DOES BRIBERY IN THE HOME COUNTRY PROMOTE OR DAMPEN FIRM EXPORTS?

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This study examines the impact of bribery within the home country on firm exports by developing two contrasting hypotheses. On the one hand, preferential treatment resulting from government officials in exchange for bribes may promote exports by enhancing efficiency and enabling bribing firms to better compete in foreign markets. On the other hand, preferential treatment resulting from bribes may decrease exports by providing firms with more established positions within the domestic market diminishing the incentive to explore foreign markets. Adopting the three-stage least squares method, we test these competing arguments using a sample of firms operating within transition economies. We find that bribery within the home country decreases rather than increases firm exports. The implications of our findings are discussed. Copyright © 2013 John Wiley & Sons, Ltd.

INTRODUCTION

Bribery is not new to most managers; kickback, red envelopes, and grease money are constantly reported by the press. It has been estimated that the annual amount of bribes paid worldwide is US$1 trillion (World Bank, 2004), an amount that approximately equals the gross domestic product (GDP) of South Korea. While bribes can be paid to diverse entities, the majority of firm bribes are paid to government officials (Luo, 2005: 122). Indeed, bribes are common in countries where government corruption is prevalent and legal systems are less developed, such as transition economies (Cuervo-Cazurra, 2006; Rodriguez, Uhlenbruck, and Eden, 2005). Prior research has argued that bribery is influenced by a number of factors including national culture (Martin et al., 2007), a country’s institutional features (Sanyal, 2005), and top management characteristics (Collins, Uhlenbruck, and Rodriguez, 2009). While the determinants of bribery have begun to be uncovered, it is less clear whether or not bribery has implications for firm strategies such as exports, an issue that our study aims to explore.

Our study is propelled by two motivations. First, in contrast to the rich and fruitful findings on the antecedents of bribery (Collins et al., 2009; Martin et al., 2007), few studies examine the consequences of bribery. Given that bribes are a “strategic choice” for firms (Spencer and Gomez, 2011: 280), it seems important to investigate the impact of bribery on firm strategy. To be sure, bribes paid to government officials may affect firm strategy in many ways, and our goal in this paper is not to detail all the possible consequences. In this study, we focus on exports—one of the most commonly used international strategies (Cassiman and Golovko, 2011: 69; Salomon and Shaver, 2005: 855) as well as a useful indicator of firms’ international competitiveness (Ito and Pucik, 1993: 71).
Second, extant theories imply that there are two opposing predictions regarding the impact of home country bribery on firm exports. On the one hand, prior research has suggested that firms with greater efficiency are more likely to export (Aw and Hwang, 1995; Bernard and Jensen, 2004). Following this reasoning, to the extent that bribes buy “additional benefits” from government officials that enhance firm efficiency, bribing firms may have advantageous positions within foreign markets and therefore greater exports can be expected.

On the other hand, bribery paid to government officials may strengthen a firm’s position within the domestic market. Having acquired more established positions within the home country, firms may focus more on the domestic market and export less. This logic is consistent with both prior export research (Hundley and Jacobson, 1998; Ito and Pucik, 1993) and the rent-seeking perspective (Tullock, 1996). Since both predictions are compelling but inconsistent, it is important to evaluate these arguments while using an appropriate research design.

We test these predictions by amassing a sample of firms operating within transition economies where country institutions have experienced large-scale changes (Newman, 2000; Peng, 2003). We exploit a cross-country data set that allows us to identify firms’ bribery behaviors in the home countries and assess their impact on exports. Employing a simultaneous equations modeling approach, we find that home country bribery decreases firm exports. Therefore, the greater the amount of bribes that a firm pays to home country government officials, the lower the firm will export. This suggests that bribery in the home country is a reduced incentive for firm exports.

This paper is structured as follows. The next section reviews theories on bribery and then develops hypotheses. The third section describes our research design including data, variables, and methods. The fourth section presents our main results and additional analyses. The final section discusses our findings and concludes the paper.

BACKGROUND

Bribery and its determinants

Bribery has long been associated with government corruption (Shleifer and Vishny, 1993; Svensson, 2003). Defined as instances where public officials (mis)use their authority (Treisman, 2007: 211), government corruption refers to circumstances where officials demand money for their own benefit rather than the state’s purposes. Given that the opportunities for misusing authority in pursuit of personal interests are abundant when legal and judicial systems are not fully developed, government corruption is particularly common in these countries (Doh et al., 2003; Lee, Oh, and Eden, 2010). When a high proportion of government officials accept bribes, individuals or firms may have opportunities to “influence the performance of a public function” (Martin, 1999: 2). In his detailed case study, Wade (1982) found that when government corruption existed in public sectors, officials’ decisions were affected by bribes. Similarly, Olken and Barron (2009) documented that public officers took advantage of road check points and asked truck drivers for unauthorized additional fees as bribes.

Prior research also shows that bribery is influenced by firms’ interactions with government officials. Firms that cultivate close relationships with government officials have greater tendencies to bribe. Given that interpersonal relationships create “a sense of obligation” that reduces the risks associated with bribery (Collins et al., 2009: 93), firms that have established relationships with government officials are more likely to pay bribes than those that have not done so previously. Crucially, bribery always involves two parties—both bribee and briber—and the picture of bribes would be incomplete if bribers are not considered. Consequently, bribers play an important role. Recent research has found a considerable variation in firms’ bribery activities, and such a variation could be explained by briber characteristics (Lee et al., 2010; Svensson, 2003). As we will discuss below, one reason accounting for this finding is that some firms are more proactive than others in utilizing bribes to acquire preferential treatment (Martin et al., 2007; Rose-Ackerman, 1997), an argument that is central to our study.

Bribery and preferential treatment

Research on bribery has suggested that bribers not only create a “demand for corrupt services” but also represent “the supply of bribes” (Rose-Ackerman, 1997: 34). From this perspective, bribery is a process whereby government officials sell public resources and services to individuals.
and firms. Public services are therefore disproportionately allocated between bribers and nonbribers. Bertrand et al. (2007) found that individuals who did not pay bribes may face higher rejection rates than those who did bribe government officials when requesting public resources. In contrast to nonbribers who faced “arbitrary failures” imposed by regulators (Bertrand et al., 2007: 1642), individuals who paid bribes were able to obtain licenses smoothly and efficiently. This shows that bribes allow individuals and firms to acquire greater access to needed public services.

Public resources are crucial for firms. For instance, operating within a regulated market where government approval is required can be a costly proposition when government officials are prone to seeking personal benefits by taking bribes. The presence of government regulations may make it difficult to obtain such permits (Djankov et al., 2002). In response, some firms may use bribes to speed up the process. Firms therefore receive relief from the heavy regulations and red tape when paying bribes (Rose-Ackerman, 1999: 18). Moreover, in many transition economies, governments still have substantial control of key resources such as credit (Barth et al., 2009) and infrastructure (Olken and Barron, 2009). Barth and colleagues (2009) found that the lack of adequate laws and legal systems causes the misallocation of credit, and that access to public resources is determined by the amount of bribes firms pay to government officials.

In addition, bribery may enable firms to obtain intangible resources such as “privileged information” (Porta and Vannucci, 1999: 44). When bribes are provided, government officials might be willing to reveal proprietary information and offer favorable interpretations. Porta and Vannucci’s study reported the following remark from one anonymous official who received bribes: “Companies . . . came to me for advice . . . I could give the correct interpretation of the said rules.” (1999: 44, emphasis in original). Since information regarding regulations could be bought, firms that bribe government officials would be able to “anticipate the future direction of demand and to defeat competitors” (Porta and Vannucci, 1999: 44). Consequentially, bribery may “become increasingly attractive” for some firms (Martin et al., 2007: 1407). From these firms’ perspective, bribery is “a quicker, and perhaps more effective, strategic instrument” for going through the regulatory process (Luo, 2005: 141).

The argument that bribery buys preferential treatment from government officials is in line with the rent-seeking perspective (Krueger, 1974; Tullock, 1996). In contrast to rent-creating behaviors, rent-seeking activities are those that alter the distribution of resources without generating additional value. Activities such as bribery and government corruption are rent-seeking behaviors (Krueger, 1974: 291). Since there are often multiple individuals who demand given resources or services, it is common that several bids may compete for the same public resource and that government officials would sell public services to bidders who offer “the highest bid” (Bardhan, 1997: 1322).

The benefits emanating from bribes may be made possible by government officials at different levels. Some may be middle- or lower-ranking officials while others may be high-ranking leaders (Fisman, 2001). Some may be in local government while others may be in central government. Although the level of officials may vary, one thing in common is that government officials respond to requests from bidders who ask for favorable treatment. As Ingram and Silverman argued, the methods that firms use to create favorable institutions are “fundamental to an organization’s strategy” (2002: 20). Bribery can accordingly be regarded as “a strategic tool in dealing with local public organizations in their home countries” (Martin et al., 2007: 1401).

Building on this premise, our study proposes a pair of hypotheses regarding whether or not home country bribery may affect firm exports. On the one hand, special treatment emanating from bribes may improve a focal firm’s efficiency, in turn enhancing the focal firm’s position within foreign markets. On the other hand, bribery may strengthen the firm’s position within the domestic market and give it stronger incentives to focus on the domestic market rather than seeking foreign opportunities. Following this reasoning, bribery in the home country may decrease a firm’s interest in foreign countries. To test these two contrasting predictions, we focus on exports as a viable choice for firms’ international strategies (Filatotchev et al., 2001; Salomon and Shaver, 2005). Prior research reports that firms in transition economies such as central and eastern European countries have begun to become active in the international market via exports (Filatotchev et al., 2001; Shinkle and Kriauciu纳斯, 2010). Since exports from these countries “have grown very
rapidly” (Hoekman and Djankov, 1997: 471), it seems appropriate to study exports as opposed to other international strategies, such as foreign direct investments (FDIs).

HYPOTHESES

Bribing firms export more

Our hypothesis begins with a prediction that bribes in the home country promote a firm’s exports. As mentioned earlier, firms may acquire preferential treatment when they pay additional money as bribes to home country government officials. One of the benefits is that bribes may help the firm acquire needed resources at a lower price. Rose-Ackerman (1999: 35) stated that many government officials have a “dual price” practice for the services and resources, or a higher market price when bribes are absent and a lower state price when bribes are present. Hsieh and Moretti (2006) identified bribery behaviors while examining the unusual underpricing behaviors of government officials. They found that government officials “deliberately set the price ... below market prices and then choose buyers that were willing to pay bribes” (Hsieh and Moretti, 2006: 1212). This idea is corroborated by other studies (Gong, 1993; Johnston and Hao, 1995). For example, Gong reported that the gap between the two prices “could be as high as 1:2” (1993: 320). Firms that pay higher bribes are therefore likely to acquire these resources or services at lower costs. To the extent that the bribes firms pay to government officials do not exceed the difference between the market and state prices, the bribing firms would obtain certain advantages when acquiring resources.

If bribes allow firms to receive preferential treatment and efficiently acquire resources, then the low cost advantage may allow bribing firms to achieve a competitive position within foreign markets. The export literature has argued that export decisions are not random and that these decisions are often driven by important firm attributes (Bernard and Jensen, 1999; Ito and Pucik, 1993; Salomon and Shaver, 2005). In particular, firms with higher efficiency are more likely to initiate export projects than those with lower efficiency (Aw and Hwang, 1995; Bernard and Jensen, 1999, 2004). While successful export projects depend not only on cost advantages but also on other resources (Gao et al., 2010), whether or not firms could efficiently organize their operations within the home country is important for exporting (Bernard and Jensen, 2004). To the extent that firms efficiently put together needed resources, they can leverage “their domestic competitive advantages to compete in international markets” (Gao et al., 2010: 382). Accordingly, exports may increase when firms acquire additional benefits from bribery.

Moreover, the benefits associated with bribery can also be greater because of scale economies. Theorists have argued that while there are certain costs when firms perform a focal activity, as the size of the activity increases the average costs are lowered and scale economies would emerge (Makadok, 1999). The bribes paid to home country government officials for gaining favorable treatment can be regarded as an investment with fixed cost, and as the firm increases sales by exporting, the benefits associated with bribery may be greater. This explains why Fisman and Gatti argued that there are “economies of scale” in the bribing process (2006: 129). In addition, from government officials’ perspectives firms with greater bribes are more important and “their bribe transactions are executed with greater efficiency” (Fisman and Gatti, 2006: 134). The benefits associated with bribes are therefore greater for firms that pay more bribes. These benefits resulting from scale economies may allow firms to acquire enhanced positions within foreign markets, making greater exports more likely.

Conversely, firms that pay limited bribes in the home country may not enjoy as many benefits as firms that bribe more. On the one hand, they may face more stringent regulations from home country governments and need to spend more time and resources fulfilling the necessary production process (Bertrand et al., 2007; Shleifer and Vishny, 1993). For example, Bertrand and researchers (2007) found that individuals who did not pay bribes spent longer waiting for decisions from government officials and that the outcomes were less predictable. Both the loss of time and higher prices may create additional challenges for firms’ export projects, placing these firms in a less advantageous position within foreign markets.

On the other hand, small amounts of bribes may make it difficult for firms to fully exploit the scale economies (Fisman and Gatti, 2006). Limited bribes reduce the amount of preferential benefits within the home country, thus adversely
affecting firms’ positions within foreign markets. While the benefits associated with bribery are not the only factors that may facilitate exports, an inability to maintain competitive parity may diminish the likelihood of successful exports because the export market attracts competition not only from developed countries but also from developing countries (Gao et al., 2010). Firms paying fewer bribes in the home country may therefore have relatively lower exports.

The previous discussion argues that the preferential treatment resulting from bribes in the home country may allow firms to improve efficiency, in turn enhancing their positions within foreign markets. The rationale is that by acquiring these benefits bribing firms are likely to secure advantageous positions within foreign markets, while firms that do not pay bribes or pay limited bribes may have less advantageous positions within foreign markets and export less. Therefore:

Hypothesis 1a (H1a): There will be a positive association between a firm’s bribe amounts paid to government officials in the home country and its export intensity.

Bribing firms export less

In contrast to the argument that bribes in the home country may promote exports, there are reasons supporting an opposite prediction that home country bribery decreases firm exports. One reason is that bribery in the home country may strengthen a focal firm’s position within the domestic market while reducing the incentive to explore foreign markets. In their study of drivers’ bribes to government officials in Indonesia, Olken and Barron (2009: 418) found that during a 396-mile trip drivers typically passed through 27 checkpoints and public officials demanded US$40 per trip, equivalent to 13 percent of the total trip cost. By paying bribes in the home country, firms could bypass domestic market regulations and gain advantage vis-à-vis firms that did not bribe or bribed less for doing business within the domestic market. This may give firms an incentive to focus on the domestic market rather than exploring foreign markets.

Several cases support the argument that home country bribery improves firms’ positions within the domestic market. For instance, it has been reported that government officials accepted bribes from firms for permitting the production and selling of questionable products (Xinhua, 2011). When bribes are paid, firms are able to efficiently organize operations within the home country. Similarly, firms that have paid bribes to government officials in the home country can bring their products to the domestic market earlier since bribes would make inspectors “turn a blind eye” (Braithwaite, 1984: 11). Compared with firms that pay no or limited bribes to government officials, those that pay considerable bribes to home country government officials are able to “sell their ... products in supermarkets and other retail outlets” (Braithwaite, 1984: 17). To the extent that bribery can be “seen as facilitating transactions and speeding up procedures” (Cuervo-Cazurra, 2006: 808), it may work around domestic regulations and improve a firm’s position within the home country. By paying bribes to home country government officials, firms can “gain strategic advantage” in their home base (Martin et al., 2007: 1401).

Strengthened positions within the home country achieved via bribes may decrease firm exports. Extant export research has argued that export decisions are influenced by firms’ positions within the home country (Hundley and Jacobson, 1998; Ito and Pucik, 1993). Firms with established home country positions tend to be less interested in foreign countries since they are complacent concerning their positions in the home base (Ito and Pucik, 1993; Mascarenhas, 1986). Alternatively, firms with peripheral positions within the domestic market are more likely to explore foreign markets. This shows that the tendency to export may “differ depending on the firm’s domestic ... position” (Ito, 1997: 612). Since bribes in the home country allow firms to improve their positions within the home country, these bribes may decrease firm exports. In line with this logic, Hundley and Jacobson maintained that “mechanisms that provide some companies with preferential treatment may actually reduce the export” (1998: 936). Extending this reasoning, it can be argued that bribes in the home country may decrease firm exports.

Moreover, the use of bribes may encourage firms to focus on their domestic operations while reducing their attention to foreign markets. This is because once bribes are paid firms might become entrenched by the “increasing returns” (Murphy, Shleifer, and Vishny, 1993: 409). The favorable treatment associated with bribes may make other alternatives (such as foreign markets)
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Murphy and colleagues contended that “an increase in rent-seeking activity may make rent-seeking more attractive relative to productive activity” (1993: 409). Extending this logic, bribery in the home country may diminish the attractiveness of foreign markets and thus decrease exports. Combining these arguments, an alternative hypothesis can be proposed:

**Hypothesis 1b (H1b):** There will be a negative association between a firm’s bribe amounts paid to government officials in the home country and its export intensity.

**METHODS**

**Data**

We used the Business Environment and Enterprise Performance Survey (BEEPS) data to test our hypotheses. The BEEPS project is developed by the European Bank for Reconstruction and Development (EBRD) and the World Bank Group. The goal of the project is to understand firms’ operations in their home country (European Bank for Reconstruction and Development, 2010: 5). It has four rounds of surveys. The first round was undertaken in 1999 where approximately 4,000 firms in 26 countries were surveyed. The second round was given to 6,500 companies in 26 countries during 2002. The third and fourth rounds were administered to 9,500 firms in 28 countries in 2005 and 12,000 enterprises in 29 countries from 2008 to 2009, respectively. The surveyed firms were selected from the complete population of registered companies via a stratified sampling approach.

We formed our sample firms in two steps. First, we excluded observations with missing information for our main variables such as bribery and exports. Second, since not all firms were repeatedly surveyed, we only used firms that were surveyed more than once. Using these two criteria, we had 7,227 firms based in 23 countries as our sample with 14,302 firm-year pairs for analyses. These sample firms were relatively young (the median firm age was 15) and small (roughly 50% of firms had employees fewer than 50, and 31% of firms had employees more than 50 but fewer than 99). Most firms were domestically owned (88% of firms had no foreign ownership involved). They were mostly manufacturing companies with a small portion of firms operating in service sectors such as retail and wholesale. Among all the home countries, Poland accounts for the most sample firms (8%), while Montenegro accounts for the least (0.2%). Table 1 presents a brief summary of firms’ exports and bribery by years.

The survey process of the BEEPS data may be worth discussion. First, to encourage firms to participate the survey researchers first contacted executives, noting that the project was organized by the EBRD and the World Bank. Prior research suggests that emphasizing academic neutrality may enhance executives’ motivation to participate in research projects (Welch et al., 2002: 624). Since some questions in the survey may be sensitive to respondents, it is important to encourage more executives to participate. Second, the researchers stressed that the purpose of the survey was to provide feedback for policymakers in order to devise new projects and programs that support firms; neither the identities of the companies nor those of the respondents would be revealed. Third, questions in the survey were phrased in an indirect manner to solicit genuine responses from firms. In particular, the bribery-related questions were raised in a late phase of the interviews so that potentially provoking and sensitive questions were asked once rapport between the interviewers and the respondents was established. Finally, researchers spent considerable resources and time training interviewers to ensure that the interviewers had sufficient skills (European Bank for Reconstruction and Development, 2005). For example, interviewers were trained in a series of workshops, and many executives were invited to attend these workshops to provide feedback before formal interviews were conducted. Together, appropriate survey designs and careful implementation help

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respondents “discuss corruption with remarkable candor” (Reinikka and Svensson, 2006: 365).

Given the above cautions, although the BEEPS study was a survey in nature, it may not be severely affected either by the common method bias (Podsakoff et al., 2003) or by the response bias (Jensen, Li, and Rahman, 2010). On the one hand, the main variables included in our study such as exports and bribery are not perceptual measures, but instead are indicators concerning actual behaviors. These types of questions are relatively straightforward to answer (Jensen et al., 2010: 1486). On the other hand, we checked the non-response bias by examining the observable information of firms with bribery against those of firms without bribery, consistent with Svensson (2003). Using the Kolmogorov-Smirnov test (Siegel and Castellan, 1988), we found no significant difference between firms that reported bribes and firms that did not. There is accordingly no evidence indicating that firms responding to bribery questions were not representative.

**Model**

We assess the impact of home country bribery on firm exports by employing a simultaneous equations modeling approach (Greene, 2008). One reason for favoring this method is that while the impact of bribes on exports is supported by theoretical arguments presented earlier, the association between bribery and exports may be contaminated by the potential reverse causality and reciprocal relationship. An underlying assumption behind our hypotheses is that most (but not all) export projects are initiated after firms had established their domestic operations (Hundley and Jacobson, 1998; Lee and Makhija, 2009). While this is in keeping with prior research contending that “the domestic economic environment is a key context in which to engage in business activities” (Lee and Makhija, 2009: 407), the literature also points out that some firms may predominantly consider foreign markets while paying less attention to the domestic market (Knight and Cavusgil, 2004). It is therefore possible that a firm’s international strategy affects domestic operations, implying the need to consider reverse causality.

When reverse causality is likely, the ordinary least squares (OLS) regression may not be suitable. To cope with this issue we use simultaneous equations modeling, an approach that allows researchers to examine reverse or reciprocal relationships (Greene, 2008). According to this approach, bribery and exports are advised to be specified in two equations rather than one. By specifying exports and bribery in two separate equations with one another as an explanatory variable, we are allowed to examine their interrelationship (the model will be detailed later).

Second, the endogeneity issue may be a concern. When an independent variable is not exogenous, the variable may correlate with the disturbance term, making estimates inconsistent (Greene, 2008). In our model, both bribery and exports are likely to be endogenous. Using the Hausman (1978) test, we found that both the firm exports ($\chi^2 = 151.55, p < 0.05$) and home country bribery ($\chi^2 = 13.22, p < 0.05$) are endogenous. For this reason, the instrumental variable approach was adopted. Following Fisman and Svensson (2007), we instrumented a firm’s bribes using the average bribery level of other firms operating within the same industry and location (i.e., excluding the focal firm). Industry was defined as the primary business area a firm operates within. Location was the region of a focal firm’s main establishment within the home country (i.e., whether a focal firm is located in the central, northern, eastern, southern, or western parts of the home country). Using the average bribery level of other firms within the same location and industry to instrument a focal firm’s home country bribery seems appropriate because such information is expected to be correlated with the focal firm’s home country bribery, but not highly correlated with the focal firm’s exports.

We also considered the endogeneity of export. Our instrument for firm exports is a firm’s export experience. Prior research suggested that firms with more export experience are more likely to be exporters in the future (Bernard and Jensen, 2004; Roberts and Tybout, 1997). We measured export experience using the number of years since a firm’s earliest exporting project, an item from the questionnaire. To ensure that this variable is an acceptable instrument, we regressed firm exports on export experience using the OLS model. We find that firms with greater export experience tend to export more ($\beta = 1.39, p < 0.01$), supporting the use of export experience as an instrument for firm exports. Since we used only one instrument for each endogenous variable, the over-identification issue may not be a major concern (Greene, 2008).
Thus, our simultaneous equations modeling system can be written as follows:

\[
\text{Export}_t = \alpha_1 + \beta_1 \text{Bribery}_t + \gamma_1 \text{Controls}_t + \text{u}_1
\]

\[
\text{Bribery}_t = \alpha_2 + \beta_2 \text{Export}_t + \gamma_2 \text{Controls}_t + \text{u}_2
\]

where \(\alpha\) denotes intercepts, \(\gamma\) represents a vector of coefficients for control variables, and \(u\) is disturbance term. We allow \(u_1\) and \(u_2\) to be correlated. We estimate the parameters using the three-stage least squares (3SLS) method (Zellner and Theil, 1962). First, the instrumented variables were adopted and used to replace the observed indicators. Second, the instrumented variables were taken into the equations to generate a cross-equation covariance matrix of disturbance terms. Finally, the equations were put together and the cross-equation covariance was considered in the estimations. This estimation strategy has been adopted by prior research (Kumar, 2010; Souder and Shaver, 2010).

Since the estimation of simultaneous equations requires additional variables that are not shared by two equations, we included foreign ownership (percent) in the export equation while adding government ownership (percent) and whether a firm had government contracts (1 = yes and 0 = no) in the bribery equation. Foreign ownership is entered into the export equation because the presence of foreign owners may allow firms to utilize the foreign owners’ resources and knowledge, increasing exports (Salomon and Shaver, 2005). Government ownership and government contract are used to predict bribery since they represent a focal firm’s relationships with home country governments (Martin et al., 2007; Svensson, 2003).

Finally, firm heterogeneity is an issue because models without considering the firm heterogeneity issue may yield biased results. Since it is common to see a “within-firm persistence in export behavior over time” (Salomon and Jin, 2008), we controlled for the firm heterogeneity issue by including a lagged variable (Heckman and Borjas, 1980). This approach is more efficient than the fixed effects method since it saves many degrees of freedom. Taking the lagged variables into consideration, the simultaneous equations system can be updated as:

\[
\text{Export}_t = \alpha_1 + \beta_1 \text{Bribery}_t + \delta_1 \text{Export}_{t-1} + \gamma_1 \text{Controls}_t + \text{u}_1
\]

\[
\text{Bribery}_t = \alpha_2 + \beta_2 \text{Export}_t + \delta_2 \text{Bribery}_{t-1} + \gamma_2 \text{Controls}_t + \text{u}_2
\]

We are primarily interested in the parameter \(\beta_1\). A positive and significant coefficient with \(\beta_1\) would support H1a arguing that bribery in the home country promotes exports. Alternatively, a negative and significant coefficient with \(\beta_1\) would instead support H1b arguing that bribery decreases exports. As mentioned earlier, the simultaneous equations modeling can partial out the reciprocal effect between bribery and exports. If bribery significantly affects exports (\(\beta_1\)) while exports do not have a significant impact on bribery (\(\beta_2\)), then the reciprocal relationship may not be a major concern. Conversely, if bribery significantly affects exports (\(\beta_1\)) and exports also significantly influence bribery (\(\beta_2\)), then one may conclude that the relationship between bribery and exports is reciprocal in nature.

**Variables**

**Dependent variable**

Our dependent variable is firm exports. Following Hundley and Jacobson (1998) and Filatotchev et al. (2001), we measured exports using export intensity or the ratio of a firm’s foreign sales over total sales. This variable was constructed by adopting an item in the BEEPS questionnaire surveying the proportion of foreign sales over total sales. This variable ranges from 0 to 1, with higher values indicating greater export intensities. Since firms in transition economies are more active in exports, it seems acceptable to study exports as a widely used method of tapping into foreign markets in these countries (Filatotchev et al., 2001; Hoekman and Djankov, 1997).

**Independent variable**

Our independent variable, firms’ bribe amounts in the home country, was operationalized using the amount of bribes that a firm paid to home country government officials scaled by the firm’s total sales. We used this indicator because it may reduce the potential size effect (i.e., larger firms may bribe more than smaller firms). The variable was derived from a question in the BEEPS questionnaire that asked the ratio of the amount of bribes paid to home country government officials over firm
sales. Specifically, the question asked managers to indicate the amount of bribes a focal firm paid to “get things done with regard to customs, taxes, licenses, regulations, services, etc.” (emphasis in original), many activities that the focal firm may have with home country government officials. This variable has been used by Fisman and Svensson (2007). As prior research shows, bribery in the home country can be used to secure additional benefits such as “obtaining better services and more protection” (Cai, Fang, and Xu, 2011: 57).

While the survey item provides a comprehensive assessment of firms’ bribery in the home country, it is possible that some bribery activities may not affect firm exports. For instance, many firms may obtain operating licenses and business permits for their operations in the home country. Bribery activities as such are necessary for operating in the home country but may not affect firms’ interest in foreign countries. To tease out this effect, we created a variable (variable name: Grease) that summed a firm’s bribery amounts regarding (1) obtaining operating licenses, and (2) acquiring business permits in the firm’s home country. This variable assumed that bribes used for these two purposes are necessary for most domestic operations and that these bribes may not directly affect firm exports. We consulted the BEEPS questionnaire and obtained these two variables. We summed the two variables together and scaled the sum by firm sales, consistent with our measure of home country bribery. Since bribery amounts beyond the grease money may provide firms with special treatment that affects exports, we separated the grease money from a firm’s bribery amount and treated them as two variables.\(^1\) For example, if a firm’s total bribes in its home country accounted for 5 percent of its sales and 2 percent of the bribes is used for obtaining licenses and permits within the home country, we documented the firm’s grease money in the home country as 2 percent and the amount of bribery in the home country as 3 percent (5% − 2% = 3%). Notably, bribery in the home country is an independent variable while grease money is a control in the export equation. Given that there is no known theoretical justification for the relationship between grease money and bribery, grease was not included in the bribery equation.

**Control variables**

Our model considers several control variables. First, at the firm level we included firm age (logarithm), firm size (using a scale of 1–3 directly adopting from the questionnaire, with 1 = fewer than 50 employees, 2 = more than 50 employees but fewer than 99, and 3 = over 99 employees), and R&D intensity (R&D expenditure divided by firm sales). Second, at the country level we controlled for the home country’s gross domestic product (GDP, with a log-transformation) and EU (a dummy indicating whether or not a firm’s home country was a member of the European Union during the survey year) since these may affect the firm’s home country bribery and exports. Finally, industry and year dummies were included to control for period and sector effects. Industry dummies were created based on a firm’s primary business, including food, textiles, garments, chemicals, plastics, metal, fabricated metal, machinery, electronics, construction services, retail, hotel and restaurant, transportation, and information technology (the baseline category was “other manufacturing”). In unreported analyses, we dropped firms falling into the category of “other manufacturing,” and the results were qualitatively the same.

**RESULTS**

Table 2 summarizes the descriptive statistics and the correlations of the variables used in this study. As shown in Table 2, the correlations among independent variables are not very high. Because the variance inflation factors are well below the recommended thresholds of 10, multicollinearity is not a serious issue in our models.

Before examining our main results, it is useful to see the results of simple OLS models. These results are presented in Table 3, where Column 1 includes the determinants of exports while Column 2 contains determinants of bribery in the home country. As shown in Column 1 of Table 3, bribery negatively affects exports ($\beta = -0.11, p < 0.05$). This suggests that bribery in the home country

\(^1\) Because the observed bribery variable may include the grease money and the bribery amount of interest (i.e., Total bribery in the home country = Grease + Bribery in the home country), we isolated the grease money from the observed bribery variable to better measure a firm’s bribery in the home country (i.e., Bribery in the home country = Total bribery in the home country − Grease). We thank an anonymous reviewer for this suggestion.
Table 3. Simple OLS regression results

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1) Export$_t$</th>
<th>(2) Bribery$_t$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.72</td>
<td>6.92**</td>
</tr>
<tr>
<td></td>
<td>(4.29)</td>
<td>(0.58)</td>
</tr>
<tr>
<td>Industry dummies</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Export$_t$</td>
<td>—</td>
<td>—0.10*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.04)</td>
</tr>
<tr>
<td>Export$_{t-1}$</td>
<td>1.25*</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(0.57)</td>
<td></td>
</tr>
<tr>
<td>Firm size$_t$</td>
<td>1.26**</td>
<td>−0.11+</td>
</tr>
<tr>
<td></td>
<td>(0.29)</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Firm age$_t$</td>
<td>0.21</td>
<td>−0.11**</td>
</tr>
<tr>
<td></td>
<td>(0.28)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>R&amp;D intensity$_t$</td>
<td>7.14*</td>
<td>−0.75</td>
</tr>
<tr>
<td></td>
<td>(2.98)</td>
<td>(0.88)</td>
</tr>
<tr>
<td>GDP$_t$</td>
<td>0.28*</td>
<td>−0.20**</td>
</tr>
<tr>
<td></td>
<td>(0.16)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>EU$_t$</td>
<td>0.86</td>
<td>−0.22*</td>
</tr>
<tr>
<td></td>
<td>(0.61)</td>
<td>(0.09)</td>
</tr>
<tr>
<td>Foreign ownership$_t$</td>
<td>0.18**</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td></td>
</tr>
<tr>
<td>Grease$_t$</td>
<td>1.65</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(1.69)</td>
<td></td>
</tr>
<tr>
<td>Home country bribery$_t$</td>
<td>−0.11*</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td></td>
</tr>
<tr>
<td>Home country bribery$_{t-1}$</td>
<td>—</td>
<td>0.16+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.09)</td>
</tr>
<tr>
<td>Government ownership$_t$</td>
<td>—</td>
<td>−0.12+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.06)</td>
</tr>
<tr>
<td>Government contract$_t$</td>
<td>—</td>
<td>0.23**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.01)</td>
</tr>
</tbody>
</table>

Standard errors appear in parentheses.

*p < 0.1; *p < 0.05; **p < 0.01 (two-tailed tests)

decreases firm exports. Turning to Column 2, we find that exports also negatively influence firms’ bribes in the home country ($\beta = -0.10$, $p < 0.05$). However, as noted earlier, the simple OLS model may be not able to examine the reciprocal relationship between bribery and exports, calling for the 3SLS method to be used for hypothesis testing.

Table 4 presents the results of the 3SLS model. According to our theoretical arguments, we would expect that (1) home country bribery negatively affects exports, and that (2) exports do not bear a significant coefficient in affecting bribery. In Table 4, Column 1 examines the determinants of exports while Column 2 investigates the determinants of home country bribery. As shown in Column 1, we find that as bribery in the home country increases, firm exports decrease ($\beta = -1.43$, $p < 0.05$). This supports H1b that firms paying more bribes in the home country
would export less. Consequently, H1b is supported while H1a is not supported. The coefficient of bribery in the home country suggests that a 1 percent increase of bribery in the home country lowers export intensity by 1.43 percent. Since the mean export intensity is relatively low (9.86%), this suggests that the impact of bribery in the home country is nontrivial. The coefficient is insignificant ($\beta = -0.14, p > 0.1$). This does not support the argument that the relationship between bribery and exports is reciprocal.

More importantly, in Column 2 we find that while exports bear a negative coefficient in the bribery equation, the coefficient is insignificant ($\beta = -0.07, p > 0.1$). This does not support the argument that the relationship between bribery and exports is reciprocal.

### Additional analyses

We performed several additional analyses in order to establish robustness. First, while we instrumented firm exports by export experience and firm bribery by other firms' bribery, one may argue that both instruments may be affected by a firm's home country institutions. If a country's institutions not only affect a firm's export experience but also influence other firms' bribing activities, then these two instruments may not be suitable. For three reasons, however, this may not be a major issue. First, a firm's export experience is related to its earliest exporting project while other firms' bribery activities are related to a country's current institutions. Since these two activities occurred in different times, they are less likely to be correlated. Second, whereas some firms' export experience may occur recently and such export experience may reflect a country's current institutional attributes, this may be less likely in our context because transition economies, our research settings, have experienced relatively large-scale changes (Newman, 2000; Peng, 2003).

In addition, we consider another instrument for firm exports—firms' human resources. The export literature has indicated that firms with more human resources are more likely to be exporters (Bernard and Jensen, 2004; Gomez-Mejia, 1988). For instance, Gomez-Mejia noted that human resources play an essential role in exports since they allow firms to "deal with the external contingencies posed by overseas markets" (1988: 495). Hence, we instrumented firm exports using a firm's human resources, or the ratio of skilled workers in the firm. We estimated our models, and the results are summarized in Table 5. As shown in Table 5, home country bribery reduces firm exports ($\beta = -0.23, p < 0.05$) while exports do not affect bribery ($\beta = -0.32, p > 0.1$), consistent with our main findings.

Lastly, the relationship between bribery and exports may be affected by the home country's economic conditions. When the home country experiences an economic downturn, then firms may reduce their investments in the home country and turn to exports (Lee and Makhija, 2009). Conversely, when the domestic market recovers, firms may invest in the home country more and export less. It is therefore crucial to consider the home country's economic condition in examining the relationship between bribery and exports. We evaluate this alternative explanation by checking...
As a departure from prior studies investigating the determinants of bribery in the home country on exports, we explore how the GDP growth rate on a country basis. Our visual examination shows that the fluctuation of GDP growth rate of countries covered in our study is not large. We further investigate whether or not domestic market matters by adding GDP growth rate as an additional control in our model. The results are qualitatively the same as those reported earlier.\(^2\)

DISCUSSION

The goal of our study is to examine the impact of bribery in the home country on exports. As a departure from prior studies investigating the determinants of bribery, we explore how bribery may affect firm exports as a widely used international strategy—particularly in transition economies. While prior research has contended that bribery may allow firms to acquire additional benefits (Cuervo-Cazurra, 2006; Martin et al., 2007), studies specifically exploring its implications for firm strategy have been scarce. We fill this gap by developing two contrasting hypotheses. One argument contends that bribery in the home country may allow firms to improve efficiency, strengthening their positions within foreign markets and thus promoting exports. This logic is consistent with the prior literature on export (Aw and Hwang, 1995; Bernard and Jensen, 1999, 2004). On the other hand, home country bribery may decrease exports since bribes may reduce the attractiveness of foreign markets. This argument is in line with extant literature showing that firms with established positions within the home country are less likely to explore foreign markets (Hundley and Jacobson, 1998; Ito and Pucik, 1993). We test these two hypotheses and find a negative relationship between home country bribery and firm exports. The negative relationship between home country bribery and exports is robust in several additional analyses.

Our findings contribute to the strategy literature in at least two ways. First, prior research on bribery has predominantly examined the determinants of bribery while paying relatively less attention to its consequences. Since bribery is a strategic choice involving considerable firm resources and managerial attention (Luo, 2005; Martin et al., 2007), the bribes that firms pay to government officials may potentially affect firm strategies. In this study, we focus on exports as a widely used international strategy for firms, and contend that bribery in the home country may influence exports.

Second, we formulate and test hypotheses regarding bribery and exports since opposing predictions can be developed from extant theories. On the one hand, by paying bribes to home country government officials, firms are able to acquire preferential treatment from government officials, strengthening their positions within the home country (Martin et al., 2007). Such enhanced domestic market positions may encourage firm exports. On the other hand, firms with improved positions within the home country may not necessarily have greater interest in exploring foreign markets (Hundley and Jacobson, 1998; Ito and Pucik, 1993). As scholars contend, preferential

\(^2\)To conserve space, these analyses are not reported here but are available on request.
treatment within the home countries may “engender complacency and a reduced incentive to export” (Hundley and Jacobson, 1998: 935). Analyzing the bribery and exporting behaviors of firms operating in transition economies, we find a negative relationship between home country bribery and firm exports. This supports the view that when firms obtain greater preferential treatment from home country government officials via bribes, they tend to have greater interest in the home country and less interest in foreign countries.

Our findings also have several implications for practitioners. According to the arguments developed in our study, firms bribe government officials to gain better positions within the domestic market; when their positions in the domestic market are improved, firms tend to be less interested in penetrating foreign markets. Since foreign markets provide valuable learning opportunities such as gaining access to new clients, building fresh institutional knowledge, and acquiring novel technologies (Salomon and Jin, 2010), bribing firms may bear a certain level of opportunity costs because these opportunities may not be fully exploited when they pay greater attention to the domestic market.

Moreover, since today’s market is becoming globalized and foreign competition is intensified, an excessive focus on domestic markets may not help firms maintain a healthy competitive parity in the long run. To the extent that exports might serve as a stepping stone for further commitment in foreign operations, it would be crucial for firms to comprehensively evaluate the costs of increased emphasis on the domestic market. Perhaps consistently constructing an internal crisis would be essential when external stimulus is absent (Kim, 1998). This is particularly true in the case of bribes. Since uncertainties such as turnovers of governments or shrinkage of domestic demand could dramatically decrease the effectiveness of bribes paid to government officials, an overly high commitment to bribery without noting these risks may deserve more thought.

It is useful to note that a country’s characteristics such as national culture and the salience of corporate social responsibility (CSR) are potential boundary conditions for our study. Consider national culture first. Khatri, Tsang, and Begley (2006) argued that the extent of cronyism varies across different countries. It can therefore be expected that the benefits of bribery may not be limited to the bribing firm. In some circumstances bribery may benefit all members in a group, even though some members do not pay the bribes. This is akin to the collective strategy found in the literature (Hillman and Hitt, 1999). Researchers can further investigate these incidences. On the other hand, our argument that bribery can buy special treatment provides an interesting contrast with the notion of CSR since the use of bribery may imply that the focal firm is primarily interested in its own welfare, but not in others’ welfare. Prior research shows that CSR activities are more emphasized in developed countries where bribery is less common (Luo, 2006). However, as home country institutions become more developed, bribery behaviors may decrease while the notion of CSR may become more accepted.

Needless to say, our research has limitations that provide directions for future research. First, the data used in this study are based on semistructured interviews. While this approach has the advantage of efficiently collecting responses from firms regarding their bribery behaviors, it may not be able to fully reveal the nuances regarding bribes. We believe that in-depth interviews or more sophisticated survey instruments may gain additional insights. For instance, in-depth interviews have valuable opportunities to uncover the bribery process because they can unreveal “the dynamic, context-dependent” features (Welch et al., 2002: 612). Researchers are encouraged to do so to further explore bribery.

Second, some of our variables are not perfect and can be improved in the future. For instance, we used the amount of bribes beyond the license and permit purposes as a proxy for firms’ home country bribery. Future research can develop more refined measures for better capturing this concept.

Third, our study examines bribery only in the home country. Due to inherent data limitations, we are not able to locate the firms’ export destinations and identify their bribery activities within foreign countries. Hence, while bribery may “involve firms in their home countries or abroad” (Martin et al., 2007: 1402), investigating both home country bribery and foreign country bribery was not feasible in the present study. Thus, we encourage future studies to investigate bribery in foreign countries. Finally, in addition to exports, bribery may affect other firm strategies such as diversification, innovation, and FDI. Although our findings show that home country bribery reduces...
export, the impact of home country bribery on FDI may not be the same. One potential reason is that FDI requires greater resource commitment and more capital than export. Compared with export that is relatively common among firms, FDI may be more risky and less frequent. Due to these differences, the mechanism that determines whether or not a bribing firm would conduct FDI may differ from that proposed in our study. Moreover, when a home country is costly to operate in, firms may consider expanding into foreign countries (Witt and Lewin, 2007). Accordingly, bribing firms may have greater, rather than lower, propensities to conduct FDI. Such alternative theoretical arguments can be a good basis for future studies.

CONCLUSIONS

As a departure from prior research that predominantly focuses on the antecedents of bribery, our study examines the consequences by investigating the impact of home country bribery on firm exports. We argue that bribery in the home country allows firms to acquire preferential treatment from government officials, and these benefits have implications for exports. Two contrasting predictions are proposed. One argument indicates that bribery within the home country may increase exports since additional benefits may improve efficiency, in turn promoting firm exports. Another argument suggests that the improved position within the home country would decrease firms’ interests in foreign markets and diminish their exports. Analyzing a sample of firms in transition economies, we find that firms that pay more bribes within the home country export less. This shows that bribing firms tend to have reduced interest in foreign markets. In closing, we hope that the arguments and findings presented in this study can stimulate additional works that further advance our understanding of bribery and its strategic implications.

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