Mass media effects on the production of information: Evidence from Non-Governmental Organization (NGO) Reports *

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Abstract

The media report news that in turn influences behaviors. This news is drawn from a set of available information. In this paper, we study how the set of information is "ex ante" affected by anticipated media coverages. First, we take an exogenous but anticipated shock of media coverage: Olympic Games and FIFA World Cups. Then, we estimate the effect of this media coverage shock on the production of reports by a publicity-seeking actor: NGOs. We use a unique database that collects NGO reports on a sample of 572 firms in 140 countries between 2002 and 2010. Those reports deal with firm practices, and tone of the speech of these reports is classified as "good" or "bad" for the reputation of the firm. We find that these media coverage shocks significantly impact the production of information. More precisely, stories that are substitute to sport news (reports on host and participant countries) are significantly less reported by NGOs, while the number of reports on complement to sport news (practices of sponsors) significantly increases. Further, in both cases bad reports overreact compared to good ones.

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JEL Codes: D83, L31, L82, M14

1 Introduction

Mass media play a crucial role in shaping the behavior of agents. Indeed, the information relayed by media is known to influence the creation of beliefs (Gentzkow and Shapiro, 2004), cognitive abilities (Gentzkow and Shapiro, 2008), voting behaviors (Gentzkow, 2006; Gentzkow et al., 2011; Snyder and Strömberg, 2010) or even the governmental relief to a natural disaster (Eisensee and Strömberg, 2007). While these *ex post effects* on the mass media audience has been well documented in the literature, little conclusive work has been produced on the effect of the anticipated media coverage on the behavior of publicity-seeking actors (*ex ante effects*). Because such agents try to maximize their probability to be relayed in the media, they are likely to adapt their behavior. Among these agents, terrorists are usually considered as an example of actors for which the mass media relay is an indispensable tool. Similarly, political parties are also known to adapt their decisions to the mass media agenda. Furthermore, Strömberg (2004a) theoretically shows that the mass media coverage should drive policy decisions taken by those parties. Publicity-seeking actors may also be agents that themselves disclose information, and need to be relayed in the media. It is the case of Non Governmental Organizations (NGOs), which, among other roles, audit firms and inform the public opinion on their practices.

The purpose of this analysis is to study the effect of the media coverage on the ex ante production of information by NGOs that, in turn, have to be relayed by the media. Our contribution is then to empirically measure and quantify the mass media effect on the production of information by a publicity-seeking actor. In other words, we focus on NGO contribution to the set of information that is available for journalists. More precisely, we study NGO disclosure of information on firm practices in terms of environmental, social or societal issues. In order to measure the media effect on the production of information by NGOs, we use exogenous and anticipated shocks of media coverage: Olympic Games and FIFA World Cups. Obviously, the media coverage of sport is influenced by reader attention for these news. Moreover, reader demand effects on media coverage strategies have been emphasized theoretically and empirically by respectively Mullainathan and Shleifer (2005) and Gentzkow and Shapiro (2010). In this paper we do not distinguish between demand and supply effects on the media coverage output.

The shocks we use in this paper, Olympic Games and FIFA World Cups are known to sub-

stantially affect the media coverage. First of all, Eisensee and Strömberg (2007) shows that sport news dramatically increases during Olympic Games. As a consequence, other topics are crowded out. Stylized facts presented in this paper emphasize that the media coverage of these sport mega-events has an impact on the newsworthiness of at least two players: host and participant countries[1] on one hand, and sponsor firms on the other hand. So we estimate the effect of media coverage shocks generated by sport mega events on the production of information concerning (i) firms located in host and participant countries versus firms in other countries, and (ii) sponsor firms versus other firms.

We observe a heterogeneity in the correlation of the newsworthiness between sport and host/participant countries on one hand, and sport and sponsor firms on the other hand. In fact, we document that, stories about sustainable development and environment in host/participant countries are less covered in the media during a sport mega-event. This pattern suggests that news about firm practices in host/participant countries are substitutes of sport news. Conversely, we know that sponsorship investments of firms generate a direct big shock in terms of image for them. Moreover, we document that the number of news related with firms in general during sport events decreases, but far less concerning sponsors. So we conclude that the newsworthiness between sport and sponsors is complementary. All in all, these stylized facts allow to distinguish between stories that are expected to be complements (news related to sponsors) and substitutes (news related to firms in host and participant countries) to sport news.

Then, we estimate the impact of these sport mega-events on the report activity of NGOs. First of all, we find that the worldwide number of NGO reports is not impacted by the occurrence of Olympic Games or World Cups. But going further, we show that (i) the number of NGO reports concerning substitute stories is significantly negatively influenced by sport mega-events, while (ii) NGO reports on complement stories dramatically increase. Thanks to these results, we argue that NGOs anticipate the high media coverage of sponsors and decide to disclose more information on them. Similarly, less newsworthy topics are also less reported by NGOs. It provides empirical evidence that the ex ante set of information is influenced by an anticipated and repeated large shock of media coverage.

Furthermore, we separately estimate the effect of the media coverage shock on the number

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[1]Rose and Spiegel (2011) and Bayar and Schaur (2013) show that Olympic Games and FIFA World Cups generate a boom in the visibility of host and participant countries.

of reports that are good and bad for firm reputation. We show that the number of good reports on firms located in host and participant countries is negatively and significantly impacted by the occurrence of Olympic Games and FIFA World Cups. Conversely, we find no significant impact on the production of bad reports. It means that the global negative effect on the number of reports on firms located in host and participant countries is driven by a decrease in the number of good reports. This asymmetric effect on the disclosure of good versus bad information is in line with the findings of Soroka (2006) that state that the news coverage is biased toward bad news and that, in turn, the public opinion also responds more to these bad news than to good ones. Then, our result suggests that, when the news space is constrained, the production of good news is far more affected than the production of bad news. We run the same exercise in the case of sponsor firms. We show that both good and bad reports are positively and significantly impacted by the media coverage shock, but that bad reports overreact compared to good ones. All in all, both country-quarter level and firm-quarter level analysis suggests that the share of bad NGO reports increases due to the media coverage shock.

NGOs are a big provider of information that is external to the media, which allows to capture their publications apart from the media relay. So here, we use the publication of their reports on their websites. Working with NGOs also has the advantage of avoiding to deal with media capture. Indeed, Besley and Prat (2006) theoretically emphasize the bias generated by the media capture of governments. This capture may exist because governments standardly own some of the media, or because they can change the regulation in favor or against the media industry. But they also derive a capturing power from the selective access they can offer to famous politicians. However, there is no reason to believe that NGOs (at least currently) enjoy the same opportunity to capture the media.

In this paper, we focus on NGO reports on firm practices in terms of social, environmental or societal issues. Data are provided by Covalence EthicalQuote, which records the publication of reports on NGO websites. Those reports concern 572 of the largest multinationals firms (in market capitalization terms) between 2002 and 2010. Particularly, we have information on the date, the firm targeted by the report, the country of occurrence of the event, and the tone of the speech. This dataset allows to precisely measure the number of reports published on NGO websites each quarter between 2002 and 2010. In other words, for each observation, we know

which firm is targeted, in which country, when it occurred, and whether it is good or bad for the reputation of the firm. So the content analysis of those reports is particularly convenient to identify the target behavior of NGOs.

Studying NGO reports is particularly convenient because they are a producer of information that is also a publicity-seeker. Indeed, NGOs are standardly defined as a *hard* information provider in the literature. In other words, they provide information that is verifiable and highly trustable, in opposition to *soft* information. In fact, one of the main issues related to firm practices is the huge asymmetry of information they generate. Indeed, while firms are considered to be aware of their practices, stakeholders hardly have access to precise and trustable information on it. In this context, NGOs are considered as a third party, working on the reduction of this information asymmetry. The media coverage of their reports is known to have an impact on their target choices through a change in both the probability of success of their action (e.g. the standard enforcement) and the donations and membership received by these organizations (see for instance Aldashev et al. (2013)). However, at the best of our knowledge, there is no empirical investigation showing that this media coverage drives NGO behaviors in terms of information disclosure. Arguably, we also contribute to the literature on NGO disclosure strategies, empirically showing that anticipated shocks of media coverage matter in the decisions of NGOs to relay information. Our result suggests that those organizations are rational agents which adapt their report strategies to the mass media agenda.

The impact of mass media coverage strategies on the ex ante provision of information by an external agent[2] is theoretically explored by Strömberg (2004a). The author shows that, because of the increasing return to scale structure of the media industry, the quantity of news relayed on a given story depends on the size of the group that is interested in reading news about it. Similarly, the information provided by a publicity-seeking agent, is biased toward stories that are read by large groups. Our results are in line with this theoretical prediction. Indeed, when a big shock of attention occurs, NGOs disclose more (less) information on stories of relatively high (low) interest for readers during this shock. Furthermore, we also use data on the public interest for sport among countries, and show that the decrease in the number of NGO reports about participant countries is driven by the interest of those countries for sport. More precisely, the number of NGO reports decrease in participant countries with a high interest for sport dur-

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[2]An external agent is here defined as an agent that is external to the media.

ing the event.

The paper is structured as follows. The second part of this paper gives some insight on the media coverage during sport mega events. In the third part, we present the dataset and the empirical strategy. In the fourth part, we present and discuss the results concerning the global number of NGO reports. The fifth section distinguishes the effect of the media coverage shock on the disclosure of information between stories that are classified as good news or as bad news. The last part of the paper concludes.

2 Olympic Games and FIFA World Cups: a media coverage shock

Generally speaking, "mega-events" such as Olympic Games or FIFA World Cups are world events which bring together the highest audience. Since a decade, this audience goes stronger and stronger thanks to the development of communication technologies as internet. The 2008 Beijing Olympic Games attracted one of the largest global TV audience ever with 4.7 billion viewers between August 8 and August 24. Furthermore, Eisensee and Strömberg (2007) clearly identify that Olympic Games generate a boom in the "Olympic" related articles. But this focus on the games is also associated to a particular focus on two groups of key players during sport-mega events: host or participant countries, and sponsor firms. We dedicate this section to document the media coverage of these actors between 2002 and 2010 (see Appendix B for more details).

Using a content analysis of newspapers in *Factiva*, we analyze the trend of the number of newspaper articles dealing with host/participant countries the months around a sport event for which they host or participate to this game. We observe a clear pattern: a boom of around 43 % (24 %) in the number of newspaper articles associated with the names of host (participant) countries during the month of the games, comparing to their media coverage six months before (see Figures 1 and 2). However, the average number of articles dealing with host (participant) countries and sustainable development and environment decreases of around 28 % (5%) during

the event (see Figures 3 and 4), compared to its level six months before. All together, we show that the focus on Olympic Games and FIFA World Cups is paired with an increase in the media coverage of host/participant countries, and a decrease in the news coverage of those countries concerning topics related to firm practices. It gives arguments in favor of a substitutability between sport news and news related to firm practices in host and participant countries.

We replicate this content analysis in *Factiva* collecting the number of newspapers including the name of the 572 firms of our sample. We observe that the number of articles concerning firms that are not sponsors decreases by more than 30% the month of the event, relatively to what is observed four months before (see Figure 5). However, the fall in the number of articles dealing with sponsors is only about 20% during this period, compared to its level four months before. In other words, we show that while the global media coverage on firms sharply falls, the decrease in the news articles about sponsors is lower and their relative relay is larger. It means that stories about practices of sponsors are complement to sport news.

3   Data and Empirical Specification

3.1   Data on NGO reports

We use reports on firm practices to analyze the change in NGO activity of information disclosure thanks to the Covalence EthicalQuote database. This dataset provides quarterly information on NGO reports about 572 multinational firms between 2002 and 2010. These firms are the largest in terms of market capitalization in sectorial Dow Jones indexes. Thus, we calculate the number of reports made by NGOs every quarter on each of these 572 firms in every country of the world. We focus on 140 countries for which we observe at least one report during the period (the reported country is the country of occurrence of the event). Covalence EthicalQuote gives information about the tone of the speech, classified as "good" or "bad" for the environmental, social or societal reputation of the firm. For instance, if a NGO publish a report on its website to emphasize that workers in Columbia end up with a hunger strike to claim about their working conditions in the Coca-Cola Company in March 2004, it is reported in our database as a "bad" NGO report in the first quarter of year 2004 concerning Coca-Cola in Columbia.

The database covers 5,596 NGO reports published by 1,045 NGOs on their websites con-

cerning 572 firms and 140 countries. Note that, by definition, following country-specific styl-ized facts depend on reports published on firms that are located in those countries, and not on domestic firms. Table 1 presents the share of reports in each region (OECD versus the Rest of the World) and in the ten largest countries in terms of NGO reports. The USA is the coun-try where we observe the most reports, and the Czech republic or Slovakia are at the bottom. 69.25% of the total number of reports are bad for firm reputation, but this figure is an umbrella that conceals a huge heterogeneity. OECD countries attract 40.26% of the reports during 2002 and 2010. The share of good reports is higher in this group of countries (40.25%) than in the rest of the world (23.21%). The UK has the best average firm practice reputation (good reports represent 50.54% of the total number of reports in this country) in the sample of the ten largest countries in report volume. But other countries have an even better average index of reputation, as Netherlands (90%) or Japan (67.06%). At the bottom, Niger, Saudi Arabia and Cuba have no reports that are classified as good for firm reputation. In this short list of largest countries in news volume, Nigeria is the worst with a score of 8.51% of good reports.

3.2 Estimation Framework

In this paper, we focus on both country-specific and firm-specific patterns. It means that we aggregate our data at (i) the country-quarter level and at (ii) the firm-quarter level.[3]

Country-Quarter Analysis

The first part of our empirical strategy aims at estimating whether the media coverage during a big event leads to a change in NGO report activity in host and participant countries. We estimate the following reduced-form:

$$ln(Reports_{it}) = \gamma_0 + \gamma_1 Sport_{it} + \mathbf{Ctrl} + \alpha_\mathbf{i} + \epsilon_\mathbf{it}, \tag{1}$$

where the dependent variable $ln(Reports_{it})$ measures the log of the total number of NGO reports for country i and quarter t. The dummy variable $Sport_{it}$ is alternatively $Host_{it}$ and

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[3]For the first aggregation, it means that we collapse firm and NGO dimensions. The unit of observation becomes country-quarter. For the second aggregation, we collapse country and NGO dimensions. The unit of observation here is firm-quarter.

$Participation_{it}$.[4] $Host_{it} = 1$ ($Host_{it} = 0$) indicates that country i hosts (does not host) a sport mega event at quarter t, and $Participation_{it} = 1$ ($Participation_{it} = 0$) that country i participates (does not participate) to a sport mega event during quarter t. We first include country fixed effects, α_i, in order to control for time-invariant country-specific characteristics and to control for unobserved heterogeneity across countries. We also include alternatively other regressors (**Ctrl**) to reduce the omitted variables bias that can drive our result. More precisely, we first run a difference-and-difference model with the inclusion of quarter fixed effects that control for time-specific shocks common to all countries. Second, we add alternatively to quarter fixed effects season fixed effects to control for the seasonality that is observed in our data. It absorbs seasonal worldwide changes.

But the inclusion of time (quarter or season) fixed effects do not absorb heterogeneity arising from trends in the evolution of country characteristics or NGO activism. We argue that economic development process, the increase in education level, the improvement in institutional quality or the democratization process matter to estimate a causal link between the coverage strategies of media and NGO activities. We include alternatively country-specific time (quarter or season) trends to control for heterogeneity arising from trends (which are not captured by time fixed effects). In our main specification, we do not add other control variables to the model in order to avoid the "bad control" problem (Angrist and Pischke, 2009).[5] We then estimate the effect of the media coverage of hosting or participating to a sport mega event on the number of NGO reports in this country using an ordinary least square estimator. All specifications present robust standard errors that are clustered at the country level.

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[4]A continuous variable of media coverage could have been picked up instead of a dummy variable for host and participating countries. There are three main reasons for us to build up our identification strategy on a dummy variable. First, an exhaustive information on the number of articles of newspaper related to the events and to host and participant countries would be necessary. It means that we would have to create an exhaustive list of country-specific keywords (in different languages) in order to cover all sports, players or teams. The building of this list would be highly arbitrary and questionable. Second, we claim that the behavior of NGOs is mainly driven by the anticipation of big events. By construction (and definition), the country-specific continuous variable is impacted by the (unanticipated) performance of its teams and players. As a consequence, it doesn't allow to distinguish between the effect of anticipated and unanticipated media coverage shocks. Third, a continuous variable would be suspected to be endogenous (reverse causality issue). Indeed, the construction of this measure would capture the media coverage of NGO reports.

[5]See section 3.2.3. Many variables that we may want to add are themselves outcome variables of mega-sport events. We know that mega-sport events drive government behavior (Eisensee and Strömberg, 2007) or national imports (Rose and Spiegel, 2011), exports (Bayar and Schaur, 2013) or economic development, for instance. The estimated coefficient of $Sport_{it}$ will capture the effect of $Sport_{it}$ on NGO reports for a given level of trade or GDP level, for instance. It makes it difficult to interpret our result as a causal link.

The coefficient γ_1 is associated to the effect of $Sport_{it}$ on NGO reports. If $\gamma_1 = 0$ (non significant effect), it means that these media coverage shocks have no impact on the report activity of NGOs. On the contrary, if γ_1 is significantly different from 0, it provides empirical evidence that the ex ante set of information is influenced by an anticipated and repeated large shock of media coverage. More precisely, if $\gamma_1 < 0$ (and significant), it supports the idea that substitute stories to sport news are also less reported by NGOs during the media coverage shock. Otherwise, if $\gamma_1 > 0$ (and significant), it means that substitute stories to sport news are more reported by NGOs. This result would be highly surprising regarding media coverage patterns presented in section 2, and would suggest that NGOs are not rational.

We go further also in estimating separately the effect of $Sport_{it}$ on i) NGO reports that are "good" for firms reputation, and ii) NGO reports that are classified as "bad". We estimate the two following equations

$$ln(GoodReports_{it}) = \delta_0 + \delta_1 Sport_{it} + \mathbf{Ctrl} + \alpha_\mathbf{i} + \omega_\mathbf{it}, \tag{2}$$

$$ln(BadReports_{it}) = \lambda_0 + \lambda_1 Sport_{it} + \mathbf{Ctrl} + \alpha_\mathbf{i} + \upsilon_\mathbf{it}, \tag{3}$$

where $ln(GoodReports_{it})$ $(ln(BadReports_{it}))$ measures the log of the total number of good (bad) NGO reports. We include the same set of control variables than in equation (1). This analysis allows to differentiate the global result in the first empirical part. Such a work is motivated by the literature emphasizing asymmetric responses of both the media and the public opinion to good versus bad news. The main finding of the literature is that bad news are more relayed in the media and affect more the public opinion than good ones (Sokora, 2006). If NGOs internalize this pattern in their strategies, we expect them to give priority to bad reports. In such a case, NGO bad reports should over-react comparing to good ones ($\lambda_1 > \delta_1 > 0$ or $0 > \lambda_1 > \delta_1$). We present and discuss in more details our interpretation of the results in the light of this literature in the following section.

Firm-Quarter Analysis

The second set of estimations captures the effect of the media coverage shock on the NGO report activity on firms which are sponsor of a sport mega-event. In other words, we study whether

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the sponsorship activity during a sport media coverage shock could influence the firm-specific information disclosure of NGOs. We now aggregate our initial dataset at the firm-quarter level[6] and we estimate the following equation:

$$ln(Reports_{jt}) = \beta_0 + \beta_1 Sponsor_{jt} + \mathbf{Ctrl} + \theta_{\mathbf{j}} + \eta_{\mathbf{jt}} \qquad (4)$$

$ln(Reports_{jt})$ is the log of the total number of NGO reports at quarter t concerning firm j in any country of our sample of 140 countries. $Sponsor_{jt}$ captures the effect of "being a sponsor of a sport mega-event". $Sponsor_{jt} = 1$ ($Sponsor_{jt} = 0$) indicates that firm j is (is not) the sponsor of a sport mega event at quarter t. We add regressors that are sector specific or time specific ($\mathbf{Ctrl}$). We include sector fixed effects to control for time-invariant sector-specific characteristics. It absorbs sectorial specificities, as the fact that activities linked to natural resources extraction are more targeted by NGOs than activities of information and communication. We also use time specific variables such as quarter fixed effects, common time trend to capture time heterogeneity arising from time trend or common shock. Finally, we introduce sector-specific time trends to absorb heterogeneity arising from sector trend differences.

Our interpretation of the results is very close to the one of the country specific estimation: a (non) significant result would mean that the disclosure activity of NGOs is (not) impacted by a change in the media exposure shock. A positive (negative) result would suggest that stories that are complement to sport news are more (less) disclosed when the media coverage of sport news is very large. We also distinguish between good and bad reports in the following estimations:

$$ln(GoodReports_{jt}) = \chi_0 + \chi_1 Sponsor_{jt} + \mathbf{Ctrl} + \theta_{\mathbf{j}} + \xi_{\mathbf{jt}} \qquad (5)$$

$$ln(BadReports_{jt}) = \eta_0 + \eta_1 Sponsor_{jt} + \mathbf{Ctrl} + \theta_{\mathbf{j}} + \zeta_{\mathbf{jt}} \qquad (6)$$

Once again, the literature on the asymmetry between good and bad news suggests that we should observe a differentiated effect on good and bad information disclosure. So we compare χ_1 and η_1 and test whether they are significantly different or not.

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[6]In this exercise we do not focus anymore on a country analysis.

3.3 Stylized facts for country-quarter pairs and firm-quarter pairs

In the first part, our main explanatory variable is the hosting of World Cups and Olympic Games, during the period 2002-2010. The International Olympic Committee (IOC) and the Federation Internationale de Football Association (FIFA) are in charge of the attribution of Olympic Games and World Cup, respectively. We cover 9 events: two Summer Olympic Games (Greece 2004 and China 2008), three Winter Olympic Games (USA 2002, Italy 2006 and Canada 2010) and three World Cups (Korea and Japan 2002, Germany 2006 and South Africa 2010). Table ST1 sum up the list of host countries between 2002 and 2010. Then, we also use a second set of explanatory variables: the participation to a World Cup. 32 countries participate to World Cups and the country list for each event is presented in Table ST2. The number of NGO reports by country-quarter pair (see Table 2) is very heterogeneous, with a mean of 4.36 and a standard deviation of 7.1, and a median number of reports of 2. The maximum number of country-quarter specific NGO reports is 80 and it is observed in the USA at the second semester of 2005. As we already mentioned, most of the reports are bad for firm reputation, and this pattern is also reflected in the number of country-quarter good and negative reports. More precisely, the average number of good and bad reports are respectively of 1.34 and 3.02 with a standard deviation of 3.01 and 5.1.

The second set of estimations mainly uses a sponsorship dummy variable at the firm-quarter level. The list of firms in our sample that are sponsors is detailed in Table ST3. For each sport event, we find between 7 and 12 firms in our database that are sponsors. The number of NGO reports by firm-quarter pair is also very heterogeneous: the mean number is 0.22, with a standard deviation of 0.80. The maximum number of reports (17) is recorded for two firms, Chevron and Exxon Mobil at the second semester of 2005. The number of bad reports by firm-quarter pair is also larger (mean: 0.15, standard deviation: 0.66) than the number of good reports (mean: 0.07, standard deviation: 0.31). All of these firm-quarter specific stylized facts are sum up by Table 3 .

4   Effect of media coverage shocks on NGO reports

4.1   Impact on host countries

Main Results

We have documented in section 2 that stories about host countries are substitute to sport news. So we estimate whether the anticipated low media coverage of host country related stories affects the information disclosure of NGOs concerning those countries. As we already mentioned, we use NGO reports on firm practices and in this subsection, we focus on country-specific reports, defined as reports targeting firms located in a given country. In other words, we first estimate the change in the number of NGO reports published on firms located in host countries that is explained by the fact that the country is hosting a sport event (equation 1).

We now present our main results in Table 4. In the first column, we run a difference-in-difference model with the inclusion of country and quarter fixed effects. By including country fixed effects, the empirical model exploits the within-country impact of hosting a mega sport-event overtime and controls for time invariant country-specific unobserved heterogeneity. The quarter fixed effects control for time-specific shocks common to all countries. The effect of hosting a big event on the level of NGO reports is significantly negative. In other words, it provides empirical evidence that the ex ante set of information is influenced by an anticipated and repeated large shock of media coverage. As shown by Eisensee and Strömberg (2007), there is also seasonal variation in news competition. In column (2), we control for that by including season fixed effects instead of quarter fixed effects. In column (3), we consider that the seasonal variation in news competition could be country-specific. The inclusion of country-specific season fixed effects do not affect our results. As underlined previously, the inclusion of time (quarter or season) fixed effects control partially for heterogeneity arising from trends in the evolution of country characteristics or NGO activism. In column (4), we add a common time trend to control for economic development or democratization process that can trigger both the coverage strategies of media and NGO activities for instance. Our results are broadly unchanged to the inclusion of country-specific time trends (columns 5), which control for the heterogeneity arising from country-specific trends. So we argue that hosting a big event reduces the number of NGO reports concerning firms located in the country, during the quarter of the

event. It means that media coverage shocks generated on host countries related stories during a sport mega event reduce by 44% the number of NGO reports. In other words, our result suggests that stories that are substitute of sport news are also less reported by NGOs.

Robustness Checks

Nevertheless, we present the estimation of equation 1 but including country-specific control variables in Table ST4 in Appendix. Of course, we note that these variables may be influenced by the anticipation of the game, and then they might biased all estimated coefficients (Angrist and Pischke, 2009). We choose to include the log of the GDP per Capita, that is by definition correlated with the economic activity and may positively influence NGO reports (size effect). But it is also positively correlated with the level of norms implemented in countries. Given the fact that 69.25% of the reports in our database are bad for firm reputation, we have no clear expectation on the sign of the coefficient of GDP per Capita. Similarly, we include the log of the population that captures the effect of the country size and a Trade Openness index. We finally add a measure of democracy (Polity 2) and a global index of institution quality (ICRG). We find no significant effect of these variables, but of institution quality. Indeed, we observe that better institutions affect positively and significantly the number of NGO reports on firm practices. However, when we observe in more details the effect of institutions related to the freedom of media, we do not find any evidence that they affect NGO reports, except for Civil Liberties.

To test the robustness of the significant negative impact of hosting, we realize four falsification exercises. The idea is to test whether our result might be due to luck or to some patterns in the data that are not explained by the hosting of a mega sport-event.[7] Table ST18 in Appendix sums up the results of this subsection. It also points out that in each case, more than 80% of the coefficients obtained with false $Host$ dummies are no significantly different from zero (with a level of significance at 10%). Similarly, the share of negative and significant coefficients obtained in each exercise is between 11.50% (in the full randomization case) and 5.20% (in the shift exercise). So we argue that our result is not due to luck or to some pattern in the data.

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[7]We run 1,000 regressions drawing randomly the variable $Sport_{it}$, using a uniform probability of draw. We then create a dummy variable equal to one when the pair has been chosen, and zero otherwise. We use this new dummy instead of the true "sport game host" variable. We run our benchmark regression (with country and country-specific quarter trends) with this new *Host* variable.

We observe that the number of observations broadly varies across countries. As a consequence, we run a weighted regression where the weight denotes the inverse of the probability that the observation is included because of the sampling design. We find that our results hold. Our results are broadly robust to the use of a Tobit terminology defined with a left censure at zero instead of an OLS.[8] Results are unchanged if we aggregate the original data at the country-year level instead of the country-quarter level. This result means that the year of the game there is no significant reallocation of NGO efforts on quarters that are before or after the occurrence of the game. Furthermore, we include lag and forecast variables in our country-quarter main specification and find that our result holds (Table ST6). We also find that the quarter following the event is also negatively and significantly impacted by the media coverage shock of the sport event. We now test the robustness of our result to the exclusion of the most influential observations (country-quarter pair in our case). We identify two and three standard deviation outliers and therefore drop them from our main specification. Results are unchanged and are presented in Table ST5 in the Appendix.

All these exercises show that the fall in NGO reports in host countries during the quarter of the event is robust, and particularly to the inclusion of omitted variables or to the "luck" hypothesis. If our result is explained by an anticipation by NGOs of the weak relay of host country related stories in the media, we should observe a similar result estimating equation (1) with the country-specific participation to the sport event as the main explanatory variable. We explore the effect of the media coverage shock linked to the participation to a sport mega-event on the number of NGO reports in the following subsection.[9]

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[8]Results are not shown here but are available upon request.

[9]We consider also the effect of the candidature to a big events or the choice of the country for the organization. In both cases, the effect is not significant on NGO reports (Table ST16 in Appendix). During the candidature or the choice, the media coverage is substantially lower than for the big event organization. These results confirm that NGO behavior is driven by large media coverage. We test also if the political election in a country can have the same effect as sport mega event (column 2, Table ST17 in Appendix). The effect is not significant. The literature highlights the link between the policy life cycle and NGOs activities life cycle. The authors points out that NGOs have some incentive to spread information before elections to increase their impact on the society. Therefore, we do not enter in more details with this type of shock. For comparison with other (unexpected) shocks proposed by the literature, we focus also on the effect on natural disasters effect on NGO behavior. The effects are not significant (columns 3 to 5).

4.2 Participating Countries

Main Results

Given the significant negative effect of the media coverage shock on reports on host countries, we expect a similar negative impact on reports on participant countries. Indeed, it should be more difficult to have a hearing when reporting on firms located in countries for which the national team is playing during a sport event. Unfortunately this intuition can only be tested for countries that participate to World Cups because almost all countries are participant to Olympic Games. We show that the participation to a World Cup reduces the number of NGO reports on firm practices in countries that are engaged in such events (column 1 in Table 5, which includes country fixed effects and country-specific time trends). The negative effect on participant countries is lower than the effect observed on host countries with a coefficient of -0.127 and -0.444 respectively.[10] The media coverage shock generated for a participant country reduces by 13% the number of NGO reports the quarter of the event.

Similarly, we now estimate an unanticipated shock of media coverage, that comes from the performance of the national team during the World Cup: the effect of playing an eighth-final, a quarter-final, a semi-final or the final. Indeed, while host countries and participants are known before the beginning of the game, at least some uncertainty remains for national teams concerning their qualification in finals. The intuition is that a good performance during a FIFA World Cup may provide less incentives to report on firm practices in the country because those news are substitute to sport news. We also find that the better the performance of a country in finals, the larger the negative effect on NGO reports on firms located in this country. This is explained by the fact that the media coverage of team and players is higher when the country is far away in the competition. Table 5 shows that the eighth-final participation of World Cup reduces the number of NGO reports by 24% (column 2). The effect is larger than in the participation case (in Table 5 column 1). This is also the case for countries qualified to the quarter-finals, the semi-finals and the final (Table 5 column 2 to 4). Coefficients are increasing and significantly different from column to column. These results confirm that the media coverage of sport events has a negative impact on the number of information disclosures on firm practices in countries that are engaged in such events.[11]

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[10]Coefficient differences are significantly different from zero.

[11]We consider also the participation to another sport event with Rugby World Cups (see column 1, Table ST17

Robustness Checks

The effects of the participation and the performance during a FIFA World Cup are robust to the inclusion of quarters fixed effects, season and season-country specific fixed effects and common quarter time trends (Table ST7 in Appendix). These results are also robust in the case of annual data or Tobit methodology (Results not shown here). They also still hold when we include lag and forecast of the participation dummies, and we also find that NGOs report less the quarter following the sport event. We include country-specific characteristics as the GDP per Capita, population, openness to trade, an index of democracy and of institution quality. Table ST8 shows that our results still holds when we include those variables. The same conclusion appears when we include measures of freedom of press and freedom of speech (Table ST9). Again, one can argue that our results on the participation is driven by some influential observations (country-quarter pair in our case). In other words, the results may be very sensitive to the inclusion/exclusion of a small number of observations. We identify two and three standard deviation outliers and therefore we drop them in our main specification. Results are unchanged (Table ST10 in Appendix).

Further Analysis

We argue that the number of NGO reports in participant countries is negatively influenced by the participation of the national team to a FIFA World Cup. The intuition is that NGOs anticipate that the media coverage of reports on firm practices is negatively affected by the large sport media coverage, because stories about participant countries (except for sport related stories) are substitute to sport stories. If this explanatory channel is verified, we should observe a similar negative effect of the interest for soccer on the number of NGO reports in participant countries. Indeed, during a World Cup, the media coverage of soccer should be larger the higher the interest of the public opinion for soccer news. The impact of the interest for soccer on NGO reports is presented in Table ST12. We choose five proxies of the country-specific public interest for soccer. In column (1), we interact the number of World Cups won in the past (since the creation of the World Cup) with the participation dummy.[12] We find that the effect of

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in Appendix). The effect is negative as expected even if Rugby cannot be considered as a worldwide sport and whether the popular movement is weaker than for FIFA World Cups or Olympic Games.

[12]Country fixed effects absorb the variable of the number of World Cups won. In our sample, France and United Kingdom won once the World Cup, Argentina and Uruguay won twice the World Cup, Germany won three time

the participation becomes insignificant, while the interaction term between the participation and the number of World Cups won is negative and significant. Then, in column (2) we introduce the number of soccer clubs in each country divided by the population of the country, interacted with the participation to a World Cup. The limit of this variable is due to the fact that the mean number of clubs per capita is 0.14 with a standard deviation of 0.019. So the variability of this measure is very weak. We find no significant result with this proxy, and the negative impact of the participation variable still holds. In column (3) to (5), we introduce more direct measure of the public interest for sport or soccer. Indeed, we use the score to questions about sport in the International Social Survey Programme (ISSP) Leisure Time and Sports module. This survey covers only 34 countries in 2007, so we loose a large share of our sample when we include these variables.[13] The first question of this survey we use is "What sport do you watch on TV most frequently?", and we measure the proportion of people in each country that answer "soccer". Then, we use the share of people in a country that believe that there is too much sport on TV. And finally, we measure the share of people that are proud of their country when their national team win a sport competition. We find evidence that these measures negatively influence the reports of NGO during sport mega-events. However, this result is not always significant. All in all, NGOs report less in countries with a strong culture of sport and more precisely football/soccer. NGOs anticipate that stories that are substitute to sport news will be less reported by media when the media coverage of sport is very large. This effect is higher in country with a strong culture of sport. Results are broadly unchanged if we consider the performance of a country during a FIFA World Cup instead of the participation (see column 6 to 10 for eight finals).

4.3 Sponsor effect

Main Results

Previous results underline that hosting and participating to a sport event reduces the number of NGO reports concerning firms located in such countries, during the quarter of the event. In other words, our result shows that stories that are substitute to sport news are less reported by

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the World Cup, Italy four times the World Cup and Brazil won five times the World Cup.

[13]This survey is just available for one year but we consider that answers are constant over time in our sample. In other words, we attribute to each country, the value of 2007 for all years of our sample. Country fixed effects absorb the variable of ISSP which are constant over time.

NGOs. It also suggests that we should observe a positive effect on reports about stories that are complementary to sport news. We now focus on the effect of the media coverage shock generated by the sponsorship activity of the firm during a sport event on the number of NGO reports. As a consequence, the unit of observation is now the firm-quarter level.

Table 6 presents our results of the estimation of equation 4. We first control for the cross sectoral differences in the NGO reports[14] and for common quarter shocks with the inclusion of sector and quarter fixed effects, respectively. The number of NGO reports increases by 21% for sponsors of a sport events in comparison to firms that are not sponsor. It suggests that stories that are complementary to sport are more disclosed when sport is more covered by the media. Thanks to these results, we argue that NGOs anticipate the change in the media coverage of sponsors during the event and decide to disclose more information on them. In other words, it provides empirical evidence that the ex ante set of information is influenced by an anticipated and repeated large shock of media coverage. Our result is robust to many different specification. We first consider that the evolution of sector characteristics may move over time and influence NGO activism (such as a progressive adoption of technology that are more respectful of the environment). We include sector-specific time trends with sector fixed effects in column (2). We add also sector fixed effects, quarter fixed effects and sector-specific time trends (column 3). Results are unchanged. We alternatively consider the hypothesis that omitted time-invariant firm-specific characteristics can drive our results. Then, we include firm fixed effects (columns 4 to 6). By including these firm fixed effects, we exploit the within-firm impact of the media coverage shock generated by the sponsoring during a the sport event over time. We show that NGOs decide to disclose more information on sponsors during sport events: the number of NGO reports increases by around 10% for those firms in comparison to firms that are not sponsor.

Robustness Checks

The positive effect of the sponsorship on the number of NGO reports is robust to the inclusion of firm characteristics. We use here the logarithm of the annual sales, operating revenue and total assets of firms.[15] These variables allows to control for size effects and may impact the report activity of NGOs. We find that these firm-specific size proxies have a positive impact on the

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[14]The average number of NGO reports between 2002 and 2010 by firms in the *Mining and Quarrying* industry is about 20, while it is around 3 in the *Information and Communication* or *Financial and Insurance* sectors.

[15]Those variables are provided by the *Orbis* database.

number of NGO reports in the within sector analysis (Table ST13 in Appendix, columns (1) and (2)), and a negative but no robust impact in the within firm analysis (Table ST13 in Appendix, columns (3) and (4)). However, they might also influence and be influenced by the sponsorship activity of the firm, which might biased all estimated coefficients (Angrist and Pischke, 2009). As in the country-quarter analysis, our results may be driven by some influential observations (firm-quarter pairs in our case). We again identify two and three standard deviation outliers and therefore we drop them in our main specification: results are unchanged (Table ST14 in Appendix). Finally, we add lag and forecast of the sponsorship dummy variable to our main specification, with sector fixed effects, quarter fixed effects and sector-specific time trends. We find that the positive and significant effect of the sponsorship media coverage effect holds, and that NGO also report more the quarter before the event (Table ST15 in Appendix).

4.4 Discussion

We conclude this section by arguing that the production of information about complements and substitutes to sport news is significantly influenced by the sport media coverage shock. The only potential mechanism that drives this result is the anticipation by NGOs that complements (substitutes) have a higher (lower) probability to be relayed in the media during sport events. This mechanism may be explained by the increasing return to scale of the media industry emphasized by Strömberg (2004b). Indeed, in such a framework, highly newsworthy stories, as sport news, are highly covered by the media; and other stories have a lower probability to be relayed.

But the limited attention mechanism also provides a good explanation to this phenomenon. Indeed, works in psychological research highlight that there is a limit in human capacity to attend different issues. Weber (2006) defines human being as "an information processor with finite attention and memoir". Furthermore, this finite attention on information is also relevant in terms of the number of problems that can be addressed. It is summed up in the concept of a "finite pool of worry" (Marx et al. (2007), Weber (2006)). Similar patterns are observed in the content of newspapers, TV and radio broadcasts. In other words, the human finite attention is clearly observable in the media, that also provide a finite information space. Djerf-Pierre (2012) explains that "news attention is a zero-sum game" in the sense that a boom in the news

on a given topic is allowed by a decrease in other news attention. This phenomenon generate then a competition among issues. Using Swedish television news reporting over 30 years, she provides empirical evidence that environmental news are crowed out by news about economics or conflicts. In the economics literature, George and Waldfogel (2006) find empirical evidence of issue competition between local and national/international news. They argue that growth of national media (e.g. The New York Times) cause substitution away from local news sources. They find that in area where the New York Times expanded, readership of local newspapers fell among educated readers. Eisensee and Strömberg (2007) sheds light on issue competition in the US news broadcasts. They study the relief of the US government in case of natural disaster abroad, as a function of the news volume about these events in the US. They find that some particular news i) create a crowding out effect for news related to natural disaster, and then ii) decrease US governmental reliefs. In other words, they show that the relief of the US government will be smaller in times characterized by a surge in attention for other news (that are unrelated to the disaster). In particular, they find that Olympic Games are the best example of events generating crowding out effects on other news, and in particular on natural disaster news. Both mechanisms (i.e. the cost structure of the media industry and limited attention) may also be reinforced by social interactions among agents, as developed in Aldashev (2010). Indeed, agents not only have an incentive to get informed about sport news because they like it, but also because it increases their utility through the social interactions it generates within their network, or expanding it.

5   Effect of media coverage shocks on the tone of the speech

The previous section studies the change in one aspect of the set of information: the number of reports on different targets (host and participant countries, and sponsors). We now address the potential change in the tone of the speech of these NGO reports, that would be explained by the media coverage shock. Soroka (2006) investigates asymmetries in the media coverage and public response to good and bad economic news.[16] He uses a text analysis based on *The Times*

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[16]Similarly, scholars in psychology highlight that responses to good and bad news are standardly asymmetric: bad news are known to affect more believes than good ones. Works in political science also show that bad news influence more voting behavior, and US presidents have been more penalized for bad decisions than they were rewarded for good ones. The mass media literature highlight that violent crime, conflict and crisis are overemphasized, and that we observe a larger coverage of bad economic news than good ones. Similarly, in economics agents

between 1986 and 2000 and finds that i) the media coverage is driven towards bad economic news and ii) public opinion also responds more to these bad news. Assuming that NGOs integrate that the tone of the speech of their reports also influences their media coverage, it might impact their propensity to publish good and bad news.

5.1 Host and participation effect

We estimate the impact of the media coverage shock generated on host countries on (i) good reports and (ii) bad reports. We observe that the change in NGO reports is not the same considering both types of reports, as presented in Table 7. More precisely, the share of bad NGO reports on firms located in these countries increases (column 1). Indeed, good NGO reports are negatively and significantly affected by the media coverage shock (column 2), while bad reports are not (column 3). In conclusion, the negative effect generated by the media coverage shock on host countries is driven by a decrease in the news that are classified as "good for firm reputation".

Furthermore, the lack of impact on bad NGO reports allows to reject the hypothesis that a change in the freedom of speech of the host country or in the monitoring of firms (due to the sport event) explains the decrease in the total NGO reports. Arguably, because sport games are anticipated by governments and firms, we could have expected to observe a decline in the access to information in host countries. Similarly, firms might have improve their practices. But these mechanisms would have negatively affect news that are bad for the reputation of firms. However, we find that bad news are not significantly impacted and then we do not go further in this debate.

Similarly, we present in Table 8 the effect of the participation on both positive and negative reports. We find the same result than in the case of host countries: the number of good reports is negatively and significantly influenced by the participation, and bad reports are not significantly impacted.

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are standardly assumed to be risk or loss adversed. The Prospect Theory developed by Kahneman and Tversky (1979) shed lights on the fact that behaviors are more affected by a potential loss in utility than by a potential gain.

5.2 Sponsorship effect

We now focus on the potential differentiated effects on good and bad reports concerning sponsors. The unit of observation is now the firm-quarter level. Table 9 presents our result. In columns (1) and (2), we control for sector fixed effects, quarter fixed effects and sector-specific time trends. The effect of the media coverage of sponsors is positive and significant on both the number of good (10%) and bad NGO reports (14%). The difference between these two effects is significantly different from 0. Similarly to our findings in the country-quarter level analysis, we find that bad reports overreact to the media coverage shock compared to the response of good reports. However, this result does not hold when we introduce firm fixed effects, quarter fixed effects and firm-specific trends.

6 Discussion and Conclusion

The empirical evidence we present in this paper suggests that publicity-seeking actors adapt significantly and in a large magnitude their behavior to a media coverage shock. Quantitatively, the number of country-specific NGO reports, on average, decreases by around forty-four percent when the country is hosting a sport event. Similarly, the number of NGO reports on participant countries falls by around thirteen percent during FIFA World Cups. On the contrary, stories that appear to be more covered during sport events, news about sponsors, are more reported by NGOs by around twenty-one percent. We argue that the only potential mechanism is that NGOs are rational agents that anticipate the change in the media relay for such stories. In all of these three cases, the share of bad reports in the total number of NGO reports increases substantially. We are then confident that other mechanisms potentially driving NGO reports, i.e. the access to information and firm practices themselves, cannot drive our result. If the anticipation of such events by governments and firms both worsens the access to bad information and creates incentive for firms to adopt better practices, then we even underestimate the media coverage effect on the production of information by NGOs.

All in all, we find that big media coverage shocks lead to a change in the set of information that is available for journalists, both in terms of topics and in the tone of the speech. This finding raises concerns about the effect of the media in the information disclosure process. Indeed, in

the particular case we study here, NGOs and the media are the only actors that make people aware of firm practices. This information asymmetry is obviously enhanced in a world where firms produce, employe people and potentially pollute in countries that are far away from the location of their consumers. In like-wise situations of information asymmetry, we argue that the expected media coverage creates deep distortions in the target strategy of information disclosers.

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7 Tables

Table 1: Descriptive Statistics of NGO Reports by Country

Country	# of NGO Reports	World Share of NGO Reports	Share of Negative NGO Reports
World	5597	1	0.69
OECD	3119	0.56	0.77
ROW	2478	0.44	0.60
USA	1248	0.22	0.61
India	331	0.06	0.80
China	309	0.05	0.74
Indonesia	195	0.03	0.90
South Africa	188	0.03	0.76
Nigeria	188	0.03	0.91
United Kingdom	184	0.03	0.50
Brazil	173	0.03	0.55
Canada	170	0.03	0.57
Mexico	168	0.03	0.74

Note: This table reports descriptive statistics for the World, the OECD, the Rest of the World (ROW) and the 10 countries with the highest level of NGO reports. Column 1 gives the total number of NGO reports over the 2002-2010 period, column 2 gives the share of each country on the total number of NGO reports and column 3 indicates the share of negative NGO reports. Data come from the $CovalenceEthicalQuote$ database.

Table 2: Descriptive Statistics of NGO Reports by country-quarter pair

	Mean	Std. Dev.	Min	Max
# of NGO Reports	4.36	7.1	1	80
# of Negative NGO Reports	3.02	5.1	0	63
# of Positive NGO Reports	1.34	3.01	0	27

Note: This table reports descriptive statistics for the number of total, negative and positive NGO reports. The number of observations is 1284 for each variable. Data are based on authors' calculations from the $CovalenceEthicalQuote$ database.

Table 3: Descriptive Statistics of NGO Reports by firm-quarter pair

	Mean	Std. Dev.	Min	Max
# of NGO Reports	0.20	0.77	0	17
# of Negative NGO Reports	0.15	0.66	0	16
# of Positive NGO Reports	0.06	0.27	0	5

Note: This table reports descriptive statistics for the number of total, negative and positive NGO reports by firm-quarter pair. The number of observations is 20412 for each variable. Data come from the $CovalenceEthicalQuote$ database.

Table 4: Level of NGO Report and Sport Event Hosting

Dependent Variable:	Level of NGO Reports				
Specifications	(1)	(2)	(3)	(4)	(5)
$Host$	-0.548**	-0.478**	-0.476**	-0.500**	-0.444**
	(0.223)	(0.191)	(0.236)	(0.209)	(0.185)
Country FE:	Yes	Yes	Yes	Yes	Yes
Quarter FE:	Yes	-	-	-	-
Season FE:	-	Yes	-	-	-
Country Season FE:	-	-	Yes	-	-
Common Quarter Trends:	-	-	-	Yes	-
Country Quarter Trends :	-	-	-	-	Yes
Observations	1,284	1,284	1,284	1,284	1,284
R-squared	0.141	0.017	0.173	0.068	0.196

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions with quarterly data. Constant is not shown. The dependent variable is the total number of NGO reports by country-quarter. $Host$ is a dummy equal to 1 if the country hosts a sport mega event at quarter t. All specifications include country fixed effect. Column 1 includes also quarter fixed effects. Column 2 and 3, we include season fixed effects and country-specific season fixed effects, respectively. Column 4 includes a common quarter trends. The last specification includes country-specific time trends.

Table 5: Level of NGO Report and World Cup Participation and Performance

Dependent Variable:	Level of NGO Reports					
Specifications	(1)	(2)	(3)	(4)	(5)	(6)
Explanatory Variables ($Performance$)	$Participation$	$1/8\ Final$	$1/4\ Final$	$1/2\ Final$	$Final$	$Victory$
$Performance$	-0.127*	-0.239**	-0.500***	-0.722***	-0.748***	-0.754*
	(0.0761)	(0.115)	(0.0905)	(0.169)	(0.286)	(0.435)
Observations	1,284	1,284	1,284	1,284	1,284	1,284
R-squared	0.194	0.195	0.199	0.200	0.197	0.195

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. The explanatory variable $Sport$ is alternatively the following variables: $Participation$ is coded 1 for countries that participated in World Cup and 0 otherwise (column 1); $1/8 Final$ is coded 1 for countries that participated to a eight-final of World Cup (column 2); $1/4 Final$ is coded 1 for countries that participated to a quarter-final of World Cup (column 3); $1/2 Final$ is coded 1 for countries that participated to a semi-final of World Cup (column 4); $Final_t$ is coded 1 for countries that participated to a final of World Cup (column 5); $Victory$ is coded 1 for countries that won the final of World Cup (column 6). OLS regressions for all specifications with country fixed effects and country-specific quarter trends. Constant is not shown.

Table 6: Level of NGO reports and Sponsorship Activities of Firms

Dependent Variable:	Level of NGO Reports					
Specifications	(1)	(2)	(3)	(4)	(5)	(6)
Sponsor	0.207**	0.213**	0.208**	0.0938**	0.129**	0.0899*
	(0.0838)	(0.0834)	(0.0839)	(0.0449)	(0.0605)	(0.0461)
Sector FE	Yes	Yes	Yes	-	-	-
Firm FE	-	-	-	Yes	Yes	Yes
Quarter FE	Yes	-	Yes	Yes	-	Yes
Sector-Specific Time Trends	-	Yes	Yes	-	-	-
Firm-Specific Time Trends	-	-	-	-	Yes	Yes
Observations	20,412	20,412	20,412	20,412	20,412	20,412
R-squared	0.045	0.028	0.049	0.386	0.219	0.455

Note: Robust standard errors clustered at firms level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions. Constant is not shown. The dependent variable is the total number of NGO reports at quarter t. *Sponsor* is a dummy equal to 1 if the firm is a sponsor to a sport mega event at quarter t. Column 1 includes sector and quarter fixed effects. Column 2 includes sector fixed effects and sector-specific time trends. Column 3 includes sector fixed effects, quarter fixed effects and sector-specific time trends. Column 4 includes firm and quarter fixed effects. Column 5 includes firm fixed effects and firm-specific time trends. Column 6 includes firm fixed effects, quarter fixed effects and firm-specific time trends.

Table 7: Positive and Negative NGO Reports and Sport Event Hosting

Dependent Variable:	Share of Negative NGO Reports	Positive Reports	Negative Reports
Specifications	(1)	(2)	(3)
Host	0.290***	-0.467***	-0.127
	(0.0643)	(0.0535)	(0.224)
Observations	1,284	1,284	1,284
R-squared	0.164	0.107	0.214

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions for all specifications. Constant is not shown. All specifications include country fixed effects and country-specific time trends. The dependent variable is alternatively the share of negative NGO reports over the total amount of NGO reports (column 1), the total number of positive NGO reports (column 2) and the total number of negative NGO reports (column 3). *Host* is a dummy equal to 1 if the country hosts a sport mega event at quarter t.

Table 8: Positive and Negative NGO Reports and World Cup Participation

Dependent Variable:	Share of Negative NGO Reports	Positive Reports	Negative Reports
Specifications	(1)	(2)	(3)
Participation	0.0905**	-0.174**	0.00969
	(0.0449)	(0.0683)	(0.0844)

Dependent Variable:	Share of Negative NGO Reports	Positive Reports	Negative Reports
Specifications	(4)	(5)	(6)
$1/8Final$	0.111**	-0.181**	-0.0703
	(0.0452)	(0.0853)	(0.109)

Dependent Variable:	Share of Negative NGO Reports	Positive Reports	Negative Reports
Specifications	(7)	(8)	(9)
$1/4Final$	0.128	-0.350***	-0.313***
	(0.0807)	(0.0915)	(0.110)

Dependent Variable:	Share of Negative NGO Reports	Positive Reports	Negative Reports
Specifications	(10)	(11)	(12)
$1/2Final$	0.337***	-0.662***	-0.327*
	(0.0305)	(0.118)	(0.178)

Dependent Variable:	Share of Negative NGO Reports	Positive Reports	Negative Reports
Specifications	(13)	(14)	(15)
Final	0.404***	-0.757***	-0.358
	(0.00785)	(0.183)	(0.275)

Dependent Variable:	Share of Negative NGO Reports	Positive Reports	Negative Reports
Specifications	(16)	(17)	(18)
Victory	0.405***	-0.814***	-0.354
	(0.0118)	(0.269)	(0.418)

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. The number of observation is 1,268 for each specifications. *Participation* is coded 1 for countries that participated in World Cup and 0 otherwise. $1/8Final$ is coded 1 for countries that participated to a eight-final of World Cup. $1/4Final$ is coded 1 for countries that participated to a quarter-final of World Cup. $1/2Final$ is coded 1 for countries that participated to a semi-final of World Cup. *Final* is coded 1 for countries that participated to a final of World Cup. OLS regressions for all specifications with country fixed effects and country specific quarter trends. Constant is not shown.

Table 9: Level of NGO reports and Sponsorship Activities of Firms

Dependent Variable:	Positive Reports	Negative Reports	Positive Reports	Negative Reports
Specifications	(1)	(2)	(3)	(4)
Sponsor	0.102***	0.139*	0.0501*	0.0654
	(0.0333)	(0.0741)	(0.0263)	(0.0500)
Sector FE	Yes	Yes	-	-
Firm FE	-	-	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes
Sector-Specific Time Trends	Yes	Yes	-	-
Firm-Specific Time Trends	-	-	Yes	Yes
Observations	20,412	20,412	20,412	20,412
R-squared	0.019	0.051	0.201	0.447

Note: Robust standard errors clustered at firms level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions. Constant is not shown. The dependent variable is the total number of NGO reports at quarter t. *Sponsor* is a dummy equal to 1 if the firm is a sponsor to a sport mega event at quarter t. Column 1 and 2 includes sector fixed effects, quarter fixed effects and sector-specific time trends. Column 3 and 4 includes firm fixed effects, quarter fixed effects and firm-specific time trends.

Appendix A: Supplementary Tables

Table ST1: Host Countries of World Cups and Olympic Games, 2002-2010

World Cup	Summer Olympic Games	Winter Olympic Games
2002: Korea and Japan 2006: Germany 2010: South Africa	2004: Greece 2008: China	2002: USA 2006: Italy 2010: Canada

Note: This table reports the list of sport event host countries.

Table ST2: Participant countries to World Cups, 2002-2010

World Cup 2002	World Cup 2002	World Cup 2006	World Cup 2006	World Cup 2010	World Cup 2010
Argentina	Nigeria	Argentina	Paraguay	Algeria	Italy
Belgium	Paraguay	Brazil	Poland	Argentina	Japan
Brazil	Poland	Costa Rica	Portugal	Australia	Korea, Republic of
Cameroon	Portugal	Cote d'Ivoire	Senegal	Brazil	Mexico
China	Russia	Czech Republic	Spain	Switzerland	Nigeria
Costa Rica	Senegal	Denmark	Sweden	Chili	Netherlands
Croatia	South Africa	Ecuador	Switzerland	Cote d'Ivoire	New Zealand
Denmark	Spain	France	Togo	Cameroon	Portugal
Ecuador	Sweden	Germany	Trinidad and Tobago	Costa Rica	Paraguay
France	Tunisia	Ghana	Tunisia	Denmark	South Africa
Germany	Turkey	Iran	Ukraine	Germany	United Kingdom
Ireland	United Arab Emirates	Italy	United Arab Emirates	France	United States
Italy	United Kingdom	Japan	United Kingdom	Spain	Uruguay
Japan	United States	Korea, Republic of	United States	Ghana	
Korea, Republic of	Uruguay	Mexico	Uruguay	Greece	
Mexico		Netherlands		Honduras	

Note: 32 countries participated to each World Cup. Slovania participated to the World Cup in 2002 and 2010, Serbia Montenegro in 2006 and 2010, North Korea in 2010 but we do not have data on NGO reports for these countries.

Table ST3: Sponsors of World Cups and Olympic Games, 2002-2010

World Cup 2002	Winter OG 2002	Summer OG 2004	World Cup 2006	Winter OG 2006	Summer OG 2008	World Cup 2010	Winter OG 2010
Adidas	Coca-Cola	Adidas	Adidas	Coca-Cola	Adidas	Adidas	Coca-Cola
Hyundai	McDonalds	Coca-Cola	Continental	Fiat	BHP Billiton	Continental	General Electric
MasterCard	Panasonic	McDonalds	Deutsche Telekom	General Electric	China Mobile	Hyundai	General Motors
Toshiba	Samsung	Panasonic	Hyundai	San Paolo	Coca-Cola	Kia	Panasonic
Yahoo	Schlumberger	Samsung	MasterCard	Manulife	General Electric	McDonalds	Ricoah
Coca-Cola	Visa	Visa	Toshiba	McDonalds	Johnson and Johnson	MTN Group	Royal Bank of Canada
McDonalds	Xerox	Xerox	Yahoo	Panasonic	Manulife	Sony	Samsung
Nike*	Nike*	Nike*	Coca-Cola	Samsung	McDonalds	Coca-Cola	Teck Resources
	Adidas*		McDonalds	Telecom Italia	Panasonic	Visa	Visa
			Nike*	Visa	Samsung	Nike*	Nike*
				Nike*	Uni-president		Adidas*
				Adidas*	Visa		
					Nike*		

Note: The list of firms presented here shows only the sponsor firms that are in the *CovalenceEthicalQuote* database.

Table ST4: Level of NGO Report and Hosting - Country Controls

Dependent Variable:	Level of NGO Reports				
Specifications	(1)	(2)	(3)	(4)	(5)
Control	Log GDP/cap	Log Population	Trade Openness	Polity 2	ICRG
Host	-0.571**	-0.582**	-0.577**	-0.595***	-0.574***
	(0.246)	(0.250)	(0.247)	(0.184)	(0.168)
Controls	-0.047	2.006	0.00338	0.0338	3.544***
	(0.50)	(1.676)	(0.00281)	(0.0383)	(0.959)
Observations	1,133	1,133	1,133	1,005	987
R-squared	0.202	0.202	0.203	0.209	0.213

Dependent Variable:	Level of NGO Reports				
Specifications	(6)	(7)	(8)	(9)	(10)
Institutions	Civil Liberties	Economic Influences	Political Pressures	Political Rights	Freedom of the Press
Host	-0.615***	-0.764***	-0.779***	-0.616***	-0.613***
	(0.195)	(0.166)	(0.171)	(0.196)	(0.195)
Institutions	-0.121**	-0.0160	-0.00810	0.0172	-0.00946
	(0.0505)	(0.0281)	(0.0242)	(0.0468)	(0.00939)
Observations	1,156	907	907	1,156	1,156
R-squared	0.199	0.197	0.197	0.198	0.199

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions for all specifications with country fixed effects and country-specific time trends. Constant is not shown. Variable *Institutions* represents alternatively Civil Liberties (Column 7), Economic Influences over Media Content (Column 8), Laws and Regulations that Influence Media Content (Column 9), Political Pressures and Controls on Media Content (Column 10), Political Right (Column 11) and Freedom of the Press (Column 12).

Table ST5: Level of NGO Report and Hosting - Outliers Issue

Dependent Variable:	Level of NGO Reports		
Specifications	(1)	(2)	(3)
	All	3SD	2SD
Host	-0.444**	-0.469**	-0.292*
	(0.185)	(0.187)	(0.159)
Observations	1,284	1,273	1,212
R-squared	0.196	0.217	0.294

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions. All specifications include country fixed effect and country-specific time trends. Constant is not shown. The dependent variable is the total number of NGO reports at quarter t. *Host* is a dummy equal to 1 if the country hosts a sport mega event at quarter t. Specification 1 is our preferred specifications. Specification 2 excludes 3 standard deviation outliers (labeled *3SD*). Specification 3 excludes 2 standard deviation outliers (labeled *2SD*).

Table ST6: Level of NGO Reports and Hosting a Sport Event - Lag and Forecast

Dependent Variable:	Level of NGO Reports		
Specifications	(1)	(2)	(3)
$Host_t$	-0.389**	-0.428**	-0.389*
	(0.191)	(0.186)	(0.198)
$Host_{t-1}$	-0.382**		-0.358**
	(0.158)		(0.151)
$Host_{t+1}$		0.0671	0.270
		(0.357)	(0.349)
Observations	1,242	1,263	1,221
R-squared	0.178	0.195	0.178

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions. Constant is not shown. All specifications include country fixed effect and country-specific time trends. The dependent variable is the total number of NGO reports at quarter t. $Host_t$ is a dummy equal to 1 if the country hosts a sport mega event at quarter t.

Table ST7: Robustness of the Performance Effect

Dependent Variable:	Level of NGO Reports		
Independent Variable	Model	Coefficient	SE
$Participation$	Quarter FE	-0.0744	(0.0762)
	Season FE	-0.127*	(0.0739)
	Country Season FE	-0.170*	(0.1000)
	Common Quarter Trend	-0.0862	(0.0725)
$1/8Final$	Quarter FE	-0.120	(0.101)
	Season FE	-0.195*	(0.100)
	Country Season FE	-0.281**	(0.138)
	Common Quarter Trend	-0.161	(0.105)
$1/4Final$	Quarter FE	-0.353***	(0.0746)
	Season FE	-0.412***	(0.0757)
	Country Season FE	-0.571***	(0.135)
	Common Quarter Trend	-0.429***	(0.0773)
$1/2Final$	Quarter FE	-0.448***	(0.153)
	Season FE	-0.490***	(0.143)
	Country Season FE	-0.598**	(0.245)
	Common Quarter Trend	-0.577***	(0.143)
$Final$	Quarter FE	-0.563**	(0.269)
	Season FE	-0.648***	(0.185)
	Country Season FE	-0.988***	(0.228)
	Common Quarter Trend	-0.716***	(0.233)
$Victory$	Quarter FE	-0.540	(0.403)
	Season FE	-0.596**	(0.268)
	Country Season FE	-0.966***	(0.347)
	Common Quarter Trend	-0.678*	(0.347)

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. In each model, we include country fixed effects. We add alternatively, quarter fixed effects, season fixed effects, country-specific season fixed effects and common quarter trend. OLS regressions for all specifications. Constant is not shown. $Participation$ is coded 1 for countries that participated in World Cup and 0 otherwise. $1/8Final$ is coded 1 for countries that participated to a eight-final of World Cup. $1/4Final$ is coded 1 for countries that participated to a quarter-final of World Cup. $1/2Final$ is coded 1 for countries that participated to a semi-final of World Cup. $Final$ is coded 1 for countries that participated to a final of World Cup.

Table ST8: Level of NGO Report and World Cup Performance - Country Controls

Dependent Variable:	Level of NGO Reports					
Specifications	(1)	(2)	(3)	(4)	(5)	(6)
Explanatory Variables ($Performance$)	$Participation$	$1/8\ Final$	$1/4\ Final$	$1/2\ Final$	$Final$	$Victory$
$Performance$	-0.269***	-0.391***	-0.466***	-0.643***	-0.655***	-0.739**
	(0.0919)	(0.0887)	(0.0952)	(0.140)	(0.219)	(0.311)
Log GDP/cap	0.977	0.954	0.939	0.949	0.954	0.955
	(0.777)	(0.782)	(0.780)	(0.783)	(0.783)	(0.783)
Log Population	0.731	0.775	0.621	0.549	0.583	0.560
	(4.097)	(4.112)	(4.067)	(4.051)	(4.050)	(4.044)
Openness	0.00231	0.00231	0.00228	0.00219	0.00218	0.00211
	(0.00352)	(0.00351)	(0.00350)	(0.00352)	(0.00353)	(0.00353)
Polity 2	0.0494	0.0546	0.0530	0.0521	0.0532	0.0535
	(0.0320)	(0.0331)	(0.0326)	(0.0325)	(0.0326)	(0.0326)
ICRG	3.191***	3.230***	3.255***	3.203***	3.281***	3.330***
	(1.083)	(1.078)	(1.080)	(1.086)	(1.105)	(1.100)
Observations	962	962	962	962	962	962
R-squared	0.214	0.215	0.214	0.216	0.212	0.211

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. The explanatory variable $Performance$ is alternatively the following variables: $Participation$ is coded 1 for countries that participated in World Cup and 0 otherwise (column 1); $1/8 Final$ is coded 1 for countries that participated to a eight-final of World Cup (column 2); $1/4 Final$ is coded 1 for countries that participated to a quarter-final of World Cup (column 3); $1/2 Final$ is coded 1 for countries that participated to a semi-final of World Cup (column 4); $Final$ is coded 1 for countries that participated to a final of World Cup (column 5); $Victory$ is coded 1 for countries that won the final of World Cup (column 6). OLS regressions for all specifications with country fixed effects and country-specific time trends. Constant is not shown.

Table ST9: Level of NGO Report and Performance - Institutional Controls

Dependent Variable:	Level of NGO Reports					
Specifications	(1)	(2)	(3)	(4)	(5)	(6)
Institutions	*Civil Liberties*	*Economic Influences*	*Laws* and *Regulations*	*Political Pressures*	*Political Rights*	*Freedom of the Press*
Participation	-0.293***	-0.290***	-0.282***	-0.288***	-0.302***	-0.297***
	(0.0866)	(0.0903)	(0.0923)	(0.0914)	(0.0853)	(0.0861)
Institutions	-0.107**	-0.0205	-0.0178	-0.00479	0.0195	-0.00864
	(0.0521)	(0.0279)	(0.0258)	(0.0243)	(0.0473)	(0.00957)

Dependent Variable:	Level of NGO Reports					
	(7)	(8)	(9)	(10)	(11)	(12)
Institutions	Civil Liberties	Economic Influences	Laws and Regulations	Political Pressures	Political Rights	Freedom of the Press
1/8*Final*	-0.441***	-0.419***	-0.410***	-0.417***	-0.441***	-0.437***
	(0.0891)	(0.0988)	(0.100)	(0.0990)	(0.0872)	(0.0886)
Institutions	-0.121**	-0.0205	-0.0180	-0.00549	0.0149	-0.00882
	(0.0499)	(0.0276)	(0.0255)	(0.0245)	(0.0458)	(0.00949)

Dependent Variable:	Level of NGO Reports					
	(13)	(14)	(15)	(16)	(17)	(18)
Institutions	Civil Liberties	Economic Influences	Laws and Regulations	Political Pressures	Political Rights	Freedom of the Press
1/4*Final*	-0.531***	-0.508***	-0.493***	-0.502***	-0.529***	-0.524***
	(0.0992)	(0.119)	(0.123)	(0.120)	(0.0975)	(0.0990)
Institutions	-0.123**	-0.0217	-0.0181	-0.00543	0.0170	-0.00884
	(0.0502)	(0.0274)	(0.0254)	(0.0244)	(0.0467)	(0.00940)

Dependent Variable:	Level of NGO Reports					
	(19)	(20)	(21)	(22)	(23)	(24)
Institutions	Civil Liberties	Economic Influences	Laws and Regulations	Political Pressures	Political Rights	Freedom of the Press
1/2*Final*	-0.729***	-0.756***	-0.732***	-0.743***	-0.733***	-0.732***
	(0.145)	(0.190)	(0.202)	(0.193)	(0.143)	(0.142)
Institutions	-0.118**	-0.0239	-0.0181	-0.00615	0.0175	-0.00947
	(0.0495)	(0.0272)	(0.0248)	(0.0242)	(0.0469)	(0.00928)

Dependent Variable:	Level of NGO Reports					
	(25)	(26)	(27)	(28)	(29)	(30)
Institutions	Civil Liberties	Economic Influences	Laws and Regulations	Political Pressures	Political Rights	Freedom of the Press
Final	-0.754***	-0.829***	-0.808***	-0.808***	-0.754***	-0.758***
	(0.229)	(0.260)	(0.257)	(0.263)	(0.228)	(0.220)
Institutions	-0.121**	-0.0236	-0.0215	-0.00565	0.0157	-0.00992
	(0.0506)	(0.0275)	(0.0260)	(0.0242)	(0.0460)	(0.00940)

Dependent Variable:	Level of NGO Reports					
	(31)	(32)	(33)	(34)	(35)	(36)
Institutions	Civil Liberties	Economic Influences	Laws and Regulations	Political Pressures	Political Rights	Freedom of the Press
Victory	-0.773**	-0.842**	-0.811**	-0.815**	-0.772**	-0.778**
	(0.350)	(0.386)	(0.381)	(0.389)	(0.349)	(0.337)
Institutions	-0.121**	-0.0234	-0.0212	-0.00553	0.0157	-0.00991
	(0.0506)	(0.0274)	(0.0261)	(0.0242)	(0.0460)	(0.00939)

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions for all specifications with country fixed effects and country-specific time trends. Constant is not shown. Variable *Institutions* represents alternatively Civil Liberties, Economic Influences over Media Content, Laws and Regulations that Influence Media Content, Political Pressures and Controls on Media Content, Political Right and Freedom of the Press. *Participation* is coded 1 for countries that participated in World Cup and 0 otherwise. 1/8*Final* is coded 1 for countries that participated to a eight-final of World Cup. 1/4*Final* is coded 1 for countries that participated to a quarter-final of World Cup. 1/2*Final* is coded 1 for countries that participated to a semi-final of World Cup. *Final* is coded 1 for countries that participated to a final of World Cup. *Victory* is coded 1 for countries that won the final of World Cup.

Table ST10: Level of NGO Reports and World Cup Performance - Outliers Issue

Dependent Variable:	Level of NGO Reports					
Specifications	(1)	(2)	(3)	(4)	(5)	(6)
	3SD	2SD	3SD	2SD	3SD	2SD
$Participation$	-0.134*	-0.0618				
	(0.0720)	(0.0545)				
$1/8Final$			-0.248**	-0.160**		
			(0.111)	(0.0800)		
$1/4Final$					-0.499***	-0.425***
					(0.0895)	(0.0825)
Observations	1,273	1,212	1,273	1,211	1,273	1,213
R-squared	0.214	0.292	0.216	0.291	0.220	0.288

Dependent Variable:	Level of NGO Reports					
	(7)	(8)	(9)	(10)	(11)	(12)
	3SD	2SD	3SD	2SD	3SD	2SD
$1/2Final$	-0.732***	-0.682***				
	(0.177)	(0.206)				
$Final$			-0.767**	-0.749**		
			(0.301)	(0.359)		
$Victory$					-0.784*	-0.866*
					(0.457)	(0.522)
Observations	1,273	1,214	1,273	1,213	1,273	1,213
R-squared	0.221	0.292	0.217	0.290	0.216	0.289

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. $Participation$ is coded 1 for countries that participated in World Cup and 0 otherwise. $1/8Final$ is coded 1 for countries that participated to a eight-final of World Cup. $1/4Final$ is coded 1 for countries that participated to a quarter-final of World Cup. $1/2Final$ is coded 1 for countries that participated to a semi-final of World Cup. $Final$ is coded 1 for countries that participated to a final of World Cup. OLS regressions for all specifications with country fixed effects and country-specific time trends. Constant is not shown. Specification labeled *3SD* excludes 3 standard deviation outliers. Specification labeled *2SD* excludes 2 standard deviation outliers.

Table ST11: Level of NGO Report and World Cup Performance - Lag and Forecast

Dependent Variable:	Level of NGO Reports					
Specifications	(1)	(2)	(3)	(4)	(5)	(6)
Explanatory Variables						
($Performance$)	$Participation$	$1/8\ Final$	$1/4\ Final$	$1/2\ Final$	$Final$	$Victory$
$Performance_t$	-0.163**	-0.254**	-0.537***	-0.753***	-0.759**	-0.768*
	(0.0768)	(0.117)	(0.0873)	(0.167)	(0.297)	(0.453)
$Performance_{t-1}$	-0.331***	-0.404***	-0.633***	-0.957***	-1.286***	-1.287***
	(0.121)	(0.152)	(0.182)	(0.233)	(0.0367)	(0.0559)
$Performance_{t+1}$	0.0443	0.149	0.0876	0.0258	0.0256	-0.548***
	(0.0980)	(0.105)	(0.150)	(0.405)	(0.405)	(0.000)
Observations	1,221	1,221	1,221	1,221	1,221	1,221
R-squared	0.185	0.186	0.192	0.191	0.182	0.181

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. The explanatory variable $Performance$ is alternatively the following variables: $Participation$ is coded 1 for countries that participated in World Cup and 0 otherwise (column 1); $1/8Final$ is coded 1 for countries that participated to a eight-final of World Cup (column 2); $1/4Final$ is coded 1 for countries that participated to a quarter-final of World Cup (column 3); $1/2Final$ is coded 1 for countries that participated to a semi-final of World Cup (column 4); $Final$ is coded 1 for countries that participated to a final of World Cup (column 5); $Victory$ is coded 1 for countries that won the final of World Cup (column 6). OLS regressions for all specifications with country fixed effects and country-specific time trends. Constant is not shown.

Table ST12: Level of NGO Report and Performance - Country Culture

Dependent Variable:	Level of NGO Reports				
Specifications	(1)	(2)	(3)	(4)	(5)
(*Variables of Interaction*)	# of World Cup won	# Clubs	TV	Too Much Sport on TV	Proud of your country
Panel A					
Participation	-0.0779	-0.158*	0.177	-0.0178	-0.322***
	(0.0813)	(0.0926)	(0.194)	(0.131)	(0.114)
Interaction	-0.0799**	2.463	-0.00754	-0.00758*	-0.0783***
	(0.0352)	(3.064)	(0.00494)	(0.00416)	(0.0185)
Observations	1,268	1,268	422	422	422
R-squared	0.194	0.193	0.146	0.143	0.148
Dependent Variable:	Level of NGO Reports				
Specifications	(6)	(7)	(8)	(9)	(10)
(*Variables of Interaction*)	# of World Cup won	# Clubs	TV	Too Much Sport on TV	Proud of your country
Panel B					
1/8Final	-0.159	-0.291*	0.268	-0.0585	-0.300
	(0.123)	(0.148)	(0.183)	(0.184)	(0.215)
Interaction	-0.0833**	2.972	-0.0112*	-0.00836	-0.0445
	(0.0396)	(4.349)	(0.00611)	(0.00622)	(0.0465)
Observations	1,268	1,268	422	422	422
R-squared	0.195	0.194	0.147	0.144	0.144

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions. Constant is not shown. The dependent variable is the total number of NGO reports measured at the country-quarter level. We interact successively the dummy *Participation* with 5 country-specific constant over time measures (column 1 to 5) and the dummy *1/8Final* with this same 5 country-specific measures (column 6 to 10). The *# of World Cup won* measure the number of FIFA World Cup won by country. The variable *# of Clubs* is a measure of the number of clubs of football per capita in each country. Variables *TV*, *Too much sport on TV* and *Proud of your country* come from the International Social Survey Programme (ISSP) Leisure Time and Sports module for 34 countries in the 2007. The variable *TV* come from the answer to the following question: *What sport do you watch on TV most frequently?*. *TV* is the proportion of people who answer "football / soccer" for each country in 2007. The variable *Too much sport on TV* is computed from the answer, on a scale from 1 to 5 (disagree strongly), to the following question: *People have different opinions about sports. To what extent do you agree or disagree with the following statements? There is too much sport on TV?*. *Too much sport on TV* represents the proportion of people who answer "strongly disagree" over the number of respondent for each country. The variable *Proud of your country* is computed thanks the answer, on a scale from 1 to 4 (I am not proud at all), to the following question: *How proud are you when [Your Country] does well at an international sports or games competition?*. The variable *Proud of your country* is the proportion of people who do not answer "I am not proud at all" over the number of respondent for each country. The highest is the variable the higher is the proportion of respondent who are proud of their country during an international competition.

Table ST13: Level of NGO Reports and Sponsorship - Firm Controls

Dependent Variable:			Level of NGO Reports			
Specifications	(1)	(2)	(3)	(4)	(5)	(6)
Sponsor	0.185**	0.185**	0.186**	0.0812*	0.0812*	0.0811*
	(0.0853)	(0.0853)	(0.0885)	(0.0478)	(0.0478)	(0.0478)
Sales	0.0522***			-0.00288		
	(0.0185)			(0.00910)		
Operating Rev.		0.0524***			-0.00259	
		(0.0187)			(0.00912)	
Assets			0.0759***			-0.00874**
			(0.0116)			(0.00389)
Observations	16,420	16,420	16,420	16,420	16,420	16,420
R-squared	0.089	0.089	0.105	0.470	0.470	0.470

Note: Robust standard errors clustered at firm level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions. Specifications 1 to 3 include sector fixed effects, quarter fixed effects and sector-specific time trends. Specifications 4 to 6 include firm fixed effects, quarter fixed effects and firm-specific time trends. Constant is not shown. The dependent variable is the total number of NGO reports measured at the firm-quarter level. *Sponsor* is a dummy equal to 1 if the firm is a sponsor to a sport mega event at quarter t. *Sales*, *Operating Rev.* and *Assets* are the log of respectively the sales, the operating revenue and the assets measured at the firm-year level. These variables are provided by $Orbis$.

Table ST14: Level of NGO Report and Sponsorship - Outliers Issue

Dependent Variable:	Level of NGO Reports		
Specifications	(1)	(2)	(3)
	All	3SD	2SD
Sponsor	0.208**	0.150***	0.105**
	(0.0839)	(0.0525)	(0.0465)
Observations	20,412	19,791	19,339
R-squared	0.049	0.038	0.043

Note: Robust standard errors clustered at firm level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions. All specifications include sector fixed effects, quarter fixed effects and sector specific time trends. Constant is not shown. The dependent variable is the total number of NGO reports measured at the firm-quarter level. *Sponsor* is a dummy equal to 1 if the firm is a sponsor to a sport mega event at quarter t. Specification 1 is our preferred specifications. Specification 2 excludes 3 standard deviation outliers (labeled *3SD*). Specification 3 excludes 2 standard deviation outliers (labeled *2SD*).

Table ST15: Level of NGO Reports and Sponsorship - Lag and Forecast

Dependent Variable:	Level of NGO Reports		
Specifications	(1)	(2)	(3)
$Sponsor_t$	0.198***	0.189***	0.179***
	(0.0702)	(0.0705)	(0.0638)
$Sponsor_{t-1}$	0.0584		0.0617
	(0.0470)		(0.0481)
$Sponsor_{t+1}$		0.155**	0.156**
		(0.0620)	(0.0625)
Observations	19,278	19,278	19,278
R-squared	0.047	0.047	0.047

Note: Robust standard errors clustered at firm level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions. All specifications include sector fixed effects, quarter fixed effects and sector specific time trends. Constant is not shown. The dependent variable is the total number of NGO reports measured at the firm-quarter level. $Sponsor$ is a dummy equal to 1 if the firm is a sponsor to a sport mega event at quarter t.

Table ST16: Level of NGO Reports and Candidature to Sport Events

Dependent Variable:	Level of NGO Reports					
Specifications	(1)	(2)	(3)	(4)	(5)	(6)
$Candidature_t$	0.00261	-0.0216	-0.00648	-0.0321	-0.0271	-0.0279
	(0.146)	(0.150)	(0.146)	(0.150)	(0.155)	(0.158)
$Candidature_{t-1}$		-0.0221		-0.0319	-0.0144	-0.0133
		(0.157)		(0.156)	(0.180)	(0.185)
$Candidature_{t+1}$			0.0511	0.0359	0.0465	0.0464
			(0.123)	(0.119)	(0.128)	(0.127)
$Candidature_{t+2}$					-0.0761	-0.0746
					(0.208)	(0.218)
$Candidature_{t+3}$					0.144	0.144
					(0.251)	(0.250)
$Candidature_{t+4}$					0.0248	0.0245
					(0.163)	(0.162)
$Candidature_{t+5}$					0.0799	0.0794
					(0.108)	(0.106)
$Choice_t$						-0.0224
						(0.195)
Observations	1,284	1,242	1,263	1,221	1,086	1,086
R-squared	0.135	0.121	0.122	0.108	0.103	0.103

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions for all specifications with country fixed effects and country-specific time trends. Constant is not shown. The dependent variable is the total number of NGO's reports at quarter t. $Candidature_{t+k}$ is a dummy equal to 1 if the country is a candidate to a sport mega event at quarter $t+k$. $Choice_t$ is coded 1 if country is choose to organize a sport big-event; 0 otherwise.

Table ST17: Level of NGO Report and Other Shocks

Dependent Variable:	Level of NGO Reports				
Specifications	(1)	(2)	(3)	(4)	(5)
$Variables$	Rugby World Cup Participation	Election	Dummy for Nat. Disasters	# Killed during Nat. Disasters	# Affected by Nat. Disasters
$Variables$	-0.1926**	-0.0212	-0.0395	-0.00937	-0.00545
	(0.0877)	(0.0596)	(0.0374)	(0.00899)	(0.00354)
Observations	1,284	1,151	1,151	1,151	1,151
R-squared	0.194	0.193	0.194	0.194	0.194

Note: Robust standard errors clustered at country level in parentheses with ***, ** and * respectively denoting significance at the 1%, 5% and 10% levels. OLS regressions with country fixed effects and country-specific time trend. Constant is not shown. The dependent variable is the total number of NGO reports at quarter t. In column 1, $Variables$ is a dummy equal to 1 if a country is a participant to the World Cup of Rugby. $Variables$ is a dummy coded 1 if there is an election (column 2). Columns 3 to 5, we consider natural disasters effect on NGO reports. $Variables$ is a dummy equal to 1 if there is a disaster (column 3) and to the number of killed people during the natural disaster (column 4) and number of affected people during the natural disaster.

Appendix B: Figures

Host/participant country media coverage

We measure the media coverage of host and participant countries thanks to the newspapers articles in *Factiva*.[17] More precisely, we analyze the trend of the number of newspaper articles dealing with host/participant countries the months around a sport event for which they host or participate to this game. We consider the same period than in our NGO report data: 2002-2010. It covers 8 events, 9 host countries and 32 participants country to 3 FIFA World Cups. The list of events and host/participant countries is presented in tables ST1 and ST2. Studying participant countries, we focus on FIFA World Cups because only a few countries do not participate to the Olympic Games. Thanks to *Factiva*, we run monthly searches between 2002 and 2010 to assess the number of articles associated to host and participant countries.[18] Figures 1 and 2 present the trend in the average number of articles about respectively host and participant countries during the event and six months before and after. We observe a clear pattern: a boom of around 43 % (24 %) in the number of news associated with the names of host (participant) countries during the time of the games, comparing to their media coverage six month before.

However, it does not mean that stories concerning those countries but not sport are complement of sport news. Figures 3 (Figure 4) shows the trend in the average of the newspaper article number dealing with sustainable development in one hand, and sustainable development and host (participant) countries in another hand.[19] We find the opposite pattern: the average number of articles dealing with host (participant) countries and sustainable development decreases of around 28 % (5%) during the event. In this exercise, we approximate the newsworthiness of the stories about firm practices located in host and participant countries, selecting keywords related to this topic.[20] However, it already gives arguments in favor of a substitutability between sport

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[17]The *Factiva* database provides more than 35,000 articles from newspapers of 200 countries in 26 languages. *Factiva* is available for subscribers at http://www.dowjones.com/factiva.

[18]All results presented here are restricted to articles written in English. We run keyword searches for the name of host and participant countries.

[19]All results presented here are restricted to articles written in English. We first run searches for the words "sustainable" or "sustainability" and "environment" or "environmental". Then we run searches for those keywords and the name of the host and participant countries (e.g "China and (sustainable or sustainability or environment or environmental)").

[20]We would have to define an exhaustive list of firm practices related keywords to properly assess the impact of the host and participant country media coverage on the newsworthiness of these issues. However, environmental or social responsibility overcomes so many dimensions that it gives the establishment of such a list very exhausting.

news and news related to firm practices in host and participant countries.

Sponsor media coverage

We replicate this content analysis in *Factiva* collecting the number of newspapers including the name of the 572 firms of our sample. This way, we measure the media coverage of those firms in worldwide newspapers and are able to study the change in the trend during sport events. We then distinguish between firms that are sponsors of the event and other firms for each event. The list of firms that are sponsors in our sample of firms is given by table ST3 for each sport event of the 2002-2010 period. Figure 5 presents the trend of the number of newspaper articles dealing with sponsors and other firms of our sample during each sport event of the period and four months before and after. We observe that the number of articles concerning firms that are not sponsors decreases by more than 30% the month of the event, relatively to what is observed four months before. It means that the media coverage of those firms is crowded out by the sport event. However, the fall in the number of articles dealing with sponsors is only about 20% during this period, compared to four months before. In other words, the relative media coverage of sponsors in the media space devoted to firms in general increases of around during sport events. Arguably, stories about sponsors are complement to sport news: when the number of news about sport increases, the relative number of news about sponsors in the total sample of firm-related news also increases. This pattern is in line with the literature on sponsorship determinants.


Furthermore, it is not the core of our investigation in this paper, because we analyze here the report activity of an external source of information to the media, NGOs.

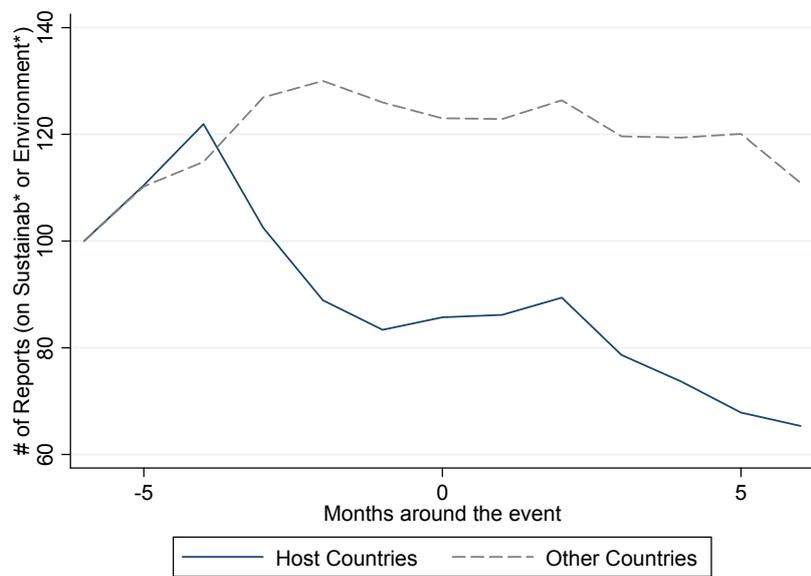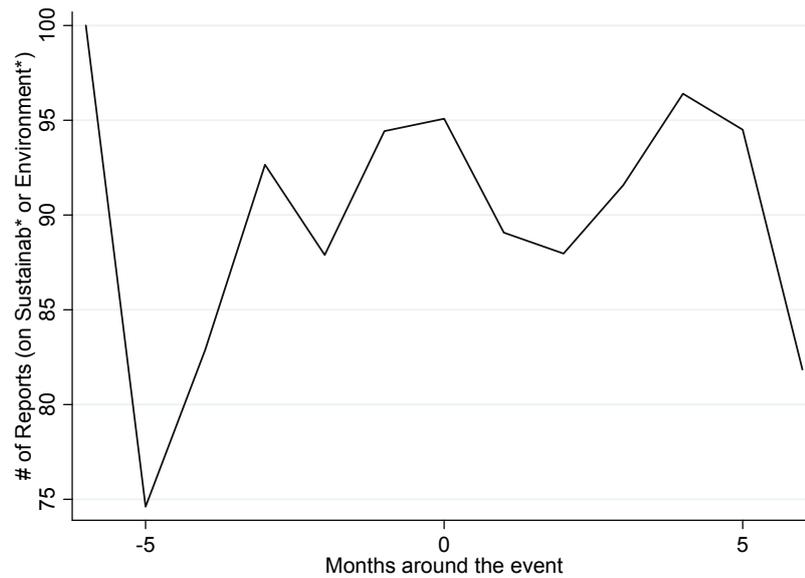Figure 1: Country-specific Number of Newspaper Articles - Host
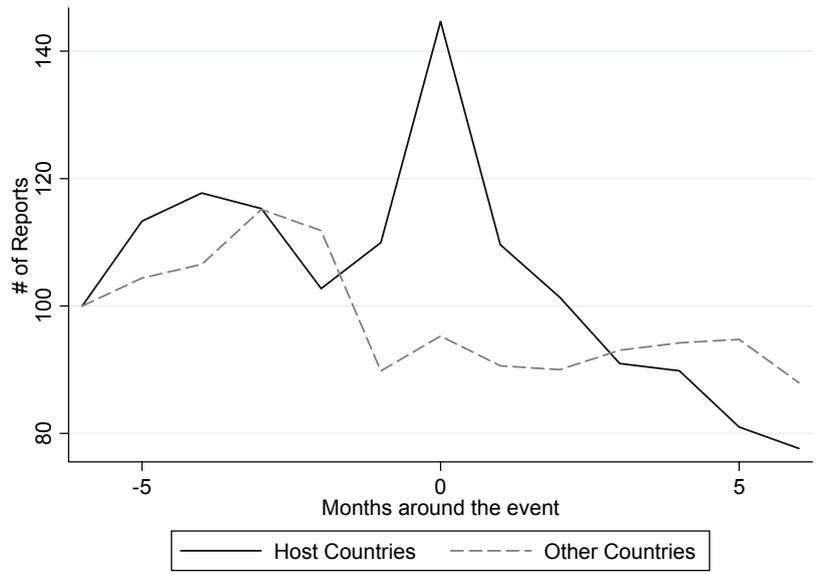
Note: This Figure reports the monthly average number of newspaper articles associated to each of the 140 countries in our sample six months before and after a sport event. Countries are classified as *Host countries* when they host Olympic Games or a FIFA World Cup or *Other countries* when they do not, every year between 2002 and 2010. We then cover 8 events and 9 host countries. The average number of country-specific newspaper articles are scaled so that the average number of articles six months before an event is equal to 100.

Figure 2: Country-specific Number of Newspaper Articles - Participation
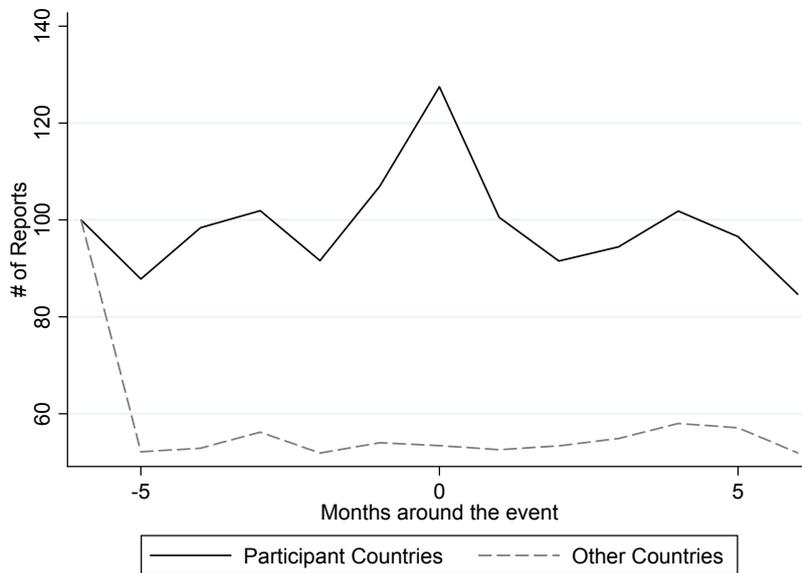
Note: This Figure reports the monthly average number of newspaper articles associated to each of the 140 countries in our sample six months before and after a sport event. Countries are classified as *Participant countries* when they participate to a FIFA World Cup or *Other countries* when they do not, every year between 2002 and 2010. We then cover 3 World Cups and 32 participant countries each time. The average number of country-specific newspaper articles are scaled so that the average number of articles six months before an event is equal to 100.

Figure 3: Number of Newspaper Articles dealing with Sustainable Development - Host
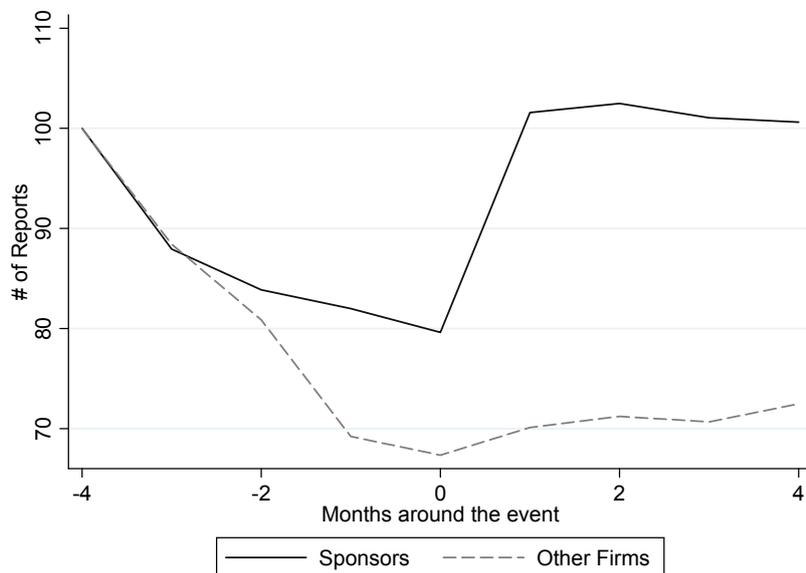

Note: This Figure reports the monthly average number of newspaper articles associated to each of the 140 countries and "Sustainab*" and "Environment*" in our sample six months before and after a sport event. Countries are classified as *Host countries* when they host Olympic Games or a FIFA World Cup or *Other countries* when they do not, every year between 2002 and 2010. We then cover 8 events and 9 host countries. The average number of country-specific newspaper articles are scaled so that the average number of articles six months before an event is equal to 100.

Figure 4: Number of Newspaper Articles dealing with Sustainable Development - Participation

Note: This Figure reports the monthly average number of news articles associated to each of the 140 countries and "Sustainab*" and "Environment*" in our sample six months before and after a sport event. Countries are classified as *Participant countries* when they participate to a FIFA World Cup or *Other countries* when they do not, every year between 2002 and 2010. We then cover 3 World Cups and 32 participant countries each time. The average number of country-specific newspaper articles are scaled so that the average number of articles six months before an event is equal to 100.

Figure 5: Firm-specific Number of Newspaper Articles - Sponsors

Note: This Figure reports the monthly average number of newspaper articles associated to each of the 572 firms of our sample four months before and after a sport event. Firms are classified as *Sponsors* when they are sponsor to Olympic Games or a FIFA World Cup or *Other firms* when they do not, every year between 2002 and 2010. We then cover 8 events. The average number of country-specific newspaper articles are scaled so that the average number of articles four months before an event is equal to 100.

Appendix C: Falsification exercises

First, we run 1,000 regressions drawing randomly nine country-quarter pairs, using a uniform probability of draw.[21] We then create a dummy variable equal to one when the pair has been chosen, and zero otherwise. We use this new dummy instead of the true "sport game host" variable. We run our benchmark regression (with country and country-specific quarter trends) with this new *Host* variable. Figure 6 presents the distribution of the 1,000 coefficients obtained. We clearly observe that the distribution is centered around zero. Furthermore, we find that the mean of the coefficients is equal to 0.0028, with a standard deviation of 0.2049.

In a second test, we create a new dummy variable equals to one randomly choosing quarters but constraining countries to the list of host countries. We then obtain in each case nine observations with a value of 1, that take the same country code than in the benchmark sample but a quarter code that is randomly chosen. Figure 7 reports the distribution of the 1,000 coefficients obtained and show again that the distribution is centered on zero. The mean of the coefficients is equal to 0.0093 and the standard deviation is 0.2134.

The third test is similar to the second one, but this time we constrain the nine observations (that take a value of one for the new dummy variable) to be related to the quarters of the events, and we randomly draw the country that are attached to them. Once again we repeat this exercise 1,000 times and present the distribution of the estimated coefficients in Figure 8. The mean is also very close to zero (0.0135), even when we take into account the standard deviation (0.1693).

The last test is specified to detect a country-specific seasonal pattern. We constrain the new dummy to take the value of one for the same country and the same quarter than in the benchmark case, but we draw randomly the year. In this case, we obtain dummy variables that are shifted on a year basis compared to the dataset used in the benchmark regression. We also present the distribution of our 1,000 estimated coefficients (Figure 9). It is also centered on zero, the mean of the coefficients is equal to 0.0384, with a standard deviation of 0.2083. Thus we reject the hypothesis that our crowding out result is due to a country-specific seasonal pattern.

Table ST18 sums up the results of this subsection. It also points out that in each case, more than 80% of the coefficients are no significantly different from zero (with a level of significance at 10%). Similarly, the share of negative and significant coefficients obtained in each exercise

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[21]We draw 9 country-quarter pairs because in our original sample we have 9 host countries.

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is between 11.50% (in the full randomization case) and 5.20% (in the shift exercise).

Table ST18: Falsification Exercises: Stylized Facts

	Mean	Std dev.	Unsign	Negat (*)	Negat (**)
Fully random	0.0028	0.2049	82.30%	11.50%	8.50%
Country constr.	0.0093	0.2134	86.20%	7.90%	5.30%
Time constr.	0.0135	0.1693	86.80%	7.20%	4.00%
Shift	0.0384	0.2083	88.70%	5.20%	3.30%

Note: Negat (*) and Negat (**) present the share of results that are negative and significant at respectively 10% and 5%. Stylized facts for *Fully random* is for the distribution of coefficients of the $Host$ variable from 1,000 estimations of equation 1, with country fixed effects and country-specific time trends. Each simulation randomly assigns a new $Host$ dummy, constraining nine observations to take a value of one (and zero otherwise). This stylized facts is related to Figure 6. Stylized facts for *Country constr.* is for the distribution of coefficients of the $Host$ variable from 1,000 estimations of equation 1, with country fixed effects and country-specific time trends. Each simulation randomly assigns a new $Host$ dummy, constraining nine observations to take a value of one (and zero otherwise). We also constrain host countries to be the same than in our benchmark case. This stylized facts is related to Figure 7. Stylized facts for *Time constr.* is for the distribution of coefficients of the $Host$ variable from 1,000 estimations of equation 1, with country fixed effects and country-specific time trends. Each simulation randomly assigns a new $Host$ dummy, constraining nine observations to take a value of one (and zero otherwise). We also constrain the quarters to be the same than in our benchmark case. This stylized facts is related to Figure 8. Stylized facts for *Shift* is for the distribution of coefficients of the $Host$ variable from 1,000 estimations of equation 1, with country fixed effects and country-specific time trends. Each simulation randomly assigns a new $Host$ dummy, constraining the nine events to occur in the same country and at the same quarter than in the benchmark case, but shifting the year of occurence during the period (2002-2010). This stylized facts is related to Figure 9.

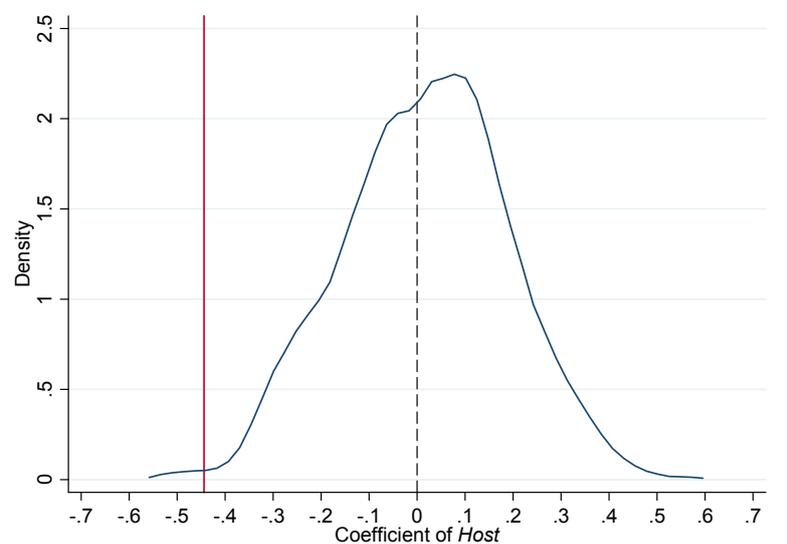Figure 6: Falsification test with randomization of the country-quarter pairs
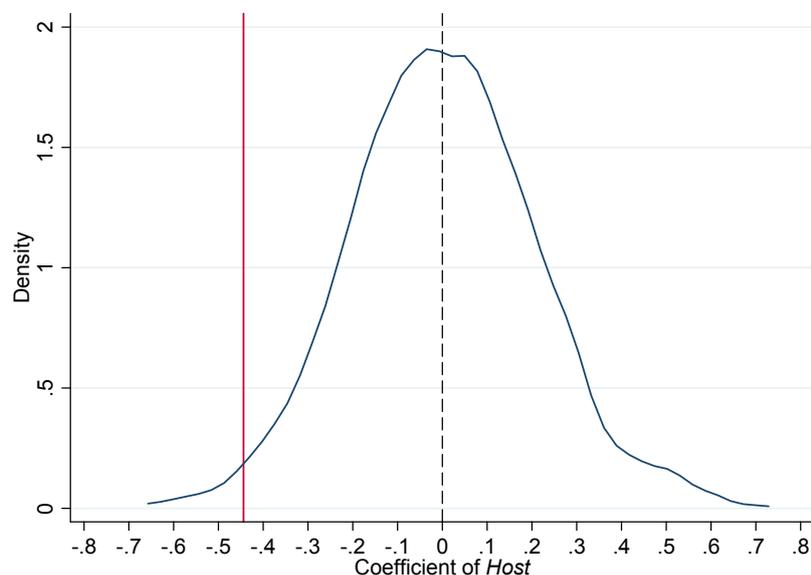
Distribution of coefficients of the $Sport$ variable from 1,000 estimations of equation 1. Each simulation randomly assigns a new $Sport$ dummy, constraining nine observations to take a value of one (and zero otherwise). The vertical line indicates the estimated coefficient of $Sport$ in our preferred specification in Table 4 column 5 (with country fixed effects and country-specific quarter trends).

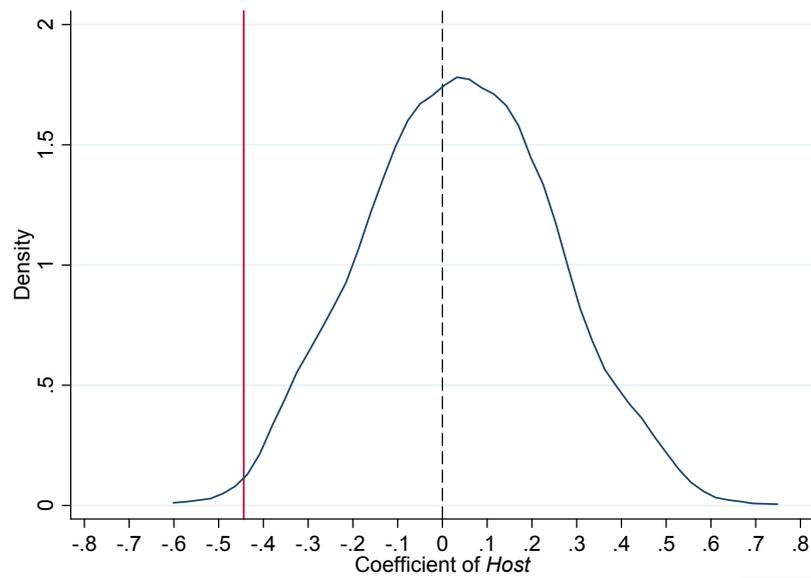Figure 7: Falsification test with randomization of the quarters and constraint on host countries
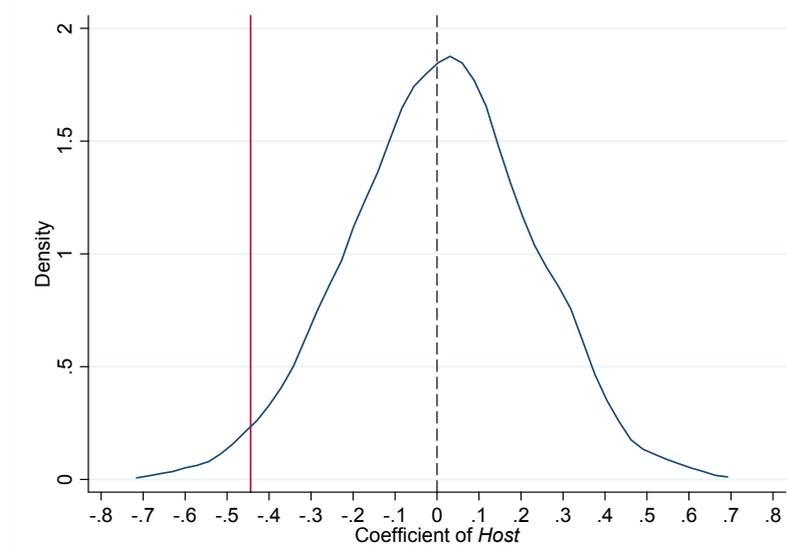
Distribution of coefficients of the *Sport* variable from 1,000 estimations of equation 1. Each simulation randomly assigns a new *Sport* dummy, constraining nine observations to take a value of one (and zero otherwise). We also constrain host countries to be the same than in our benchmark case. The vertical line indicates the estimated coefficient of *Sport* in our preferred specification in Table 4 column 5 (with country fixed effects and country-specific quarter trends).

Figure 8: Falsification test with randomization of host countries and constraint on the quarters

Distribution of coefficients of the *Sport* variable from 1,000 estimations of equation 1. Each simulation randomly assigns a new *Sport* dummy, constraining nine observations to take a value of one (and zero otherwise). We also constrain the quarters to be the same than in our benchmark case. The vertical line indicates the estimated coefficient of *Sport* in our preferred specification in Table 4 column 5 (with country fixed effects and country-specific quarter trends).

Figure 9: Falsification test with random shifts in the events years

Distribution of coefficients of the $Sport$ variable from 1,000 estimations of equation 1. Each simulation randomly assigns a new $Sport$ dummy, constraining the nine events to occur in the same country and at the same quarter than in the benchmark case, but shifting the year of occurence during the period (2002-2010). The vertical line indicates the estimated coefficient of $Sport$ in our preferred specification in Table 4 column 5 (with country fixed effects and country-specific quarter trends).