ABSTRACT

There is stark evidence that many policies which influence firm gains from engaging in FDI (such as tax and trade policies) are targeted by lobbying groups and that corruption can be an important determinant of market attractiveness. The scarce research that exists on firm behaviour, lobbying and corruption shows that these activities can be regarded as alternative, and interdependent, influence forms. This paper provides the novel contribution of investigating how the market infiltration of lobbying and corruption affects the firm’s investment decision. We identify the interdependent effects using census data for Swedish manufacturing firms that allows a complete identification of the firm’s market selection. Our results reveal that these private-public sector links influence the firm’s investment decision differently, as market selection is stimulated by lobbying and deterred by corruption, and that they function as substitutes. The results are coherent with scarce existing evidence that foreign-owned multinationals use lobbying as their preferred influence form and that firms originating in countries largely void of corruption problems are strongly deterred by corruption. We show that the stimulating lobbying effect largely can be attributed to its interdependency with corruption, which suggests that firms are more shielded from corruption in lobbying environments.

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1. INTRODUCTION

The firm’s decision to engage in Foreign Direct Investment (FDI) depends on production conditions in the prospective host market. These conditions depend on standard economic factors shaping the firm’s profit opportunities (such as factor prices and sales prospects) as well as business constraints encountered in complying with local rules of making business (i.e. regulation). In the large literature that identifies market determinants of FDI, only a small part considers that business constraints are regularly influenced via private-public sector links allowing agents to bend the rules by lobbying or break the rules through corruption. Yet, these alternatives to overcoming compliance with the rules in a prospective host market could play a key role for the firm’s decision to invest in that location: There is stark evidence that lobbying affect many policies determining firm gains from FDI (such as tax and trade policies) and that corruption can be as important as corporate taxes in deterring FDI (Wei, 2000). From this perspective, it is surprising that the importance of overcoming regulatory constraints has not gained wider recognition in the FDI literature and likely that many empirical cross-country investigations in the field are subject to omitted variables bias.

The boundary between lobbying and corruption is defined by legal compliance (see, e.g., Campos and Giovanni, 2007; Harstad and Svensson, 2011). Prior research examining firm behaviour on internal market basis show that lobbying and corruption function as complements (Damania et al., 2004) or substitutes (Campos and Giovanni, 2007; Bennedsen et al, 2011). Investigations identifying the sole impact of lobbying or corruption are therefore likely to capture the interdependent effect of these influence forms and give rise to misleading results. To our knowledge, no prior study in the FDI literature investigates the simultaneous effects that lobbying and corruption have on market attractiveness. We remedy this lack by identifying the simultaneous and interdependent effects that these private-public sector links have on the firm’s investment decision. To measure the market infiltration of lobbying and/or corruption, we use modified Kaufmann (2004) indices constructed from corporate responses to the World Economic Forum’s 2004 Executive Opinion Survey. The indices are categorized based on whether private-public sector links are within or outside the legal realm, which is an important distinction that allows a narrow identification of lobbying and corruption activities. The main advantage of this categorization is that it depicts undue legal activities as lobbying instead of corruption in contrast to related contributions, which rely on popular corruption measurement.¹ This brings our empirical investigation well in parity with the aim of disentangling the investment impact of a market penetration of these private-public sector links. We address the implications of that it also restricts us to perform cross-section analysis in investigating the results’ robustness.

We use census data for Swedish manufacturing firms from Statistics Sweden. The data includes information on foreign employment, which is used to construct a sample of firm-market observations. Building on prior research in the field on firms’ FDI engagement, we also source data on firm characteristics and (2-digit level) industry classifications from this data base to control for home country factors that affect the firm’s market selection. Probit regressions are performed to investigate the firm’s decision to invest in a particular market, which lets us use the data that contains complete information on firms’ market selection to its best advantage. This distinguishes our work from related research on the firm’s foreign market investment decision, which relies on

¹ The most popular corruption indices, namely Transparency International’s Corruption Perceptions Index, the World Bank’s Control of Corruption Index and the Political Risk Services group’s ICRG Corruption index, all comprise undue legal and illegal activities.
survey data excluding information on limited market engagement, in that our results are not subject to selection bias created by firm-market data sampling restrictions.

In the two strands of the FDI literature that examine lobbying and corruption effects, the former foremost consists of theoretical models depicting the lobbying impact on a specific policy that impact FDI (such as investment regulation, tax and trade policy) and the latter primarily contains empirical investigations of the general impact of corruption. As this paper relates more to latter strand, and the former strand does not (to our knowledge) provide any direct empirical evidence on multinational firms’ lobbying efforts to improve market access, prior studies of relevance are empirical studies investigating corruption effects on firms’ investment market selection (Henisz, 2000; Javorcik, 2004; Hakkala et al., 2008; Javorcik and Wei, 2009; Ledyaeva et al., 2013). All these contributions except Henisz (2000) find a stark investment-deterrent effect of corruption, though Ledyaeva et al. (2013) reveal that their effect stems from the fact that corruption restricts investment of firms from less corrupt countries that are in majority in their sample. These studies also reveal that the investment-deterrent effect is larger for firms using more advanced technology (Javorcik, 2004) and that firms that despite this invest in corrupt markets are more likely to do so through mergers and acquisitions with local producers (Javorcik and Wei, 2009).

Henisz (2000) reveals that ‘unexpected’ corruption, which goes beyond that interlinked with political risk, stimulates the FDI engagement of US multinationals. It is difficult to reconcile this result with prior evidence in the field. One plausible reason for this discrepancy could be that his corruption parameter captures the interdependent impact of lobbying. At least, this explanation is consistent with evidence that firms regularly lobby to influence public sector outcomes in corrupt markets (Campos and Giovanni, 2007). In this paper, we identify the interdependent effects of lobbying and corruption by computing consistent marginal effects and performing graphical analysis (as advised by Brambor et al., 2006, and Greene, 2010).

The rest of this paper is structured as follows. In the next section, we provide a background description on relevant findings from the scarce related literature on lobbying and corruption. The empirical approach is introduced in section 3 and a data description is provided in section 4. The empirical results are presented and discussed in section 5 and their robustness is examined in section 6. In the last section, we provide some concluding remarks.

2. LOBBYING VERSUS CORRUPTION

The research focus on private-public sector links in the form of lobbying or corruption has been popular. Most research contributions in these literature strands analyse lobbying and corruption as influence that is in place to reap private rents for business purposes (i.e. to increase profits) and for personal gain. Authors that analyse these activities as alternative forms of rent-seeking show that corruption can lead to higher rents, induce market distortions to generate rents, and involve less agents than lobbying (Lambsdorff, 2002a), lobbying and corruption can function as complements if lobbying is exerted to resist legislative change strengthening the rule of law and combating corruption and that this tendency is starker when incumbents are less likely to stay in power (Damania et al., 2004), corruption creates starker commitment problems that adds uncertainty to investment decisions and creates hold-up problems that may lead to a poverty trap (Harstad and Svensson, 2011), lobbying and corruption

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2 These studies investigate multinationals’ investment behavior using survey data on Swedish manufacturers (Hakkala et al., 2008), U.S. manufacturers (Henisz, 2000), foreign multinational engagements in Eastern European, the former Soviet Union and/or Central European markets (Javorcik, 2004; Javorcik and Wei, 2009) and survey data on foreign multinational engagement in Russian regions (Ledyaeva et al., 2013).
function as substitutes and lobbying provides more efficient influence on ‘policy-making’ executive and legislative institutions as well as ‘policy-enforcing’ ministries and regulatory agencies in empirical evidence for transition countries (Campos and Giovanni 2007) and that firms have a preferred means of influence with larger, older, exporting and government-owned firms being more prone to pursue lobbying (Bennedsen et al., 2011).

The conceptual difference between lobbying and corruption is not well understood in the separate literature strands that research these activities. That many authors in both fields rely on definitions that are not mutually exclusive may not be a deficiency when the aim is to generally depict particular private and public sector links. It becomes problematic, however, if results are to underpin policy solutions to various problems such as reducing resource waste and combating corruption. To better formulate policy, it is key to take account of the interdependency between lobbying and corruption. For example, in order to combat corruption lobbying groups should be given less leeway to affect reforms strengthening the judiciary if lobbying and corruption function as complements (Damania et al., 2004) or more leeway to influence intervention if these activities function as substitutes (Campos and Ottaviano, 2007; Bennedsen et al., 2011).³ In the scarce literature that treats lobbying and corruption, the discrepant features of these activities are that i) lobbying is legal and corruption is illegal, ii) lobbying regularly involves many agents organized to represent their interests such as firms in an industry while corruption is undertaken between few agents for example a firm and bureaucrat/policy-maker, iii) a private-public sector link that takes the form of corruption involves enforcement mechanisms that lock in the relationship and counteracts competition,⁴ and that iv) corruption creates hold-up problems that counteract private sector investment by increasing the stakes for both parties in the corrupt deal.

In this literature, two studies investigates whether foreign ownership matters for the firm’s lobbying and/or corruption behaviour. Campos and Giovanni (2007) show that foreign-owned firms are more prone to participate in organized lobby groups. Bennedsen et al. (2011) do not find that foreign ownership affects firm behaviour but that foreign-owned multinational firms that export lobby more than domestic firms. Foreign multinationals set up geographically fragmented production networks to capitalize on market-specific cost or sales advantages and regularly (import and) export, implying that these generally can be expected to lobby more than domestic firms. It is not surprising that bending the rules can be more beneficial for firms with complex production chains when taking into account that this form of influence requires fixed costs that can be substantial. The fact that larger, and more productive, firms self-select into becoming multinational (engaging in FDI) further supports the expectation that foreign multinationals are more engaged in lobbying activities than domestic firms.⁵ Since our focus is placed on Swedish multinationals in the manufacturing sector, which face the same institutional constraints, and we control for industry-specific effects that capture demand and supply conditions, there is little reason to expect firms’ lobbying behaviour to vary significantly in our investigation. We consider this an advantage in identifying the regular market selection impact of lobbying infiltration.

While Campos and Giovanni (2007) and Bennedsen et al. (2011) find no evidence that foreign-owned or foreign-owned exporting multinationals behave differently from domestic firms with respect to corruption, the latter study’s result that large firms are less corrupt suggests that the large size of foreign multinationals make

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³ Harstad and Svensson’s (2011) analysis is consistent with this interpretation though they do not explicitly refer to lobbying and corruption as substitutes.
⁴ See Lambsdorff (2002b).
⁵ This self-selection hypothesis (Antràs and Helpman, 2004; Helpman et al., 2004) has gained strong empirical support (see, e.g. Greenaway and Kneller, 2007 and Antrás, 2011).
them less susceptible to corruption than (on-average smaller) domestic firms. As firms of larger size have stronger bargaining power (Svensson, 2003) and/or face higher corruption costs if targeted (Harstad and Svensson, 2011), this argument strengthens the result that the preferred form of influence amongst foreign multinationals is lobbying.

3. EMPIRICAL APPROACH

We start out investigating the firm’s market selection by estimating a baseline specification with lobbying and corruption variables added to a set of standard determinants. There is stark evidence that the firm’s decision to engage in FDI is influenced by its domestic production characteristics. Only large, more productive, firms in an industry gain from incurring the high set-up costs of multinational activity (Antràs and Helpman, 2004; Helpman et al., 2004). Amongst multinational firms, the largest ones expand their production networks into smaller and less popular markets (Eaton et al., 2011). Firms with capital-intensive production are more prone to invest abroad, which is attributed to their lower transaction costs in foreign market engagement (Antràs, 2003). Firms with advanced production techniques are more reluctant to perform FDI because the costs of monitoring and protecting intellectual property rights are large at early stages of the product cycle (Antràs, 2005) or more prone to invest to engage in market input sourcing (Chen et al., 2012).

It is well-established that market attractiveness is affected by several host country characteristics. The corporate tax rate reduces profits, which counteracts market attractiveness (see, e.g., Gordon and Hines, 2002; Djankov et al., 2010). The tariff rate and market distance increase trade costs that can encourage FDI by increasing the cost of sales through exporting (see, e.g., Helpman et al., 2004) or counteract FDI by triggering outsourcing of intermediate input production to independent suppliers in the market (Antràs and Helpman, 2004). Trade-theoretic fundamentals of the Heckscher-Ohlin model depict that cost advantages in production can stem from national differences in relative factor endowments. For example, a country with a larger relative capital endowment offers a lower relative price on capital which is translated into lower production costs on capital intensive goods. As a result, a country abundant in capital is an attractive location for capital intensive production. As the investment market selection depends on cost advantages of production in different locations (Dunning, 1977), this implies that multinational firms locate capital, skill and labor intensive parts of the production process in capital, skill and labor abundant countries. A market of larger size is a more attractive investment location because it is a more important sales market (Balassa, 1966; Scaperlanda and Mauer, 1969).

A Probit model depicts the probability that firm $i$ in industry $j$ invests in market $k$:

$$
\text{Prob}(\text{FDI}_{ijk} = 1) = \Phi(\alpha_j + \beta_1 \text{Production size}_i + \beta_2 \text{Capital intensity}_i + \beta_3 \text{Technical capacity}_i + \lambda \text{Tariff rate}_jk + \gamma_1 \text{Tax rate}_k + \gamma_2 \text{Market distance}_k + \gamma_3 \text{Relative capital endowment}_k + \gamma_4 \text{Relative skill endowment}_k + \gamma_5 \text{Relative labor endowment}_k + \gamma_6 \text{Market size}_k + \gamma_7 \text{Lobbying}_k + \gamma_8 \text{Corruption}_k).
$$

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6 The result that large enterprises are less corrupt support previous findings by Svensson (2003) in a study on firms’ bribing behavior in Uganda.

7 There is a direct link between firm size and total factor productivity in these models.

8 Recent evidence validates this argument empirically (Córcoles et al., 2013; Thede, 2016).
where $\Phi(\cdot)$ is the cumulative standard normal distribution function, $\alpha_j$ is an industry-specific effect (capturing any industry-specific variation including that linked to lobby activities), $\beta_1 - \beta_3$ are parameter coefficients of the firm’s production size, capital intensity and technical capacity, $\lambda$ is the parameter coefficient of the tariff rate levied on industry imports to the market, $\gamma_1 - \gamma_9$ are parameter coefficients of the market’s corporate tax rate, the physical market distance, the market’s relative endowment of capital, skill and labor, the market size and the lobbying and corruption market infiltration. In addition to standard parameter coefficients obtained in the Probit estimation, we compute marginal effects as derivatives capturing the effect of a proportional change in the independent variable on the probability that the firm selects the market for investment. Denoting an arbitrary independent variable $x$ and its Probit parameter coefficient $\delta$, the marginal effect equals:

$$\frac{\partial \Phi(\cdot)}{\partial x} = \delta \phi(\cdot),$$  

(2)

where $\phi(\cdot)$ is the probability density function. The sign of the marginal effect equals that of the parameter coefficient because the probability density function always takes nonnegative values. The magnitude of the marginal effect depends on the magnitude of the parameter coefficient as well as the probability density which is determined by variable values. We rely on the standard approach of obtaining average marginal effects based on observed variable values, which can be argued to give a more useful description of variable relationships (Long, 1997).

We then turn to examine the interdependent impact of lobbying and corruption on the firm’s market selection by estimating an extended equation with a lobbying and corruption interaction term added to the baseline specification. The main purpose of this estimation is to obtain parameter coefficients to compute consistent marginal effects of lobbying and corruption. As pointed out by several authors, the separate marginal effects computed with conventional programmes such as STATA and EVIEWS can provide misleading results for models including interaction terms because consistent marginal effects should comprise the total impact of variable variation (Ai and Norton, 2003; Brambor et al., 2006; Greene, 2010). We follow Brambor et al. (2006) and Berry et al. (2012) in computing consistent marginal effects based on the Probit estimation method,\(^9\) yielding marginal effects of lobbying and corruption that are equal to:

$$\frac{\partial \Phi(\cdot)}{\partial \text{Lobbying}_{k}} = (\gamma_{6} + \gamma_{10}\text{Corruption}_{k})\phi(\cdot),$$

(3)

$$\frac{\partial \Phi(\cdot)}{\partial \text{Corruption}_{k}} = (\gamma_{9} + \gamma_{10}\text{Lobbying}_{k})\phi(\cdot),$$

(4)

where $\gamma_6$, $\gamma_9$ and $\gamma_{10}$ are Probit parameter coefficients of the lobbying variable, the corruption variable and interaction term. The sign of these marginal effects equals that of the equation’s parenthesis value of the equation as the probability density function takes nonnegative values. Accordingly, the signs of these marginal effects can be established based on Probit parameter estimates and observed lobbying and corruption variable values. As emphasized by Berry et al. (2012), the marginal effects of interdependent variables can differ substantively and lead to different results, so we analyse both.

\(^9\) Detailed STATA programming code and details on the computation and analysis of marginal effects in models with interaction terms (Brambor et al., 2006; Berry et al., 2012) can be accessed online via Matt Golder’s home page http://mattgolder.com/interactions.
4. DATA

4.1 Firm data

Our firm data includes Swedish-owned manufacturers with foreign affiliations, which are identified by at least 50 percent shareholder value in Sweden and at least one employee in a foreign country. There are 318 firms displaying these characteristics in 2004. Firms are categorized at the 2-digit industry level of the standard Swedish classification (SNI), which corresponds to the EU standard classification (NACE Rev 1.1). Firm variables are constructed from production characteristics of domestic affiliates; production size is measured by the sum of affiliate sales in thousand Swedish crowns, capital intensity is measured by the sales-weighted average of affiliate capital stocks per employee in thousand Swedish crowns, and technical capacity is measured by the sales-weighted average of affiliate technician employment shares. To conform to assumptions underpinning the estimation method, variables displaying stark uneven variation in raw format are taken in natural logarithms. For firm determinants, these variables are the production size and capital intensity. We access census data on sales, capital stocks and employment. Firm technician employment data is obtained from an overarching Swedish labor-market survey, which mildly restricts firm data availability.

We access complete data on the Swedish manufacturing firms’ market selection, which is used to construct the firm-market sample of FDI destinations. The market selection pattern of Swedish manufacturing firms is presented in figure 1. The pattern displays regular firm behaviour showing that more firms invest in more developed and less distant markets (see, e.g., Mayer and Ottaviano, 2007).

FIGURE 1

The FDI market selection pattern of Swedish manufacturing firms

![Image of a map showing the FDI market selection pattern of Swedish manufacturing firms.](image)

Source: Statistics Sweden. Authors’ calculation.

In figure 2, we present a histogram of Swedish manufacturing firms’ market outreach as depicted by the number of investment markets. That most firms engage in FDI in only one market, a predominant majority of firms invest

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10 The firm data has been provided by the Swedish Institute for Growth Analysis under a strict confidentiality agreement.

11 Our sample contains 315 of the 318 multinational manufacturing firms that were active in the year of observation, which corresponds to a sample reduction of less than one percent.
in few markets and few firms invest in a large number of markets is a common behavioural pattern in the manufacturing sector.

FIGURE 2
Histogram of Swedish manufacturing firms’ market outreach

4.2 Lobbying and corruption data
As previously described, the lobbying and corruption variables are indices based on corporate responses to the World Economic Forum 2004 Executive Opinion Survey. The survey data comprises a total of 7284 firms in 104 countries, which are selected to reflect national firm distributions in terms of size, ownership and industry classification. On average 90 percent of the firms are privately owned as defined by more than 50 percent private ownership, on average 79 percent of the firms have less than 500 employees and on average 32 percent of the firms are manufacturing producers.

Survey questions are set on a bipolar scale for respondents to give their view on the extent to which they agree with statements about the business environment (in an international context), which ranges between 1 for market conditions that are strongly tampered and 7 for well-functioning market conditions. Our lobbying and corruption indices are based on a set of questions that were included in the 2004 version of the survey to underpin Kaufmann’s (2004) investigation of legal and illegal private-public sector links. Notably, Kaufmann refers to the indices he constructs as legal and illegal corruption though activities in the former category can be argued to be better referred to as lobbying because they are in the legal realm (and may result in intervention that benefits the public). The Kaufmann indices are arithmetic averages of percentage firm responses agreeing with statements that the business environment is characterised by a relatively low infiltration of lobbying/corruption (selecting 5, 6, or 7). The legal index is based on survey questions about legal political funding and undue political influence while the illegal index is based on survey questions about bribery, corporate ethics, illegal political funding, state capture costs and money laundering. We modify the Kaufmann indices to construct proportional indices that increase with lobbying/corruption.

In Table 1, the lobbying and corruption indices are reported. In general, lobbying is more common than corruption with the lobbying index ranging from 0.208 (for the Netherlands) to 0.926 (for the Philippines) and the corruption index ranging from 0.029 (for Denmark) to 0.877 (for Bangladesh). The lobbying index for Sweden is

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0.400, which is far below the 0.630 average, and the country’s corruption index is 0.061, which is amongst the lowest in the world. The lobbying index exceeds the corruption index in 87 percent of the countries while a larger market infiltration of corruption than lobbying is reported for Bangladesh, China, Ghana, Indonesia, Pakistan, Russia, Ukraine, Vietnam and Zambia. The largest gap between lobbying and corruption index values, which is equal to 0.532, is obtained for the United States (that has a lobbying index of 0.692 and a corruption index of 0.160).

**TABLE 1**

Lobbying and corruption indices

<table>
<thead>
<tr>
<th>Country</th>
<th>Lobbying</th>
<th>Corruption</th>
<th>Country</th>
<th>Lobbying</th>
<th>Corruption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>0.838</td>
<td>0.699</td>
<td>Latvia</td>
<td>0.793</td>
<td>0.631</td>
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<tr>
<td>Australia</td>
<td>0.497</td>
<td>0.080</td>
<td>Luxembourg</td>
<td>0.428</td>
<td>0.188</td>
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<tr>
<td>Austria</td>
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<td>Malaysia</td>
<td>0.529</td>
<td>0.332</td>
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<tr>
<td>Bangladesh</td>
<td>0.811</td>
<td>0.877</td>
<td>Mexico</td>
<td>0.778</td>
<td>0.600</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.459</td>
<td>0.241</td>
<td>Netherlands</td>
<td>0.208</td>
<td>0.089</td>
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<td>Bolivia</td>
<td>0.855</td>
<td>0.762</td>
<td>New Zealand</td>
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<td>Botswana</td>
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<td>0.456</td>
<td>Norway</td>
<td>0.214</td>
<td>0.088</td>
</tr>
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<td>Brazil</td>
<td>0.801</td>
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<td>Pakistan</td>
<td>0.765</td>
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<td>0.167</td>
<td>Panama</td>
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<td>0.538</td>
<td>0.213</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jordan</td>
<td>0.406</td>
<td>0.331</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kenya</td>
<td>0.666</td>
<td>0.639</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Each index equals 1-KI/100 where KI denotes the corresponding Kaufmann (2004) index.
4.3 Other market data

Other market determinants are measured as follows. The tariff rate is the percentage ad-valorem tariff rate equivalent levied on imports from Sweden in the firm’s industry category. The corporate tax rate is the percentage tax share levied on profits. The market distance is measured in kilometres using the great circle formula based on population-weighted latitudes and longitudes of main cities/agglomerations. The relative capital endowment is measured by the capital-labor ratio, which equals the estimated capital stock in US Dollars divided by the labor force. The relative skill endowment is measured by the percentage share of the working-age population with secondary education attainment. The relative labor endowment is measured by the labor force (with the capital-labor ratio and the skilled labor share included in estimations). The market size is measured by the GDP level in million US Dollars. Amongst market determinants, the market distance, the relative capital endowment, the relative labor endowment and the market size are variables taken in natural logarithms. Our market variables come from the following data sources; tariff rates are extracted from the UNCTAD TRAINS data base, corporate tax rates come from the KPMG’s Corporate and Indirect Tax Rate Survey (2009), market distances are reported in the CEPII GeoDist data set, estimated capital stocks and labor forces come from the World Bank data base, educational attainment data is obtained from Barro and Lee’s (2010) human capital data set, and the GDP level comes from the World Bank data base. Variable summary statistics are presented in the appendix.

5. ESTIMATION RESULTS

In Table 2, we present the Probit regression results with corresponding marginal effects for equation (1) in the first and second column and for the extended equation in the third and fourth column. Estimation results for the baseline specification show that most parameter coefficients have the expected sign and receive moderate or strong statistical support. A larger production size and/or higher capital intensity makes the firm more prone to invest abroad (in any market). It is not statistically confirmed that a better technical capacity affects the firm’s investment incentive. A higher corporate tax rate, a higher tariff rate and a larger market distance reduces market attractiveness. The result that higher trade costs discourage FDI is consistent with the Antràs and Helpman (2004) model, which suggests that the FDI sourcing motive is predominant for firms in our sample. It is not statistically verified that low capital costs, which stems from comparative advantage based on capital abundance, influences market selection. This (lack of) evidence is coherent with the result that Swedish capital-intensive manufacturing production is highly competitive in international markets (Hansson et al., 2007). Instead, low wages to skilled/unskilled labor stemming from comparative advantage based on skill/labor abundance attract FDI. It is not statistically confirmed that firms are stimulated to invest in a market of larger size, which may reflect the low market segmentation between Sweden and other EU member states. Firms are more prone to invest in a market more infiltrated by lobbying, which may reflect that Swedish multinationals lobby to increase gains from market entry. This interpretation is consistent with Campos and Giovanni’s (2007) result that foreign-owned firms

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13 The variable comprises all trade barriers that can be measured in ad-valorem tariff equivalent terms (including, for example, import quotas).
14 See Mayer and Zignago (2011) for further description on the computation of market distance measures.
15 Working age is defined by standard global measurement as people that are over 15 years old.
16 Interpolation is used to get observations for 2004.
are more prone than domestic firms to participate in lobbying groups.\textsuperscript{17} Also, the fact that Swedish multinationals predominantly engage in FDI through acquisitions allows them to tap into benefits accrued by organized industry

\begin{table}
\centering
\caption{Estimation results\textsuperscript{a}}
\begin{tabular}{lcccc}
\hline
 & \textit{Probit} & \textit{Marginal} & \textit{Probit} & \textit{Marginal} \\
 & regression & effects\textsuperscript{b} & regression & effects\textsuperscript{b} \\
\hline
Production size & 0.478*** & 0.046*** & 0.481*** & 0.046*** \\
 & (0.012) & (0.001) & (0.012) & (0.001) \\
Capital intensity & 0.060*** & 0.006*** & 0.060*** & 0.006*** \\
 & (0.016) & (0.002) & (0.016) & (0.002) \\
Technical capacity & -0.154 & -0.015 & -0.156 & -0.015 \\
 & (0.159) & (0.159) & (0.159) & (0.159) \\
Tax rate & -0.017*** & -0.002*** & -0.014*** & -0.001*** \\
 & (0.003) & (0.000) & (0.004) & (0.000) \\
Tariff rate & -0.012*** & -0.001*** & -0.013*** & -0.001*** \\
 & (0.004) & (0.000) & (0.004) & (0.000) \\
Market distance & -0.511*** & -0.049*** & -0.459*** & -0.044*** \\
 & (0.025) & (0.002) & (0.026) & (0.002) \\
Relative capital endowment & -0.117 & -0.011 & 0.025 & 0.002 \\
 & (0.097) & (0.009) & (0.101) & (0.010) \\
Relative skill endowment & 0.007*** & 0.001*** & 0.010*** & 0.003*** \\
 & (0.001) & (0.000) & (0.001) & (0.000) \\
Relative labor endowment & 0.243** & 0.023** & 0.425*** & 0.041*** \\
 & (0.106) & (0.010) & (0.110) & (0.010) \\
Market size & 0.158 & 0.015 & -0.016 & -0.001 \\
 & (0.102) & (0.010) & (0.106) & (0.010) \\
Lobbying & 0.467** & 0.045** & -0.224 & -0.021 \\
 & (0.186) & (0.018) & (0.211) & (0.020) \\
Corruption & -2.286*** & -0.219*** & -5.137*** & -0.489*** \\
 & (0.206) & (0.020) & (0.461) & (0.043) \\
Lobbying\cdot Corrupti & 3.789*** & & & \\
 & (0.542) & & & \\
\hline
Lobbying\cdot Corrupti\textsubscript{min} & 0.911*** & & & \\
 & (0.103) & & & \\
Lobbying\cdot Corrupti\textsubscript{max} & 0.030*** & & & \\
 & (0.003) & & & \\
Lobbying\textsubscript{min}\cdot Corrupti & 0.389*** & & & \\
 & (0.073) & & & \\
Lobbying\textsubscript{max}\cdot Corrupti & 0.337*** & & & \\
 & (0.043) & & & \\
\hline
Industry effects & Y & Y & Y & Y \\
\hline
Pseudo R2 & 0.387 & 0.392 & & \\
Loglikelihood & -3475.207 & -3450.777 & & \\
Nobs & 19963 & 19963 & & \\
\hline
\end{tabular}
\begin{flushleft}
Notes: \textsuperscript{a}Standard errors reported in parenthesis. \textsuperscript{b}p < 0.10, \textsuperscript{***}p < 0.05, \textsuperscript{****}p < 0.01. \textsuperscript{c}Average marginal effects reported.
\end{flushleft}
\end{table}

\textsuperscript{17} Bennedsen et al. (2011) find that foreign multinationals that export lobby more than domestic firms.
interests in the host country. Firms are more reluctant to invest in a more corrupt market, and the deterrent impact of corruption is large, in line with prior evidence that corruption severely limits investments of firms from ‘uncorrupt’ origin countries (Ledyaeva et al., 2013).

The estimation results for the extended equation are qualitatively similar in terms of model performance and comparable parameter estimates (i.e. for variables other than lobbying and corruption). The addition of the interaction variable implies that the lobbying and corruption parameter coefficients capture the variable impact when the interdependent variable equals zero (Braborg et al., 2006), which renders the interpretation of these parameter estimates almost meaningless (as this never occurs). The parameter coefficient of the interaction term is positive and receives strong statistically support, suggesting that the positive lobbying impact detected in the baseline estimation results accrues from its role in a corrupt environment and/or that lobbying can reduce the negative impact of corruption. From this viewpoint, the result is coherent with prior evidence that lobbying and corruption function as substitutes in overcoming business obstacles (Campos and Giovanni, 2007; Bennedsen et al., 2011). This does not imply that individual firms consider breaking the rules as an acceptable alternative to bending the rules: As previously described, the scarce evidence that exists on firms’ lobbying and corruption behaviour show that firms exert a preferred form of influence (Bennedsen et al., 2011).

The marginal effect comprising the total variable impact is required to get consistent estimates under interdependent influence on the dependent variable (as devised by equation 3 and 4). Using estimated Probit parameter coefficients and observed variable values to identify the signs of these effects reveal the following. Lobbying can deter investment at very low corruption levels and stimulate investment once a low threshold level is exceeded, lending support to the interpretation that investment in a market more infiltrated by lobbying is beneficial because that makes firm less susceptible to corruption. As the risk of facing corruption diminishes, this benefit disappears. Corruption deters investment regardless of the market infiltration of lobbying, which may reflect that the presence of organized interest groups gives incomplete protection against corruption and/or be due to the increased estimated cost of making business with outside parties affected by corruption.

In column 4, the marginal effect of the interaction term is supplemented by corresponding effects evaluated at minimum and maximum interdependent variable levels. The supplementary estimates, which are positive and highly significant, reveal that the interaction effect is smaller at a higher interdependent variable level. Given that the interaction effect is positive, so that a marginal effect is reinforced by the interdependent variable through $\gamma_{10}$, this implies that the probability density $\phi$ is lower at a higher corruption/lobbying level. The impact range of the interaction term’s marginal effect is large, particularly with respect to corruption for which a change from the lowest to the highest level alters the marginal effect from 0.91 to 0.03. This indicates that the investment impact of lobbying is strongly influenced by corruption in a business environment largely void of corruption and weakly affected in a business environment with stark corruption problems. Combined with prior results this evidence suggests that lobbying gains, which are accrued in the presence of corruption, becomes negligible when the corruption prevalence is very high. This further supports the interpretation that lobbying can be beneficial because it functions as a substitute for corruption, which is exhausted once corruption gets so widespread that this alternative influence loses its shielding effect. Notably, this result does not necessarily mean that the firm becomes corrupt but may reflect that firm costs are increasing because other parties involved in making business (including

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18 Survey evidence on Swedish multinationals in the manufacturing sector reveals that, since the mid-1970s, a predominant and increasing share of FDI takes place through acquisitions (Hakkala and Zimmerman, 2005, pp. 33).
independent input suppliers) face corruption. The impact of the marginal interaction effect changes from 0.39 to 0.34 as lobbying is altered between its lowest and highest level, which indicates that the investment effect of corruption always is substantively affected by lobbying. Again, this indicates that lobbying is a substitute for corruption that makes firms less susceptible to corrupt activity.

In figure 3, we present a two-way graph of the marginal effect of lobbying, including its 95 percent confidence interval, and a corruption histogram. The negative marginal effect obtained at the lowest corruption levels, which characterises approximately 3.5 percent of sample observations, is not statistically confirmed. It is only for corruption levels above a threshold of 0.17 that the marginal effect receives statistical support. For these observations, which constitute about 87 percent of the sample, investment is stimulated by larger market infiltration of lobbying. In contrast, it is not statistically verified that lobbying influences the firm decision to invest in the less corrupt Australian, Canadian, Danish, Dutch, Finnish, German, New Zealand, Norwegian, Singaporean, Swiss, UK and US markets. The marginal effect of lobbying increases with corruption up to the 0.24 level (approximately corresponding to that observed in Belgium) and then decreases with corruption until it approaches zero at very high corruption levels. This non-linear relationship reflects the trade-off between the corruption reinforcement of the interaction effect (canalized through $\gamma_{10}$) and the negative effect of corruption on the probability density $\phi$ (indicated by marginal effect evaluations of the interaction term). The former effect dominates at lower corruption levels while the latter effect dominates at higher corruption levels.

**FIGURE 3**
Marginal effect of lobbying

In Figure 4, a two-way graph of the marginal effect of corruption, its 95 percent confidence interval, and a lobbying histogram is presented. The lobbying distribution is skewed to the right with a level exceeding 0.5 reported for around 80% percent of observations. Corruption always deters investment with an effect that is
statistically verified at all lobbying levels. The deterrent effect increases with the market infiltration of lobbying, reflecting that the dominant impact of lobbying works through its reduction of the probability density $\phi$ (that outweighs the reinforcing effect of lobbying channelled via $\gamma_{10}$). Since the counteractive effect of lobbying is stronger in an environment where this legal means of influence is less utilised, the investment-deterrent effect of corruption is starker in markets more heavily infiltrated by lobbying. This implies that the negative impact of a marginal increase in corruption is the largest in markets where lobbying is an integral part of making business such as Ecuador, Guatemala, Honduras, Panama, the Philippines and Thailand.

FIGURE 4
Marginal effect of corruption

6. RESULTS’ ROBUSTNESS
With reference to Harstad and Svensson’s (2011) formal evidence that the form of influence is interrelated with a country’s development level, it should be noted that this variable is controlled for through the inclusion of the relative labor endowment (labor force) and market size (GDP level) in the estimations. Lobbying and corruption is however not as strongly correlated with the labor force or GDP level as may be presumed. The Pearson correlation coefficients between the variables are as follows: (labor force, lobbying) = 0.20, (labor force, corruption) = 0.26, (GDP, lobbying) = -0.25, and (GDP, corruption) = -0.37. This echoes stylised empirical evidence provided by Bennedsen et al. (2011) and clearly indicates that the view that lobbying manifests in rich markets and corruption in poor markets is obscure.19

It could be argued that the results are unrepresentative because they are obtained from cross-section analysis based on one year of observation. Méon and Sekkat (2012) show that global investment booms (busts) makes firm

19 This issue is also taken up by Campos and Giovanni (2007), who clearly argue against this using the fact that lobbying and corruption are prevalent influence forms in the transition economies of Eastern Europe and the former Soviet they investigate.
less (more) adverse to local risk. In Figure 5, we present the development of global investment as measured by the world FDI to GDP ratio over the 1994-2014 period. Since global investment was low in 2004, firms should generally have been more risk averse that year of the time period. This would have made firms more reluctant to invest in corrupt market environments, leading to an upward bias in the deterrent corruption effect. The bias could also reinforce the stimulating effect of lobbying since lobbying functions as a substitute to corruption. The qualitative results that FDI engagement is positively influenced by lobbying and negatively affected by corruption, and that these influence forms function as substitutes, would however not be altered by this behavioural risk-related bias.

FIGURE 5
Development of global investment, 1994-2014(%).

The results may also be subject to endogeneity, measurement error and omitted variables bias. We check whether parameter estimates are sensitive to these biases by re-estimating the specification using a Probit instrumental variables method. To find exogenous variables instrumenting lobbying and corruption we rely on evidence showing that the legal origin is a key factor shaping legal rules and regulatory outcomes (La Porta et al. 1999) which creates breeding ground for lobbying and/or corruption behaviour and that lobbying is more prevalent in parliamentary systems (Campos and Giovanni 2007). The instruments take the form of dummy variables capturing whether the prospective host country has British, French, German, Scandinavian or Socialist legal origin and whether it has a parliamentary system. Legal origin indicators come from La Porta et al. (1999) and political systems data is retrieved from the World Bank’s updated political institutions database (which was initially constructed by Beck et al. 2001).

The instrumental variables estimation results are presented in Table 3. The results are presented as before with those obtained for equation (1) reported in the first and second column and those obtained for the extended equation presented in the third and fourth column. Wald results indicating whether the standard estimation results are rejected in favour of the instrumental variables results are reported in column 1 and 3. For equation (1), the parameter estimates are similar to those obtained using the standard Probit method except for relative labor endowment and lobbying, which despite receiving similar parameter coefficients become insignificant. The Wald test result does not reject the validity of prior estimation results.
<table>
<thead>
<tr>
<th></th>
<th>Probit regression</th>
<th>Marginal effects</th>
<th>Probit regression</th>
<th>Marginal effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production size</td>
<td>0.478***</td>
<td>0.046***</td>
<td>0.466***</td>
<td>0.048***</td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td>(0.001)</td>
<td>(0.019)</td>
<td>(0.002)</td>
</tr>
<tr>
<td>Capital intensity</td>
<td>0.060***</td>
<td>0.006***</td>
<td>0.033***</td>
<td>0.003***</td>
</tr>
<tr>
<td></td>
<td>(0.016)</td>
<td>(0.002)</td>
<td>(0.011)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>Technical capacity</td>
<td>-0.126</td>
<td>-0.012</td>
<td>-0.236**</td>
<td>-0.024**</td>
</tr>
<tr>
<td></td>
<td>(0.155)</td>
<td>(0.015)</td>
<td>(0.106)</td>
<td>(0.011)</td>
</tr>
<tr>
<td>Tax rate</td>
<td>-0.017***</td>
<td>-0.002***</td>
<td>-0.013***</td>
<td>-0.001***</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.000)</td>
<td>(0.004)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Tariff rate</td>
<td>-0.012***</td>
<td>-0.001***</td>
<td>-0.029***</td>
<td>-0.003***</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.000)</td>
<td>(0.004)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Market distance</td>
<td>-0.509***</td>
<td>-0.049***</td>
<td>-0.471***</td>
<td>-0.049***</td>
</tr>
<tr>
<td></td>
<td>(0.052)</td>
<td>(0.005)</td>
<td>(0.043)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>Relative capital endowment</td>
<td>-0.121</td>
<td>-0.012</td>
<td>0.081</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>(0.118)</td>
<td>(0.011)</td>
<td>(0.097)</td>
<td>(0.010)</td>
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<td>Relative skill endowment</td>
<td>0.007***</td>
<td>7.12-10^{-4}***</td>
<td>0.008***</td>
<td>0.001***</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(1.46-10^{-4})</td>
<td>(0.002)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Relative labor endowment</td>
<td>0.243</td>
<td>0.024</td>
<td>0.418***</td>
<td>0.043***</td>
</tr>
<tr>
<td></td>
<td>(0.172)</td>
<td>(0.017)</td>
<td>(0.129)</td>
<td>(0.014)</td>
</tr>
<tr>
<td>Market size</td>
<td>0.158</td>
<td>0.015</td>
<td>-0.012</td>
<td>-0.001</td>
</tr>
<tr>
<td></td>
<td>(0.163)</td>
<td>(0.016)</td>
<td>(0.129)</td>
<td>(0.013)</td>
</tr>
<tr>
<td>Lobbying</td>
<td>0.417</td>
<td>0.040</td>
<td>0.481</td>
<td>0.050</td>
</tr>
<tr>
<td></td>
<td>(0.789)</td>
<td>(0.076)</td>
<td>(1.018)</td>
<td>(0.107)</td>
</tr>
<tr>
<td>Corruption</td>
<td>-2.304***</td>
<td>-0.223***</td>
<td>-5.093**</td>
<td>-0.529**</td>
</tr>
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<td></td>
<td>(0.838)</td>
<td>(0.082)</td>
<td>(2.169)</td>
<td>(0.258)</td>
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<td>Lobbying-Corruption min</td>
<td>5.351***</td>
<td>0.555**</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(2.057)</td>
<td>(0.246)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lobbying-Corruption max</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.119***</td>
<td>(0.228)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lobbying min-Corruption</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.085***</td>
<td>(0.018)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lobbying max-Corruption</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.462*</td>
<td>(0.260)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry effects</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Wald test: $\chi^2(DF, p)$</td>
<td>Accept(2, 0.417)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Nobs</td>
<td>19651</td>
<td>19651</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *Standard errors reported in parenthesis. *p < 0.10, **p < 0.05, ***p < 0.01.

For the extended equation, the instrumented parameter estimates are similar to those in the standard estimation except for technical capacity, lobbying and the interaction term. The firm’s technical capacity has a negative effect that receives moderate statistical support in line with Javorcik’s (2004) related empirical evidence and Antrás’ (2005) conjecture that firms are more reluctant to invest abroad when they use more advanced technology at an early stage of the product cycle. The lobbying impact becomes positive (albeit remaining statistically insignificant) and the statistically verified positive interaction effect increases in magnitude, strengthening the result that lobbying stimulates market selection. For the extended equation, the Wald test rejects the standard estimation results (at the one percent level) indicating that the instrumental variables estimation is required to
accurately capture the interdependent impact of lobbying and corruption. This implies that the firm’s investment decision is favoured by a larger market infiltration of lobbying, which largely is due to its counteracting effect in a corrupt environment. It can be shown that the marginal effect of lobbying is positive at all corruption levels, which underlines the general importance of taking account of this market characteristic to understand the firm’s FDI engagement. As before, the marginal effect of corruption is negative at all lobbying levels, which implies that corruption always reduces market attractiveness.

The enlarged positive effect of the interaction term provides strengthened support of the substitutability of lobbying and corruption. The impact range of the interaction effect is enlarged in the instrumental variable estimation, both with respect to lobbying and corruption. The marginal interaction effect obtained at the minimum and maximum corruption level remains highly significant, and its wider impact range reinforces the impact stemming from a negative corruption effect on the probability density $\phi$. In comparison, the interaction effect is larger at the maximum level of corruption than before and now has a tangible influence on the investment impact of lobbying even in environments with stark corruption problems. This extends the result that lobbying is beneficial to counteract corruption to markets heavily infiltrated by corruption, though the evaluation of the interaction term with respect to corruption still shows that this shielding effect is stronger in markets with limited corruption problems. The instrumented marginal interaction effects at the lowest and highest lobbying level receive weak statistical support and show that the effect is larger at the higher lobbying level. This overturns the prior result that the probability density $\phi$ decreases with lobbying, and instead implies that the investment-deterrent effect of corruption is lower in environments where lobbying makes up an integral part of making business. This indicates that the negative effect of corruption is more easily counteracted when this legal means of influence is prevalent, which reduces the costs encountered by firms investing in the market.

7. CONCLUDING REMARKS

In this paper, we investigate lobbying and corruption effects on the firm’s investment market selection using census data on Swedish manufacturing firms. We go beyond contributions in the prior literature, which has examined the corruption impact on market attractiveness without addressing the interdependent effect of lobbying, by simultaneously identifying these effects. In the scarce literature that exists on firm behaviour, lobbying and corruption (Damania et al., 2004; Campos and Giovanni, 2007; Bennedsen et al., 2011), it is clearly shown that these activities constitute interdependent private-public sector links. In fact, our results support prior evidence in this literature showing that lobbying and corruption function as substitutes (Campos and Giovanni, 2007; Bennedsen et al., 2011).20 The results reveal that lobbying stimulates the firm’s investment market decision and that corruption has a stark investment-deterrent effect in line with most prior evidence in the corruption field (Javorcik, 2004; Hakkala et al., 2008; Javorcik and Wei, 2009; Ledyaeva et al., 2013). This is coherent with the result that foreign-owned firms or foreign-owned multinational firms that export are prone to engage in lobbying and utilise this as their preferred influence form (Campos and Giovanni, 2007; Bennedsen et al., 2011). It also strengthens the prior finding that corruption deters the investment of surveyed multinationals in the Swedish manufacturing sector (Hakkala et al., 2008) in line with the argument that firms adopt host country norms of making business (Ledyaeva et al., 2013).

20 Campos and Giovanni (2007) argue that Damania et al.’s (2004) discrepant result that lobbying and corruption function as complements probably captures other variable interdependences as lobbying only features indirectly in the investigation.
Our evidence is based on narrowly defined data from which it can be discerned whether private-public sector links are legal or illegal. This places our empirical contribution well in line with the objective to identify the distinct impact of lobbying and corruption, enabling us to go beyond related empirical contributions which utilise corruption indices that are too broad to solely capture undue activities outside the legal realm. Due to data limitations, we perform cross-section estimations for the year 2004. As global investment was low this year, and firms should have been more risk averse than normal (Méon and Sekkat, 2012), the corruption effect that we identify at the time of observation may be upward biased. This could also reinforce the lobbying effect since lobbying and corruption function as substitutes. The parameter impact of such behavioural risk-related bias would however not overturn the qualitative results that FDI engagement is stimulated by lobbying, counteracted by corruption and that these activities function as substitutes. As lobbying and corruption constitute alternative private-public sector links, and impose discrepant economic effects (see, e.g., Harstad and Svensson, 2011), it is key that surveys are constructed in a way that allows a separation of these influence forms. The discrepant and interdependent lobbying and corruption effects that we uncover suggest that hitherto unexplained evidence that U.S. firms gain from market entry into corrupt markets (Henisz, 2000) may capture the interdependent positive effect of lobbying. Enabling a direct identification of lobbying and corruption would reduce the risk that research-based results are misleading and provide a better foundation to formulate policy.

Our empirical approach allows us to consistently estimate the marginal effects of lobbying and corruption and analyse their interdependency in detail (Brambor et al., 2006; Greene, 2010). The investigation confirms that the marginal lobbying effect is positive at all corruption levels (once an instrumental variables method is used to account for endogeneity, measurement error and omitted variables problems), which implies that a starker lobbying infiltration always stimulates market selection.21 We find that the lobbying effect largely accrues from the interdependency with corruption, which indicates that its beneficial effect lies in shielding the firm from corruption. There is more to this story than the substitutability between these forms of private-public sector links in the market, which is revealed by the fact that the marginal effect of lobbying is the smallest in markets where corruption forms an integral part of making business. This suggests that lobbying provides an alternative, legal, means of influence to corruption which can only partly protect the firm from costly corruption effects. The marginal effect of corruption is negative at all lobbying levels, which implies that a starker market infiltration of corruption always deters market selection. Once the parameter estimates are supported by instruments, it is revealed that this deterrent effect is smaller in markets more infiltrated by lobbying. This indicates that a prevalence of this legal means of influence facilitates the counteraction of the negative impact of corruption, thereby lowering the costs faced by firms investing in the market.

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21 This may reflect engagement through home and/or host market lobbying activities of which we know very little based on existing evidence.
### Variable summary statistics

<table>
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<th>Min</th>
<th>Max</th>
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<th>St.Dev.</th>
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REFERENCES


