritius, and Switzerland (see Gravelle 2009).

⁴¹ The sub-category of branches also includes permanent establishments. We do not subdivide subsidiaries into (i) public limited company (*Aktiengesellschaft*) and (ii) private limited company (*Gesellschaft mit beschränkter Haftung*) as these sub-categories do not differ in the degree of liability.

⁴² Partnerships induce limited liability if established in the legal forms of a *Gesellschaft mit beschränkter Haftung* & *Compagnie Kommanditgesellschaft* (GmbH&Co KG) or a *Aktiengesellschaft* & *Compagnie Kommanditgesellschaft* (AG&Co KG). These legal forms are comparable to a U.S. *Limited Liability Company* (LLC). Due to missing data, we are unable to identify the precise legal form of the new affiliate and to further subdivide partnerships.

subsidiaries and partnerships in column 1 and subsidiaries and branches in column 2. In line with our expectation, the coefficient on *TAXWEDGE* is positive and significant in column 1 ($p < 0.01$) but insignificant in column 2 ($p = 0.84$). This asymmetric effect suggests that investing entities are tax-sensitive when deciding between a subsidiary and a partnership, while the benefit of limited liability dominates the choice between a subsidiary and a branch.

Treaty Shopping and Tax-Sensitivity

Our main tests suggest that the tax disadvantage of a subsidiary affects organizational form choices of investing entities. One strategy to mitigate the tax disadvantage of a subsidiary is treaty shopping, whereby multinationals engage in indirect investment and strategically locate an affiliate in a third country to benefit from double tax treaties (Mintz and Weichenrieder 2010, Dyreng et al. 2015). Thus, indirect investment driven by treaty shopping might reduce the tax-sensitivity of investing entities in organizational form choices.⁴⁴

To examine whether treaty shopping decreases the tax-sensitivity, we interact *TAXWEDGE* with *DIRECTFDI*, which is an indicator variable with the value of one if the investing entity engages in direct investment. We present results in Table 13. In column 3, we find a positive and significant coefficient on *TAXWEDGE* ($p = 0.02$), while the coefficient on *TAXWEDGE#DIRECTFDI* is insignificant ($p = 0.22$).⁴⁵ These results provide no evidence that treaty shopping affects the tax-sensitivity of investing entities.

INSERT TABLE 13 HERE

VI. CONCLUSIONS

In this study we examine whether, when, and to what extent international taxation affects the organizational form multinationals choose for a newly established foreign affiliate.

⁴³ The 533 flow-throughs in our sample include 469 partnerships and 64 branches.

⁴⁴ At the same time, indirect investment might be driven by non-tax aspects, for instance to exploit regulatory differences across countries (Cerutti et al. 2007).

⁴⁵ An F-test suggests that the effect of *TAXWEDGE* on *FLOW-THROUGH* for direct investment ($\beta_1 + \beta_3$) is larger than zero ($p < 0.01$).

We use micro-level data on the stock of inbound FDI relations in Germany and study the choices of investing entities located in 59 home countries. Due to variations in tax rates and tax systems across countries and over time, our setting is unique to identify and estimate the effect of international taxation on the choice between a subsidiary and a flow-through. We find that 24.43 percent of organizational form choices result in a flow-through, which suggests that flow-throughs are highly relevant for group structures of multinationals. Regression results indicate that investing entities are sensitive to the tax disadvantage of a subsidiary in organizational form choices. This effect, which mainly results from differences in repatriation taxes between organizational forms, is economically meaningful where a one standard deviation increase in the tax disadvantage of a subsidiary is associated with a 3.57 percentage point higher probability of establishing a flow-through.

Results from cross-sectional tests suggest that tax and non-tax aspects associated with organizational form choices moderate the tax-sensitivity of investing entities. With respect to tax aspects, we find that repatriation strategies that do not trigger the effects of international taxation (e.g., income shifting) decrease the tax-sensitivity of investing entities. Similarly, the non-tax benefit of limited liability mitigates the tax-sensitivity of investing entities in capital-intensive industries (e.g., manufacturing). Low group structure adjustment costs and host-country experience, in contrast, increase the tax-sensitivity.

Taken together, our results provide evidence that international taxation affects group structures of multinationals by way of organizational form choices. International taxation has far-reaching implications for the strategies multinationals employ for their cross-border economic activities as it affects the location of affiliates (Mintz and Weichenrieder 2010, Dyreng et al. 2015) and their organizational form. This is relevant as organizational forms induce distinct tax and non-tax costs and benefits. Moreover, the drivers of cross-sectional variation in the effect of taxation (income-shifting opportunities, group structure adjustment

costs, host-country experience) differ from those identified in domestic settings (e.g., Gordon and MacKie-Mason 1994, Petroni and Shackelford 1995, Ayers et al. 1996, Goolsbee 2004).

Our findings also inform current tax-policy initiatives to curb tax avoidance and income shifting and suggest that tax-policy actions leading to an asymmetric taxation of subsidiaries and flow-throughs increase the likelihood that multinationals select a flow-through for cross-border economic activities. The relevance of flow-throughs suggests that prior studies that examine corporate affiliates have probably overlooked significant parts of existing group structures and that multinationals might use organizational forms as part of a broader tax-avoidance strategy. We welcome more research on this topic in the future.

REFERENCES

- Altshuler, R., and H. Grubert. 2003. Repatriation taxes, repatriation strategies and multinational financial policy. *Journal of Public Economics* 87 (1): 73–107.
- Armstrong, C. S., W. R. Guay, and J. P. Weber. 2010. The role of information and financial reporting in corporate governance and debt contracting. *Journal of Accounting and Economics* 50 (2–3): 179–234.
- Ayers, B. C., C. B. Cloyd, and J. R. Robinson. 1996. Organizational Form and Taxes: An Empirical Analysis of Small Businesses. *The Journal of the American Taxation Association* 18 (1): 49–67.
- Barrios, S., H. P. Huizinga, L. Laeven, and G. Nicodème. 2012. International taxation and multinational firm location decisions. *Journal of Public Economics* 96 (11): 946–958.
- Blouin, J., and L. Krull. 2009. Bringing It Home: A Study of the Incentives Surrounding the Repatriation of Foreign Earnings Under the American Jobs Creation Act of 2004. *Journal of Accounting Research* 47 (4): 1027–1059.
- Buettner, T., N. Riedel, and M. Runkel. 2011. Strategic consolidation under formula apportionment. *National Tax Journal* 64 (2): 225–254.
- Cerutti, E., G. Dell’Ariccia, and M. S. Martinez Peria. 2007. How banks go abroad: Branches or subsidiaries? *Journal of Banking and Finance* 31 (6): 1169–1192.
- Collins, J. H., and D. A. Shackelford. 1997. Global organizations and taxes: An analysis of the dividend, interest, royalty, and management fee payments between U.S. multinationals’ foreign affiliates. *Journal of Accounting and Economics* 24 (2): 151–173.
- Collins, J. H., D. Kemsley, and M. Lang. 1998. Cross-Jurisdictional Income Shifting and Earnings Valuation. *Journal of Accounting Research* 36 (2): 209–229.
- Demirguc-Kunt, A., I. Love, and V. Maksimovic. 2006. Business environment and the incorporation decision. *Journal of Banking and Finance* 30 (11): 2967–2993.
- Desai, M. A., C. F. Foley, and J. H. Hines Jr. 2001. Repatriation Taxes and Dividend Distortions. *National Tax Journal* 54 (4): 829–851.
- Desai, M. A., C. F. Foley, and J. H. Hines Jr. 2004. A Multinational Perspective on Capital Structure Choice and Internal Capital Markets. *The Journal of Finance* 59 (6): 2451–2487.
- De Simone, L., and R. Sansing. 2016. Income Shifting Using a Cost Sharing Arrangement. Working Paper, Stanford and Dartmouth College.
- Dyreng, S. D., B. P. Lindsey, K. S. Markle, and D. A. Shackelford. 2015. The effect of tax and non tax country characteristics on the global equity supply chains of US multinationals. *Journal of Accounting and Economics* 59 (2): 182–202.
- Dyreng, S. D., and K. S. Markle. 2016. The Effect of Financial Constraints on Tax-Motivated Income Shifting by U.S. Multinationals. *The Accounting Review* 91 (6): 1601–1627.
- Elschner, C. 2013. Special tax regimes and the choice of organizational form: Evidence from the European Tonnage Taxes. *Journal of Public Economics* 97 (1): 206–216.

- Edwards, A., T. Kravet, and R. Wilson. 2016. Trapped Cash and the Profitability of Foreign Acquisitions. *Contemporary Accounting Research* 33 (1): 44–77.
- Ernst & Young 2005-2013. Worldwide Corporate Tax Guide 2005-2013. Ernst & Young.
- Feller, A., and D. Schanz. 2017. The Three Hurdles of Tax Planning: How Business Context, Aims of Tax Planning, and Tax Manager Power Affect Tax Expense. *Contemporary Accounting Research*: Forthcoming.
- Foley, C. F., J. Hartzell, S. Titman, and G. Twite. 2007. Why do firms hold so much cash? A tax-based explanation. *Journal of Financial Economics* 86 (3): 579–607.
- Gleditsch, K. S. 2013. Distance between Capital Cities. Essex: Gleditsch.
- Graham, J. R., M. Hanlon, and T. J. Shevlin. 2011. Real effects of accounting rules: Evidence from multinational firms' investment location and profit repatriation decisions. *Journal of Accounting Research* 49 (1): 137–185.
- Goolsbee, A. 1998. Taxes, organizational form, and the deadweight loss of the corporate income tax. *Journal of Public Economics* 69 (1): 143–152.
- Goolsbee, A., and E. L. Maydew. 2002. Taxes and organizational form: The case of REIT spin-offs. *National Tax Journal* 55 (3): 441–456.
- Goolsbee, A. 2004. The impact of the corporate income tax: evidence from state organizational form data. *Journal of Public Economics* 88 (11): 2283–2299.
- Gordon, R. H., and J. K. MacKie-Mason. 1994. Tax distortions to the choice of organizational form. *Journal of Public Economics* 55 (2): 279–306.
- Gravelle, J. T. 2009. Tax Havens: International Tax Avoidance and Evasion. *National Tax Journal* 62 (4): 727–753.
- Greene, W. 2004. The behaviour of the maximum likelihood estimator of limited dependent variable models in the presence of fixed effects. *Econometrics Journal* 7 (1): 98–119.
- Hall, B., C. Helmers, M. Rogers, and V. Sena. 2014. The Choice between Formal and Informal Intellectual Property: A Review. *Journal of Economic Literature* 52 (2): 375–423.
- Hanlon, M., and S. Heitzman. 2010. A review of tax research. *Journal of Accounting and Economics* 50 (2–3): 127–178.
- Hanlon, M., R. Lester, and R. Verdi. 2015. The effect of repatriation tax costs on U.S. multinational investment. *Journal of Financial Economics* 116 (1): 179–196.
- Hartman, D. 1985. Tax policy and foreign direct investment. *Journal of Public Economics* 26 (1): 107–121.
- Hodder, L., M. L. McAnally, and C. D. Weaver. 2003. The influence of tax and nontax factors on banks' choice of organizational form. *The Accounting Review* 78 (1): 297–325.
- Hines Jr, J. H., and E. Rice. 1994. Fiscal Paradise: Foreign Tax Havens and American Business. *Quarterly Journal of Economics* 109 (1): 149–182.
- Hosmer, D. W., S. Lemeshow, and R. X. Sturdivant. 2013. *Applied Logistic Regression*, 3rd Edition. Hoboken, NJ: John Wiley & Sons, Inc.

- Huizinga, H. P., and L. Laeven. 2008. International profit shifting within multinationals: A multi-country perspective. *Journal of Public Economics* 92 (5–6): 1164–1182.
- Huizinga, H. P., L. Laeven, and G. Nicodème. 2008. Capital structure and international debt shifting. *Journal of Financial Economics* 88 (1): 80–118.
- Huizinga, H. P., and J. Voget. 2009. International taxation and the direction and volume of cross-border M&As. *The Journal of Finance* 64 (3): 1217–1249.
- ICIJ 2014. Leaked Documents Expose Global Companies' Secret Tax Deals in Luxembourg. ICIJ, November 5. Accessed at: <https://www.icij.org/project/luxembourg-leaks/leaked-documents-expose-global-companies-secret-tax-deals-luxembourg>.
- IMF 2016. World Economic Outlook. Washington, DC: International Monetary Fund.
- Klassen, K., and S. Laplante. 2012. Are U.S. multinational corporations becoming more aggressive income shifters? *Journal of Accounting Research* 50 (5): 1245–1285.
- LaPorta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny. 1998. Law and finance. *Journal of Political Economy* 106 (6): 1113–1155.
- Lewellen, K., and L. Robinson. 2013. Internal Ownership Structures of U.S. Multinational Firms. Working Paper, Dartmouth College.
- Lipponer, A. 2007. 'Microdatabase direct investment – MiDi'. A brief guide. Discussion Paper, Deutsche Bundesbank.
- Liu, L. 2014. Income taxation and business incorporation: evidence from the early twentieth century. *National Tax Journal* 67 (2): 387–418.
- Luna, L., and M. N. Murray. 2010. The effects of state tax structure on business organizational form. *National Tax Journal* 63 (4): 995–1021.
- MacKie-Mason, J. K., and R. H. Gordon. 1997. How much do taxes discourage incorporation? *The Journal of Finance* 52 (2): 477–506.
- Markle, K. S. 2016. A Comparison of the Tax-Motivated Income Shifting of Multinationals in Territorial and Worldwide Countries. *Contemporary Accounting Research* 33 (1): 7–43.
- Mintz, J. M., and A. Weichenrieder. 2010. *The Indirect Side of Direct Investment: Multinational Company Finance and Taxation*. Boston, MA: MIT Press.
- OECD 1999. The Application of the OECD Model Tax Convention to Partnerships. Paris: Organization for Economic Cooperation and Development.
- OECD 2014. OECD Model Tax Convention. Paris: Organization for Economic Cooperation and Development.
- Petersen, M. A. 2009. Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches. *Review of Financial Studies* 22 (1): 435–480.
- Petroni, K. R., and D. A. Shackelford. 1995. Taxation, regulation, and the organizational structure of property-casualty insurers. *Journal of Accounting and Economics* 20 (3): 229–253.
- Schild, C. H., and F. Walter. 2015. Microdatabase Direct Investment 1999-2013, Data Report 2015-01 – Metadata Version 2-1. Frankfurt: Deutsche Bundesbank Research Data and Service Centre.

- Scholes, M., M. Wolfson, M. Erickson, E. L. Maydew, and T. J. Shevlin. 2014. *Taxes and Business Strategy: A Planning Approach*. 5th edition. Upper Saddle River, NJ: Pearson Prentice Hall.
- Utke, S. 2016. The Effect of Shareholder-Level Taxes on Organizational Form and Stock Ownership: Evidence from Equity Carve-Outs of Master Limited Partnerships. Working Paper, University of Connecticut.
- Wamser, G. 2011. Foreign (in)direct investment and corporate taxation. *Canadian Journal of Economics/Revue canadienne d'économique* 44 (4): 1497–1524.
- Weichenrieder, A. 1996. Anti tax-avoidance provisions and the size of foreign direct investment. *International Tax and Public Finance* 3 (1): 67–81.
- Wood, R. W. 2016. How Google Saved \$3.6 Billion Taxes From Paper 'Dutch Sandwich'. *Forbes*, December 22. Accessed at: <http://www.forbes.com/sites/robertwood/2016/12/22/how-google-saved-3-6-billion-taxes-from-paper-dutch-sandwich/#51c3adf97483>

Appendix Variable Definitions

Dependent Variables

FLOW-THROUGH

Indicator variable with the value of one if the new affiliate is established in year t as a flow-through, and zero otherwise (i.e. as a subsidiary). Source: MiDi-Database, variable $rel = 3$ or 4 , Schild and Walter (2015).

PARTNERSHIP-BRANCH

Categorical variable with the value of zero if the new affiliate is established in year t as a subsidiary, one if established as a partnership, and two if established as a branch. Source: MiDi-Database, variable $rel = 3$ for partnership, $rel = 4$ for branch, Schild and Walter (2015).

Tax Variables

TAXWEDGE

Tax burden difference between a subsidiary and a flow-through on foreign profit earned in the new affiliate in year t . The variable is determined by the home country of the investing entity. We collect information from Worldwide Corporate Tax Guides and domestic tax law. The variable is measured in percentage points. Source: Worldwide Corporate Tax Guides 2005-2013, Ernst & Young (2005-2013); own calculations.

WHT

Dividend-withholding tax rate levied on a subsidiary's dividend distributions in year t . The variable is determined by the home country of the investing entity. We collect information from German tax law and double tax treaties concluded between Germany and the home country of the investing entity. The variable is measured in percentage points. Source: German Double Tax Treaties, German Domestic Tax Law.

CAPWEDGE

Tax-burden difference between a subsidiary and a flow-through on capital gains from selling the new affiliate in year t . The variable is determined by the home country of the investing entity. We collect information from Worldwide Corporate Tax Guides and double tax treaties concluded between Germany and the home country of the investing entity. The variable is measured in percentage points. Source: Worldwide Corporate Tax Guide 2005-2013, Ernst & Young (2005-2013); own calculations.

Control Variables

LN(EMPLOY)

Natural logarithm of 1 plus the number of employees of the new affiliate in year t . Source: MiDi-Database, variable $ln(1+p05)$, Schild and Walter (2015).

LN(ASSETS)

Natural logarithm of 1 plus total assets of the new affiliate in year t . Source: MiDi-Database, variable $ln(1+p40)$, Schild and Walter (2015).

LOSSYEAR

Indicator variable with the value of one if the new affiliate reports a loss in year t , and zero otherwise. Source: MiDi-Database, variable $p32 < 0$, Schild and Walter (2015).

<i>LEVERAGE</i>	Debt ratio of the new affiliate in year t as total debt divided by total assets. Source: MiDi-Database, variables $p33/p40$, Schild and Walter (2015).
<i>ROA</i>	Return on assets of the new affiliate in year t as net profit divided by total assets. Source: MiDi-Database, variables $p32/p40$, Schild and Walter (2015).
<i>BROWNFIELD</i>	Indicator variable with the value of one if the new affiliate is established in year t through M&A, and zero otherwise (i.e. through greenfield investment). Source: MiDi-Database, variable $em1 = 2$, Schild and Walter (2015).
<i>DISTRIBUTION</i>	Indicator variable with the value of one if the new affiliate distributes foreign profit in year $t+1$, and zero otherwise. We determine distributions as the reduction in total equity from year t to year $t+1$ (total equity in year t + profit in year t + retained profit in year t – total equity in year $t+1$ – retained profit in year $t+1$). Source: MiDi-Database, $DISTRIBUTION =$ variables $p23[t] + p29[t] + p30[t] + p32[t] + p31[t] - p23[t+1] - p29[t+1] - p30[t+1] - p31[t+1]$, Schild and Walter (2015).
<i>INTERNDEBT</i>	Internal debt ratio of the new affiliate in year t as related-party debt divided by total assets. Source: MiDi-Database, variables $p34/p40$ (for years 2005-2008) and $(p35+p37)/p40$ (for years 2009-2013), Schild and Walter (2015).
<i>INTANGIBLES</i>	Indicator variable with the value of one if the new affiliate is established in year t in an industry with high intangible-asset intensity, and zero otherwise. We classify industries with either of the following NACE Rev. 2 codes as having high intangible-asset intensity: 1900, 2000, 2100, 2600, 2700, 2800, 2900, 5800, 5900, 6000, 6100, 6200, 6300. Source: MiDi-Database, variable $br1$, Schild and Walter (2015).
<i>NUMINV</i>	Number of inbound FDI relations of the investing entity in Germany in year t . Source: MiDi-Database, sum of variable $nu4$, Schild and Walter (2015).
<i>HOLDINGS</i>	Percentage of shares held by the investing entity in the new affiliate in year t . Source: MiDi-Database, variable bgu , Schild and Walter (2015).
<i>DIRECTFDI</i>	Indicator variable with the value of one if the investing entity is located in the same country as the ultimate parent of the multinational in year t , and zero otherwise. Source: MiDi-Database, variables $lan = la4$, Schild and Walter (2015).
<i>LN(DIST)</i>	Natural logarithm of the distance between the capital city of the home country of the investing entity and Germany. Distance is measured in kilometers. Source: Gleditsch (2013).
Additional Home-Country Controls	
<i>LEGOR_GER</i>	Indicator variable with the value of one if the home-country legal system of the investing entity is of German legal origin, and zero otherwise. Source: LaPorta et al. (2008).

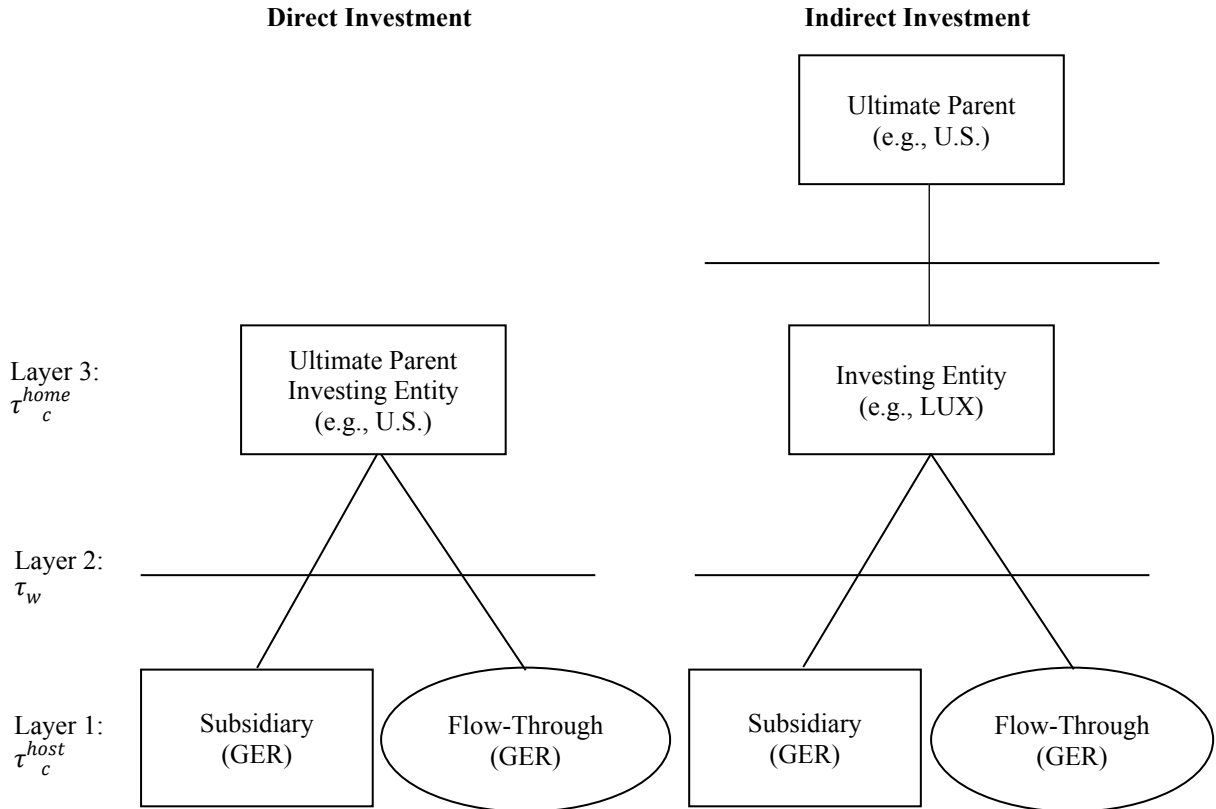
<i>LEGOR_UK</i>	Indicator variable with the value of one if the home-country legal system of the investing entity is of British legal origin, and zero otherwise. Source: LaPorta et al. (2008).
<i>LEGOR_FR</i>	Indicator variable with the value of one if the home-country legal system of the investing entity is of French legal origin, and zero otherwise. Source: LaPorta et al. (2008).
<i>LEGOR_SC</i>	Indicator variable with the value of one if the home-country legal system of the investing entity is of Scandinavian legal origin, and zero otherwise. Source: LaPorta et al. (2008).

Additional Partitioning Variables

<i>HIGH_INTDEBT</i>	Indicator variable with the value of one if the ratio of related-party debt provided by foreign affiliates to total assets of the new affiliate in year <i>t</i> is above the sample median, and zero otherwise. Source: MiDi-Database, variables <i>p37/p40</i> , Schild and Walter (2015).
<i>MANU_WHS</i>	Indicator variable with the value of one if the new affiliate is established in year <i>t</i> in the manufacturing or wholesale industry, and zero otherwise. Manufacturing denotes industry classification C and wholesale industry classification G (one-digit NACE Rev. 2 codes). Source: MiDi-Database, variable <i>br1</i> , Schild and Walter (2015).
<i>MSUBS</i>	Indicator variable with the value of one if the investing entity has at least one additional inbound FDI relation in Germany in year <i>t</i> , and zero otherwise. Source: variable <i>NUMINV</i> .
<i>STANDALONE</i>	Indicator variable with the value of one if the new affiliate does not hold shares in another German affiliate in year <i>t</i> , and zero otherwise. Source: MiDi-Database, sum of variable <i>nu2</i> , Schild and Walter (2015)
<i>TAXHAVEN</i>	Indicator variable with the value of one if the investing entity is located in a tax haven, and zero. Source: MiDi-Database, variable <i>lan</i> , Schild and Walter (2015).

FIGURES

Figure 1
International Taxation and Tax Effects of Organizational Forms



Note: This figure presents the three layers of international taxation and the tax effects of organizational forms. The investing entity is located in a home country and selects an organizational form for a new affiliate in the host country (i.e. Germany). The investing entity is part of a multinational and located in the same country as the ultimate parent of the multinational (e.g., the United States: direct investment) or in a different country (e.g., Luxembourg: indirect investment). The three layers of international taxation determine the tax burden on foreign profit earned in a subsidiary or a flow-through. Layer 1 is the host country corporate income tax τ_c^{host} . The host country equally taxes profit earned in a subsidiary or a flow-through. Layer 2 is the dividend-withholding tax τ_w levied on a subsidiary's dividend distributions in the host country. This tax does not apply on a flow-through. Layer 3 is the home country corporate income tax rate τ_c^{home} . The home country taxes foreign profit when earned in the host country or when repatriated to the investing entity. To mitigate double taxation, the home country either exempts foreign profit from τ_c^{home} (territorial tax system) or taxes foreign profit at τ_c^{home} while granting a tax credit for τ_w and τ_c^{host} (worldwide tax system with direct or indirect tax credit). Some home countries do not grant any relief from double taxation.

TABLES

Table 1
Tax Burden Difference between a Subsidiary and a Flow-Through

Tax System	Tax Burden Difference ($T_S - T_F$)
Territorial tax system	$(1 - \tau_c^{host}) * \tau_w$
Worldwide tax system (direct tax credit)	
if $\tau_c^{host} > \tau_c^{home} > \tau_w$	$(1 - \tau_c^{host}) * \tau_w$
if $\tau_c^{host} > \tau_c^{home} \wedge \tau_w > \tau_c^{home}$	$(1 - \tau_c^{host}) * \tau_w$
if $\tau_c^{home} > \tau_c^{host} \wedge \tau_c^{home} > \tau_w$	$\tau_c^{host} - \tau_c^{home} * \tau_w$
if $\tau_w > \tau_c^{host} > \tau_c^{home}$	$\tau_c^{host} + (1 - \tau_c^{host}) * \tau_w - \tau_c^{home}$
Worldwide tax system (indirect tax credit)	
if $\tau_c^{host} > \tau_c^{home}$	$(1 - \tau_c^{host}) * \tau_w$
if $\tau_c^{home} > \tau_c^{host} + (1 - \tau_c^{host}) * \tau_w > \tau_c^{host}$	0
if $\tau_c^{host} + (1 - \tau_c^{host}) * \tau_w > \tau_c^{home} > \tau_c^{host}$	$\tau_c^{host} + (1 - \tau_c^{host}) * \tau_w - \tau_c^{home}$
No relief from double taxation	$(1 - \tau_c^{host}) * \tau_w$

Note: This table presents the tax burden difference between a subsidiary and a flow-through on foreign profit earned in the host country. We derive the tax burden difference for each tax system. T_S is the tax burden on foreign profit earned in a subsidiary and T_F on foreign profit earned in a flow-through, respectively. τ_c^{host} is the host country corporate income tax, τ_w the dividend-withholding tax on a subsidiary's dividend distributions, and τ_c^{home} the home country corporate income tax. To mitigate double taxation, the home country either exempts foreign profit from τ_c^{home} (territorial tax system) or taxes foreign profit at τ_c^{home} while granting a tax credit for τ_w and τ_c^{host} (worldwide tax system with direct or indirect tax credit). Some home countries do not grant any relief from double taxation (no relief from double taxation). We use these formulas to calculate *TAXWEDGE*. We define variables in the Appendix.

Table 2
Sample Selection

Data Restrictions	Observations
First observation of an inbound FDI relation in Germany (period 1999-2013)	18,265
Less observations prior to the year 2005	-12,206
Less observations where the investing entity holds < 25% in the shares	-360
Less observations without reliable tax information	-19
Less observations of pre-existing affiliates	-3,498
Final Sample (Sample Years 2005-2013)	2,182

Note: This table presents the sample selection for a sample of organizational form choices for new affiliates established in Germany (sample years 2005-2013). The new affiliates are either established through greenfield investment or M&A. Source: Research Data and Service Centre (RDSC) of the Deutsche Bundesbank, Microdatabase Direct Investment (MiDi) for the years 2005 to 2013, own calculations.

Table 3
TAXWEDGE per Home Country of the Investing Entity and Sample Year

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013
Austria	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Belgium	0.95	0.95	0.95	1.19	1.19	1.19	1.19	1.19	1.19
British Virgin Islands	14.67	14.67	14.67	18.51	11.11	11.11	11.11	11.11	11.11
Canada	2.78	2.78	2.78	2.83	3.51	3.51	3.51	3.51	3.51
China	5.56	5.56	5.56	7.02	7.02	7.02	7.02	7.02	7.02
Cyprus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.02	7.02
Czech Republic	14.46	13.35	13.35	14.74	0.00	0.00	0.00	0.00	0.00
Denmark	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Finland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
France	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ireland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Italy	0.92	0.92	0.92	0.96	0.96	0.96	0.96	0.96	0.96
Jersey	14.67	14.67	14.67	18.51	11.11	11.11	11.11	11.11	11.11
Liechtenstein	14.67	14.67	14.67	18.51	11.11	11.11	-1.39	-1.39	0.00
Luxembourg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Malaysia	2.78	2.78	2.78	3.51	3.51	3.51	3.51	3.51	3.51
Mauritius	2.78	2.78	2.78	3.51	3.51	3.51	3.51	3.51	3.51
Mexico	2.78	2.78	2.78	3.51	3.51	3.33	3.33	3.33	3.33
Netherlands	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Norway	0.00	0.00	0.00	0.00	0.59	0.59	0.59	0.59	0.59
Republic of Korea	15.30	15.30	15.30	19.30	16.98	16.98	16.98	16.98	16.98
Russian Federation	11.13	11.13	11.13	14.04	11.23	10.88	10.88	10.88	10.88
Spain	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.17
Sweden	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Switzerland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
United Kingdom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
United States	2.78	2.78	2.78	0.00	0.00	0.00	0.00	0.00	0.00

Note: This table presents *TAXWEDGE* per home country of the investing entity and sample year. We present home countries with at least three observations per organizational form that result from three distinct investing entities. Our sample includes another 32 home countries which do not fulfill this confidentiality requirement. We define variables in the Appendix. Source: Worldwide Corporate Tax Guides 2005-2013, Ernst & Young, 2005-2013; own calculations.

Table 4
***WHT* per Home Country of the Investing Entity and Sample Year**

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013
Austria	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Belgium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
British Virgin Islands	26.38	26.38	26.38	26.38	15.83	15.83	15.83	15.83	15.83
Canada	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
China	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Cyprus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Czech Republic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Denmark	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Finland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
France	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ireland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Italy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jersey	26.38	26.38	26.38	26.38	15.83	15.83	15.83	15.83	15.83
Liechtenstein	26.38	26.38	26.38	26.38	15.83	15.83	15.83	15.83	0.00
Luxembourg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Malaysia	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Mauritius	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Mexico	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Netherlands	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Norway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Republic of Korea	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Russian Federation	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Spain	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sweden	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Switzerland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
United Kingdom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
United States	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

Note: This table presents *WHT* per home country of the investing entity and sample year. We present home countries with at least three observations per organizational form that result from three distinct investing entities. Our sample includes another 32 home countries which do not fulfill this confidentiality requirement. We define variables in the Appendix. Source: German Double Tax Treaties, German Domestic Tax Law.

Table 5
Descriptive Statistics

Panel A: Descriptive Statistics for Dependent and Independent Variables								
Variables	Full Sample			Subsidiaries (N = 1,649)		Flow-Throughs (N = 533)		t-statistics
	N	Mean	StdDev	Mean	StdDev	N	StdDev	
<i>FLOW-THROUGH</i>	2,182	0.244	0.430	0.000	0.000	1.000	0.000	
<i>TAXWEDGE</i>	2,182	1.153	3.501	1.015	3.190	1.580	4.300	-2.793***
<i>LN(EMPLOY)</i>	2,182	1.584	2.165	1.734	2.215	1.119	1.930	6.163***
<i>LN(ASSETS)</i>	2,182	17.280	1.594	17.310	1.608	17.200	1.550	1.429
<i>LOSSYEAR</i>	2,182	0.527	0.499	0.563	0.496	0.413	0.493	6.124***
<i>LEVERAGE</i>	2,182	0.654	0.574	0.652	0.575	0.661	0.572	-0.290
<i>ROA</i>	2,182	-0.032	0.315	-0.019	0.296	-0.073	0.363	3.065***
<i>BROWNFIELD</i>	2,182	0.518	0.500	0.530	0.499	0.482	0.500	1.921*
<i>DISTRIBUTION</i>	2,182	0.227	0.419	0.200	0.400	0.313	0.464	-5.083***
<i>INTERNDEBT</i>	2,182	0.324	0.510	0.350	0.546	0.243	0.364	5.173***
<i>INTANGIBLES</i>	2,182	0.109	0.311	0.127	0.333	0.051	0.220	6.105***
<i>NUMINV</i>	2,182	3.655	7.716	2.796	5.500	6.313	11.880	-6.613***
<i>HOLDINGS</i>	2,182	0.918	0.181	0.928	0.172	0.886	0.202	4.341***
<i>DIRECTFDI</i>	2,182	0.754	0.431	0.777	0.416	0.683	0.466	4.177***
<i>LN(DIST)</i>	2,182	6.241	1.448	6.305	1.480	6.041	1.328	3.873***
<i>WHT</i>	2,182	2.010	5.112	1.855	4.707	2.487	6.180	-2.166**
<i>CAPWEDGE</i>	2,182	-29.510	12.840	-29.440	13.560	-29.740	10.300	0.548

(continued on next page)

Panel B: Organizational Form Choices per Sample Year			
Years	Subsidiaries	Flow-Throughs	Total
2005	136	25	161
2006	274	37	311
2007	240	66	306
2008	187	70	257
2009	141	56	197
2010	126	30	156
2011	192	51	243
2012	174	100	274
2013	179	98	277
Total	1,649	533	2,182

Panel C: Organizational Form Choices per Industry			
Industries	Subsidiaries	Flow-Throughs	Total
Manufacturing	287	46	333
Energy Supply	25	58	83
Construction	237	147	384
Wholesale	137	11	148
Transportation	36	11	47
Information and Communication	41	7	48
Financial Services	481	154	635
Professional Services	325	78	403
Other Services	80	21	101
Total	1,649	533	2,182

(continued on next page)

Panel D: Organizational Form Choices per Home Country			
Countries	Subsidiaries	Flow-Throughs	Total
Austria	131	34	165
Belgium	25	8	33
British Virgin Islands	6	0	6
Canada	9	4	13
China	26	3	29
Cyprus	19	4	23
Czech Republic	5	0	5
Denmark	36	18	54
Finland	18	0	18
France	80	17	97
Ireland	18	6	24
Italy	35	9	44
Jersey	12	24	36
Liechtenstein	4	8	12
Luxembourg	367	132	499
Malaysia	3	0	3
Mauritius	3	0	3
Mexico	3	0	3
Netherlands	237	85	322
Norway	10	3	13
Republic of Korea	8	0	8
Russian Federation	3	0	3
Spain	31	5	36
Sweden	38	4	42
Switzerland	135	55	190
United Kingdom	130	45	175
United States	127	23	150
Additional Observations	130	46	176
Total	1,649	533	2,182

Note: This table presents descriptive statistics. Panel A presents means and standard deviations for dependent and independent variables. We present values for the full sample and subsamples of subsidiaries and flow-throughs. We conduct two-sample t-tests assuming unequal variances to compare means between subsamples. Panel B presents organizational form choices per sample year. Panel C presents organizational form choices per industry. Industry classification is based on one-digit NACE Rev. 2 codes. Panel D presents organizational form choices per home country of the investing entity. We present home countries with at least three observations per organizational form that result from three distinct investing entities. Our sample includes another 32 home countries which do not fulfill this confidentiality requirement. We summarize these observations under *Additional Observations*. We define variables in the Appendix. ***, **, and * denote significance at the 1%, 5%, and 10% levels (two-tailed), respectively. Source: Research Data and Service Centre (RDSC) of the Deutsche Bundesbank, Microdatabase Direct Investment (MiDi) for the years 2005 to 2013, own calculations.

Table 6
Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) FLOW-THROUGH	1.000														
(2) TAXWEDGE	0.069*	1.000													
(3) LN(EMPLOY)	-0.122*	-0.006	1.000												
(4) LN(ASSETS)	-0.030	-0.066*	0.084*	1.000											
(5) LOSSYEAR	-0.130*	-0.027	-0.158*	-0.027	1.000										
(6) LEVERAGE	0.006	-0.002	-0.070*	-0.218*	0.200*	1.000									
(7) ROA	-0.073*	0.029	0.029	0.138*	-0.301*	-0.377*	1.000								
(8) BROWNFIELD	-0.041	0.019	0.254*	-0.020	-0.106*	0.042	-0.012	1.000							
(9) DISTRIBUTION	0.117*	0.038	0.045	0.041	-0.241*	-0.103*	0.101*	0.092*	1.000						
(10) INTERNDEBT	-0.090*	-0.020	-0.069*	-0.067*	0.165*	0.706*	-0.191*	0.027	-0.108*	1.000					
(11) INTANGIBLES	-0.106*	0.023	0.445*	-0.065*	-0.115*	-0.057*	0.029	0.160*	-0.003	-0.062*	1.000				
(12) NUMINV	0.196*	-0.084*	-0.220*	-0.186*	0.032	0.245*	-0.131*	-0.083*	0.020	-0.090*	-0.111*	1.000			
(13) HOLDINGS	-0.100*	-0.125*	-0.047	-0.015	0.102*	0.056*	-0.022	-0.064*	-0.054	0.114*	-0.066*	0.018	1.000		
(14) DIRECTFDI	-0.094*	0.040	-0.010	-0.127*	-0.012	-0.015	0.040	-0.039	-0.036	-0.074*	0.001	-0.002	-0.112*	1.000	
(15) LN(DIST)	-0.078*	0.428*	0.188*	-0.054	-0.064*	-0.091*	0.035	0.065*	-0.034	0.025	0.148*	-0.252*	-0.065*	0.179*	1.000

Note: This table presents Pearson correlation coefficients. We define variables in the Appendix. * denotes significance at the 1% level. Source: Research Data and Service Centre (RDSC) of the Deutsche Bundesbank, Microdatabase Direct Investment (MiDi) for the years 2005 to 2013, own calculations.

Table 7
Baseline Tests: Tax-Sensitivity in Organizational Form Choices

	<i>Pred.</i>	<i>FLOW-THROUGH</i>		<i>FLOW-THROUGH</i>		<i>FLOW-THROUGH</i>	
		(1)	(2)	(3)	(4)	(5)	(6)
		Coef./ <i>(SE)</i>	dy/dx	Coef./ <i>(SE)</i>	dy/dx	Coef./ <i>(SE)</i>	dy/dx
<i>TAXWEDGE</i>	+	0.192*** (0.063)	0.032	0.226*** (0.071)	0.036		
<i>LN(EMPLOY)</i>	-			0.012 (0.098)	0.002	-0.006 (0.097)	-0.001
<i>LN(ASSETS)</i>	-			0.034 (0.070)	0.005	0.022 (0.070)	0.003
<i>LOSSYEAR</i>	-			-0.397*** (0.080)	-0.063	-0.395*** (0.080)	-0.063
<i>LEVERAGE</i>	-			-0.228 (0.141)	-0.036	-0.190 (0.140)	-0.030
<i>ROA</i>	+/-			-0.317** (0.162)	-0.050	-0.304* (0.168)	-0.048
<i>BROWNFIELD</i>	-			-0.206*** (0.076)	-0.033	-0.203*** (0.076)	-0.032
<i>DISTRIBUTION</i>	+			0.146** (0.062)	0.023	0.157** (0.063)	0.025
<i>INTERNDEBT</i>	-			-0.155 (0.134)	-0.024	-0.179 (0.134)	-0.028
<i>INTANGIBLES</i>	-			-0.244** (0.112)	-0.039	-0.247** (0.112)	-0.039
<i>NUMINV</i>	+			0.257* (0.146)	0.041	0.241* (0.145)	0.038
<i>HOLDINGS</i>	-			-0.220*** (0.060)	-0.035	-0.244*** (0.058)	-0.039
<i>DIRECTFDI</i>	+/-			-0.243*** (0.074)	-0.038	-0.264*** (0.076)	-0.042
<i>LN(DIST)</i>	+			-0.070 (0.084)	-0.011	0.056 (0.077)	0.009
<i>Intercept</i>		-0.097 (0.368)		-0.661 (0.297)		-0.682 (0.296)	
Industry-FE		Y		Y		Y	
Year-FE		Y		Y		Y	
N		2,182		2,182		2,182	
Log-Likelihood		-1067.000		-983.400		-990.700	
Pseudo R-squared		0.120		0.189		0.183	
Area under ROC curve		0.724		0.780		0.775	

Note: This table presents regression results for baseline tests of the tax-sensitivity in organizational form choices. The dependent variable *FLOW-THROUGH* is an indicator variable with the value of one if the new affiliate is established as a flow-through, and zero otherwise. Columns 1, 3, and 5 (2, 4, and 6) report coefficients (marginal effects) for a logistic regression based on Equation (1). We calculate marginal effects while holding continuous variables at their means. We standardize independent variables to have a mean of zero and a standard deviation of one prior to estimating regressions. All regressions are estimated with year and industry-fixed effects. We calculate heteroscedasticity-robust standard errors clustered at the investing-entity level. We define variables in the Appendix. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed). Source: Research Data and Service Centre (RDSC) of the Deutsche Bundesbank, Microdatabase Direct Investment (MiDi) for the years 2005 to 2013, own calculations.

Table 8
Cross-Sectional Tests: Income-Shifting Opportunities and Tax-Sensitivity

	<i>FLOW-THROUGH</i>		<i>FLOW-THROUGH</i>		<i>FLOW-THROUGH</i>		
	<i>Pred.</i>	(1) Coef./(SE)	(2) dy/dx	(3) Coef./(SE)	(4) dy/dx	(5) Coef./(SE)	(6) dy/dx
<i>TAXWEDGE</i> β_1	+	0.332*** (0.078)	0.052	0.248*** (0.073)	0.039	0.177** (0.077)	0.028
<i>HIGH_INTDEBT</i>	-	-0.127 (0.085)	-0.020				
<i>TAXWEDGE#HIGH_INTDEBT</i> β_3	-	-0.305*** (0.100)	-0.048				
<i>INTANGIBLES</i>	-	-0.232*** (0.112)	-0.036	-0.195* (0.114)	-0.031	-0.244** (0.112)	-0.038
<i>TAXWEDGE#INTANGIBLES</i> β_5	-			-0.156* (0.093)	-0.025		
<i>DISTRIBUTION</i>	+	0.128** (0.063)		0.142** (0.063)	0.022	0.114* (0.067)	0.018
<i>TAXWEDGE#DISTRIBUTION</i> β_7	+/-					0.094 (0.070)	0.015
<i>LN(EMPLOY)</i>	-	0.028 (0.097)	0.004	0.007 (0.098)	0.001	0.015 (0.098)	0.002
<i>LN(ASSETS)</i>	-	0.035 (0.071)	0.005	0.040 (0.070)	0.006	0.033 (0.070)	0.005
<i>LOSSYEAR</i>	-	-0.409*** (0.080)	-0.064	-0.398*** (0.080)	-0.063	-0.404*** (0.080)	-0.064
<i>LEVERAGE</i>	-	-0.220* (0.116)	-0.034	-0.232* (0.141)	-0.037	-0.231 (0.141)	-0.036
<i>ROA</i>	+/-	-0.312** (0.155)	-0.049	-0.319** (0.160)	-0.050	-0.323** (0.160)	-0.051
<i>BROWNFIELD</i>	-	-0.215*** (0.077)	-0.034	-0.208*** (0.076)	-0.033	-0.207*** (0.076)	-0.033
<i>INTERNDEBT</i>	-			-0.152 (0.134)	-0.024	0.151 (0.134)	-0.024
<i>NUMINV</i>	+	0.257* (0.148)	0.040	0.261* (0.147)	0.041	0.257* (0.146)	0.041
<i>HOLDINGS</i>	-	-0.219*** (0.061)	-0.034	-0.222*** (0.060)	-0.035	-0.220*** (0.060)	-0.035
<i>DIRECTFDI</i>	+/-	-0.243*** (0.074)	-0.038	-0.239*** (0.074)	-0.038	-0.239*** (0.074)	-0.038
<i>LN(DIST)</i>	+	-0.054 (0.085)	-0.008	-0.068 (0.084)	-0.011	-0.069 (0.085)	-0.011
<i>Intercept</i>		-0.607** (0.299)		-0.669** (0.297)		-0.651** (0.297)	0.000
Industry-FE			Y		Y		Y
Year-FE			Y		Y		Y
N			2,182		2,182		2,182
Log-Likelihood			-971.400		-981.800		-982.200
Pseudo R-squared			0.199		0.191		0.190
Area under ROC curve			0.792		0.781		0.780
<i>F</i> -Test: $\beta_1+\beta_3=0$			0.070		-		-
<i>F</i> -Test: $\beta_1+\beta_5=0$			-		0.760		-
<i>F</i> -Test: $\beta_1+\beta_7=0$			-		-		11.190
<i>p</i> -Value			0.792		0.385		< 0.001***

Note: This table presents regression results for cross-sectional tests of the effect of income-shifting opportunities on the tax-sensitivity in organizational form choices. We partition the sample based on income-shifting opportunities in columns 1-4 and the repatriation of foreign profit in columns 5-6. The dependent variable *FLOW-THROUGH* is an indicator variable with the value of one if the new affiliate is established as a flow-through, and zero otherwise. *HIGH_INTDEBT* is an indicator variable with the value of one if the ratio of related-party debt provided by foreign affiliates to total assets of the new affiliate is above the sample median, and zero otherwise. *INTANGIBLES* is an indicator variable with the value of one if the new affiliate is established in an industry with high intangible-asset intensity, and zero otherwise. *DISTRIBUTION* is an indicator variable with the value of one if the new affiliate distributes foreign profit, and zero otherwise. Columns 1, 3, and 5 (2, 4, and 6) report coefficients (marginal effects) for a logistic regression based on Equation (1). We calculate marginal effects while holding continuous variables at their means. We standardize independent variables to have a mean of zero and a standard deviation of one prior to estimating regressions. All regressions are estimated with year and industry-fixed effects. We calculate heteroscedasticity-robust standard errors clustered at the investing-entity level. We define variables in the Appendix. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed). Source: Research Data and Service Centre (RDSC) of the Deutsche Bundesbank, Microdatabase Direct Investment (MiDi) for the years 2005 to 2013, own calculations.

Table 9
Cross-Sectional Tests: Non-Tax Aspects and Tax-Sensitivity

	<i>Pred.</i>	<i>FLOW-THROUGH</i>		<i>FLOW-THROUGH</i>		<i>FLOW-THROUGH</i>	
		(1)	(2)	(3)	(4)	(5)	(6)
		Coef./(SE)	dy/dx	Coef./(SE)	dy/dx	Coef./(SE)	dy/dx
<i>TAXWEDGE</i> β1	+	0.400*** (0.105)	0.055	0.122 (0.089)	0.019	0.123 (0.075)	0.019
<i>MANU_WHS</i>	-	-0.472** (0.232)	-0.065				
<i>TAXWEDGE#MANU_WHS</i> β3	-	-0.234* (0.136)	-0.032				
<i>BROWNFIELD</i>	-	-0.090 (0.090)	-0.012	-0.249*** (0.083)	-0.039	-0.224*** (0.079)	-0.035
<i>TAXWEDGE#BROWNFIELD</i> β5	+			0.155* (0.082)	0.024		
<i>MSUBS</i>	+					0.050 (0.109)	0.008
<i>TAXWEDGE#MSUBS</i> β7	+					0.192** (0.089)	0.030
<i>LN(EMPLOY)</i>	-	-0.289** (0.133)	-0.040	0.013 (0.098)	0.002	-0.003 (0.099)	0.000
<i>LN(ASSETS)</i>	-	0.200** (0.087)	0.028	0.028 (0.070)	0.004	0.012 (0.069)	0.002
<i>LOSSYEAR</i>	-	-0.407*** (0.101)	-0.056	-0.393*** (0.079)	-0.062	-0.401*** (0.085)	-0.063
<i>LEVERAGE</i>	-	-0.395* (0.222)	-0.055	-0.223 (0.142)	-0.035	-0.116 (0.174)	-0.018
<i>ROA</i>	+/-	-0.532* (0.307)	-0.074	-0.312* (0.163)	-0.049	-0.323* (0.168)	-0.051
<i>DISTRIBUTION</i>	+	0.181** (0.077)	0.025	0.149** (0.062)	0.024	0.147** (0.062)	0.023
<i>INTERNDEBT</i>	-	-0.081 (0.170)	-0.011	-0.162 (0.133)	-0.026	-0.270* (0.159)	-0.043
<i>INTANGIBLES</i>	-	-0.280** (0.126)	-0.039	-0.237** (0.113)	-0.037	-0.246** (0.113)	-0.039
<i>NUMINV</i>	+	-0.008 (0.173)	-0.001	0.255 (0.147)	0.040		
<i>HOLDINGS</i>	-	-0.199*** (0.075)	-0.028	-0.222*** (0.060)	-0.035	-0.217*** (0.060)	-0.034
<i>DIRECTFDI</i>	+/-	-0.400*** (0.089)	-0.055	-0.247*** (0.074)	-0.039	-0.250*** (0.077)	-0.039
<i>LN(DIST)</i>	+	-0.160 (0.115)	-0.022	-0.072 (0.085)	-0.011	-0.082 (0.084)	-0.013
<i>Intercept</i>		-1.590*** (0.344)		-0.632** (0.299)		-0.531 (0.341)	
Industry-FE		Y		Y		Y	
Year-FE		Y		Y		Y	
N		1,416		2,182		2,182	
Log-Likelihood		-590.600		-981.300		-985.100	
Pseudo R-squared		0.212		0.191		0.188	
Area under ROC curve		0.802		0.781		0.783	

<i>F</i> -Test: $\beta_1+\beta_3=0$	1.379	-	-
<i>F</i> -Test: $\beta_1+\beta_5=0$	-	13.830	-
<i>F</i> -Test: $\beta_1+\beta_7=0$	-	-	9.920
<i>p</i> -Value	0.242	< 0.001***	0.002***

Note: This table presents regression results for cross-sectional tests of the effect of non-tax aspects on the tax-sensitivity in organizational form choices. We drop regulated industries (industry classification D, J, and K based on one-digit NACE Rev. 2 codes) in columns 1-2. We partition the sample based on non-tax aspects associated with organizational form choices in columns 1-6. The dependent variable *FLOW-THROUGH* is an indicator variable with the value of one if the new affiliate is established as a flow-through, and zero otherwise. *MANU_WHS* is an indicator variable with the value of one if the new affiliate is established in the manufacturing or the wholesale industry, and zero otherwise. *BROWNFIELD* is an indicator variable with the value of one if the new affiliate is established through M&A, and zero otherwise. *MSUBS* is an indicator variable with the value of one if the investing entity has at least one additional inbound FDI relation in Germany, and zero otherwise. Columns 1, 3, and 5 (2, 4, and 6) report coefficients (marginal effects) for a logistic regression based on Equation (1). We calculate marginal effects while holding continuous variables at their means. We standardize independent variables to have a mean of zero and a standard deviation of one prior to estimating regressions. All regressions are estimated with year and industry-fixed effects. We calculate heteroscedasticity-robust standard errors clustered at the investing-entity level. We define variables in the Appendix. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed). Source: Research Data and Service Centre (RDSC) of the Deutsche Bundesbank, Microdatabase Direct Investment (MiDi) for the years 2005 to 2013, own calculations.

Table 10
Cross-Sectional Tests: Host-Country Experience and Tax-Sensitivity

	<i>Pred.</i>	<i>FLOW-THROUGH</i> BROWNFIELD = 0		<i>FLOW-THROUGH</i> BROWNFIELD = 1	
		(1) Coef./(SE)	(2) dy/dx	(3) Coef./(SE)	(4) dy/dx
<i>TAXWEDGE</i> β_1	+	-0.053 (0.103)	-0.009	0.295*** (0.105)	0.041
<i>MSUBS</i>	+	-0.169 (0.124)	-0.028	-0.019 (0.145)	-0.003
<i>TAXWEDGE#MSUBS</i> β_3	+/-	0.236** (0.093)	0.039	0.134 (0.103)	0.019
Additional Controls		Y		Y	
Industry-FE		Y		Y	
Year-FE		Y		Y	
N		1,051		1,131	
Log-Likelihood		-486.100		-448.100	
Pseudo R-squared		0.197		0.261	
Area under ROC curve		0.798		0.807	
<i>F</i> -Test: $\beta_1 + \beta_3 = 0$		2.630		13.400	
<i>p</i> -Value		0.105		< 0.001***	

Note: This table presents regression results for cross-sectional tests of the effect of host-country experience on the tax-sensitivity in organizational form choices. We limit the analysis to organizational form choices for greenfield investment in columns 1-2 (*BROWNFIELD* = 0) and to organizational form choices for M&A in columns 3-4 (*BROWNFIELD* = 1). We partition the sample based on host-country experience. The dependent variable *FLOW-THROUGH* is an indicator variable with the value of one if the new affiliate is established as a flow-through, and zero otherwise. *MSUBS* is an indicator variable with the value of one if the investing entity has at least one additional inbound FDI relation in Germany, and zero otherwise. Columns 1 and 3 (2 and 4) report coefficients (marginal effects) for a logistic regression based on Equation (1). We calculate marginal effects while holding continuous variables at their means. We standardize independent variables to have a mean of zero and a standard deviation of one prior to estimating regressions. All regressions are estimated with year and industry-fixed effects. We calculate heteroscedasticity-robust standard errors clustered at the investing-entity level. We define variables in the Appendix. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed). Source: Research Data and Service Centre (RDSC) of the Deutsche Bundesbank, Microdatabase Direct Investment (MiDi) for the years 2005 to 2013, own calculations.

Table 11
Robustness Tests: Additional Tax Variables and Home-Country Controls

	<i>Pred.</i>	<i>FLOW-THROUGH</i>		<i>FLOW-THROUGH</i>		<i>FLOW-THROUGH</i>	
		(1)	(2)	(3)	(4)	(5)	(6)
		Coef./(SE)	dy/dx	Coef./(SE)	dy/dx	Coef./(SE)	dy/dx
<i>WHT</i>	+	0.235*** (0.077)	0.037				
<i>TAXWEDGE</i>	+			0.216*** (0.072)	0.034	0.202*** (0.070)	0.032
<i>CAPWEDGE</i>	+/-			-0.092 (0.104)	-0.014		
<i>LEGOR_UK</i>	+/-					0.148 (0.099)	0.023
<i>LEGOR_FR</i>	+/-					-0.004 (0.128)	-0.001
<i>LEGOR_SC</i>	+/-					-0.046 (0.086)	-0.007
Additional Controls		Y		Y		Y	
Industry-FE		Y		Y		Y	
Year-FE		Y		Y		Y	
N		2,182		2,182		2,182	
Log-Likelihood		-983.700		-982.800		-980.600	
Pseudo R-squared		0.189		0.190		0.192	
Area under ROC curve		0.779		0.781		0.780	

Note: This table presents regression results for robustness tests of the tax-sensitivity in organizational form choices. We replace *TAXWEDGE* with *WHT* in columns 1-2. We include *CAPWEDGE* in columns 3-4 and *LEGOR_UK*, *LEGOR_FR*, and *LEGOR_SC* in columns 5-6. German legal origin (*LEGOR_GER*) serves as a control group in columns 5-6. The dependent variable *FLOW-THROUGH* is an indicator variable with the value of one if the new affiliate is established as a flow-through, and zero otherwise. Columns 1, 3, and 5 (2, 4, and 6) report coefficients (marginal effects) for a logistic regression based on Equation (1). We calculate marginal effects while holding continuous variables at their means. We standardize independent variables to have a mean of zero and a standard deviation of one prior to estimating regressions. All regressions are estimated with year and industry-fixed effects. We calculate heteroscedasticity-robust standard errors clustered at the investing-entity level. We define variables in the Appendix. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed). Source: Research Data and Service Centre (RDSC) of the Deutsche Bundesbank, Microdatabase Direct Investment (MiDi) for the years 2005 to 2013, own calculations.

Table 12
Robustness Tests: Modified Samples of Organizational Form Choices

	<i>Pred.</i>	<i>FLOW-THROUGH</i>		<i>FLOW-THROUGH</i>		<i>FLOW-THROUGH</i>		<i>FLOW-THROUGH</i>	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Coef./ <i>(SE)</i>	dy/dx	Coef./ <i>(SE)</i>	dy/dx	Coef./ <i>(SE)</i>	dy/dx	Coef./ <i>(SE)</i>	dy/dx
<i>TAXWEDGE</i>	+	0.278*** (0.106)	0.043	0.313*** (0.091)	0.043	0.331* (0.179)	0.044	0.252*** (0.087)	0.036
<i>STANDALONE</i>	+/-	0.327*** (0.094)	0.051						
<i>TAXWEDGE#STANDALONE</i>	+/-	-0.048 (0.106)	-0.007						
Additional Controls		Y		Y		Y		Y	
Industry-FE		Y		Y		Y		Y	
Year-FE		Y		Y		Y		Y	
N		2,182		1,416		419		1,332	
Log-Likelihood		-975.200		-592.900		-160.400		-580.700	
Pseudo R-squared		0.196		0.209		0.317		0.151	
Area under ROC curve		0.785		0.800		0.845		0.760	

Note: This table presents regression results for robustness tests of the tax-sensitivity in organizational form choices. We partition the sample based on whether the new affiliate belongs to a subgroup in Germany in columns 1-2. We drop regulated industries (industry classification D, J, and K based on one-digit NACE Rev. 2 codes) in columns 3-4, observations with *TAXWEDGE* equal to zero in columns 5-6, and observations if the investing entity is located in a tax haven in columns 7-8. The dependent variable *FLOW-THROUGH* is an indicator variable with the value of one if the new affiliate is established as a flow-through, and zero otherwise. *STANDALONE* is an indicator variable with the value of one if the new affiliate does not hold shares in another German affiliate, and zero otherwise. Columns 1, 3, 5, and 7 (2, 4, 6, and 8) report coefficients (marginal effects) for a logistic regression based on Equation (1). We calculate marginal effects while holding continuous variables at their means. We standardize independent variables to have a mean of zero and a standard deviation of one prior to estimating regressions. All regressions are estimated with year and industry-fixed effects. We calculate heteroscedasticity-robust standard errors clustered at the investing-entity level. We define variables in the Appendix. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed). Source: Research Data and Service Centre (RDSC) of the Deutsche Bundesbank, Microdatabase Direct Investment (MiDi) for the years 2005 to 2013, own calculations.

Table 13
Supplementary Analysis: Heterogeneity in Flow-Throughs, Treaty Shopping and Tax-Sensitivity

	<i>Pred.</i>	<i>PARTNERSHIP-BRANCH</i>		<i>FLOW-THROUGH</i>	
		(1)	(2)	(3)	(4)
		Coef./(SE)	Coef./(SE)	Coef./(SE)	dy/dx
<i>TAXWEDGE</i> β_1	+	0.269*** (0.074)	-0.033 (0.166)	0.399** (0.170)	0.063
<i>DIRECTFDI</i>	+/-	-0.233*** (0.081)	-0.290** (0.131)	-0.208*** (0.078)	-0.033
<i>TAXWEDGE#DIRECTFDI</i> β_3	+/-			-0.196 (0.160)	-0.031
Additional Controls			Y		Y
Industry-FE			Y		Y
Year-FE			Y		Y
N			2,182		2,182
Log-Likelihood			-1075.000		-981.900
Pseudo R-squared			0.237		0.191
Area under ROC curve			-		0.780
<i>F</i> -Test: $\beta_1+\beta_3=0$			-		8.270
<i>p</i> -Value			-		0.004***

Note: This table presents regression results for supplementary analysis of the tax-sensitivity in organizational form choices. The dependent variable *PARTNERSHIP-BRANCH* is a categorical variable with the value of zero if the new affiliate is established in year t as a subsidiary, one if established as a partnership, and two if established as a branch. The dependent variable *FLOW-THROUGH* is an indicator variable with the value of one if the new affiliate is established as a flow-through, and zero otherwise. *DIRECTFDI* is an indicator variable with the value of one if the investing entity is located in the same country as the ultimate parent. Columns 1 and 2 report coefficients for a multinomial logistic regression based on Equation (1) and column 3 (4) coefficients (marginal effects) for a logistic regression based on Equation (1). We partition the sample based on direct and indirect investment in columns 3-4. We calculate marginal effects while holding continuous variables at their means. We standardize independent variables to have a mean of zero and a standard deviation of one prior to estimating regressions. All regressions are estimated with year and industry-fixed effects. We calculate heteroscedasticity-robust standard errors clustered at the investing-entity level. We define variables in the Appendix. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively (two-tailed). Source: Research Data and Service Centre (RDSC) of the Deutsche Bundesbank, Microdatabase Direct Investment (MiDi) for the years 2005 to 2013, own calculations.