

Working Paper

Bribes and Firm Value

Stefan Zeume

Stephen M. Ross School of Business
University of Michigan

Ross School of Business Working Paper
Working Paper No. 1273
January 2016

This work cannot be used without the author's permission.
This paper can be downloaded without charge from the
Social Sciences Research Network Electronic Paper Collection:
<http://ssrn.com/abstract=2179437>

BRIBES AND FIRM VALUE

*Stefan Zeume**

This Version: January 2016

Abstract

I exploit the passage of the UK Bribery Act 2010 as a shock to UK firms' cost of doing business in order to study the effect of bribes on firm value. Around the Act's passage, UK firms operating in high-corruption countries display a drop in value. At the same time, non-UK industry peers competing directly with UK firms in corrupt countries exhibit an increase in value. UK firms respond to the Act by expanding their network of subsidiaries less into high-corruption regions. Moreover, compared to non-UK competitors, UK firms' sales in such regions grow 12-15 percentage points more slowly and their M&A activity declines. Taken together, I show that bribes facilitate doing business in certain regions—imposing unilateral anti-bribery regulation on some firms benefits their unregulated competitors.

Keywords: valuation, regulation, corruption, bribes

JEL classification: G30, G34, G38, K22

* University of Michigan, Stephen M. Ross School of Business, zeume@umich.edu. I am especially grateful to my dissertation committee members Morten Bennedsen, Denis Gromb, Maria Guadalupe, and Urs Peyer for numerous valuable suggestions and insightful comments. I have benefitted from discussions by Renée Adams, Rajesh Aggarwal, Dragana Cvijanovic, Ray Fisman, Ferdi Gul, Qianqian Huang, Dev Mishra, Jeff Ng, Xiaofei Pan, Fausto Panunzi, David Parsley, Jillian Popadak, and Andreeanne Tremblay as well as from comments offered by Daniel Bens, Bastian von Beschwitz, Pramuan Bunkanwanicha, Adrian Buss, Gavin Cassar, Woo-Jin Chang, Amy Dittmar, Bernard Dumas, Pushan Dutt, Alex Dyck, Mara Faccio, Lily Fang, Antonio Fatas, Sven Feldman, Vyacheslav Fos, Federico Gavazzoni, Nicola Gennaioli, Stuart Gillan, Xavier Giroud, Jim Goldman, Jarrad Harford, David Hémos, Jim Hines, Gilles Hilary, Jeremy Horder, Raj Iyer, Jon Karpoff, Ambrus Kecskes, Han Kim, Ralph Koijen, Chen Lin, Dong Lou, Ron Masulis, Pedro Matos, Maxim Mironov, Stefan Nagel, Amine Ouazad, Daniel Paravisini, Paolo Pasquariello, Joel Peress, Amiyatosh Purnanandam, Uday Rajan, Tarun Ramadorai, Raghu Rau, Ana Maria Santacreu, Antoinette Schoar, David Schumacher, Edmund Schuster, Denis Sosyura, Carsten Sprenger, David Thesmar, Branko Urošević, Theo Vermaelen, Hannes Wagner, Charlie Wang, Toni Whited, Franco Wong, John Zhu, and Eric Zitzewitz. I thank the participants at a number of conferences—AFA (Philadelphia), AFBC, AFBC PhD Forum, Asia FA, CFA-JCF-Schulich Financial Market Misconduct, Darden International Finance, FIRS Quebec City, FMA Asian, FMA Europe, Journal of Law, Finance and Accounting, London Transatlantic Doctoral, MIT Asia, National Bank of Serbia Young Economists' Conference, and Young Scholar Symposium in Corporate Finance and Governance (Renmin)—and seminars: Bocconi, ESCP, ESSEC, HBS (Accounting & Management), HEC, INSEAD (Finance, Economics), LSE (Law), Nanyang Technological University, Norwegian School of Economics, Rutgers, University of Hong Kong, UIUC, University of Michigan (Ross), University of Oxford, University of Toronto (Rotman), University of Washington, and UT Dallas. I am grateful to GAP Books, in particular Alan Philipp, for generous help with subsidiary data for 2013 used in earlier drafts and also to FTSE Group for graciously providing the FTSE4Good Index constituents for 2008. I am responsible for any errors.

1. Introduction

Corruption reduces levels of investment and ultimately economic growth.¹ Indeed, the World Bank estimates that corruption costs \$2.6 trillion (5% of global GDP) per year, with \$1 trillion paid in bribes every year. Corruption in the form of bribery is also widespread across firms. According to a survey of more than 11,000 firms from 125 countries, one in three firms believes competitors to use bribes to secure public procurement contracts (D'Souza and Kaufmann 2011).² In an attempt to fight corruption, some developed nations have implemented unilateral regulation punishing the use of bribes; other nations—most notably, China and India—have not. Opponents of unilateral anti-bribery regulation argue that such regulation puts affected firms at a competitive disadvantage vis-à-vis competitors on the grounds of bribes facilitating doing business in certain regions or industries.

Despite their prevalence in business transactions around the globe, we know relatively little about the causal effect of bribes on firm value. An important challenge with this research agenda is that bribes are largely unobserved. From 1978 to early 2013—i.e. over more than three decades—only 143 bribery-related enforcement actions were initiated against publicly listed firms by the SEC or the Department of Justice for violations of the US Foreign Corrupt Practices Act (FCPA; Karpoff, Lee and Martin 2013).

The aim of this paper is to study whether the ability to use bribes creates value. To this end, I exploit a quasi-experimental design that allows me to study the market reaction of firms that are subject to a plausibly exogenous increase in their cost of doing business in perceivably corrupt regions. Specifically, I exploit the passage of the draft of the UK Bribery Act 2010 on March 25, 2009. This Act, in force since July 1, 2011, imposes substantial increases in penalties for firms and managers found to be using bribes. Moreover, the Act requires firms to implement internal controls aimed at preventing the use of bribes. If firms use bribes as an investment to increase the probability of winning contracts then the passage of

¹ See, for instance, Mauro (1995). Reviews of the literature on corruption and growth are provided by Bardhan (1997), Svensson (2005), and Shleifer and Vishny (1993).

² These statistics are based on the 2006 Executive Opinion Survey conducted by the World Economic Forum.

costly anti-bribery regulation should reduce firm value. On the other hand, if managers use bribes for their personal benefits, anti-bribery regulation that punishes managers for bribe activity should increase value.

Exploiting the passage of the UK Bribery Act is appropriate only if it came as a surprise and had a substantial effect on firms. One can plausibly argue that these conditions are met. In the first place, the Act's passage on 25 March 2009 was not covered by the media until that day. Second, the fines assessed for violating the Act are much higher than the fines stipulated in previous UK legislation, by the OECD Anti-Bribery Convention, and by comparable US legislation. The Act imposes potentially unlimited fines on corporations found not to have implemented internal anti-bribery controls, as well as on firms found to have paid bribes and on the individuals responsible for bribery, both inside and outside the United Kingdom.³ Third, the Act unexpectedly ran counter to precedent as it applies also to foreign firms with UK operations. This provision made it harder for UK industry lobbyists to argue that the Act placed UK firms at a disadvantage vis-à-vis foreign competitors. Taken together, the Act imposes substantial fines on the use of bribes and therefore facilitates an investigation of the extent to which bribes affect firm value.

To test for the importance of bribes for firm value, I focus on publicly listed firms. I measure firm value by abnormal returns around passage of the UK Bribery Act. I try to capture firms' propensity to engage in bribery through a variable named *Corruption exposure*, which combines firm-level subsidiary locations with Transparency International's Corruption Perception Index to measure firms' exposure to high-corruption regions. My findings are based primarily on 1,097 UK firms and 9,457 non-UK firms. I further explore channels through which the UK Bribery Act affects firms using data on subsidiary revenues, merger and acquisition activity, and joint venture activity between 2007 and 2012.

³ The UK Bribery Act encompasses both active and passive bribery. In the Act, *active* bribery is defined as offering, giving, or promising to give a financial or other advantage to a person in exchange for that person's improper performance of a relevant function; this includes the bribery of foreign public officials and other firms. Conversely, *passive* bribery is defined as receiving or agreeing to receive a financial or other advantage in exchange for improperly performing a relevant function. The Act also prohibits the use of so-called facilitation payments, a stipulation that is more stringent than previous regulation in this field. Facilitation payments are those made with the aim of inducing government officials to perform tasks that they are already obligated to perform.

Using these data, I report three main results. First, passage of the UK Bribery Act did indeed adversely affect the value of UK firms. UK firms that are one standard deviation more exposed to perceivably corrupt regions have 0.7% lower abnormal returns around passage, reflecting a loss in market value of \$13mn for the average sample firm. One example illustrating a one-standard deviation difference in *Corruption exposure* is given by the comparison between a UK firm with 7 subsidiaries in the UK and an otherwise comparable UK firm that operates 6 subsidiaries in the UK and 1 subsidiary in Russia. This negative effect of anti-bribery regulation on firm value is also present in prior attempts by UK regulators to pass such regulation. On seven such events prior to 2010, UK firms that are one standard deviation more exposed to perceivably corrupt regions had 1.9% lower returns.

Second, the Act had positive effects on direct competitors of UK firms that do not fall under the provisions of the UK Bribery Act. I define direct competitors as non-UK firms that operate at least one subsidiary within (i) the same non-OECD country and (ii) the same industry as at least one UK firm. Competitors do not fall under the Act if they do not have a UK subsidiary. I document that, around passage of the Act, such direct competitors had 0.5% higher abnormal returns than comparable non-UK firms. This effect is almost twice as large for direct competitors headquartered outside of the OECD, suggesting that competitors headquartered in the least regulated countries benefited the most.

Third, I document real implications of the UK Bribery Act. I find that UK firms opened fewer subsidiaries outside the OECD and their revenues grew 12-15 percentage points more slowly than those of non-UK firms in that region. These effects are even stronger in more corrupt regions outside of the OECD. I further document that, relative to non-UK firms, merger activity by UK firms outside the OECD increased 6-8 percentage points more slowly. One might suspect that UK firms substituted direct ownership with third party transactions; however, I do not find evidence that UK firms circumvented the Act by engaging increasingly in joint ventures in perceivably corrupt regions.

One channel that may explain why passage of the Act reduced value of regulated firms is that the Act may have curtailed profitable business associated with bribes. Beck and Maher (1986) and Lien

(1986), for instance, model bribes as a side payment within Vickrey's (1961, 1962) first-price auction framework. In this framework, side payments are made to increase the probability of winning contracts tendered by corrupt government officials. Imposing costly anti-bribery regulation on some competitors will hurt these competitors and benefit unregulated competitors (Beck and Maher 1989).

The empirical setting—passage of the UK Bribery Act—might subject my results to alternative interpretations that are unrelated to bribes. First, it is possible that UK firms found it optimal to withdraw from perceivably corrupt regions in face of substantial costs of implementing effective internal anti-bribery controls without having used bribes in the first place. However, one of the Act's features specific to non-UK firms allows me to alleviate this concern. Notably, non-UK firms are exempted from the internal control requirements spelled out in Section 7 of the Act, i.e. they are not required to implement costly control systems. Nevertheless, I find that non-UK firms with UK exposure through subsidiary presence are negatively affected by the passage of the Act.

A second potential alternative interpretation, which certainly merits consideration, is that negative market response and subsequent withdrawal from perceivably corrupt regions reflect higher expected legal costs and penalties associated with operating in such regions. I examine revenue data on subsidiaries that existed throughout the sample period in order to alleviate concerns that this interpretation explains all results. Notably, if passage of the Act solely lead to higher expected legal costs and penalties, revenues of *surviving* subsidiaries should be unaffected by the passage. Yet, I find that surviving subsidiaries experienced a relative decline in revenue growth after passage of the Act. This decline is similar in magnitude to that of non-surviving subsidiaries.

Due to agency conflicts, it is, of course, not ex ante clear that bribes always create firm value. For instance, a corruptible firm manager in charge of tendering a contract might allocate that contract to an inefficient subcontractor offering him/her a side payment. In this case, anti-bribery regulation can serve as an external monitoring device that makes accepting bribes costly to the manager, thereby aligning his/her incentives with shareholders'. Desai et al. (2007) model this channel more formally and provide evidence

that increased tax enforcement enhanced value of Russian oil firms. To this end, my results suggest that such value created through improvements in governance is outweighed by the costs associated with anti-bribery regulation—though my setting does not allow me to quantify each of these potentially offsetting effects.

On a cautionary note, any estimate of the magnitude of the effect of bribes on firm value from passage of the UK Bribery Act is likely conservative. For one thing, it is possible that the Act was passed at a time when UK regulators expected less lobbying because economic prospects of UK firms were generally less positive. For another thing, firms may circumvent some of the costly implications of anti-bribery regulation by reorganizing in order to reduce their exposure. Despite evidence that the Act did not cause an immediate increase in joint venture activity, such strategic decisions might take time to filter through—and might take other forms that are harder to observe.

More broadly, my setting reflects the possible tensions between firms making decisions in shareholders' interest and governments seeking to correct distributive failures (see e.g. Bénabou and Tirole 2009). However, my empirical setting does not allow examining the potential impact of anti-bribery regulation on growth. First, passage of the UK Bribery Act constitutes one shock in the history of the UK; it will be hard to establish a causal link between passage of the Act and UK growth after 2009 due to confounding factors. Similarly, with few exceptions, the fraction of non-OECD countries' overall economic activity determined by UK firms is low on average; therefore, the economic effect of UK anti-bribery regulation on such countries should be small. Second, a decline in UK firms' economic activity in certain regions can be substituted by other firms. Nevertheless, my findings are indicative of the role potentially played by multinational firms in propagating corruption in developing countries. Multinationals' decision to bribe may be aimed at maximizing shareholder value yet that decision may have externalities on the environment within which they operate.

One key contribution of this paper is to provide firm-level evidence of anti-bribery regulation's impact on foreign operations, such as revenues, opening and closing of subsidiaries, and M&A activity.

So far, very few studies have documented implications of the US Foreign Corrupt Practices Act of 1977 on aggregate US exports (Graham 1984, Beck et al. 1991), as well as foreign direct investment, aircraft exports, joint venture activity, and the capital/labor ratio (Hines 1995). Ultimately, the paper at hand adds the cost of doing business to the list of drivers of foreign activity and international cross-border flows.⁴

Firm-level evidence has so far focused on detected bribery cases or survey data. In a sample of 166 prosecuted international bribery cases, Cheung, Rau, and Stouraitis (2012) document that, on average, a bribe of \$1 returns \$11 of contract value. Voluntary disclosure of sensitive foreign payments under the SEC Voluntary Disclosure Act (passed prior to the FCPA) comes with negative abnormal returns (Smith, Stettler, and Beedles 1984). Karpoff, Lee, and Martin (2013) study 143 enforcement actions for violations of the FCPA; they find that prosecution costs more than offset the value of contracts obtained through bribe payments—but only if prosecution for bribery is accompanied by charges of fraud. Along those lines, Hong and Liskovich (2015) document that socially responsible firms pay lower fines when found violating the FCPA. Ugandan self-reported survey data shows that using bribes is negatively correlated with firm growth (Svensson 2003, Fisman and Svensson 2007). Exploiting passage of the UK Bribery Act allows me to address some concerns about selection, sample size, measurement error, and limited participant information inherent in studying detected cases and survey data. Also, my empirical strategy provides new insights into the long-run implications of restricting firms in their use of bribes.

Taken together, the evidence put forward in this paper supports the notion that bribes facilitate doing business in certain regions—imposing unilateral anti-bribery regulation on some firms hurts these firms but benefits their unregulated competitors.

⁴ Examples include studies of the determinants of international portfolio investment decisions (e.g., Brennan and Cao 1997, Graham et al. 2005, Portes and Rey 2005, Gianetti and Simonov 2006, Kang and Stulz 1997, Kho et al. 2009, and Leuz et al.

2. Event and methodology

2.1 UK Bribery Act 2010

The draft of the UK Bribery Act 2010 was passed by a UK government commission and put forward by the Secretary of State for Justice on 25 March 2009. I identify March 25 as the event date by a *Factiva* keyword search of ‘bribery’ and ‘United Kingdom’ in major UK newspapers for ten weeks surrounding March 25, 2009. There was no significant other regulatory development in the UK in that period. Importantly, news about the passage of the Act did not leak prior to the event day (Figure 1). The Act came into force on 1 July 2011.⁵

[[INSERT Figure 1 about Here]]

Estimates from event date March 25, 2009 are likely conservative because—following the signing of the OECD Anti-Bribery Convention of 1997 in 1999—the UK went through some attempts to pass anti-bribery regulation in the early 2000s. However, these earlier attempts initiated by the UK government failed after facing opposition by lobbyists and, in rather spectacular fashion, after facing oppositions from within the government. A letter sent by the OECD’s anti-bribery working group to the UK government in June 2008 accused the UK of not bringing to court a single foreign bribery case and of not reforming its outdated anti-corruption laws; this letter revived efforts by the UK government to reform its laws. I study these related events in the robustness section.

Despite these aforementioned attempts, passage of the Act’s draft on March 25, 2009 was surprising due to two unexpected developments: (i) the penalties stipulated by the Act were more severe than anticipated, and (ii) one of the key features of the Act made it much harder for special interests to lobby against passage of the Act’s draft. These developments will be discussed in turn.

2009), cross-border mergers and acquisitions (e.g., Erel et al. 2012), and cross-listing decisions (e.g., Doidge et al. 2004).

⁵ See http://www.legislation.gov.uk/ukpga/2010/23/pdfs/ukpga_20100023_en.pdf and <http://www.justice.gov.uk/downloads/legislation/bribery-act-2010-quick-start-guide.pdf> for the Act’s official text and guidance provided by the Ministry of Justice, respectively. In the Factiva search, I remove “non-events”—that is, articles that do not constitute news, such as journalistic opinions on past events. I also exclude articles linked to bribery regulation elsewhere (e.g., in the United States) and those related to potential bribery *cases* as opposed to bribery *regulation*; examples include speculation about bribery of the Olympic

First, the provisions of the UK Bribery Act went well beyond existing UK regulation, the OECD Anti-Bribery Convention of 1997, and the US Foreign Corrupt Practices Act (FCPA) of 1977. Prior UK anti-bribery regulation—notably the Public Bodies Corrupt Practices Act of 1889, the Criminal Cases Act of 1908, and the Criminal Justice Act of 1967—did not explicitly address bribery by corporations and focused on active and passive bribery of UK public officials while the UK Bribery Act addresses these issues. According to the OECD anti-bribery convention, signed by the UK in 1997, signatory countries agree to enact legislation that penalizes the bribing of foreign public officials. The UK Bribery Act extends beyond these requirements by making it a criminal offense (i) for individuals and corporations to engage in either active or passive bribery but also (ii) for corporations to have no internal control procedures designed to prevent associated persons from acts of bribery. Furthermore, the Act prohibits facilitation payments: payments meant to induce government officials to perform tasks that they are obligated to perform in any case. Further, corporate fines for violating the Act are potentially unlimited; individuals—such as managers who violate the Act—can be fined and imprisoned. Along similar dimensions, the UK Bribery Act also goes well beyond the provisions of the FCPA.⁶ UK organizations can defend against allegations by proving that they have adequate anti-bribery controls in place.

Second, prior attempts to pass anti-bribery regulation were aimed solely at UK firms. This feature made previous attempts an easy target for industry lobbyists, who argued that enforcing any such anti-bribery regulation would be at the expense of UK firms because it would benefit non-UK competitors. A distinct and decisive feature of the UK Bribery Act 2010 is that it applies also to non-UK firms with UK

Committee or bribery in cricket. One unrelated article prior to March 25 covers investigations into alleged bribery conducted by two UK employees in Nigeria; according to the article, these two individuals face charges under the US FCPA of 1977.

⁶ First, the UK Bribery Act (unlike the FCPA) stipulates that a firm is strictly liable if it fails to implement anti-bribery controls. Second, whereas the FCPA was initially interpreted to prohibit only active bribery, the UK Bribery Act proscribes both active bribery (offering a bribe) and passive bribery (accepting a bribe). Third, the FCPA focuses on bribing foreign public officials; in contrast, the UK Bribery Act covers the bribing of private persons as well as other firms and also the employees of those firms. Fourth, there is no upper limit to the amount a firm can be penalized under the UK Bribery Act; under the FCPA, the maximum fine is \$2mn. That being said, the FCPA (under its provisions related to “Books and Records and Internal Controls”) does stipulate fines ranging as high as \$25 million for firms that are found to have manipulated their earnings statements. Fifth, of the two Acts, only the UK one criminalizes facilitation payments. Sixth, the UK Bribery Act’s jurisdiction explicitly extends to non-UK firms with UK operations, regardless of where the bribery occurs. The FCPA initially applied solely to US firms and has only recently been interpreted as applying to foreign firms with US operations. Source: ‘The UK Bribery Act 2010 – What US Companies Need to Know’ in *Mondaq Business Briefing* (21 June 2010) and ‘The UK Bribery Act 2010 v Foreign Corrupt

operations (such as subsidiaries), which addresses lobbyists' concerns. Both UK firms and non-UK firms with links to the United Kingdom fall within the Act's jurisdiction, irrespective of where violations occur, though non-UK firms are exempted from the requirement to implement internal anti-bribery controls.

While drafts can certainly fail to survive the formal procedure for being turned into an Act of Parliament (i.e., into legislation), the draft of the UK Bribery Act faced little risk of being watered down. First, the Labour Party was in charge not only of drafting the Act but also had the power of turning it into legislation. The draft was passed by a government commission dominated by the Labour Party. Likewise, that party held the majority in the House of Commons (occupying 355 of the 646 seats in Parliament after the 2005 general election). Importantly, even though both the House of Commons (lower house) and the House of Lords (upper house) participate in the process of turning bills into Acts of Parliament, it is possible for a bill to be passed by the House of Commons if no agreement is reached between the houses (see Appendix for an outline of the UK Legislative Procedure). Second—unlike previous attempts to implement anti-bribery regulation—in this case there was considerable pressure to act quickly: OECD sanctions were looming and there was also a relatively short time until the next general elections. With election outcomes predicted to be unfavorable for the Labour Party (and accurately so, as it turned out), the Labour Party was highly pressured to turn the Act into legislation quickly so as to avoid time-consuming amendments. Indeed, amendments to the draft focused on marginal wording and not on substantive content. Ultimately, the Act was pushed so hard that once turned into legislation, its enforcement had to be delayed twice so as to provide firms with sufficient guidelines for implementation.

So far, charges under the UK Bribery Act 2010 are few in numbers yet these few cases are illustrative of the strictness by which the UK's Serious Fraud Office (SFO) seeks to punish violations of the Act. The first individual charged under the Act was a London-based court clerk who pleaded guilty to one count of taking a GBP 500 bribe so as not to put details of a traffic summons into a court database; he was charged to six years in prison in November 2011, three years thereof explicitly for violations of the

Practices Act of 1977: How Different Are They & Should Your Business be Concerned?' in *Mondaq Business Briefing* (26 April

UK Bribery Act. The first charge against agents of a corporation came against four former employees of Sustainable AgroEnergy Plc and associated companies for bribery that occurred between April 2011 and February 2012 in association with selling bio-fuel investment products involving plantations in South East Asia. Three individuals were convicted of conspiracy to commit fraud, conspiracy to furnish false information, fraudulent trading, and Bribery Act 2010 offences; they were sentenced to 13, 9, and 6 years imprisonment and disqualified from being directors for 15, 15, and 10 years, respectively.⁷

The low number of convictions is further explained by two features of bribery investigations. First, such investigations are diverse and complex, involving collaboration with other jurisdictions and therefore being lengthy. The case of Securrency International PTY Ltd is particularly illustrative of worldwide scope but also complexity of bribery cases. Investigations started in October 2011 and are still ongoing; a first request for the extradition of a British national was made in February 2015 and the case currently requires collaboration with jurisdictions in Australia, Nigeria, and Brazil. Second, the low number of convictions is additionally explained by the fact that the Act is not applied in retro-perspective. Thus, only cases of bribery that occurred after June 2011 fall under the Act. Also, sensitivity of information revealed by the SFO makes it indispensable to keep investigations at secret or, in some cases, to withhold further details on investigations. Harlequin Property, for instance, has been investigated since March 2013 yet no other information was available 2.5 years later.⁸

2.2 Empirical methodology

One approach to studying the effect of bribes on firm value is to collect data on bribes paid and benefits received from paying bribes using data available from detected bribery cases. However, (i) detected cases may differ from undetected bribery cases along dimensions that correlate with the value they create, and (ii) using detected cases omits unsuccessful bribery attempts. To alleviate these concerns, I exploit

2010).

⁷ The fourth person was acquitted of all charges. No charges were made against Sustainable Agroenergy Plc or its parent company Sustainable Growth Group because Sustainable Growth Group was placed in administration in March 2012.

⁸ The Serious Fraud Office (SFO) lists ongoing cases under <http://www.sfo.gov.uk/our-work/our-cases/case-progress/>. Some of these cases relate to bribery but partly bribery that occurred before June 2011, i.e. before the UK Bribery Act came into force.

passage of costly anti-bribery regulation, specifically the UK Bribery Act 2010, and I construct a proxy for firms' likelihood of using bribes from subsidiary data.

In the first part of the analysis, I use event study methodology to empirically test whether bribes affect firm value. Specifically, I run the regression

$$CR_i = \alpha + \beta_1 CE_i + \gamma' \mathbf{X}_i + \varepsilon_i \quad (1)$$

where CR_i denotes cumulative returns of firm i around the day of passage of the Act, CE_i denotes a firm's exposure to corrupt regions, and \mathbf{X}_i is a vector of controls including *industry* fixed effects. The coefficient of interest β_1 captures whether exposure to corrupt regions explains firm value around passage of the Act.

One major prediction from auction theory with side payments and costly regulation is that unregulated non-UK firms competing directly with UK firms are positively affected by the passage of unilateral regulation (e.g. Beck and Maher 1989). I test this prediction using the regression

$$CR_i = \alpha + \beta_1 NO_UK_LINK_i + \beta_2 UK_COMP_i + \beta_3 NO_UK_LINK_i \times UK_COMP_i + \gamma' \mathbf{X}_i + \varepsilon_i \quad (2)$$

where UK_COMP_i measures competition of non-UK firms with UK firms in perceivably corrupt regions, $NO_UK_LINK_i$ is a Dummy equal to one if a non-UK firm has no exposure to the UK, and \mathbf{X}_i contains controls including *country* times *industry* fixed effects. Of particular interest is β_3 i.e. whether firms unaffected by the Act and competing with UK firms are differentially affected.

In the second part of the analysis, I test for long-run effects of the UK Bribery Act on UK firms by running the pooled panel regression

$$Y_{i,t} = \alpha + \beta_1 MID_EVENT_t + \beta_2 MID_EVENT_t \times UK_FIRM_i + \beta_3 POST_EVENT_t + \beta_4 POST_EVENT_t \times UK_FIRM_i + \gamma' \mathbf{X}_{i,t} + \varepsilon_{i,t} \quad (3)$$

where $Y_{i,t}$ is an outcome for firm i at time t , MID_EVENT_t a Dummy equal to one if an observation occurs between passage and enforcement of the Act, and $POST_EVENT_t$ a Dummy equal to one if an observation occurs after the Act is in force. UK_FIRM_i denotes firms headquartered in the UK. $\mathbf{X}_{i,t}$

contains firm fixed effects. Of particular interest are coefficients β_2 and β_4 , denoting whether firms headquartered in the UK are differentially affected. In a key robustness test, I additionally augment this set-up by country times time fixed effects (which makes β_1 and β_3 redundant).

Equation (1) uses heteroskedasticity-robust standard errors that are clustered at industry level. Equation (2) uses two-way clusters at industry and country level and equation (3) at year and country level.⁹

3. Data

In this section, I describe my sample and key variables; Appendix 2 contains detailed variable definitions.

3.1 Sample

For the first part of my analysis, I obtain subsidiary information from Orbis, stock return data from Datastream/Worldscope, and accounting data from Osiris. Orbis contains 26,094 unique publicly listed firms with at least one subsidiary in 2008. From Datastream, 18,848 thereof are active in March 2009 and have price data for March 24-26, 2009.¹⁰ After merging these data to Osiris, I obtain 12,906 firms (1,244 thereof headquartered in the UK) for which assets are larger than zero. Last but not least, for most of my analysis, I require at least 100 return observations during days [-240;-41] relative to March 25, 2009 so as to construct abnormal returns. This leaves 1,097 firms headquartered in the UK and 9,457 firms headquartered outside the UK.

The second part of my analysis employs subsidiary data from Orbis as well as Merger and Acquisition (M&A) and Joint Venture (JV) data from Zephyr. Between 2007 and 2012, Zephyr provides information on 238,384 M&A deals involving 95,877 unique acquirers and 29,815 JVs involving 12,472 unique partners. I focus on *M&As* in which the acquirer is public and increases the share to above 50%.

3.2 Main variables

⁹ I have experimented with various dimensions of clusters and obtained similar results. Clustering standard errors at the dimensions mentioned here generally produces the most conservative (largest) standard errors.

¹⁰ In 2008, more than 20% of firms in Datastream/Worldscope are inactive: Datastream/Worldscope does not discard such firms. I identify inactive firms as firms without price movements within 20 trading days prior to March 25, 2009.

I now describe the key variables. Appendix 2 contains a detailed description. Continuous variables are winsorized at 1% and 99% level though results are insensitive to these levels.

Firm value. In the first part of my analysis, I measure the effect of the UK Bribery Act on firm value using *Cumulative abnormal returns (CAR)* on the day of passage of the UK Bribery Act (25 March 2009) and the day thereafter. I calculate returns on the basis of price changes between closing of 24 March 2009 and closing of 26 March 2009. To calculate $CAR[0;1]$, I follow the early work of Fama et al. (1969) though I use daily stock return data and additionally control for firm size and the book/market ratio (Fama and French 1993) as well as momentum (Carhart 1997). All portfolios are constructed using local stocks.¹¹ The estimation period starts 294 days before the event and ends 41 days before the event. In robustness tests, I also study raw returns, abnormal returns up to ten weeks before and after passage of the Act, and changes in Tobin's Q.

Corruption exposure. Because I do not have a direct measure of bribes paid, I try to capture firms' propensity to use bribes by constructing *Corruption exposure* from firms' exposure to regions with high levels of perceived corruption. For each firm i , I combine two data sources as follows:

$$Corruption\ exposure_i = \sum_{c \in C} \left((10 - CPI_c) \times \frac{\#Subsidiaries_{i,c}}{\#Subsidiaries_i} \right),$$

where CPI_c is Transparency International's *Corruption Perceptions Index* of country c in 2008, $\#Subsidiaries_{i,c}$ is the number of subsidiaries headquartered in country c and owned by firm i in 2008, and $\#Subsidiaries_i$ is the total number of subsidiaries of firm i in 2008. By construction, this measure is increasing in firms' exposure to corruption. It is bounded by [0.7; 8.9] because $10 - CPI$ is $10 - 9.3 = 0.7$ for the least corrupt countries (Denmark, Sweden, and New Zealand) and is $10 - 1.1 = 8.9$ for the most corrupt country (Somalia).

¹¹ I follow Ince and Porter (2006) in "cleaning" daily return data. Long-short portfolios based on size, book/market, and momentum are constructed as described in Kenneth French's data library, but for UK firms, I split size into top-30% and bottom-70% firms in order to account for the skewed size distribution in the UK. Results are not affected by choosing these cut-offs.

The aforementioned *Corruption exposure* measure assumes that each subsidiary is equally important in creating firm value yet the ideal measure would capture the fraction of value attached to certain regions of the world. In the robustness section, I additionally weigh subsidiaries by revenues though data availability reduces the number of observations. I also provide estimates using alternative corruption measures.

Long-run outcome variables. In the second part of my analysis, I consider long-run outcome variables using annual subsidiary, M&A, and JV data for the 2007-2012 period. Firm-year level number of acquisitions and average deal value are constructed for all firms that incur at least one acquisition between 2007 and 2012. *JVs* are restricted to those with at least one public partner and I construct firm-year level average number of *JVs* for firms that incur at least one acquisition between 2007 and 2012.

Controls. The UK Bribery Act may incur compliance costs that are related to firm size which is why I control for the natural logarithm of total assets. Also, the Act may incur a fixed per-subsidiary compliance cost; I therefore control for the natural logarithm of the number of subsidiaries. Moreover, some firms are more likely than others affected by the UK Bribery Act. A number of firms must comply also with other anti-bribery regulations—most notably, the US Foreign Corrupt Practices Act of 1977. *US Link* is a Dummy equal to one if a firm is subject to the FCPA, which I infer in two ways: (i) from the Bank of New York's list of ADRs in combination with Worldscope, and (ii) from subsidiary data to indicate whether firms have US subsidiaries. Additionally, some firms voluntarily adhere to corporate social responsibility (CSR) standards. Much like the Domini 400 Social Index for S&P 500 firms in the United States, FTSE Group publishes the FTSE4Good UK Index for firms in the United Kingdom. Firms listed in this index are those that comply with certain environmental, human rights, social, and stakeholder relations criteria. FTSE Group obtains information on compliance from publicly available sources and also directly from the companies. Firms voluntarily adhering to CSR standards might be less affected by passage of the Act.¹²

¹² See Bénabou and Tirole (2010) and Cheng, Hong, and Shue (2014) for reviews of the literature on CSR and firm value.

Non-UK firms. A key prediction is that non-UK firms that are not subject to the UK Bribery Act but compete with UK firms are positively affected by the Act. I proxy for being subject to the Act by *UK Link*, a dummy variable set equal to 1 if a foreign firm has at least one subsidiary in the UK. *UK Competition* is a dummy set equal to one if at least one of a non-UK firm's non-OECD subsidiaries *competes directly* with a UK firm's non-UK subsidiary. *Direct competition* is defined as two subsidiaries operating in the same industry and in the same non-OECD country. In robustness tests, I employ similar competition measures.

3.3 Summary statistics

Summary statistics are presented in Table 1. The equally weighted CAR[0;1] for UK firms around the event date is -0.43%, suggesting more negative returns for small firms around the event (Panel A). In line with the notion that the Act may be more costly for firms exposed to perceivably corrupt regions, UK firms with foreign subsidiaries have more negative returns—and score higher in terms of corruption exposure. The average (median) sample firm has 41.4 (9) subsidiaries in 2008 and roughly one in six UK firms are FTSE4GOOD constituents. 38% of firms have a US Link through having an ADR (18%), a US subsidiary (30%), or both. In order to account for the differences in firms that operate abroad outlined in Panel A, I repeat my main analysis for the subset of UK firms with foreign subsidiaries.

[[INSERT Table 1 about Here]]

Panel B describes the sample of non-UK firms, additionally splitting such firms by *UK Link*. Non-UK firms with UK subsidiaries are less exposed to perceivably corrupt regions on average, are larger, and more likely to be cross-listed, to have US exposure, and to be FTSE constituents. Some of these differences are magnified because 40% of non-UK firms are smaller local firms without subsidiaries abroad. Roughly half of the revenues generated by non-UK sample firms outside of the OECD are in direct competition with subsidiaries owned by UK parents. Last, Panel C describes subsidiary, M&A, and JV data for the 2007 to 2012 sample period. An average sample firm has a *Corruption exposure* of 3.7 through its 21.7 subsidiaries. 63% of subsidiaries, accounting for 73% of revenues, are located in the

OECD. The average sample firm conducts 1.8 M&As per year, three in four thereof in the OECD. Out of firms' average 2.9 JVs, less than half (41%) are conducted in the OECD.

4. The UK Bribery Act 2010 and firm value

I now document results of event studies for UK and non-UK firms around March 25, 2009.

4.1 UK firms

Table 2 specifies, step by step, the full regression (1) for UK firms. The dependent variable is *Cumulative Abnormal Returns (CAR)* [0; 1] in Columns [1]-[4] and *Cumulative Raw Returns (CRR)* [0; 1] in Column [5]. Without further controls, *Corruption exposure* loads significantly negatively on abnormal returns with a coefficient of -0.717 , i.e. firms that are more exposed to high-corruption regions have more negative abnormal returns around passage of the UK Bribery Act (Column [1]). This result is robust to controlling for industry fixed effects and further firm-level controls, alleviating concerns that industry corruption levels or other firm characteristics may drive the result. In the full specification (Column [3]), an increase of one standard deviation in *Corruption exposure* is associated with an 0.731% ($= 0.79 \times 0.925\%$) decline in firm value, which is equivalent to \$12.95mn ($= \$1,772\text{mn} \times 0.731\%$) for the mean firm. One example illustrating a one-standard deviation difference in *Corruption exposure* is given by the comparison between an average sample UK firm with 7 subsidiaries in the United Kingdom, with a *Corruption exposure* of 2.3 ($=10-7.7$), and an otherwise comparable UK firm that operates 6 subsidiaries in the UK and 1 in Russia; this latter firm's *Corruption exposure* is $3.1 = (10-7.7)(6/7) + (10-2.1)(1/7)$.

[[INSERT Table 2 about Here]]

Of the UK sample firms, 43.4% do not have subsidiaries outside the UK; these firms have a *Corruption exposure* of 2.3 by construction. The coefficient for *Corruption exposure* is still significantly negative (-0.791) when I re-run the main regression for firms with at least one foreign subsidiary. None of the other control variables explains returns around the passage of the UK Bribery Act; the number of

subsidiaries loads insignificantly negatively, and the value of assets loads weakly positively.¹³ I repeat the main analysis using raw returns and controls (Column [5]) as well as additional controls previously used to construct 4-factor alphas (Column [6]), and confirm my previous results.

For robustness, I repeat my analysis using alternative event days, event windows, measures of corruption exposure, measures of firm value, and a sample of non-UK firms. In Table 3, I first consider other attempts to pass anti-bribery regulation in the UK—and failures to do so. Using related events alleviates concerns that other events drive the results on 25 March, 2009. I follow the procedure described in Section 2.1 to identify announcements of attempts to pass anti-bribery regulation (and the failure of such attempts) in the United Kingdom during the period 2000–2011 from UK newspapers.

[[INSERT Table 3 about Here]]

Following exactly the main specification (Column [3] in Table 2) for alternative event days, I find that the coefficients on Corruption Exposure are not statistically significant on most related event dates yet they do reliably follow the direction of news in most cases. Specifically, two early announcements to tackle bribery result in negative returns for firms exposed to perceivably corrupt regions while later events do not incur statistically significant abnormal returns. One may speculate that some of the later events are not associated with statistically significant abnormal returns because these attempt look exactly like earlier attempts that subsequently failed. I discuss in Section 2.1 above why actual passage of the draft of the UK Bribery Act 2010 on March 25, 2009 may have appeared more convincing to investors.

Stacking all events bearing news in favor of stronger regulation, I find that *Corruption exposure* significantly explains abnormal returns on event days; the same is not true for days bearing news on reversals of efforts to toughen regulation. The average event bearing news in favor of stronger regulation is associated with a coefficient of -0.337% on *Corruption exposure*. Firms one standard deviation more exposed to perceivably corrupt regions lose $1.862\% = 7 * 0.337\% * 0.79$ over all seven such events.

¹³ Value of assets and number of subsidiaries are positively correlated ($\rho=0.534$). Results are unaffected by removing either (or both) of these controls.

Panels B investigates alternative event windows up to ten weeks before and after passage of the UK Bribery Act. If the passage came as a surprise, the full effect should be observed around March 25, 2009 rather than before or after that day and indeed, this is what I find. One concern with the *Corruption exposure* measure is that it weighs subsidiaries equally. In Panel C, I therefore examine a range of alternative measures. Weighing each subsidiary by its revenues reconfirms the main result though with fewer observations and at lower statistical significance. Neither excluding sovereign tax havens from the construction of *Corruption exposure* nor using *Worldwide Governance Indicators' Control for Corruption* as a measure of corruption affects results. A further extension is that bribery is more common in certain industries. While industry fixed effects take care of this if subsidiaries operate in the same industry as their headquarter firms, it might be that some firms are more exposed to certain industries through their subsidiaries. Panel C examines this idea using sector corruption measures obtained from the World Bank's BEEPS survey and from Transparency International's Sectoral Corruption Indicator. Not all industries are captured by these sources so that the sample size drops partly considerably. I find that firms more exposed to corrupt industries through operating subsidiaries in corrupt industries are more negatively affected.

Panel D shows that the negative firm value reaction of UK firms is also reflected in long-term firm value measures. Over the 2007 to 2012 sample period, I estimate a pooled panel regression using Tobin's Q and revenue growth as dependent variables. Using Dummy variables to identify the time after passage but before enforcement of the Act (*mid-event*) as well as the time after enforcement of the Act (*post-event*), I document that Tobin's Q and revenue growth go down after passage, more so for UK firms with higher exposure to perceivably corrupt regions and also relative to non-UK firms.

In Panel E, I investigate whether something else may have driven the negative market reaction of UK firms with high exposure to perceivably corrupt regions on March 25, 2009 by studying non-UK firms. These are subject to the UK Bribery Act if they are exposed to the UK and perceivably corrupt regions. And indeed, I find non-UK firms that (i) have a UK subsidiary and (ii) higher *Corruption*

exposure exhibit more negative abnormal returns on the event date. For such firms, an increase of one standard deviation in *Corruption exposure* is associated with a 0.577% ($=1.77 \times 0.326$) decrease in firm value. Not all foreign firms are equally affected by UK regulation, in part because of differences in detection probabilities and costs, prosecution and enforcement probabilities, and reputational losses. Splitting the sample into firms headquartered inside and outside of the OECD, I find that the negative spillovers are more pronounced among OECD firms. This last test also helps rule out an alternative explanation for my main result. It could be that UK firms with high exposure to perceivably corrupt regions find it optimal to withdraw from perceivably corrupt region in face of substantial costs of implementing effective internal anti-bribery controls without having used bribes in the first place. However, non-UK firms are exempted from the internal control requirements spelled out in Section 7 of the Act – and yet, as shown in Panel E, they are negatively affected on the day of passage of the Act.

Besides these tests, I conduct a range of additional standard event study robustness tests. First, event-time clustering could bias the coefficient found for *Corruption exposure*. To alleviate this concern, I follow Karpoff and Malatesta (1995) in using seemingly unrelated regressions to calculate cumulative abnormal returns on portfolios with above- and below-median exposure to corruption. A portfolio of firms with above-median exposure to corrupt regions significantly underperforms one with below-median exposure. Also, results on related events (Table 3 Panel A) are robust when I allow slopes on *Corruption exposure* to shift on event days (Schipper and Thompson 1983) and when I use non-UK indices to calculate abnormal returns (Zhang 2007).¹⁴ Last, the results reported in this paper are not sensitive either to other specifications of the estimation period or different treatment of outliers.

4.2 Direct competitors of UK firms

I have so far shown that the UK Bribery Act reduced value of UK firms with exposure to perceivably corrupt regions. When some firms are affected in their ability to compete for contracts, their

¹⁴ Specifically, I follow specification (1a) in Zhang's (2007) which contains contemporaneous Canadian, European, and Asian returns, as well as lead European and Asian returns. However, I restrain from using non-local indices in my main specification because, in a competitive setting with unilateral regulation, non-UK indices may reflect spillover and competition effects.

direct competitors may benefit: In this subsection, I document such spillovers. In Table 4, I implement regression (2) which tests whether non-UK firms with exposure to UK competition and without exposure to the UK are indeed positively affected by passage of the Act. In addition to Dummies indicating whether (i) subsidiaries owned by non-UK firms compete directly with those owned by UK firms and (ii) non-UK firms are exposed to the UK Bribery Act, I control for non-UK firms' corruption exposure. This is important because competing with UK firms may be correlated with *Corruption exposure*.¹⁵

[[INSERT Table 4 about Here]]

In line with the prediction that non-UK firms competing directly with UK firms may be positively affected, I find that increased exposure to UK competition outside the OECD is indeed associated with more positive abnormal returns but only among non-UK firms that are not exposed to the UK Bribery Act through a UK subsidiary (Columns [1] and [2]). Firms that are exposed to competition with UK firms through their non-OECD subsidiaries and not exposed to the UK have 0.514% more positive abnormal returns around passage of the UK Bribery Act.

Competitors of UK firms may benefit through two channels. First, some unregulated competitors' expected payoff from offering bribes may actually increase as regulated firms may decide to quit perceivably corrupt regions (e.g., Beck and Maher 1989). Second, competitors subject to anti-bribery regulation in their home country already but nevertheless competing in corrupt regions may benefit because the UK Bribery Act levels the playing field. In an attempt to shed light on the channel driving my main result, I split the sample by headquarter regions. For instance, firms headquartered in OECD countries likely adhere to the OECD Bribery Convention, and US firms likely adhere to the even stricter FCPA. I find that the positive effect of the UK Bribery Act on direct competitors is strongest among non-OECD firms (+0.973%), suggesting that unregulated firms – presumably firms that carry on bribing – benefit most. The effect on OECD firms is insignificantly positive, and even less so for US firms. The main result is similar in magnitude when including non-UK firms that do not have non-OECD operations.

¹⁵ Empirically, the correlation between UK Competition and Corruption exposure is less than 0.1.

One might argue that, rather than the presence of a direct competitor, the size of that competitor is a good proxy for potential business opportunities that become available to non-UK firms after passage of the Act. Indeed, I find that non-UK firms exposed to competition from larger UK subsidiaries prior to passage of the Act have more positive abnormal returns around passage (Column [8]). For each non-UK firm, I measure size of UK competition by the logarithm of sales made by those UK subsidiaries that compete directly with subsidiaries owned by respective non-UK firms. I focus on subsidiaries headquartered outside the OECD.

5. Long-run implications of the UK Bribery Act

Up to here, I have focused on the implications of anti-bribery regulation for firm value. In order to shed more light on the drivers behind the drop in UK firms' value, I now examine UK firms' response to the Act in terms of subsidiary locations and revenues, as well as merger and acquisition (M&A) and joint venture (JV) activity.

5.1 Geographic exposure

An increase in the cost of doing business affects the decision to open new subsidiaries or to continue operating existing ones, more so where corruption levels are perceived to be high. Consider a subsidiary whose revenues depend on paying bribes to local authorities. Anti-bribery regulation increases the expected costs of paying bribes, which makes the subsidiary less profitable, perhaps even unprofitable. Similarly, a subsidiary that has to implement costly internal anti-bribery controls may turn unprofitable.

To test whether passage of the UK Bribery Act affects firms' subsidiary locations, I examine UK firms' Corruption exposure and their presence in regions where corruption levels are perceived to be high around passage of the Act. I employ firm-level data over the 2007-2012 period.

First, in Panel A of Table 5, I analyze firms' *Corruption exposure*. In constructing *Corruption exposure*, I weigh subsidiary countries with the 2008 Corruption Perception Index so that my results are

not driven by changes in that index. I denote by *Mid-event* the period after passage but before enforcement of the Act (years 2009 and 2010), and by *Post-event* the years thereafter (2011 and 2012).

[[INSERT Table 5 about Here]]

I document a trend among firms to increase their exposure to perceivably corrupt regions. Relative to 2007 and 2008, UK firms significantly increased their exposure to corrupt regions by 0.049 during 2009 and 2010 and by 0.074 (i.e., a further 0.025) thereafter; all sample firms increased their exposure by 0.083 and 0.120, respectively (Columns [1]-[2]). Second, comparing the increase in corruption exposure by UK firms to that of non-UK firms, I find that UK firms increased their exposure more slowly than non-UK firms, even after controlling for *industry times year* fixed effects (Columns [3] and [4]). This effect occurs immediately after the passage of the UK Bribery Act and does not represent a pre-trend, as shown when including a pre-event UK Dummy for UK firms in 2008 (Column [5]).

Second, I shed light on drivers of the documented relative drop in *Corruption exposure* by UK firms. This is important because the relatively lower growth in Corruption exposure exhibited by UK firms may be driven by (i) increases in UK firms' exposure to regions perceived to be less corrupt or (i) decreases in UK firms' exposure to regions perceived to be corrupt. In Panel B, I study changes in the logarithm of the number of subsidiaries in the OECD and outside of the OECD, as well as in countries that are among the 50 most corrupt countries.

Overall, both UK and non-UK firms establish more subsidiaries in OECD and non-OECD countries (Columns [1]-[2] and [5]-[6]). The average sample firm increases its number of OECD subsidiaries by 19.1% and a further 17.4%pts ($=0.365-0.191$), and its number of non-OECD subsidiaries by 23.8% and a further 29.9%pts, respectively. Further, UK firms engage relatively more into OECD countries right after the passage of the UK Bribery Act, i.e. during 2009 and 2010, and relatively less into non-OECD countries right after enforcement of the UK Bribery Act in 2011 (Columns [3]-[4] and [7]-[8]). This latter effect is economically slightly stronger for subsidiaries in the 50 most corrupt countries (Column [9]).

Taken together, the drop in exposure to perceivably corrupt regions is a combination of less exposure to corrupt regions and more exposure to non-corrupt regions.

5.2 *Subsidiary revenues*

The previous sub-section documents that the UK Bribery Act slowed down UK firms' expansion into perceivably corrupt regions. In order to understand whether this development is associated with a drop in revenues or merely reflects closures of small subsidiaries, I now analyze revenues from perceivably corrupt regions at firm- and subsidiary-level. In Table 6, the dependent variables are the sum of firms' revenues by region (Columns [1]-[7]) and subsidiary revenues (Columns [8]-[9]), respectively.

[[INSERT Table 6 about Here]]

As far as revenues from subsidiaries headquartered in OECD countries are concerned, UK firms experience a strong increase after passage of the UK Bribery Act though non-UK firms experience a similar growth during the post-event period, potentially reflecting a recovery from the crisis (Columns [1]-[2]). This result is robust to additionally controlling for time variant industry and parent headquarter country characteristics (Column [3]).

In terms of revenues from subsidiaries headquartered outside of the OECD, UK firms experience an increase by 11.6% and 16.3% during the Mid- and Post-event period, respectively. However, non-UK firms' revenues from such regions increase significantly faster after enforcement of the Act (Columns [4]-[5]). Economically, UK firms' revenues from non-OECD countries grow 11.9 percentage points more slowly after controlling for time variant industry and parent headquarter country characteristics (Column [6]). This effect is much more pronounced when focusing on revenues from the 50 most corrupt countries. Revenues by UK firms from such countries grow 28 percentage points more slowly after enforcement of the Act (Column [7]).

The structure of the Orbis data additionally allows for analysis of subsidiary-level revenue data. This allows for making statements about UK-owned subsidiaries in perceivably corrupt regions after

controlling for a wide range of subsidiary characteristics, alleviating concerns that UK subsidiaries are different. In Columns [8] and [9], I focus on surviving subsidiaries, i.e. on subsidiaries with revenue data in pre-, mid-, and post-event period. Indeed, compared to subsidiaries owned by non-UK firms, subsidiaries owned by UK firms experience a drop in revenues by 14.5 percentage points during the Post-event period. This drop is more pronounced among UK-owned subsidiaries headquartered in regions perceived to be more corrupt.

One concern so far may have been that the drop in firm value exhibited by UK firms reflects higher expected legal costs and penalties associated with operating in such regions. For this concern to be justified, revenues of surviving subsidiaries should be unaffected by passage of the Act. However, as documented in this sub-section, surviving subsidiaries exhibit a relative drop in revenue growth from non-OECD subsidiaries that is comparable in magnitude to UK firms' overall revenue drop from such regions, which alleviates the concern.

5.3 Merger and acquisition (M&A) activity

Above, I have shown that UK firms added fewer subsidiaries in perceivably corrupt regions than non-UK firms after enforcement of the UK Bribery Act. I now examine whether one form of opening new subsidiaries—M&A activity—was affected. Notably, acquisitions in perceivably corrupt regions may be associated with additional costs, such as costs of implementing internal controls or costs associated with the probability of such targets engaging in bribery regardless of internal controls. In Panel A of Table 7, I study M&A activity around passage of the Act in a panel of firms over the 2007-2012 period. The number of M&A deals with targets within the OECD declined throughout Mid- and Post-event period; this decline is not merely pronounced among UK firms but among all sample firms (Columns [1]-[3]).

[[INSERT Table 7 about Here]]

A different picture emerges from studying targets outside the OECD. After passage of the Act, UK firms conducted fewer M&As outside the OECD after passage of the Act, while the number of such

deals conducted by non-UK firms did not change. Economically, UK firms conducted 7.6% and 5.8% fewer M&As outside the OECD during mid- and post-event period after controlling for firm fixed effects and time-variant industry effects, respectively (Columns [4]-[6]).

Predictions about the size of acquisitions are ambiguous. For instance, the costs of implementing effective anti-bribery controls may be one-off, favoring larger targets, or increasing in scale of operations, favoring smaller targets. In Panel B of Table 7, I study changes in average M&A deal values over the 2007-2012 period. The unit of analysis is firms' average deal size at the year level. While average size of OECD deals declines insignificantly, I document a substantial increase in non-OECD deal size.

In this subsection, I have documented that one form of engaging in perceivably corrupt countries—M&A activity—was adversely affected by passage of the UK Bribery Act.

5.4 Joint venture (JV) activity

It is not ex ante clear whether UK firms engage more or less into JVs after passage of the Act. On the one hand, third party transactions fall under the provisions of the UK Bribery Act; if found to be engaged, UK firms are liable for partners' actions. On the other hand, it is harder to detect bribery by third parties and to link such activities back to UK firms. In Table 8, I study the number of JVs by target region over the 2007-2012 period.

[[INSERT Table 8 about Here]]

Overall, I document a reduction in the number of JVs inside the OECD; this reduction is neither statistically significant nor more or less pronounced for UK firms (Columns [1]-[3]). Similarly, JV activity outside the OECD does not increase or decrease throughout the sample period, and decreases only significantly for UK firms during the post-event period (Columns [4]-[6]). It should be noted that JV data is relatively sparse and potentially biased towards JVs that occurred several years ago; also, JV data does not allow for statements about quality and types of JVs.

6. Conclusion

I have shown that passage of the UK Bribery Act leads to a permanent drop in value of UK firms, while value of non-UK firms competing directly with UK firms increases. Furthermore, passage of the Act adversely affects UK firms' economic activity in perceivably corrupt regions.

My evidence is consistent with the notion that bribes are a major factor in doing business in certain regions—costly anti-bribery regulation reduces affected firms' ability to do business in such regions but benefits unregulated competitors. Some caution is warranted because part of the effect of the UK Bribery Act on value may be explained by higher expected legal costs and penalties associated with operating in such regions. Similarly, UK firms may withdraw from perceivably corrupt regions to avoid costs of implementing internal controls without ever having used bribes. In order to show that these alternative explanations do not explain the full effect, I document a decline in revenues of surviving subsidiaries owned by UK firms and a drop in value of non-UK firms that are subject to the fines but exempted from the internal control requirements spelled out in the Act.

One important topic for future research is whether the regulatory punishment that can be meted out under the UK Bribery Act has implications for firm boundaries, such as decisions about whether or not to internalize customers or suppliers. Additionally, this paper focuses on the costs and benefits of anti-bribery regulation to firms. Research on the social benefits of the UK Bribery Act for the UK but also for perceivably corrupt countries can help depict a more complete picture of the motives for anti-bribery regulation and its implications.

Appendix 1: Brief outline of UK legislative procedure

In the United Kingdom, a draft (bill) must go through various formal stages in the House of Lords (upper house of Parliament) and the House of Commons (lower house). Once the draft is passed in the same form by both houses, it receives Royal Assent (a formality) and becomes an official Act.¹⁶ A timeline of events related to the UK Bribery Act 2010 is given in Table A1.

Table A1: Timeline of the legislative process of the UK Bribery Act 2010

Date	Stage
19 Nov. 2009	1 st reading: House of Lords
9 Dec. 2009	2 nd reading: House of Lords
7 Jan. 2010	1 st sitting: House of Lords
13 Jan. 2010	2 nd sitting: House of Lords
2 Feb. 2010	Report stage: House of Lords
8 Feb. 2010	3 rd reading: House of Lords
9 Feb. 2010	1 st reading: House of Commons
3 Mar. 2010	2 nd reading: House of Commons Programme motion: House of Commons
16 Mar. 2010	1 st sitting: House of Commons 2 nd sitting: House of Commons
18 Mar. 2010	3 rd sitting: House of Commons 4 th sitting: House of Commons
23 Mar. 2010	5 th sitting: House of Commons
7 Apr. 2010	Report stage: House of Commons 3 rd reading: House of Commons
8 Apr. 2010	Ping pong: House of Lords/Commons Royal Assent

Legislation typically begins in the House of Lords. The 1st and 2nd readings in the House of Lords transpire in front of the (present) Lords; the 1st reading is without debate, but concerns can be raised during the 2nd reading. “Sittings” take place in committees of interested members of the House of Lords and are responsible for a detailed, line-by-line examination of the bill. Amendments are collected before sittings and are discussed and voted upon during the sitting. In a House of Lords sitting, the government is not allowed to restrict either the subjects discussed or the time spent in discussion. After sittings, the bill is printed with all agreed amendments and is moved to the report stage, during which any member of the House Lords can make further amendments and vote. The bill is “cleaned up” during the 3rd reading, whereafter it moves to the House of Commons. Here it follows the same steps, although sittings can face both subject and time restrictions. Once amended and voted on during the report stage, the bill is cleaned up and moves back to the House of Lords to ensure that its members agree on the amendments made by the House of Commons. “Ping-pong” is the procedure of moving a bill back and forth between both houses until they reach agreement on the exact wording. Royal Assent consists of the Monarch formally agreeing to turn the bill into an Act. If no agreement is reached between the two houses then the bill fails; however, it can be passed by the House of Commons using the Parliament Acts—that is, without consent of the House of Lords.

¹⁶ See <http://www.parliament.uk/about/how/laws/passage-bill/lords/lrds-lords-first-reading/> (accessed 15 August 2013) for an excellent illustrative description of the process.

Appendix 2: Variable definitions

Variable	Description	Data source
Firm value measures		
Cumulative abnormal returns [a;b]	Cumulative daily abnormal returns in % from closing on day <i>a-1</i> to closing of day <i>b</i> relative to some event date. Unless stated otherwise, the event date is March 25, 2009. Daily abnormal returns are obtained from parameters of a four-factor Carhart (1997) model estimated over days [-294; -41] relative to event days. <i>Excess return on the market</i> is the return of the local index over and above the local risk-free rate. <i>Size</i> and <i>book-to-market</i> factors are constructed using the cutoffs described in Kenneth French's data library but using accounting data from Osiris; <i>Momentum</i> is constructed as described in Kenneth French's data library using returns on two size portfolios and three momentum portfolios (2x3=6 portfolios).	Cumulative abnormal returns [a;b]
Cumulative raw returns [a;b]	Cumulative daily stock returns in % from closing on day <i>a-1</i> to closing of day <i>b</i> relative to some event day. Unless stated otherwise, the event date is March 25, 2009.	Datastream
Tobin's Q	$(\text{Total Equity} + \text{Total Liabilities}) / (\text{Total Shareholder Equity (Book Value)} + \text{Total Liabilities})$. Regressions use the natural logarithm.	Orbis
Corruption exposure measures		
Corruption exposure (main measure)	Combines, for each firm, subsidiary location data from Orbis with Transparency International's Corruption Perceptions Index (CPI). For each firm, <i>Corruption exposure</i> is the sum—over all countries—of the percentage of the firm's subsidiaries headquartered in the focal country in 2008 multiplied by the CPI of that country in 2008. The resulting sum is subtracted from 10 (the upper limit of the CPI) so that <i>Corruption exposure</i> is increasing in firms' exposure to high-corruption regions. This is the main measure used throughout the paper.	Orbis, Transparency International (TI)
Corruption exposure value-weighted by subsidiary revenues	Constructed like the main <i>Corruption exposure</i> measure (see above) but additionally weighing by the fraction of revenues generated from firms' subsidiaries.	Orbis, TI
Corruption exposure equally weighted excluding tax havens	Constructed like the main <i>Corruption exposure</i> measure but excluding territories characterized as tax havens as per OECD Grey List (as of August 17, 2009).	Orbis, TI, OECD
Corruption exposure equally weighted using World Governance Indicators (WGI)	Constructed like the main <i>Corruption exposure</i> measure but using the <i>Control of Corruption</i> measure provided by Worldwide Governance Indicators (WGI).	Orbis, Worldwide Governance Indicators
Corruption exposure equally weighted using BEEPS Survey Sector Corruption levels	Constructed like the main <i>Corruption exposure</i> measure but using subsidiaries' industry corruption levels to weigh observations. Industry corruption levels are obtained from the 2009 version of the EBRD–World Bank <i>Business Environment and Enterprise Performance Survey</i> (BEEPS). This survey was conducted in 2008–2009 among 11,800 firms from 29 Eastern European and Asian countries. The corruption measure tabulates, by industry, the percentage of firms responding “major” (i.e., 4 on a 5-point scale) to this question: “please ... [indicate whether this] factor is No Obstacle, a Minor Obstacle, a Moderate Obstacle, a Major Obstacle, or a Very Severe Obstacle to the current operations of this establishment” when the factor in question is “corruption”. Respondents provide primary SIC codes, which are converted into the Fama–French industry classifiers.	Orbis, World Bank <i>Business Environment and Enterprise Performance Survey</i> (BEEPS)
Corruption exposure using BEEPS Survey Sector Corruption levels (value-weighted by subsidiary revenues)	Constructed as before but additionally weighing by the fraction of revenues generated from firms' subsidiaries.	Orbis, World Bank Economic Survey
Corruption exposure equally weighted using Transparency International's Sectoral Corruption levels	Constructed like the main <i>Corruption exposure</i> measure but using Transparency International's Sector Corruption measure associated with the industry of firms' subsidiaries to weigh observations.	Orbis, TI

Controls		
Market value	Market value at the end of the calendar year. Regressions use the natural logarithm.	
Assets	Total assets. Regressions use the natural logarithm.	Orbis
# Subsidiaries	Number of subsidiaries owned to more than 50%. Regressions use the natural logarithm.	Orbis
FTSE4GOOD	For UK firms, this is a dummy set equal to 1 if a firm was part of the FTSE4Good UK Index in 2008. For non-UK firms, this is a dummy set equal to 1 if a firm was part of the FTSE4Good All Index in 2008.	FTSE Group
ADR	A dummy variable set equal to 1 if a firm has an ADR in the United States in March 2009 or in the prior two years.	BNY Mellon
US subsidiary	A dummy set equal to 1 if a firm has a US subsidiary in 2008.	Orbis
UK subsidiary	A dummy set equal to 1 if a firm has a UK subsidiary in 2008.	Orbis
Foreign subsidiary	A dummy set equal to 1 if a firm has a foreign subsidiary in 2008.	Orbis
Competes with UK firm outside OECD	A dummy variable set equal to 1 if at least one of a non-UK firm's non-OECD subsidiaries competes directly with a UK firm's subsidiary. A non-UK firm's subsidiary is defined as competing directly with a UK firm if that subsidiary (i) is headquartered in the same non-OECD country as at least one UK subsidiary and (ii) operates in the same Fama-French 48 industry as that subsidiary.	Orbis
Subsidiaries, mergers and acquisitions (M&As), and joint ventures (JVs)		
Number All	The number of subsidiaries/mergers & acquisitions (M&As)/joint ventures (JVs) at firm-year level. Only subsidiaries held to more than 50%. Regressions use the natural logarithm.	Orbis, Zephyr
% ... in OECD	% of subsidiaries/M&A targets/JV partners headquartered in the OECD at firm-year level. Only subsidiaries held to more than 50%.	Orbis, Zephyr
% Revenues OECD	% of subsidiary revenues from OECD subsidiaries at firm-year level. Only subsidiaries held to more than 50%.	Orbis
% Firms with OECD (non-OECD) ...	% of firms with at least one OECD (non-OECD) subsidiary/M&A/JV at firm-year level. Only subsidiaries held to more than 50%.	Orbis, Zephyr
Subsidiary revenues	Average revenues obtained from a firm's subsidiary at subsidiary-year level. Only subsidiaries held to more than 50%. Regressions use the natural logarithm.	Orbis
Average deal value	Average deal value M&As that increased the share of control from below 50% to above 50%. Regressions use the natural logarithm.	Zephyr
Time dummies		
Mid-Event	A dummy set equal to 1 in years 2009 and 2010, i.e. in years during which the draft of the UK Bribery Act 2010 was passed by the government commission but not in force.	
Post-Event	A dummy set equal to 1 in years 2011 and 2012, i.e. in years during which the UK Bribery Act 2010 was in force.	
Country classifications		
OECD	A dummy set equal to 1 if a firm is headquartered in/has a subsidiary in an OECD country.	
OECD non-US	A dummy set equal to 1 if a firm is headquartered in/has a subsidiary in an OECD country other than the United States.	
Non-OECD	A dummy set equal to 1 if a firm not headquartered in/has a subsidiary in an OECD country.	

References

- Bardhan, Pranab, 1997, "Corruption and development: A review of issues", *Journal of Economic Literature*, 35, 1320-1346.
- Beck, Paul J. and Michael W. Maher, 1986, "A comparison of bribery and bidding in thin markets", *Economic Letters*, 20, 1-5.
- Beck, Paul J. and Michael W. Maher, 1989, "Competition, regulation and bribery", *Managerial and Decision Economics*, 10, 1-12.
- Beck, Paul J., Michael W. Maher, and Adrian E. Tschoegl, 1991, "The impact of the Foreign Corrupt Practices Act on US exports", *Managerial and Decision Economics*, 12(4), 295-303.
- Bénabou, Roland and Jean Tirole, 2010, "Individual and Corporate Social Responsibility", *Economica*, 77, 1-19.
- Bennedsen, Morten, Sven A. Feldmann, and David Dreyer Lassen, 2013, "Strong firms lobby, weak firms bribe – A survey-based analysis of the demand for influence and corruption", *Working paper*.
- Brennan, Michael J. and H. Henry Cao, 1997, "International Portfolio Investment Flows", *The Journal of Finance*, 52(5), 1851-1880.
- Carhart, Mark M., 1997, "On persistence in mutual fund performance", *The Journal of Finance*, 52(1), 57-82.
- Cheng, Ing-Haw, Harrison Hong, and Kelly Shue, 2014, "Do managers do good with other people's money?", SSRN Working Paper.
- Cheung, Yan Leung, R. Raghavendra Rau, and Aris Stouraitis, 2012, "How much do firms pay as bribes and what benefits do they get? Evidence from corruption cases worldwide", NBER Working Paper Series.
- Clarke, George R. G. and Lixin Colin Xu, 2004, "Privatization, competition, and corruption: How characteristics of bribe takers and payers affect bribes to utilities", *Journal of Public Economics*, 88, 2067-2097.
- D'Souza, Anna E. and Daniel Kaufmann, 2011, "Who bribes in public contracting and why? Worldwide evidence from firms", SSRN Working Paper.
- Desai, Mihir A., Alexander Dyck, and Luigi Zingales, 2007, "Theft and taxes", *Journal of Financial Economics*, 84, 591-623.
- Doidge, Craig, G. Andrew Karolyi, and René Stulz, 2004, "Why are foreign firms that list in the U.S. worth more?", *Journal of Financial Economics*, 71, 205-238.
- Erel, Isil, Rose C. Liao, and Michael S. Weisbach, 2012, "Determinants of cross-border mergers and acquisitions", *Journal of Finance*, 67(3), 1045-1082.
- Fama, Eugene F., Lawrence Fisher, Michael C. Jensen, and Richard Roll, 1969, "The Adjustment of Stock prices to New Information", *International Economic Review*, 10(1), 1-21.
- Fama, Eugene F. and Kenneth R. French, 1993, "Common risk factors in the returns on stocks and bonds", *Journal of Financial Economics*, 33(1), 3-56.
- Fisman, Raymond and Jakob Svensson, 2007, "Are corruption and taxation really harmful to growth? Firm level evidence", *Journal of Development Economics*, 83, 63-75.
- Gianetti, Mariassunta and Andrei Simonov, 2006, "Which investors fear expropriation? Evidence from investors' portfolio choices", *The Journal of Finance*, 61(3), 1507-1547.

- Graham, John L., 1984, "The Foreign Corrupt Practices Act: A new perspective", *Journal of International Business Studies*, 15(3), 107-121.
- Graham, John R., Campbell R. Harvey and Hai Huang, 2005, "Investor competence, trading frequency, and home bias", *NBER Working Paper*.
- Hines, James R. Jr., 1995, "Forbidden payment: Foreign bribery and American business after 1977", *NBER Working Paper*.
- Hong, Harrison and Inessa Liskovich, 2015, "Crime, Punishment and the Halo Effect of Corporate Social Responsibility", SSRN Working Paper.
- Ince, Ozgur S. and R. Burt Porter, 2006, "Individual equity return data from Thomson Datastream: Handle with care!", *Journal of Financial Research*, 29(4): 463-479.
- Kang, Jun-Koo and René Stulz, 1997, "Why is there a home bias? An analysis of foreign portfolio equity ownership in Japan", *Journal of Financial Economics* 46, 3-28.
- Karpoff, Jonathan M., D. Scott Lee, and Gerald S. Martin, 2013, "The economics of foreign bribery: Evidence from FCPA Enforcement Actions", *SSRN Working Paper*.
- Karpoff, Jonathan M. and Paul H. Malatesta, 1995, "State takeover legislation and share values: The wealth effects of Pennsylvania's Act 36", *Journal of Corporate Finance*, 1, 367-382.
- Kho, Bong-Chan, René Stulz, and Francis E. Warnock, 2009, "Financial globalization, governance, and the evolution of home bias", *Journal of Accounting Research*, 47(2), 597-635.
- Leuz, Christian, Karl Lins, and Frank Warnock, 2009, "Do foreigners invest less in poorly governed firms?", *Review of Financial Studies*, 22, 3245-3285.
- Lien, Da-Hsiang Donald, 1986, "A note on competitive bribery games", *Economic Letters*, 22, 337-341.
- Mauro, Paolo, 1995, "Corruption and Growth", *The Quarterly Journal of Economics*, 110(3): 681-712.
- Portes, Richard and Helene Rey, 2005, "The determinants of cross-border equity flows", *Journal of International Economics*, 65(2), 269-296.
- Schipper, Katherine and Rex Thompson, 1983, "The impact of merger-related regulations on the shareholders of acquiring firms", *Journal of Accounting Research*, 21(1): 184-221.
- Shleifer, Andrei and Robert W. Vishny, 1993, "Corruption", *The Quarterly Journal of Economics*, 108(3): 599-617.
- Smith, David B., Howard Stettler, and William Beedles, 1984, "An investigation of the information content of foreign sensitive payment disclosure", *Journal of Accounting and Economics*, 6, 153-162.
- Svensson, Jakob, 2003, "Who must pay bribes and how much? Evidence from a cross section of firms.", *The Quarterly Journal of Economics*, 118(1), 207-230.
- Svensson, Jakob, 2005, "Eight questions about corruption", *The Journal of Economic Perspectives*, 19(3), 19-42.
- Vickrey, William, 1961, "Counterspeculation, auctions, and competitive sealed tenders", *Journal of Finance*, 16(1), 8-37.
- Vickrey, William, 1962, "Auctions and bidding games" in *Recent Advances in Game Theory*, Princeton Conference Series, 29, Princeton, NJ: Princeton University Press, 15-27.
- Zhang, Ivy Xiyang, 2007, "Economic consequences of the Sarbanes-Oxley Act of 2002", *Journal of Accounting and Economics*, 44: 74-111.

Table 1
Summary statistics

This table provides summary statistics for variables used in event studies for UK firms (Panel A) and non-UK firms (Panel B), as well as in the analysis of firms' responses to passage of the UK Bribery Act (Panel C). Appendix 2 provides more detailed variable definitions. In Panels A and B, Cumulative abnormal returns [0;1] are based on abnormal returns obtained from parameters of a four-factor Carhart (1997) model estimated over days [-294; -41] relative to March 25, 2009 (which is when the draft of the UK Bribery Act was passed by the government commission and put forward by the Minister of Justice) and the day thereafter. *Corruption exposure* combines, for each firm, subsidiary location data from Orbis with Transparency International's Corruption Perceptions Index (CPI). For each firm, *Corruption exposure* is the sum—over all countries—of the percentage of the firm's subsidiaries headquartered in the focal country in 2008 multiplied by the CPI of that country in 2008. The resulting sum is subtracted from 10 (the upper limit of the CPI) so that *Corruption exposure* is increasing in firms' exposure to high-corruption regions. *Market value* is taken from the end of 2008. *Number of Subsidiaries* is the number of subsidiaries held to more than 50% from Orbis in 2008. *FTSE4Good (Dummy)* is a dummy variable set equal to 1 if a firm was part of the FTSE4Good UK Index in 2008. *ADR (Dummy)* is set equal to 1 if a firm is cross-listed (via an ADR) in the United States in March 2009 or in the prior two years. *US subsidiary* and *UK subsidiary* are set equal to 1 if a firm has at least one subsidiary in the US and the UK, respectively, in 2008. *US Link (Dummy)* is the maximum of *ADR (Dummy)* and *US Link (Dummy)*. *US Link (non-US firm; Dummy)* is *US Link (Dummy)* for the subset of non-US non-UK firms. *Foreign subsidiary* is set equal to 1 if a firm has at least one subsidiary outside of its headquarter country in 2008. *Competes with UK Firm outside OECD* is a dummy variable set equal to 1 if at least one of a non-UK firm's non-OECD subsidiaries competes directly with a UK firm's subsidiary. A non-UK firm's subsidiary is defined as competing directly with a UK firm if that subsidiary (i) is headquartered in the same non-OECD country as at least one UK subsidiary and (ii) operates in the same Fama-French 48 industry as that UK subsidiary. For this variable, the sample is restricted to firms with at least one non-OECD subsidiary. The last columns splits firms by *Foreign subsidiary* (Panel A) and *UK subsidiary* (Panel B). ** and *** denote significance at (respectively) the 5% and 1% level. In Panel C, observations are at the firm-year and subsidiary-year level over the 2007-2012 period. Subsidiary data is obtained from Orbis; Merger and Acquisition (M&A) and Joint Venture (JV) data is obtained from Zephyr. *Number all* denotes the number of subsidiaries, M&As, and JVs. *% ... in OECD* denotes the percentage of subsidiaries, M&A targets, and JV partners in the OECD. *% firms with OECD ...* and *% firms with non-OECD ...* denotes the percentage of firms with at least one subsidiary, M&A target, and JV partner in the OECD and outside of the OECD, respectively. *Subsidiary Revenues (\$mn)* denotes revenues at subsidiary level and *Deal Value (\$ mn)* denotes average deal values of M&As. All continuous variables are winsorized at 1% and 99% level.

Panel A: UK firms

Variable	Mean	SD	Median	# Obs	Foreign Subsidiary		Difference	
					Yes	No		
Cumulative abnormal returns <i>CAR[0;1]</i>	-0.43%	2.38%	-0.52%	1,097	-0.55%	-0.27%	-0.27%	**
Corruption exposure	2.56	0.79	2.30	1,244	2.76	2.30	0.46	***
Market value (\$mn)	1,772	9,813	107	1,244	2,856	400	2,457	***
Number of subsidiaries	41.4	256.9	9.0	1,244	65.5	10.3	55.2	***
FTSE4Good (Dummy)	16.1%	36.7%	0.0%	1,244	22.4%	7.9%	14.5%	***
ADR (Dummy)	17.6%	38.1%	0.0%	1,244	25.7%	7.2%	18.5%	***
US subsidiary (Dummy)	30.2%	45.9%	0.0%	1,244	53.6%	0.0%	53.6%	***
US link (Dummy)	37.9%	48.5%	0.0%	1,244	61.6%	7.2%	54.4%	***
Foreign subsidiary (Dummy)	56.4%	49.6%	100.0%	1,244				

Panel B: Non-UK firms

Variable	Mean	SD	Median	#Obs	UK Subsidiary		Difference	
					Yes	No		
Cumulative abnormal returns <i>CAR</i> [0;1]	0.27%	3.45%	-0.02%	9,457	0.36%	0.24%	0.12%	
Corruption exposure	3.48	1.77	2.72	11,662	2.92	3.69	(0.77)	***
Market value (\$mn)	2,824	12,600	339	11,662	5,850	1,668	4,182	***
Number of subsidiaries	27.8	125.4	8.0	11,662	64.3	13.9	50.3	***
FTSE4Good (Dummy)	2.6%	16.0%	0.0%	11,662	6.9%	1.0%	5.9%	***
ADR (Dummy)	10.9%	31.2%	0.0%	11,662	18.5%	8.0%	10.5%	***
US subsidiary (Dummy)	45.7%	49.8%	0.0%	11,662	73.4%	35.2%	38.2%	***
US link (Dummy)	51.7%	50.0%	100.0%	11,662	78.6%	41.5%	37.1%	***
US link (non-US firm; Dummy)	32.3%	46.8%	0.0%	6,749	64.7%	22.4%	42.3%	***
Competes with UK firm outside OECD	43.2%	49.5%	0.0%	2,510	66.5%	31.4%	35.1%	***
Foreign subsidiary (Dummy)	58.6%	49.3%	100.0%	11,662	96.7%	44.1%	52.6%	***
UK subsidiary (Dummy)	27.6%	44.7%	0.0%	11,662				

Panel C: Subsidiaries, revenues, mergers and acquisitions (M&As), and joint ventures (JVs)

	Mean	SD	Median	# Obs
(i) Subsidiaries				
Number all	21.7	104.9	6.0	84,256
% Subsidiaries in OECD	63%	44%	92%	84,256
% Revenues OECD	73%	43%	100%	84,256
% Firms with OECD subsidiary	73%	45%	100%	84,256
% Firms with non-OECD subsidiary	54%	50%	100%	84,256
Subsidiary revenues (\$mn)	1,678	6,003	59	784,464
(ii) Mergers and Acquisitions (M&As)				
Number all	1.8	1.8	1.0	16,675
% Target in OECD	76%	41%	100%	16,675
% Firms with OECD M&A target	79%	41%	100%	16,675
% Firms with non-OECD M&A target	30%	46%	0%	16,675
Deal value (\$ mn)	186	660	19	9,156
Deal value OECD (\$ mn)	201	609	23	6,511
Deal value non-OECD (\$ mn)	112	705	8	2,645
(iii) Joint Ventures (JVs)				
Number all	2.9	1.7	2.0	2,250
% Partner in OECD	41%	48%	0%	2,250
% Firms with OECD JV partner	43%	50%	0%	2,250
% Firms with non-OECD JV partner	62%	49%	100%	2,250

Table 2
Firm value of UK firms around passage of the UK Bribery Act

This table relates returns of UK firms around the passage of the UK Bribery Act to firm characteristics. The dependent variable is *Cumulative abnormal returns [0;1]* in Columns (1)-(4) and *Cumulative raw returns [0;1]* in Column (5). Cumulative abnormal returns [0;1] are based on abnormal returns obtained from parameters of a four-factor Carhart (1997) model estimated over days [-294; -41] relative to March 25, 2009 (which is when the draft of the UK Bribery Act was passed by the government commission and put forward by the Minister of Justice) and the day thereafter. *Cumulative raw returns [0;1]* are raw returns on March 25 and 26, 2009. All control variables are defined in Table 1 and Appendix 2 with the exception of additional controls in Colum (6). *Beta* is the coefficient on market excess returns in a regression of firm excess returns on market excess returns over days [-294; -41] before March 25, 2009. Market-to-book and momentum are market value in 2008 over book value in 2008 and cumulative raw returns over the 6 months up to 41 days before March 25, 2009, respectively. All continuous variables are winsorized at 1% and 99% level. The sample consists of all publicly listed UK firms, with the exception of Column (4) which focuses on UK firms with at least one foreign subsidiary. Industry fixed effects (Fama–French 48) are included as indicated. Standard errors are clustered at the industry level. *t*-statistics are given in parentheses; *, ** and *** denote significance at (respectively) the 10%, 5% and 1% level.

Dependent variable	Cumulative abnormal returns [0;1]				Cumulative raw returns [0;1]	
	(1)	(2)	(3)	(4)	(5)	(6)
Sample	All	All	All	Foreign	All	All
Corruption exposure	-0.717** (-2.08)	-0.838** (-2.26)	-0.925** (-2.42)	-0.791* (-1.85)	-0.842** (-2.20)	-0.931** (-2.43)
LN(Assets)			0.223 (1.00)	0.511 (1.60)	0.454** (2.48)	0.226 (1.01)
LN(# Subsidiaries)			-0.204 (-0.64)	-0.021 (-0.05)	-0.317 (-0.99)	-0.206 (-0.64)
FTSE4GOOD (Dummy)			-1.306 (-1.30)	-0.835 (-0.67)	-1.422 (-1.43)	-1.285 (-1.28)
US link (Dummy)			-0.607 (-0.81)	-0.500 (-0.52)	-0.526 (-0.71)	-0.587 (-0.78)
Beta						0.979 (0.77)
Market-to-book						0.022 (0.70)
Momentum						-0.728 (-1.18)
Industry FE	No	Yes	Yes	Yes	Yes	Yes
<i>N</i>	1,097	1,097	1,097	618	1,244	1,244
Adj. R-square	0.004	0.043	0.055	0.096	0.053	0.055

Table 3

Robustness tests

This table provides robustness tests for the main result (Table 2). Panel A replicates the main result for alternative event dates. Each row shows the coefficient on *Corruption exposure* when replicating the main specification (Table 2, Column (3)) on a day with news concerning bribery regulation and the day thereafter. The left-hand side variable Cumulative abnormal return [0;1] is based on abnormal returns obtained from parameters of a four-factor Carhart (1997) model estimated over days [-294; -41] relative to these alternative days. Events are derived from a Factiva search for “bribery” in UK newspapers; see text for exclusions. For each event, the table reports the coefficient for *Corruption exposure* constructed using Orbis data for the relevant year, using 2005 data for events prior to 2005. Besides the controls used in Table 2, the stacked regressions also contain date fixed effects multiplied with industry fixed effects, and standard errors are clustered at the firm level. For the stacked regression with all events, values for *CAR*[0; 1] of events with the predicted positive direction are multiplied by -1. Panel B replicates the main result (Table 2, Column (3)) using alternative event windows around the event date to construct the dependent variable. Panel C replicates the main specification (Table 2, Column (3)) using alternative geographic and industry-level measures of *Corruption exposure*. These measures are described in the Appendix. Panel D relates long-run measures of firm value and revenue growth to firm characteristics for a Panel of firms between 2007 and 2012. In Columns (1)-(4), the dependent variable is the natural logarithm of Tobin’s Q, defined as logarithm of (Total Equity+Total Liabilities)/(Total Shareholder Equity (Book Value) + Total Liabilities) using Osiris data. Revenues growth is the log-change in revenues since the previous year. Corruption exposure is measured as before but held constant after 2009. *Mid-event* is a dummy equal to 1 in years 2009 and 2010. *Post-event* is a dummy equal to 1 in years 2011 and 2012. UK is a dummy variable equal to 1 if a firm is headquartered in the UK. Controls include the logarithm of total assets, firm fixed effects, and industry fixed effects multiplied by year fixed effects as indicated. Columns (1)-(2) consider publicly listed firms headquartered in the UK; other Columns consider the Osiris universe of firms with available data. Standard errors are clustered at the year and country level (2-way clusters). Panel E documents spillovers of the UK Bribery Act to non-UK firms with exposure to the UK. The event date is March 25, 2009. The dependent variable is *Cumulative Abnormal Returns* over event window [0; 1], obtained as before. *UK Subsidiary (Dummy)* is a Dummy set equal to 1 if a firm has at least one subsidiary in the UK in 2008. Controls are constructed as in Table 2. Columns (1)-(2) consider all sample firms, Columns (3)-(4) consider sample firms headquartered in the OECD (excluding the UK), and Columns (5)-(6) consider firms headquartered outside the OECD. Country fixed effects interacted with industry fixed effects (Fama–French 48) are included. Standard errors are clustered at the country and industry level. In all panels, continuous variables are winsorized at 1% and 99% level. *, **, and *** denote significance at (respectively) the 10%, 5%, and 1% level.

Panel A: Alternative bribery-related events

Date	Headline/Content	Source	Predicted direction	Corruption exposure	# Obs
30/03/2000	OECD urges UK to toughen anti-bribery laws	The Guardian	-	-0.241%	852
23/05/2000	UK government to announce new laws aimed at bribery crackdown	The Guardian; Financial Times	-	0.344%	843
21/06/2000	UK home secretary announces new anti-bribery law	The Independent; The Guardian	-	-0.535%**	829
09/11/2001	UK Government announces measures to tackle international corruption, proposes tightening bribery laws, pushes for crack-down on bribery by Britons abroad	Associated Press Newswires; Evening News - Scotland	-	-0.513%*	978
02/09/2002	British anti-corruption plans branded toothless	The Guardian	+	-0.284%	996
25/03/2003	UK government issues draft corruption bill	WMRC Daily Analysis	-	0.072%	993
01/08/2003	Corruption bill faces delay over loopholes	Financial Times	+	0.043%	1,072
18/02/2004	UK government backtracks over bribery	Financial Times	+	-0.052%	1,112
09/12/2005	Corruption laws to be overhauled in the UK	Global Insight Daily Analysis	-	-0.073%	1,219
19/11/2008	Bribery law reform plans focus on overseas work of businesses; managers face jail in bribery cases (published 20/11/2008)	The Times; Press Association National Newswire; The Guardian; The Daily Telegraph	-	-0.121%	1,367
20/07/2010	Clark delays enforcement of bribery law	Financial Times	+	0.109%	1,244
31/01/2011	UK delays enforcement of UK Bribery Act 2010 by 3 more months	The Wall Street Journal; Reuters	+	-0.030%	1,286
Stacked regressions					
	All events with positive direction		1	0.040%	5,710
	All events with negative direction		-1	-0.337%***	7,081
	All events			-0.223%*	12,791

Panel B: Alternative event windows

	Around Event		Before Event			After Event		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	[-10;10]	[-1;+1]	[-40;-11]	[-10;-1]	[-2;-1]	[+2;+3]	[+2;+10]	[+11;+40]
Corruption Exposure	-0.848*	-0.988**	-0.006	0.001	0.008	0.023	-0.029	0.007
	(-1.89)	(-2.21)	(-0.29)	(0.00)	(0.09)	(0.25)	(-0.72)	(0.40)
Constant & Controls	Y	Y	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y	Y	Y
<i>N</i>	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097
R2	0.110	0.061	0.140	0.103	0.075	0.052	0.088	0.070

Panel C: Alternative measures of corruption exposure

Corruption Measure	Geographic measures			Industry measures		
	Transparency International	Transparency International	Worldwide Governance Indicators	World Bank BEEPS Survey	World Bank BEEPS Survey	Transparency International's Sectoral Corruption
	Value-weighted by subsidiary revenues	Equally-weighted by subsidiary count excl. tax havens	Equally-weighted using Orbis subsidiary count	Equally-weighted by #subsidiaries in sector	Value-weighted by subsidiary revenues in sector	Equally-weighted by #subsidiaries in sector
Weights	(1) CAR	(2) CAR	(3) CAR	(4) CAR	(5) CAR	(6) CAR
Corruption Exposure	-0.844*	-0.925**	-2.003*	-1.146*	-1.027*	-0.603
	(-1.94)	(-2.27)	(-1.80)	(-1.79)	(-1.75)	(-0.34)
Controls	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y
<i>N</i>	935	1097	1068	753	753	477
R2	0.015	0.053	0.017	0.008	0.010	0.038

Panel D: Long-term firm value implications

	Tobin's Q	Tobin's Q	Tobin's Q	Tobin's Q	Revenue Growth
	(1)	(2)	(3)	(4)	(5)
	UK	UK	All	All	All
Mid-Event * UK	-0.148 (-1.67)		-0.090*** (-3.70)		
Post-Event * UK	-0.121 (-1.54)		-0.024* (-2.10)		
CPI * Mid-Event * UK		-0.042* (-2.02)		-0.058** (-3.05)	-0.020 (-1.10)
CPI * Post-Event * UK		-0.050** (-2.97)		-0.040* (-2.09)	-0.060*** (-4.30)
Mid-Event			-0.058 (-0.74)		
Post-Event			-0.097 (-1.27)		
CPI * Mid-Event				0.018** (3.15)	-0.026** (-2.01)
CPI * Post-Event				0.004 (0.65)	-0.031** (-2.38)
Controls	Y	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y	Y
Year FE	N	Y	N	-	-
Country - Year FE	N	N	N	Y	Y
N	10,175	10,175	105,062	105,062	94,866
Adj. R2	0.738	0.751	0.762	0.770	0.655

Panel E: Spillovers of the UK Bribery Act 2010 on non-UK firms with UK exposure

	All	All	OECD	OECD	Non-OECD	Non-OECD
	(1)	(2)	(3)	(4)	(5)	(6)
	CAR[0;1]	CAR[0;1]	CAR[0;1]	CAR[0;1]	CAR[0;1]	CAR[0;1]
Corruption exposure	-0.067 (-0.59)	-0.024 (-0.20)	-0.157 (-0.93)	-0.060 (-0.34)	0.104 (0.75)	0.153 (1.03)
UK Subsidiary (Dummy)	-0.063 (-0.30)	0.874* (1.65)	-0.182 (-0.80)	1.246* (1.82)	0.708 (1.40)	1.840 (1.59)
Corruption Exposure X UK Subs. (Dummy)		-0.326** (-2.01)		-0.529** (-2.26)		-0.277 (-1.07)
Constant & Controls	Y	Y	Y	Y	Y	Y
Country * Industry FE	Y	Y	Y	Y	Y	Y
N	9,457	9,457	6,955	6,955	2,502	2,502
Adj. R-square	0.151	0.151	0.121	0.121	0.248	0.248

Table 4

Spillovers of the UK Bribery Act on direct competitors of UK firms

This table relates returns of non-UK firms around the passage of the UK Bribery Act to firm characteristics. The dependent variable *CAR* is constructed as in Table 1. In Columns (1)-(7), the key control variable is *Competes with UK Firm outside OECD*, a dummy variable set equal to 1 if at least one of a non-UK firm's non-OECD subsidiaries competes directly with a UK firm's subsidiary. A non-UK firm's subsidiary is defined as competing directly with a UK firm if (i) that subsidiary is headquartered in the same non-OECD country as at least one UK subsidiary and (ii) that subsidiary operates in the same Fama-French 48 industry as that subsidiary. In Column (8), competition with UK firms is measured by the logarithm of sales made by those UK subsidiaries that compete directly with subsidiaries owned by respective non-UK firms. No UK Subsidiary is a dummy equal to 1 if a non-UK firm does not have a UK subsidiary in 2008. Other controls are constructed as in Table 1. Sample firms are all firms headquartered outside the UK that have at least one non-OECD subsidiary, with the exception of Columns (3)-(6) which further reduce this same to firms headquartered in certain regions and Column (7) which contains all non-UK firms. Country fixed effects interacted with industry fixed effects (Fama-French 48) as well as industry fixed effects are included as indicated. All continuous variables are winsorized at 1% and 99% level. Standard errors are clustered at the country and industry level. In both Panels, *t*-statistics are given in parentheses; *, ** and *** denote significance at (respectively) the 10%, 5% and 1% level.

Headquarter Country	All	All	OECD	OECD Non-US	US	Non-OECD	All	All
UK Competition Measure	Dummy (1) CAR	Dummy (2) CAR	Dummy (3) CAR	Dummy (4) CAR	Dummy (5) CAR	Dummy (6) CAR	Dummy (7) CAR	Sales (8) CAR
UK Comp. X No UK Sub		0.514* (1.91)	0.380 (1.21)	0.520 (1.32)	0.320 (0.58)	0.973*** (3.08)	0.591* (1.80)	0.093** (2.07)
UK Competition	0.239 (0.99)	-0.012 (-0.07)	-0.075 (-0.30)	0.163 (0.61)	-1.101* (-1.88)	0.056 (0.25)	0.118 (0.79)	-0.058 (-1.58)
No UK Subsidiary	0.059 (0.81)	0.117 (1.25)	0.047 (0.40)	0.204 (1.45)	-0.235 (-1.26)	0.408*** (2.83)	0.143 (1.50)	-0.008 (-0.05)
Corruption exposure	-0.060 (-1.38)	-0.009 (-0.37)	-0.026 (-0.67)	-0.053 (-1.22)	0.022 (0.30)	0.021 (0.64)	-0.009 (-0.33)	-0.023 (-0.31)
Constant & Controls	Y	Y	Y	Y	Y	Y	Y	Y
Country X Ind FE	Y	Y	Y	Y	N	Y	Y	Y
Industry FE	-	-	-	-	Y	-	-	-
N	2510	2510	2068	1254	814	442	9457	2510
Adj. R-square	0.058	0.059	0.064	0.035	0.054	0.081	0.018	0.061

Table 5
Geographic exposure

This table relates changes in firms' *Corruption exposure* (Panel A) and *number of subsidiaries by region* (Panel B) between 2007 and 2012 to firm characteristics. In Panel A, the dependent variable *Corruption exposure* is constructed as described in Table 1 though subsidiary data is obtained from Orbis for the years 2007-2012 and *Transparency International's Corruption Perception Index* for the year 2008 is used after 2008. The dependent variable in Panel B is the logarithm of the number of subsidiaries headquartered in OECD countries (Columns (1)-(4)), non-OECD countries (Columns (5)-(8)), and the 50 most corrupt countries by Transparency International's Corruption Perception Index in 2007 (Column (9)). *Mid-event* is a dummy equal to 1 in years 2009 and 2010. *Post-event* is a dummy equal to 1 in years 2011 and 2012. UK is a dummy variable equal to 1 if a firm is headquartered in the UK. Controls include the logarithm of total assets, firm fixed effects, and industry fixed effects multiplied by year fixed effects as indicated. Standard errors are clustered at the year and country level. *t*-statistics are given in parentheses; *, ** and *** denote significance at (respectively) the 10%, 5% and 1% level.

Panel A: Corruption exposure

	(1) UK	(2) All	(3) All	(4) All	(5) All
Mid-Event * UK	0.049** (3.35)		-0.040* (-2.09)	-0.033* (-2.01)	-0.021* (-1.84)
Post-Event * UK	0.074*** (11.05)		-0.051** (-2.75)	-0.044** (-2.77)	-0.032** (-2.57)
Mid-Event		0.083** (2.87)	0.088** (2.81)		
Post-Event		0.120*** (5.52)	0.126*** (5.20)		
Before * UK					0.014 (1.26)
Controls	Y	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y	Y
Ind-Year FE	N	N	N	Y	Y
N	7,199	84,256	84,256	84,256	84,256
Adj. R2	0.899	0.964	0.964	0.964	.964

Panel B: Number of subsidiaries

	LN(# Subsidiaries headquartered in OECD)				LN(#Subsidiaries headquartered outside OECD)				TI<50
	(1) UK	(2) All	(3) All	(4) All	(5) UK	(6) All	(7) All	(8) All	(9) All
Mid * UK	0.335** (4.39)		0.160** (1.99)	0.123*** (3.12)	0.270* (2.53)		0.039 (1.81)	0.013 (0.69)	-0.014 (-0.56)
Post * UK	0.398*** (11.34)		0.039 (0.76)	-0.004 (-0.09)	0.430*** (30.24)		-0.118** (-4.54)	-0.129*** (-5.39)	-0.145*** (-8.06)
Mid-Event		0.191*** (4.54)	0.175*** (4.00)			0.238*** (2.73)	0.235** (2.43)		
Post-Event		0.365*** (9.54)	0.359*** (8.93)			0.537*** (6.34)	0.547*** (5.79)		
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ind-Yr FE	N	N	N	Y	N	N	N	Y	Y
N	7,199	84,256	84,256	84,256	7,199	84,256	84,256	84,256	84,256
Adj. R2	0.883	0.927	0.927	0.928	0.868	0.872	0.872	0.875	0.876

Table 6
Subsidiary revenues

This table studies revenues around passage of the UK Bribery Act in a panel of firms (Columns (1)-(7)) and subsidiaries (Columns (8)-(9)) over the 2007-2012 period. In Columns (1)-(7), the dependent variable is the logarithm of revenues generated by firms' subsidiaries headquartered in OECD countries (Columns (1)-(3)), in non-OECD countries (Columns (4)-(6)), and in the 50 most corrupt countries by *Transparency International's Corruption Perception Index* in 2008 (Column (7)). Columns (8) and (9) consider subsidiary-level revenues of subsidiaries that existed since 2007. *Mid-event* is a dummy equal to 1 in years 2009 and 2010. *Post-event* is a dummy equal to 1 in years 2011 and 2012. UK is a dummy variable equal to 1 if a firm is headquartered in the UK. *Corruption exposure* combines, for each firm and year, subsidiary location data from Orbis with Transparency International's Corruption Perceptions Index (CPI). *Corruption exposure* is increasing in firms' exposure to high-corruption regions. Controls include the logarithm of total assets, firm fixed effects, and industry fixed effects multiplied by year fixed effects as indicated. Columns (1) and (4) consider firms headquartered in the UK; all other Columns consider all firms. Standard errors are clustered at the year and country level. *t*-statistics are given in parentheses; *, ** and *** denote significance at (respectively) the 10%, 5% and 1% level.

	LN(Firm revenues inside OECD)			LN(Firm revenues outside OECD)			TI<50	LN(Subsidiary Revenue)	
	(1) UK	(2) All	(3) All	(4) UK	(5) All	(6) All	(7) All	(8) All	(9) All
Mid * UK	0.357*** (4.62)	0.393*** (4.86)	0.345*** (4.35)	0.116*** (2.66)	-0.019 (-0.41)	0.003 (0.06)	-0.050* (-2.35)	-0.053 (-0.99)	
Post * UK	0.352*** (4.29)	0.015 (0.17)	-0.036 (-0.43)	0.163*** (3.48)	-0.149*** (-2.93)	-0.119** (-2.27)	-0.280*** (-6.28)	-0.145*** (-2.61)	
Mid-Event		-0.042* (-1.74)			0.134*** (7.60)			0.032 (1.11)	
Post-Event		0.340*** (13.54)			0.313*** (16.97)			0.041 (1.22)	
Mid * UK * CPI									-0.016 (-1.63)
Post * UK * CPI									-0.033*** (-3.87)
Mid * CPI									0.035*** (3.16)
Post * CPI									0.061*** (5.19)
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y	Y	Y	Y	N	N
Sub FE	N	N	N	N	N	N	N	Y	Y
Ind-Yr FE	N	N	Y	N	N	Y	Y	N	Y
Ctr-Yr FE	N	N	N	N	N	N	N	N	Y
N	7,199	84,256	84,256	7,199	84,256	84,256	84,256	784,464	784,464
Adj. R2	0.841	0.904	0.904	0.753	0.804	0.807	0.814	0.950	0.951

Table 7
Merger and acquisition (M&A) activity

In a panel of public firms, this table relates changes in the number of mergers and acquisitions (M&As) by target region (Panel A) and average deal values (Panel B) between 2007 and 2012 to firm characteristics. In Panel A, sample firms are firms that engaged in at least one M&A activity during the sample period; the number of M&As is set to zeros in years in which such firms do not conduct an M&A. The dependent variable is the logarithm of the number of M&A targets headquartered in OECD countries (Columns (1)-(3)) and non-OECD countries (Columns (4)-(6)). In Panel B, the sample consists of all M&A deals with non-missing deal value and with an acquirer that engages in at least 2 M&As over the sample period. The dependent variable is the natural logarithm of average deal value. For both panels, acquisition data is obtained from Zephyr. *Mid-event* is a dummy equal to 1 in years 2009 and 2010. *Post-event* is a dummy equal to 1 in years 2011 and 2012. UK is a dummy variable equal to 1 if a firm is headquartered in the UK. Controls include the logarithm of total assets, firm fixed effects, and industry fixed effects multiplied by year fixed effects as indicated. Standard errors are clustered at the year and country level. *t*-statistics are given in parentheses; *, ** and *** denote significance at (respectively) the 10%, 5% and 1% level.

Panel A: Average number of M&As

	LN(# Targets in OECD)			LN(# Targets outside OECD)		
	(1) UK	(2) All	(3) All	(4) UK	(5) All	(6) All
Mid * UK	-0.115*** (-3.99)	-0.018 (-0.71)	-0.013 (-0.43)	-0.044 (-1.24)	-0.066* (-2.09)	-0.076** (-2.68)
Post * UK	-0.094** (-3.12)	-0.031 (-1.05)	-0.027 (-0.87)	-0.048 (-1.06)	-0.051 (-1.32)	-0.058 (-1.43)
Mid-Event		-0.102** (-2.89)			0.001 (0.06)	
Post-Event		-0.065** (-2.82)			-0.007 (-0.59)	
Controls	Y	Y	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y	Y	Y
Industry-Year FE	N	N	Y	N	N	Y
N	2,006	16,675	16,675	2,006	16,675	16,675
Adj. R2	0.289	0.418	0.420	0.160	0.440	0.439

Panel B: Average deal values from non-OECD countries

	LN(Deal value OECD)			LN(Deal value non-OECD)		
	(1) UK	(2) All	(3) All	(4) UK	(5) All	(6) All
Mid * UK	-0.428 (-2.10)	-0.258 (-1.77)	-0.172 (-1.21)	0.177 (1.14)	0.323* (2.42)	0.317* (2.45)
Post * UK	-0.071 (-0.44)	-0.180 (-0.80)	-0.060 (-0.23)	0.406 (1.30)	0.633*** (7.07)	0.626*** (7.45)
Mid-Event		-0.107 (-0.90)			-0.045 (-1.53)	
Post-Event		0.066 (0.46)			-0.093*** (-4.85)	
Controls	Y	Y	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y	Y	Y
Ind-Yr FE	N	N	Y	N	N	Y
N	957	6,511	6,511	128	2,645	2,645
Adj. R2	0.623	0.638	0.645	0.772	0.468	0.464

Table 8
Joint venture (JV) activity

In a panel of public firms, this table relates changes in the number of joint ventures (JVs) by target region between 2007 and 2012 to firm characteristics. JV data is obtained from Zephyr. Sample firms are firms that engaged in at least one JV activity during the sample period. The dependent variable is the logarithm of the number of JVs with partners headquartered in OECD countries (Columns (1)-(3)) and non-OECD countries (Columns (4)-(6)), set to zero in years in which firms did not conduct a JV. *Mid-event* is a dummy equal to 1 in years 2009 and 2010. *Post-event* is a dummy equal to 1 in years 2011 and 2012. UK is a dummy variable equal to 1 if a firm is headquartered in the UK. Controls include the logarithm of total assets and firm fixed effects. Standard errors are clustered at the year and country level. *t*-statistics are given in parentheses; *, ** and *** denote significance at (respectively) the 10%, 5% and 1% level.

	LN(# Partners in OECD)			LN(# Partners outside OECD)		
	(1) UK	(2) All	(3) All	(4) UK	(5) All	(6) All
Mid * UK	-0.179 (-0.66)		-0.072 (-0.31)	0.166 (0.28)		0.144 (0.50)
Post * UK	-0.190 (-1.66)		-0.048 (-0.34)	-0.334 (-0.46)		-0.281 (-0.42)
Mid-Event		-0.059 (-1.01)	-0.045 (-0.67)		-0.019 (-0.11)	-0.032 (-0.21)
Post-Event		-0.126 (-1.42)	-0.118 (-1.19)		-0.042 (-0.28)	-0.031 (-0.17)
Controls	Y	Y	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y	Y	Y
N	197	2,250	2,250	197	2,250	2,250
Adj. R2	0.129	0.279	0.313	0.210	0.242	0.242

Figure 1

Newspaper articles around passage of the UK Bribery Act 2010

This figure plots the number of newspaper articles related to bribery regulation that were published in major UK newspapers around the passage (on 25 March 2009) of the draft of the UK Bribery Act 2010. The figure is based on a Factiva search in UK newspaper articles that include the term “bribery” and the term “United Kingdom” (or “Britain”) but do *not* include any of the terms “cricket”, “Olympic”, “football”, or “contract notice”. Newspaper articles that were published after 8 pm in the online version are dated to the following day; duplicate articles are omitted.

